

Grays Bay Road and Port Project Impact Statement

Volume 9 – Human Environment

WEST KITIKMEOT RESOURCES CORP

www.westkit.ca

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Grays Bay Road and Port Impact Statement

WEST KITIKMEOT RESOURCES CORP

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Proponent

- **West Kitikmeot Resources Corp. (WKR):** established by the Kitikmeot Inuit Association in 2014 as an Inuit-owned and Inuit-led company to conduct mineral exploration, primarily on Inuit Owned Lands (IOL) in the Kitikmeot Region of Nunavut

Location

- **Grays Bay Port** is located at approximately 67° 48' 21.62" N, 10° 52' 17.69" W
- Nearest communities to the port: Kugluktuk (approximately 180 km west) and Cambridge Bay (approximately 280 km northeast)
- Southern end of **Grays Bay Road** is located at Jericho Station; approximately 66° 01' 6.36" N, 111° 28' 28.27" W

Components and Activities

- Development and operation of a **deep water port** at Grays Bay on the Coronation Gulf including two large vessel wharves, a medium vessel wharf, a barge landing area with two berths, and a small craft harbour for approximately 24 vessels
- Construction and operation of an **Aerodrome** at the port
- Construction and operation of a 230 km **all-season controlled access road** (Grays Bay Road), including the construction and operation of Jericho Station
- Construction and operation of a **winter road** connecting Jericho Station to the Tibbitt Contwoyto Winter Road (TCWR) alignment on Contwoyto Lake *(Tahikyoak)*

Phases

- **Construction phase** of the Project will take approximately five years to complete (both pre-construction and construction) with a proposed starting date in September 2029
- **Operations and Maintenance phase** of the Project will start in 2035 and will continue in perpetuity

Knowledge Perspectives

- WKR, as well as the previous proponents, the Government of Nunavut and the Kitikmeot Inuit Association, have been engaging on the Project since 2016
- one primary source: *Kitikmiut Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project* (Banci and Spicker 2024) that was compiled by the Kitikmeot Inuit Association and its consultants from the Naonaiyaotit Traditional Knowledge Project (NTKP), a repository of Inuit Knowledge maintained in a Geographic Information System (GIS)-based database
- Inuit, Indigenous, and community knowledge, as well as feedback from engagement, has been reviewed, considered, and integrated where appropriate into project planning and the IS

Environment

- Two years of baseline studies building on decades of baseline work completed by previous proponents
- 11 volumes totalling over 7,000 pages of analysis
- With the implementation of mitigation, management, and enhancement measures, residual project and cumulative effects are predicted to be not significant
- Monitoring programs and ongoing engagement will inform adaptive management strategies

Benefits

- **Economic – Transformative Benefits**
  - approximately **$750 million** additional annual GDP growth by 2040 because of the Project
  - an estimated **670 jobs** in Nunavut each year during construction
  - an estimated **390 jobs** during operations and maintenance created by the Project and related expenditure
- **Community and Social – Supply Chain Resilience**
  - new transportation route to the western Arctic will strengthen supply chain resiliency by creating alternative access to essential goods
  - enhanced safety for both marine and land travel, supporting more reliable and secure movement within the Coronation Gulf and throughout the Northwest Passage
- **Sovereignty and Security – Strategic Presence**
  - first deep water port in the western Arctic
  - critical year-round strategic presence in the region

VS.9 Volume Summary – Scope of the Human Environment Assessment

The human environment volume comprises the social and economic environments of the Project region, such as land use, cultural activities, employment in the traditional and waged economies, food security, health and wellbeing, and the interrelations between them. For Inuit and other Indigenous peoples, the practice of traditional activities, including traditional harvesting for subsistence, and connection to the land are integral to Inuit culture, language, and lifeways more broadly (Pauktuutit 2006). The social and economic environments therefore provide the basis for the assessment of effects of the Project on people and communities in the Project region.

This volume includes an assessment of effects of the Project on traditional and non-traditional land, marine, and resource use; food security and food sovereignty, community health and well-being, employment and economy, infrastructure and services, and heritage resources. It considers potential changes to land, water, and resource use identified by Inuit of the Kitikmeot Region (i.e., Kitikmiut) and other potentially affected Indigenous groups exercising their section 35 rights (as identified in the *Constitution Act,* 1982) in the Kitikmeot Region. It also considers potential changes to language use, cultural transmission, governance, and other harvesting and cultural practices valued by these groups. Heritage resources are deeply interwoven with the culture and history of the Kitikmiut. Heritage resources and sites may also be deeply connected to sacred areas, cultural practices, and represent traditional land, marine, and resource use activities, across decades, centuries, or millennia. The heritage resources section considers effects of the Project on heritage resources through changes in site contents or site context resulting from development-related activity.

This volume also considers changes to both the traditional food system and the market food system, including through changes to availability, access, utilization, and stability of food within these systems. The community health and wellbeing section considers changes to the social determinants of health and wellbeing, including physical, mental, and emotional health; personal, family, and community safety and dynamics; and access to health infrastructure and services. The employment and economy section considers changes to employment in the traditional and waged economies; education and training; economic development and contracting and business opportunities; and supply chain resilience. The assessment of effects on infrastructure and services also considers changes to land- and marine-based transportation infrastructure, which can support improved supply chain resilience and food security and food sovereignty, as well as improved search and rescue in the Project region. Project-related employment could increase the number of workers transiting through the Project region, which could increase demand on community infrastructure and access to public services or utilities and temporary accommodation and housing availability.

The Kitikmeot Region is comprised of both Inuit Owned Land (IOL) and Crown (Public) Land. As negotiated through the Nunavut Land Claims Agreement, IOL with subsurface rights were selected by Inuit to advance economic development for the benefit of land claim beneficiaries and to rebuild and advance Inuit self-determination in land and resource management the Kitikmeot Region (Public History

Inc. 2006). This volume considers changes to land use designations, access to and use of lands and resources for mining and for commercial harvesting, tourism, and recreation, and access to and use of the marine environment.

WKR collected baseline condition information by combining Inuit-led and collaborative knowledge gathering (including the Project-specific Inuit Knowledge report compiled from the NTKP database and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies collected through western scientific methods. The combination of these knowledge perspectives and western science were used to inform and evaluate the impact statement for all three components of the human environment.

Grays Bay Road and Port Project (the “Project”) is a deep-water port and 230 km all-season road development being proposed by West Kitikmeot Resources Corp. (WKR), located within the Kitikmeot region of Nunavut. The port will be located within the Coronation Gulf, approximately 50 km south of the Northwest Passage route through the Arctic and will connect via the all-season road to the closed Jericho Mine site at Jericho Station, on the northwest side of Contwoyto Lake, NU. The all-season road will connect seasonally to the Tibbitt to Contwoyto Winter Road (TCWR) annually. WKR has prepared an Impact Statement to identify and assess potential environmental and Socio-economic effects resulting from the Project that meets the requirements outlined in the Nunavut Agreement and the Nunavut Impact Review Board Guidelines for the Preparation of an Impact Statement for the (NIRB File No. 24XN038; NIRB 2026). This volume of the IS presents the assessment of potential environmental effects for traditional and non-traditional land, marine, and resource use; food security and food sovereignty, community health and well-being, employment and economy, infrastructure and services, and heritage resources.

Spatial and temporal boundaries have been established to support the development of the valued components (VC) assessments, informed by the current understanding of potential Project effects and other relevant factors. The Project Development Area (PDA) encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The Local Assessment Area (LAA) is the maximum area where project-specific environmental effects can be qualitatively estimated with a reasonable degree of accuracy and confidence.

TLMRU LAA consists of a 5 km buffer around the PDA, which is the greatest extent of the LAAs for supporting biophysical VCs (air quality, noise and vibration, terrain, soils, and permafrost, vegetation, wildlife and wildlife habitat, water resources, freshwater fish and fish habitat, and marine environment) and the areas in which direct (e.g., habitat loss) and indirect (e.g., sensory disturbance) effects of the Project on TLMRU may occur. The LAA for food security and food sovereignty, community health and wellbeing, infrastructure and services, and employment and economy is comprised of the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven. For community health and wellbeing and infrastructure and services, Yellowknife, Northwest Territories (NT) is also included in the LAA, since Yellowknife will serve as a logistics and staging location for the Project. As non-traditional land, marine, and resource use activities are closely tied to navigation, and mineral, fish, and wildlife

resources that are harvested, the LAA is based on the fish, wildlife, and marine assessment boundaries and is comprised of:

- A 2 km-wide corridor centered on the Road PDA
- A 4 km buffer of the Port PDA (Landside Infrastructure)
- A 4 km buffer of the Aerodrome PDA, and
- A 1 km buffer of the Port PDA (Marine-based Infrastructure).

For heritage resources, the LAA is considered to be the same as the PDA since it is considered to be the maximum area for which effects can be predicted or measured with accuracy.

The Regional Assessment Area (RAA) encompasses the PDA and LAA and provides a regional context for how the project-related effects may influence the respective VCs, and how these effects may interact cumulatively with those of other past, present, or reasonably foreseeable projects. The TLMRU RAA consists of the greatest extent of the RAAs for supporting biophysical VCs, which was predominately informed by combining the Caribou VC and Marine Mammal VC RAAs. Food security and food sovereignty, employment and economy, and non-traditional land and marine resource use all have the same RAA, which is the Kitikmeot Region of Nunavut, which includes the primarily seasonal settlements of Bathurst Inlet and Omingmaktok. For community health and wellbeing and infrastructure and services the RAA is the Kitikmeot Region of Nunavut and Yellowknife, NT. Regional Assessment Areas are not typically defined for heritage resources since the PDA/LAA are the maximum area for which effects can be predicted or measured.

VS.9.1 Traditional Land, Marine, and Resource Use

For as long as it can be remembered, Kitikmiut and other affected Indigenous groups have engaged in traditional land, marine, and resource use (TLMRU) activities that have become central to their way of life, culture, language, governance systems, and well-being. As described in this assessment, TLMRU activities can be affected by all Valued Components (VC) throughout the Impact Statement (IS), from changes to wildlife, to marine resources, to socio-economic conditions, and beyond. This assessment respects the wide range of environmental and socio-economic effects that can contribute to a change in TLMRU and focuses on evaluating the ability for Kitikmiut and other affected Indigenous groups to continue to use the land in traditional ways in the context of both Project-related and potential cumulative effects.

The TLMRU VC assessment focuses on areas where Kitikmiut and other affected Indigenous groups engage in TLMRU activities. It evaluates the potential effects of Project-related activities on TLMRU, with a priority placed on traditional harvesting areas, and other sensitive locations. These areas include the Project Development Area (PDA), Local Assessment Area (LAA), and Regional Assessment Area (RAA).

VS.9.1.1 Baseline

Kitikmiut and other potentially affected Indigenous groups reported using the TLMRU LAA and RAA for TLMRU activities, such as hunting, fishing, trapping, and plant gathering. They also made observations about key species being assessed throughout the IS, their habitats, and specific areas of cultural importance. In addition, Kitikmiut and other potentially affected Indigenous groups commented on how they access resources, sites, or areas, and share knowledge about cultural practices, language use, intergenerational knowledge transfer, and governance systems.

VS.9.1.2 Project Effects

Project effects were evaluated based on where project activities are situated in an area where TLMRU activities commonly occur, are of cultural importance or where access resources or to sites or areas where TLMRU occurs. The residual effects and characterizations of those residual effects are provided:

Change in quality, quantity, or distribution of resources involved or require for TLMRU:

- Residual effects on wildlife, fish, vegetation, marine resources, and water have the potential to affect the traditional activities that are supported by these resources, including hunting, trapping, fishing, plant harvesting, and cultural use of water or other important resources. Various biophysical and socio-economic conditions may also affect harvesting.
- Within the PDA, there will be a direct loss of native vegetation, resulting in loss of plants and habitat. Within the LAA and RAA, potential effects on terrestrial wildlife, freshwater, and marine fish, and marine mammals involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU activities, are expected largely due to sensory disturbances from vessel and vehicle traffic and project activities.
- Overall, during both the Construction and Operations and Maintenance phases, and following the implementation of mitigation, enhancement, and management measures, the residual effects of the Project on changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU are predicted to be adverse in nature and low to moderate in magnitude within the PDA, LAA, and RAA, and occur short-term (i.e., Construction phase only) to long-term (i.e., extend throughout Operations and Maintenance), anticipated to range from reversible (e.g., temporary workspaces or short-term individual behavioural changes) to irreversible (e.g., permanent project components or individual mortality).

Change to specific areas of cultural importance where TLMRU occurs:

- Residual effects on change to specific areas of cultural importance will predominately occur during the Construction phase when project activities related to the construction of the road and port alter habitat and harvesting areas through both direct (land disturbance) and indirect (sensory disturbance) activities.
- Direct land disturbance during this phase will be adverse and irreversible, with the exception of reclaimed areas (e.g., temporary workspaces, laydown areas) following construction within the LAA.

- During the Operations and Maintenance phase, vessel and vehicle traffic and maintenance of project infrastructure may result in adverse, long-term, continuous effects to harvesting areas within the LAA due to sensory disturbances and increased human activity. Effects on harvesting areas within the PDA are possible due to potential habitat alteration for caribou, other wildlife, birds, fish, and plants and migration changes for caribou during both the Construction and Operations and Maintenance phases.
- As a result, the magnitude of these effects is anticipated to be low to moderate in magnitude due to their confinement to the LAA and potential for long-term, continuous effects.

Change in access to resources or to sites or areas where TLMRU occurs:

- During the Construction and Operations and Maintenance phases, project infrastructure will result in increased access to the Kitikmeot Region. The introduction of a road, port, and new air transportation infrastructure is expected to result in increased access to traditional resources, sites, resulting in both positive and adverse residual effects for Kitikmiut and other potentially affected Indigenous groups.
- Positive effects include the increased accessibility to areas that were otherwise previously challenging to access or required additional resources to access. Additionally, direct or indirect employment from the Project has the potential to both increase and decrease opportunities to participate in traditional economies due to increased income and reduced time from potential rotational shiftwork, resulting in both positive and adverse effects.
- Adverse changes in access to resources, sites, or areas during the Construction and Operations and Maintenance phases due to project activities may prohibit, restrict, or discourage access in the PDA due to safety concerns or sensory disturbances, these are expected to be short-term in duration.
- Project may result in a positive change in access to cultural sites through increased access to harvesting areas, which may result in an increase of gathering places within the LAA.
- After the implementation of mitigation measures and management plans, adverse changes in access to traditional resources, sites, or areas is anticipated to be low to moderate in magnitude, short-term in duration and confined to the PDA and LAA (moderate during Construction phase due to restricted access caused by Project activities
- During the Operations and Maintenance phase residual effects will be low in magnitude and confined to the PDA and LAA. Project effects during Operations and Maintenance will also be long-term in duration, since the potential for increased access to the Project area by harvesters is anticipated to be continuous for the Project

Change to cultural practices, laws, and governance systems that inform how TLMRU occurs:

- Both negative and positive residual effects on cultural transference are predicted to result from the Project. Vegetation clearing and building project infrastructure during the Construction phase will result in loss of plants and habitat; sensory disturbance from vessel and vehicle traffic, blasting and other project activities. This will directly remove or alter locations that may be used to practice cultural transference (e.g., harvesting locations, teaching sites).
- Alterations of cultural transference opportunities may also occur as a result of a change to perceptions of land health and quality, or an increase in travel time, costs, and distances required to engage in cultural transference opportunities.
- The road may provide Inuit with access to areas and resources that have previously been difficult or dangerous to access, thereby increasing opportunities for cultural transference.
- Inuit decision making is anticipated to also experience positive effects as a result of the Project due to the Kitikmeot Inuit Association's involvement in the Project as a major shareholder and decision-maker for the Project's design and Construction activities.
- Harvesting will continue to be managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Kitikmeot Inuit Association and relevant HTOs.
- Adverse residual effects are predicted to be moderate in magnitude and extend to the RAA due to the various potential effects pathways listed above. Residual effects will be short-term to long-term in duration depending on the effect mechanism; the ability to engage in cultural practices are predicted to be short- to long-term in duration.

VS.9.1.3 Cumulative Effects

Cumulative effects on TLMRU are expected to be adverse and low to moderate in magnitude as changes to TLRMU are anticipated to occur as a result of direct effects and sensory disturbances within the RAA. Adverse cumulative effects on TLMRU will occur continuously. Timing is not applicable, except for quality, quantity, or distribution of resources involved in or required for TLMRU, as species are expected to experience moderate to high sensitivity as a result of physical projects and activities. In the event that reasonably foreseeable and RFI projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during the Construction and Operations and Maintenance phases of the Project, and the road will be permanent. All effects are anticipated to be irreversible. Positive effects to change in access to resources or to sites or areas where TLMRU occurs and change to cultural practices, laws, and governance systems that inform how TLMRU occurs are anticipated as a result of easier access to resources or areas for TLMRU activities, and as a result of increased employment and income resulting in increased financial resources that may support the gear, fuel, and equipment needed to participate in TLMRU. With the implementation of effects management measures, the residual cumulative effects on TLMRU are predicted to be not significant.

VS.9.1.4 Significance

With the implementation of mitigation, management, and enhancement measures, the Project residual effects on TLMRU are predicted to be not significant and cumulative effects on TLMRU are predicted to be not significant.

VS.9.1.5 Mitigation, Management, and Enhancement Measures

Key mitigation, management, and enhancement measures that are anticipated to avoid or reduce potential negative effects on the quality, quantity, or distribution of traditional resources resulting from the Project include:

- The road alignment will reflect community engagement input to the extent practicable.
- WKR has engaged and will continue to engage with the primary Inuit organization with rights and responsibilities in the Project area, the Kitikmeot Inuit Association.
- WKR is committed to ongoing engagement with the Government of Nunavut and/or Inuit Organizations, and other potentially affected parties regarding perceived effects.
- WKR will notify communities of project activities and schedules, including provision of Project maps and design components, and discuss key traditional harvesting periods.
- The Project will use previously disturbed areas for project activities, project infrastructure and workspaces, to the extent practical (e.g., Jericho Station).
- WKR is committed to working closely with Kitikmeot residents, communities and other stakeholders to help ensure the Project is built in a manner consistent with regional needs and aspirations. Communities will be consulted throughout the lifetime of the Project. WKR will ensure the provision of timely Project updates, responses to feedback provided, and information on upcoming employment and training opportunities. Inuinnaqtun and Inuktitut interpretation / translation will be provided throughout the consultation process to enable participation of all community members.
- Engagement will be conducted with land users to determine location and usage information for areas such that avoidance of noise-generating activities (i.e., pile driving, drilling) may be considered.
- Road Management Plan and Port Management Plan: As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. These plans will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, reduce the potential for illegal/overharvesting, and support safe and respectful use of Project infrastructure.
- Blasting will be scheduled during less sensitive time periods (i.e., shift change, period with no traditional land use activities).
- Known areas of collection of plants of interest to Inuit Organizations and other potentially affected parties will be avoided where possible.

- No icebreaking will occur during normal port operations during the Construction or Operations and Maintenance phases of the Project. The port will only receive vessels during the open-water season, which is typically from late June through October, and as such, is not expected to alter Dolphin and Union caribou herd (DUH) caribou migration paths.
- A Wildlife Mitigation and Monitoring Plan will be developed and implemented. It will contain detailed monitoring and mitigation measures to be implemented for the duration of Construction and Operations and Maintenance of the Project.

VS.9.2 Food Security and Food Sovereignty

This section assesses how the Grays Bay Road and Port Project (the Project) may affect food security and food sovereignty for residents in the Kitikmeot communities. Food security is: “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO 2022). The concept of food sovereignty expands the understanding of food security to include “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (Nyeleni 2007). Inuit food sovereignty reflects the importance of the land and environment and Inuit culture, values, and well-being in the food system (Panikkar and Lemmond 2020; Nunavut Food Security Coalition 2014).

VS.9.2.1 Baseline

The food security and food sovereignty assessment considered potential changes in the traditional food system and the market food system during the construction and operations and maintenance phases. The potential changes for both food systems considered the four dimensions of food security, which include availability, accessibility, utilization, and sustainability of country and market foods.

To inform understanding of Food Security and Food Sovereignty baseline conditions, multiple sources of information were considered, including statistical data, academic literature, grey literature, Inuit, Indigenous, and Community Knowledge perspectives and values gathered through engagement, workshop and desktop review results, and findings from community-based primary research.

VS.9.2.2 Project Effects

The Project will affect food security and food sovereignty both positively and adversely based on Project components and activities including road construction, increased traffic and access, port development, and enhanced human presence, with results summarized as follows:

Change in traditional food system:

- The Project is expected to have both positive and adverse effects on the traditional food system. Positive residual effects are anticipated to occur as a result of improved accessibility to harvested resources which may reduce access barriers.

- The Project is also anticipated to have adverse residual effects on the traditional food system through increased sensory disturbances and dust from the road; alterations to, and loss of, terrestrial and marine habitat as a result of Project construction activities; effects on species movement, including caribou populations and interactions with caribou's primary their migration route and the broader Bathurst caribou calving range.
- Availability and stability of reliable country food are expected to be most evident during the construction and early operations and maintenance phases, when activity levels are highest.
- Measures such as regulated traffic, scheduled blasting, and the prohibition of recreational vehicle use by workers are designed to reduce stress on harvested species (e.g., caribou, marine mammals), that said, some temporary displacement may still occur.
- Accessibility of the traditional food system and utilization of traditional foods are expected to be adverse for harvesters in the Kitikmeot Region that are employed, resulting in less time availability to partake in traditional harvesting.
- Decreased participation in the traditional food system could increase individuals' and households' reliance on store-bought foods, changing their utilization of food (i.e., decreasing the frequency and type of country foods and increasing the frequency and type of market foods consumed). Alternatively, given that there is a preference for country foods, and that country foods are perceived as healthier, fresher, and more natural than store-bought foods, the new access route created by the Project in the LAA may result in land users, including Elders and youth, having more opportunity to harvest on the land, and as a result, increase the amount of country food they can consume and share with the wider community.
- Adverse residual effects are anticipated to be low in magnitude (for accessibility to harvesting areas), to moderate in magnitude (for the stability, availability, and therefore utilization of species required for the traditional food system, such as caribou), as the Project may affect country foods and may affect quality or perceived quality of country foods (i.e., through contamination or perceived contamination), leading to potential avoidance.

Change in the market food system

- The Project is expected to have positive effects on the market food system.
- Positive residual effects are anticipated to occur as a result of improved stability of the supply chain of store-bought foods through the construction of transportation infrastructure in the Kitikmeot Region and improved accessibility to and utilization of store-bought foods through Project-related employment, income, and revenue.
- There are no anticipated residual effects of the Project on the supply chain using sealift services and the distribution of dry goods and shelf-stable items to the Kitikmeot communities.

VS.9.2.3 Cumulative Effects

With the application of mitigation, management, and enhancement measures, residual cumulative effects are likely to occur, and are predicted to be adverse and low to moderate in magnitude in the RAA, taking into consideration cumulative residual effects on country foods including caribou (moderate effects on range and movement), marine mammals (moderate mortality and injury risk resulting from vessel strikes),

and marine water (predicted to have low to moderate magnitude effects given that effects are limited to the PDA). Project residual effects will be long-term and will contribute to cumulative effects from RFI projects due to the continued sensory disturbances and removal/alteration of habitat for country food. However, the availability of country foods and access to country foods is expected to continue to be available throughout the RAA.

With the implementation of mitigation, enhancement, and management measures, cumulative effects on the market food system are expected to be positive.

VS.9.2.4 Significance

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project and cumulative effects on food security and food sovereignty are predicted to be not significant because they will not result in a persistent and substantial decline in availability and/or perceived quality of country foods or a measurable change in the market food system at the community level that cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

VS.9.2.5 Mitigation, Management, and Enhancement Measures

Key mitigation, management, and enhancement measures that are expected to reduce the adverse residual and cumulative effects of the Project on the traditional and market food systems resulting from the Project include:

- WKR's Road Management Plan will help limit Project-related disturbance to wildlife by setting clear expectations for industrial traffic. This plan will include provisions for access to the road, port, airstrip, and associated facilities and measures are intended to reduce vehicle-wildlife interactions and support safe, predictable wildlife movement in areas traditionally used for harvesting.
- WKR will develop and implement a Port Management Plan that includes requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.
- WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project and coordinate join joint resupply efforts, if possible, with local and territorial governments. WKR will also minimize interference with resupply efforts by sealift, air-freight, and ground transportation, where possible.
- WKR will increase opportunities for local Inuit employment and facilitate regional and Inuit business involvement on the Project through implementation of a Labour Relations Strategy, a Training Strategy, and a Procurement Strategy. In addition, WKR will engage with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project.

VS.9.3 Community Health and Well-being

This section assesses how the Grays Bay Road and Port Project (the Project) may affect community health and well-being for residents of Kitikmeot communities and Yellowknife. In this context, health and well-being includes physical, mental, and social health and well-being.

VS.9.3.1 Baseline

A summary of existing (i.e., baseline) conditions for community health and well-being including health infrastructure and services, physical health conditions and outcomes, mental health conditions and outcomes, personal health behaviours, community and family stability, community safety, and the biophysical determinants of health were collected using primary data (in-person and phone interviews) and secondary data sources (literature resources).

VS.9.3.2 Project Effects

The community health and well-being valued component is closely related to other Human Environment valued components including traditional land and resource use, food security and food sovereignty, employment and economy, and infrastructure and services. The assessment of community health and well-being includes the following effects:

Change in access to health infrastructure and services:

- The Project may have positive and adverse effects on health infrastructure and services. Positive residual effects may occur revenue, taxes, and funding that could enable governments to direct funds to support health and social resourcing and programming, including health infrastructure and services.
- The Kitikmeot Region has limited services that are often overburdened. Medical travel to Yellowknife or southern Canada is required for residents requiring specialist medical services and care. The Project may contribute to an increased demand for health infrastructure and services in Yellowknife by the out-of-region workforce; however, the Project workforce is not anticipated to seek medical care in Kitikmeot Region communities. Adverse residual effects may also occur as out-of-region Project workforce could increase demand on health and social services in the LAA due to potential injuries or medical conditions, thereby reducing availability and access for some residents.
- It is not anticipated that out-of-region workers will relocate to communities in the LAA during Construction and Operations and Maintenance phases of the Project. It is, therefore, expected that out-of-region Project workers would continue to use health infrastructure and services located in their home communities to manage chronic conditions and will not contribute to demand on health infrastructure and services in communities in the LAA.

- With the application of mitigation, management and enhancement measures, adverse residual effects are anticipated to be low in magnitude as increased demand on capacity of health infrastructure and services would be at or near to baseline conditions and standards of service are unlikely to be affected through alternate and contingency planning. Residual effects are anticipated to occur in the LAA, be long-term in duration, occur as multiple, irregular events, and are irreversible given the perpetuity of the Project, however, once Construction is complete, there is anticipated to be a reduced workforce during Operations which will further reduce potential changes in health infrastructure and services.

Change in rates of communicable diseases:

- Adverse residual effects on rates of communicable disease could occur through increased movement of people, specifically out-of-region workers, through Yellowknife and through social interactions in camp accommodations.
- To reduce communicable disease transmission, WKR will implement a Health and Medical Services Plan. The plan includes the development and implementation of communicable disease prevention and outbreak protocols to promote healthy behaviours, identify potential outbreaks, and limit disease transmission. Medical and first aid services will be available at the Project site during Construction and Operations and Maintenance.
- With the application of mitigation, management and enhancement measures, residual effects on rates of communicable diseases are expected to be adverse and low to moderate in magnitude. In the event that the spread of communicable diseases is limited to individuals working at site, magnitude is expected to be low. Magnitude may be moderate if communicable diseases are transmitted to other individuals and households in the LAA. It is unlikely that an entire community would become infected. Communicable disease transmission may occur at any time, with no set schedule (irregular events).

Change in mental health, emotional health, and coping mechanisms:

- The Project is anticipated to contribute to positive effects on mental and emotional health through increased employment opportunities and income advancement and distribution. An increase in project-related employment and income may alleviate personal and family financial pressures that can improve mental health outcomes and social determinants of health such as housing and food security.
- Rotational work schedules and camp accommodations including time away from friends and family may contribute to feelings of stress and homesickness. This can in turn, increase harmful coping mechanisms (e.g., substance use) and income earned by employees may also contribute to increased rates of substance use.
- The ability to travel outside of home communities may have positive effects on mental and emotional health for some residents of the LAA who gain employment on the Project.
- Negative effects on mental and emotional health as a result of employment on the Project may exacerbate existing mental and emotional health conditions in the LAA.

- Adverse residual effects are anticipated to be moderate in magnitude as changes to mental and emotional health and coping mechanisms may affect both individuals employed on the Project and their families, thereby extending to the household level. Residual effects may occur as multiple irregular events. Changes to mental and emotional health related to working conditions will likely be reversible following the end of employment on the Project; however, substance use-related effects may continue due to their addictive nature.

Change in family and community dynamics and cohesion:

- Positive and adverse effects on family and community dynamics and cohesion are expected to occur due to the Project. Income from Project-related employment may alleviate financial pressures for families, although rotational work schedules may strain family dynamics and cohesion. Project-related income may contribute to wealth disparity within families and communities, and may contribute to increased rates of substance use.
- Families and communities may realize effects from a change in workers' mental health conditions or coping mechanisms as some workers may have changes in behaviours.
- Positive residual effects are not characterized further. Adverse residual effects are expected to be moderate in magnitude because effects extend into the household level. Duration will range from short- to long-term, depending on how long workers remain employed with the Project. Effects are anticipated to occur as multiple irregular events, aligning with worker rotations and seasonal activity.

Change in community and personal safety:

- The Project may adversely affect community and personal safety as a result of working conditions and Project-related employment and income.
- Rotational work schedules and camp accommodations may contribute to adverse perceptions and incidences of personal safety concerns such as racism, discrimination, and harassment. Project-related income may contribute to increased rates of substance use, which can affect community safety.
- Access to Grays Bay Road and Grays Bay Port from Yellowknife would be limited to the winter road season, controlled and monitored by WKR at both the Grays Bay Port and Jericho Station, limiting the transportation of drugs and alcohol to the LAA using Project infrastructure. Furthermore, the Grays Bay Road will not be physically connected to any communities in the Kitikmeot Region, which is also expected to limit the transportation of drugs and alcohol to Kitikmeot communities.
- With the implementation of proposed mitigation, management, and enhancement measures, residual effects on community and personal safety are expected to be adverse and moderate in magnitude, occur as multiple irregular events and irreversible given the perpetuity of the Project.

Change in health from exposure to pollutants and hazards:

- Residual effects to health from exposure to pollutants and noise are expected to extend throughout the Construction and Operations and Maintenance phases. Air quality modelling shows that during the Construction phase at the Grays Bay accommodation camp, concentrations of sulphur dioxide (SO2), nitrogen dioxide (NO2), coarse particulate matter (PM10) and fine particulate matter (PM2.5) would fall within the “Good” category of an Air Quality Index (AQI) at all times. Exposure to SO2 and PM10 carries a negligible risk, with modelled concentrations below the World Health Organization air quality guidelines. Exposure to NO2 and PM2.5 carries a low risk because they are associated with a non-zero risk at any exposure level. Exposure to NO2 and PM2.5 at the modelled concentrations are associated with low-grade respiratory effects for most of the Construction phase (e.g., slight irritation of the mucous membranes, eyes, nose, throat) for people with existing respiratory conditions such as asthma or chronic obstructive pulmonary disorder. Healthy individuals are unlikely to experience these adverse effects. At the Jericho Station accommodation camp and more distant locations such as mining exploration camps along the road corridor and locations where Inuit may harvest traditional country foods, the health risk is lower, and unlikely to present a substantial health risk to people.
- Air quality modelling shows that during the Operation and Maintenance phase at the Grays Bay accommodation camp, concentrations of NO2, SO2, PM10 and PM2.5 would fall within the “Good” category of an AQI at all times. Exposure to SO2, PM10 and PM2.5 carries a negligible risk, with modelled concentrations below the World Health Organization air quality guidelines. Exposure to NO_2 carries a low risk, similar to that during the Construction phase, and is associated with the same types of low-grade respiratory effects for individuals with pre-existing respiratory conditions. However, these potential effects are anticipated to occur over a shorter duration, approximately one-third of each year, given the reduced emissions during the Operation and Maintenance phase. Healthy individuals are unlikely to experience these adverse effects. At the Jericho Station accommodation camp and more distant locations such as mining exploration camps along the road corridor and locations where Inuit may harvest traditional country foods, the health risk is lower, and unlikely to present a substantial health risk to people.
- Noise modelling shows a negligible risk of annoyance and sleep disturbance for off-duty workers residing at the accommodation camps at Grays Bay and Jericho Station, people at mining exploration camps along the road corridor, and Inuit and Indigenous people conducting traditional country food harvesting activities.

VS.9.3.3 Cumulative Effects

For a cumulative effect on health to occur, the Project’s air pollutant or noise emissions must overlap in the same place and at the same time with emissions from other activities. If emissions do not coincide spatially and temporally, they cannot combine to create cumulative effects. Detailed technical information about potential future mines, relevant to supporting detailed health-based assessments, is not available. Without this information, it is not feasible to estimate the magnitude or type of environmental effects associated with these reasonably foreseeable induced projects.

Overall, the cumulative change in health from exposure to air pollutants and noise is expected to be adverse but low in magnitude. The geographical extent of the effects is within the RAA (based on the RAA for air quality and noise effects). There is no sensitivity of effect related to timing. The duration is long-term, lasting the life of the Project, with a continuous frequency of effect as emissions from other projects will continue for years. The cumulative effects are irreversible.

VS.9.3.4 Significance

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project and cumulative effects on community health and well-being are predicted to be not significant. The Project is not expected to create an exceedance of available capacity of health infrastructure and services, or a substantial decrease in the quality of a service, provided on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation, management, and enhancement measures. The Project is not expected to create a measurable or observed change from current conditions and trends in physical, mental, and social health and well-being at the community level that cannot be avoided or reduced to an acceptable level through adjustments to programs, policies, plans, or through other mitigation, management, and enhancement measures. The Project is not expected to result in a significant adverse health effect to people from their exposure to pollutants and noise.

VS.9.3.5 Mitigation, Management, and Enhancement Measures

Key mitigation, management, and enhancement measures that are expected to reduce the adverse residual and cumulative effects of the Project on the community health and wellbeing resulting from the Project include:

- A Travel Policy in the event that personnel transiting to/from the Project site are weathered in a community. The Travel Policy will include plans for accommodation, meals, use of community medical services, and other needs for personnel during travel delays
- An education program to inform workers of the range of health services available onsite
- A HSSE plan will include safety training requirements for personnel, and security and response procedures
- Procurement Strategy will be developed and implemented to facilitate regional and Inuit business involvement, including providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region
- Training Strategy will identify specific skill requirements for employment on the Project and work with local and regional training and educational facilities to increase opportunities for local Inuit employment, and to implement on-the-job training and apprenticeship programs
- Gender, equity, and diversity policies that focus on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations
- Access to on-site virtual or telephone tele-communication tools for calling family members or for Elder communication which could enhance family connectedness

- A Drug and Alcohol Policy that will apply to all personnel and contractors on-site, at work camps, and during transit through communities
- Drug and alcohol screening procedures for checked and carry-on luggage on chartered flights
- Cultural awareness and sensitivity training to all personnel and contractors
- Employee Code of Conduct that includes discrimination, bullying, and harassment in the workplace policy and relevant training
- Anti-harassment and violence in the workplace policies, procedures and training
- On-site security personnel and access control
- Community Engagement Plan to receive and address community suggestions, concerns, and complaints.
- Opportunities for on-site Indigenous workers to engage with community Elders to provide a connection point with home communities and for traditional counselling
- Socio-economic Monitoring Program (SEMP). The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.
- In addition, WKR will engage with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project.

VS.9.4 Employment & Economy

Employment and economy has been identified as a valued component (VC) to be assessed for the Project. The Project may affect employment and economy positively and adversely through a change in economic development and opportunities, a change in employment, a change in education and training, a change in contracting and business opportunities, and a change in cost of living.

VS.9.4.1 Baseline

The summary of existing conditions with respect to employment and economy indicates that Nunavut has a mixed economy, comprising both traditional and market economic systems. The traditional economy relies on subsistence land use and is connected to culturally important activities, including traditional harvesting and fishing, and the production of Inuit art and crafts. The market, or wage-based economy, is supported by key industries such as mining, public administration and construction.

Nunavut's labour force has lower participation and employment rates compared to the national average, while unemployment are higher. Education levels in Nunavut remain below the national average, and in the Kitikmeot Region, most residents do not have a high school diploma. Cost of living in Nunavut is high relative to the rest of Canada, particularly the cost of food.

VS.9.4.2 Project Effects

The Project will affect employment and the economy both positively and adversely based on Project components and activities including road construction, increased traffic and access, port development, and enhanced human presence, with results summarized as follows:

Change in economic development and opportunities:

- The Project is expected to contribute to positive effects on economic development and opportunities. Project activities and expenditures on materials, equipment and services will result in increased economic activity, contributions to gross domestic product (GDP), and contributions to municipal, territory and federal government revenues. The Project could also support wider economic objectives for the Kitikmeot Region and Nunavut.
- Project construction and operations and maintenance will generate contributions to the Nunavut GDP and territorial government revenues.

Change in employment:

- The Project is expected to contribute to positive and adverse effects on employment. Demand for labour, materials, equipment, and services will create employment opportunities and employment income. However, this demand could also create competition for workers. Employment opportunities provided by the Project could limit time to engage in traditional activities, while employment income will provide financial resources that could support participation in traditional activities.
- Project construction, and operations and maintenance, will create employment opportunities and employment income for workers residing in the Kitikmeot Region, Nunavut and the rest of Canada.
- Project-related employment may limit some individuals' time and ability to engage in traditional activities such as hunting, trapping, arts and crafts, and fishing, with workers residing in camps during their shifts rather than in Kitikmeot communities. While employment income associated with the Project could provide financial resources to support greater participation in traditional activities, and associated opportunities for knowledge transfer.
- Project-related labour demand during construction could increase competition for workers in the Kitikmeot Region and across Nunavut.
- Adverse residual effects will be long-term in duration, as employment will occur through both construction and operations and maintenance, will be low magnitude, extend to the RAA, occur continuously and be reversible as the labour force is expected to adjust to this change.

Change in education and training:

- The Project is expected to contribute to positive and adverse effects on education and training. The Project is expected to create opportunities for education and training, which could increase enrollment in education and training programs. However, Project-related employment opportunities may cause students to leave school for work.

- With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in education and training are anticipated to be positive.
- Any adverse effects on school completion rates are expected to be negligible. Adverse residual effects will be long-term in duration, as they will occur during construction and operations and maintenance, in the LAA, will occur continuously and be reversible.

Change in contracting and business opportunities:

- The Project is expected to contribute to positive effects on contracting and business opportunities. Project expenditures on materials, equipment and services will create procurement opportunities for businesses.

Change in community resupply resilience:

- The Project is expected to contribute to positive effects community resupply resilience. Adverse effects could occur through increased demand on community resupply capacity through air freight from the Project. Positive effects on community resupply resilience could occur through the delivery of new infrastructure that could increase timing and frequency of resupply.
- WKR will contract dedicated sea-lifts to transport equipment and supplies to the Project site, which will avoid affecting the ability and capacity of existing commercial sea-lift operations to service communities and WKR will coordinate with local and territorial governments to reduce potential interference of sea-lift delivery.
- Resupply using air freight will be accomplished using charter airlines from Yellowknife directly to the Project site, and goods (e.g., consumables) will not be sourced from the same suppliers that are flown into the Kitikmeot Region.
- The Project could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply by providing an additional access point to the Kitikmeot Region via sea-lift during the open water season.
- If there are means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities, the port would serve as an additional resupply option, diversifying access points to Kitikmeot communities and improving regional connectivity.

VS.9.4.3 Cumulative Effects

With the implementation of mitigation, enhancement and management measures, cumulative effects on economic development and business opportunities, contracting and business opportunities and community resupply resilience are anticipated to be positive. Expenditure on materials, equipment and services associated with reasonably foreseeable and reasonably foreseeable induced projects and physical activities, beyond the expenditure of the Project, will result in increased economic activity, contributions to GDP, contributions to municipal, territorial and federal government revenues and will create procurement opportunities for regional business.

With the implementation of mitigation, enhancement, and management measures, cumulative effects on employment and education and training are anticipated to be both positive and adverse. The Project,

reasonably foreseeable, and reasonably foreseeable induced projects and physical activities are expected to increase employment opportunities, employment income, provision of education and training opportunities in the RAA.

Adverse cumulative effects are anticipated to occur through competition for workers and increase enrollment in education and training programs that could occur if demand exceeds capacity, such as overcrowding, strained resources, inability to access programs, or lower quality services. Competitive effects are likely to be moderated over time by several factors. Notably, Nunavut's young and growing population will continue to require substantial new employment opportunities as more individuals enter the workforce, particularly given the territory's persistently high unemployment relative to national levels. Cumulative effects on demand for labour, and competition for workers, have the potential to be moderate to high in magnitude, applicable across the RAA, long-term in duration, will occur continuously and be reversible as the labour market adjusts to this change (e.g. increased salaries, increased training, increased migration, reallocation of workers across industries). However, any substantial increases in long-term educational demand will likely also be responded to by education providers (e.g. NAC) through additional capacity, course offerings, and/or other strategies. It is anticipated that regional project developers, including WKR, will work closely with the Government of Nunavut's Department of Education and other providers to identify future needs and resources in this area.

VS.9.4.4 Significance

With the implementation of mitigation, enhancement, and management measures, residual adverse effects of the Project on employment and economic conditions in the LAA and RAA are predicted to be not significant because they do not create a measurable adverse change from current conditions and trends that cannot be managed or mitigated, and, the Project will not result in a reduction in annual GDP growth at the territory level.

Adverse residual cumulative effects on employment and economic conditions in the LAA and RAA are predicted to be not significant because, while the Project, in combination with past, current, reasonably foreseeable, and reasonably foreseeable induced developments, is expected to result in a measurable adverse change from existing conditions and trends, these effects are anticipated to be effectively managed through adjustments to programs, policies, and plans, as well as through the implementation of additional mitigation measures.

VS.9.4.5 Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures are expected to reduce adverse effects and enhance positive effects.

- A Socio-Economic Monitoring Program (SEMP) will be one of the key strategies to guide the implementation of mitigation and management measures, measure the effectiveness of mitigation and management measures, measure how communities are experiencing effects (both positive and adverse), help with the economic and socio-economic development of Inuit communities, and enable adaptive management of new/emerging socio-economic effects.

- A Labour Relations Strategy will be developed and implemented to enhance and retain local Inuit employment, with a focus on preferential Inuit hiring. The Labour Relations Strategy will detail skills and entrance requirements, employee benefits, employee communication, work rotation schedules, employee orientation programs and ongoing support for Project workers during employment. This includes:
- Gender, equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations.
- An Employee Code of Conduct that includes a no discrimination, bullying, or harassment in the workplace policy and relevant training.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs.
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement.

VS.9.5 Infrastructure & Services

Kitikmeot community members recognize that Nunavut's harsh climate, remoteness, high costs, and short construction seasons make infrastructure difficult to build and maintain. Much of the territory's infrastructure is aging, housing needs are high, and communities lack all-season road or rail links. Supply deliveries are infrequent, costly, and unreliable, creating strong interest in improved transportation and more frequent resupply. The Project may affect infrastructure and services both positively and adversely.

VS.9.5.1 Baseline

Nunavut faces a major infrastructure gap compared to the rest of Canada. Harsh climate, remote geography, short construction seasons, limited resources, and climate change make building and maintaining infrastructure extremely difficult. Much of today's infrastructure is aging or past its lifespan. The impacts of colonialism and other factors have contributed to poor socio-economic conditions in Nunavut and Kitikmeot communities. In particular, a shortage of housing, substandard housing conditions, and overcrowding affects many Kitikmeot residents. Some sub populations may be affected by a lack of community infrastructure and services disproportionately. Communities in Nunavut are typically separated by large distances and are not connected to each other or to the rest of Canada by all-season roads or rail links. Nunavut has very limited marine infrastructure, with only one deepwater port in Iqaluit, meaning most ships must offload cargo to barges or small craft, and many areas still lack adequate navigational charts. Community resupply to Kitikmeot communities is currently accomplished through sealift once or twice per year and through regular air freight, which are prone to changes, delays, and cancellations.

VS.9.5.2 Project Effects

The Project may affect infrastructure and services both positively and adversely through a change in community infrastructure and access to public services or utilities, a change in accommodations and housing availability, a change in transportation infrastructure, and a change in community resupply as summarized below.

Change in community infrastructure and access to public services or utilities:

- Effects on community infrastructure and access to public services or utilities are anticipated to be both positive and adverse.
- The Project will add new land- and marine-based infrastructure that can support Coast Guard and search-and-rescue (SAR) activities, improve wayfinding, and generate government revenue that could benefit community infrastructure and public services.
- Project activities and mobilization of the labour force may increase demand on local infrastructure, emergency services, and utilities due to the movement of workers through the Kitikmeot Region and Yellowknife. Adverse residual effects are predicted to be low magnitude, long-term in duration and occur as irregular and irreversible events.

Change in accommodations and housing availability:

- Effects on accommodations and housing availability are anticipated to be both positive and adverse.
- Temporary and permanent camps will house most workers, reducing pressure on local housing; but transient demand may affect hotels and rental accommodations.
- The Project could improve housing availability by enhancing land- and marine-based infrastructure, making it easier to transport construction materials to Kitikmeot communities.
- Adverse residual effects on accommodations and housing availability are predicted to be long-term, low in magnitude, and occurring both regularly (scheduled rotations) and irregularly (weather delays). These adverse effects are considered irreversible and are most pronounced in winter months when accommodation demand in Yellowknife is already elevated.

Change in transportation infrastructure:

- Effects of the Project on transportation infrastructure are anticipated to be both positive and adverse. New transportation infrastructure created by the Project (road, port, and aerodrome) will improve connectivity in the Kitikmeot Region and with Yellowknife.
- The Project is anticipated to have adverse residual effects on transportation infrastructure through increased demand on the TCWR in the winter road season and air transportation infrastructure.
- Adverse residual effects will be low magnitude, long-term in duration, occur as irregular events and be irreversible.

Change in community resupply:

- Effects of the Project on community resupply are anticipated to be positive. The Project will increase land- and marine-based infrastructure in the RAA and could improve community resupply through the transport of goods and materials from the Grays Bay Port to the Kitikmeot communities. The transport of goods and materials from the Port to the Kitikmeot communities may be accomplished on an individual basis or through the establishment of new businesses to transport or haul goods and materials.
- New transportation infrastructure could facilitate more frequent and reliable resupply of goods to Kitikmeot communities.
- There are no anticipated residual effects of the Project on community resupply from using sealift or air freight services to mobilize goods and materials for Construction and Operations and Maintenance of the Project.

VS.9.5.3 Cumulative Effects

Cumulative effects on infrastructure and services are expected to include both benefits and pressures: new land- and marine-based infrastructure from the Project and other foreseeable developments will support Coast Guard and SAR use, improve wayfinding, and may facilitate housing construction and more reliable community resupply, while also generating revenue that could enhance public services over time. At the same time, the movement and potential in-migration of workers, primarily through Yellowknife, may place added long-term, low-to-moderate, and irreversible pressure on community infrastructure, housing, transportation systems (including air travel and the TCWR), and service capacity, though these effects are expected to occur irregularly and remain within or near existing system limits.

VS.9.5.4 Significance

Residual cumulative effects on infrastructure and services in the RAA are predicted to be not significant because they do not exceed available capacity of infrastructure and services and do not result in a substantial decrease in the quality of a service provided, on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

VS.9.5.5 Mitigation, Management, and Enhancement Measures

Key mitigation, management, and enhancement measures that are expected to reduce the adverse residual and cumulative effects of the Project on employment and economy resulting from the Project include:

- A Travel Policy will guide accommodations, meals, medical service access and other needs personnel weathered-in during transit delays.
- A HSSE plan will include safety training requirements for personnel, and security and response procedures.

- The HMSP will include prevention and management measures for injury, infection, and disease prevention/management, and details on onsite medical/first aid services, and emergency response including evacuation.
- A Risk Management and Emergency Response Plan will define notification protocols with local search and rescue groups and the CCG/CCGA, including compensation requirements if their resources are used.
- A Port Management Plan will manage the safe operation of commercial vessels operating near the port.in accordance with the requirements of the Marine Transportation Security Act.
- A Procurement Strategy will support Inuit and regional business participation, prioritize local equipment, and enhance local economic benefits
- A Socio-Economic Monitoring Program (SEMP) will monitor socio-economic conditions, track mitigation effectiveness, document community experiences, and support adaptive management.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. WKR will also develop "Guidance for Incorporating Community Perspectives and Inuit, Indigenous, and Community Knowledge" to meaningfully incorporate this valued information and knowledge into project operations.

VS.9.6 Non-traditional Land, Marine, and Resource Use

The Kitikmeot Region is comprised of both Inuit Owned Land (IOL) and Crown (Public) Land. As negotiated through the Nunavut Land Claims Agreement, IOL with subsurface rights were selected by Inuit to advance economic development for the benefit of land claim beneficiaries and to rebuild and advance Inuit self-determination in land and resource management in the Kitikmeot Region (Public History Inc. 2006).

Non-Traditional Land, Marine, and Resource Use has been identified as a VC to be assessed for the Project. The Project will interact with Inuit Owned Land (IOL) and Crown land areas. The Project is anticipated to interact with certain non-traditional land, marine, and resource users through changes in access to and use of land and resources for mining, changes in access to and use of land and resources for commercial harvesting, tourism and recreation, and changes in access to and waters used for marine navigation.

VS.9.6.1 Baseline

IOL comprises approximately 6.6 million ha in the western Kitikmeot Region, 5.6 million ha with surface rights and approximately 1.0 million ha (15 percent [%]) with subsurface rights. Crown land constitutes approximately 47 million ha in the western Kitikmeot Region. The Kitikmeot Region has been explored historically for gold, base metals, diamonds, and platinum-group elements. The Goose Mine (B2Gold Corp.) is the only operating mine in the Kitikmeot Region. There are several advanced mineral exploration projects in the Kitikmeot Region.

There are several tourism, outfitters, and guiding businesses operating in the Kitikmeot Region. These businesses offer sport fishing, sport hunting, and recreational experiences for tourists to the region. Non-traditional marine use in the Kitikmeot Region consists of sea vessel activity, including commercial vessels, government vessels, ice breakers, and small (e.g., personal use) boats. Commercial vessel traffic is largely destination shipping, annual sealifts to deliver supplies to Arctic communities, or voyages (i.e., cruises) to and from Arctic locations.

VS.9.6.2 Project Effects

The Project will affect non-traditional land, marine, and resource use both positively and adversely based on Project components and activities including road construction, increased traffic and access, port development, and enhanced human presence, with results summarized as follows:

Change in land use designation:

- Crown lands and IOL parcels will be crossed by the road and port, but there will be no change in land use designation. Kitikmeot Inuit Association views the road alignment across IOL as a benefit to Inuit as a result of providing greater access to areas under IOL designations.
- Overall, following the implementation of mitigation, management, and enhancement measures, the residual effects on change in access to and use of lands and resources for mining during Construction and Operations and Maintenance are anticipated to be positive as the Project will provide access to a previously inaccessible area for mineral exploration and mining. Positive residual effects are not characterized further.

Change in access to and use of lands and resources for mining:

- The Project is expected to have positive effects on access to and use of lands and resources for mining as the Project will provide access to a previously inaccessible area for mineral exploration and mining. The Project may increase access to areas in the LAA and RAA for commercial harvesting, tourism and recreation. Positive residual effects are not characterized further.
- Adverse effects are anticipated to be low magnitude as some users may choose to avoid the PDA during periods of construction or high operational activity at the port and along the road and limited to the PDA and LAA. Residual effects are likely to be short-term (for temporary access restrictions and sensory disturbance related to Construction activities) to long-term (for sensory disturbance related to Operations and Maintenance) in duration, and regular/continuous in frequency. Effects are highly sensitive due to the seasonal nature of commercial harvesting, including hunting and fishing. Residual effects are likely to be irreversible, as the Project will be permanent.

Change in access to and use of lands and resources for commercial harvesting, tourism and recreation:

- The Project may affect access to and use of land and resources for commercial harvesting, tourism and recreation. The Project may provide access to previous inaccessible areas for these activities but may also cause sensory disturbance and nuisance effects on land and resource users and commercially harvested species, which could affect harvesting success for sport hunting.
- With the application of mitigation, management and enhancement measures, adverse residual effects are anticipated to be low magnitude, limited to the PDA and LAA, short-term to long-term in duration and regular/continuous in frequency. Residual effects are likely to be irreversible, as the Project will be permanent.

Change in access to and use of waters for marine navigation:

- The Project will increase marine-based infrastructure for use in the western Kitikmeot Region and is expected to have positive effects on marine navigation through improved navigation aids, mapping, and wayfinding, which are likely to result in improved safety.
- Project-related shipping activities may affect existing navigation patterns of large vessels and small boats and some community users may choose to avoid Grays Bay during periods of construction or periods of high operational shipping and chose an alternate route (e.g., further from the coastline).
- With the application of mitigation, management and enhancement measures, adverse residual effects on navigation in the RAA are anticipated to be low magnitude, short-term and reversible as existing navigators become familiar with the frequency and routes of marine vessels.

VS.9.6.3 Cumulative Effects

As the Project is not anticipated to result in a change in land designation, no residual project effects are predicted and thus this effect is not carried forward for consideration in the cumulative context. The Project and other foreseeable developments are expected to expand land- and marine-based infrastructure in the Regional Assessment Area, creating positive cumulative effects for mineral resource developers by improving access to exploration areas on both IOL and Crown land. While sensory disturbance from the Project may combine with disturbances from other activities, these cumulative effects on non-traditional harvesting, tourism, and recreation are predicted to remain low in magnitude, long-term, continuous, and irreversible, but not to the extent that they prevent existing activities from continuing at baseline levels. Similarly, new port-related infrastructure will enhance marine navigation for shipping, tourism, and small craft, though increased marine traffic may create moderate, long-term, and irreversible nuisance effects for other users; however, these changes are not expected to impede overall marine use within the region.

VS.9.6.4 Significance

With the implementation of mitigation and management measures, residual effects of the Project cumulative effects on traditional land, marine, and resource use are predicted to be not significant. The cumulative effects from disruption and disturbance of non-traditional land, marine, and resource use are not anticipated to occur at levels that restrict non-traditional land, marine, and resource use activities such that existing uses cannot continue within the RAA at current levels.

VS.9.6.5 Mitigation, Management, and Enhancement Measures

The following key mitigation, management, and enhancement measures will be implemented to limit residual effects on non-traditional land, marine, and resource use:

- WKR will develop and implement a Road Management Plan, including provisions for access to the road, port, airstrip, and associated facilities.
- WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTA).
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the Marine Transportation Security Act for the safe operation of commercial vessels operating near the port
- WKR is committed to open communication with its industry neighbours and where possible implement joint programs to share information.
- WKR will notify communities of project activities and schedules, including the provision of Project maps and design components.

These measures will be guided by continued engagement with Inuit communities.

VS.9.7 Heritage Resources

Heritage resources are deeply interwoven with the culture and history of Kitikmiut. Heritage resources and sites may also be deeply connected to sacred areas, cultural practices, and represent TLMRU activities, across decades, centuries, or millennia. The assessment of heritage resources respects the value of heritage resources and sites and focuses on preserving these physical reminders of culture and history.

VS.9.7.1 Baseline

The Kitikmeot Region has been used by people for a long time, since long before the current communities existed. Inuit Knowledge identified Omingmaktok (community of Bay Chimo), Kingaok (community of Bathurst Inlet), Perry River (Kugyoak) and Cambridge Bay (Ekaluktutiak) as main Kitikmiut gathering areas with Grays Bay area as a long-term camping area for a number of Inuit families. Numerous archaeological studies have been completed in the general region, particularly those associated with the High Lake and Izok Corridor projects, which together document roughly 150–200 known archaeological sites near the current PDA. These sites include precontact and historic camps, hunting sites, inuksuit, grave sites, and lithic scatters. Because parts of the PDA have not been subject to archaeological field assessment, a data gap analysis will be conducted once the PDA is finalized to identify where additional studies are required. Future archaeological field programs will revisit previously recorded sites and assess unstudied areas, with mitigation (e.g., avoidance, mapping, excavation, and community engagement) developed in consultation with the Government of Nunavut and Inuit. At present, palaeontological resources have not been assessed and will be addressed with regulators during the data gap analysis stage.

VS.9.7.2 Project Effects

Change in heritage resource (e.g., loss or disturbance to site contents and site contexts) may occur through disturbance associated with surficial activities (access, vegetation removal), grading, excavating, vehicle traffic and use of workspaces during construction activities. A change in heritage resources may also occur through unauthorized impacts or collection of artifacts/fossils during construction or as a result of the creation of new access opportunities. Once they are disturbed, heritage resources cannot be replaced, recreated or restored.

The regulator (Department of Culture and History, GN) is responsible for managing the threshold of loss to heritage resources in Nunavut. Provided that requirements issued by the regulators for assessment, mitigation, avoidance and consultation are fulfilled, the Department of Culture and History recognizes no residual effects on heritage resources.

VS.9.7.3 Cumulative Effects

After implementation of mitigation measures required by the Department of Culture and Heritage, GN no residual effects on heritage resources are anticipated. Therefore, there is no requirement to consider the potential for cumulative effects.

VS.9.7.4 Significance

After implementation of mitigation measures required by the Department of Culture and Heritage, GN no residual Project effects or cumulative effects on heritage resources are anticipated.

VS.9.7.5 Mitigation, Management, and Enhancement Measures

The objective of mitigation is to limit the loss of heritage resources materials and sites or site context caused by Project activities. The following measures will be implemented to prevent adverse residual effects on heritage resources:

- Areas of the PDA that are data gaps for archaeological field assessment will be subject to studies to identify sites.
- Detailed documentation of newly recorded sites, avoidance of sites where possible, detailed site and feature mapping, surface collection of artifacts, community engagement, construction monitoring or controlled archaeological excavation of site or portions of sites will be undertaken and may contribute to the knowledge base for the territorial archaeological and palaeontological record.
- Information and concerns provided during engagement that are relevant to heritage resources, including locations of gathering sites and graves and the importance of eskers, will be considered during data gap analysis and determination of the nature and scope of archaeological field programs.
- If previously unknown heritage resources sites of value are identified during construction or operations and maintenance activities, discovery protocols will be implemented, and appropriate mitigation measures will be applied in consultation with GN and through engagement with Kitikmiut.

VS.9.8 Human Environment Impact Statement

An evaluation of the potential influence of the Grays Bay Road and Port Project on TLMRU, food security and sovereignty, community health and well-being, employment and economy, infrastructure and services, non-traditional land, marine and resource use, and heritage resources residual effects and cumulative effects are predicted to be not significant.

VS.9 Makpiraaq Naitumik Uqauhiq – Qanuriniga Inuit Avatainik Ilituqhaqniganik

Inungnut avatinga qanuraaluktut ilaliutiyuq inungnut maniliurninnganullu avatingit Havauhikhaq avikturhimayumi, ukunatitut nunannga aturninnganik, ilihainiqmut hulilukaarutingit, havaaq qangaraaluknitat maniliurninngalu, niqailliurnaittumik, aaniaqtailiniq nakurudjutingalu, ilauqatigiingninngalu ukunanit. Hapkununga Inuit uvalu aalat Nunaqaqaaqtut inuit, atuqtauyut pitquhikkut hulidjutit, ilauyut pitquhikkut anguniaqniq ihagiagiyamingnik, uvalu atadjutait nunamun ilauyut Inuit pitquhiinun, uqauhiinun, uvalu inuuhiinun anginiqhakkut (Pauktuutit 2006). Inuuhirinikkut maniliurutikharnik avatingit talvuuna tunihimaaqtun tunngavikharnik ihivriudjutikharnik ayungnautiqaqtunik Havaaqhangit inungnun nunalaanunlu talvani Havaaqhangit avikturvingmi.

Una aktilaanga ilauyuq ihivgiugutit hulaqutait Havaap pitquhikkut uvalu pitquhiungitut nunat, tariuq, uvalu ikayuutit atuqniit; niqailiuqnikkut uvalu niqailiuqnikkut akhuugutait, nunallaat aaniaqtailinikkut uvalu inuuhiqattiaqnikkut, havaaghat uvalu maniliuqnikkut, igluqpinikkut uvalu kivgaqtuutinik, uvalu ilitquhikkut ikayuutit. Ihumagiyait aalanguqtirnirit nunanun, imaqmun, ikayuutillu atuqtauyut naunaiyaqtauhimayut Inuinnarnin Kitikmeoni Aviktungniani (imaa Kitikmiut) aalallu hulaqutauniaqtut Nunaqaqaaqtut katimayiit atuqtut inmi titiraqhimayumi 35mi pilaarutitik (naunaiyaqtauhimayut uvani *Maligaqyuami Maligaani,* 1982) Kitikmeoni. Ihumagijaillu aadlangurninngit uqauhinganut aturninnganut, ilihainirmut tunijauniq, piyunnautinga, aadlallu angunahuarniq unalu ilihainirmut atuqtangit ilumuurutingit hapkunannga katimajunit. Ilitquhikkut ikayuutit itiyumik atadjutiqaqtut pitquhiinun uvalu ingilgaaqnitatigut Kitikmiut. Ilitquhikkut ikayuutit uvalu nayugait akhut atadjutiqaqtut ukpigiyauyunun nunanun, pitquhikkut atuqtauyut, uvalu pidjutiqaqtut pitquhikkut nunanun, tariumun, uvalu ikayuutinun atungnikkut hulidjutit, tamaini qulini ukiuni, ukiuni, uvaluuniin ingilgaanin ukiuni. Ilitquhikkut ikayuutit titiraqhimayut ihumagiyait hulaqutait Havaaghap ilitquhikkut ikayuutit aalanguqtirnikkut nayugait iluaniitut uvaluuniin nayugait pihimayut pidjutauyut pivallianikkut-ilauyut hulidjutit.

Una aktilaanga ihumagiyauyuqlu aalanguqtirnirit tamangnun pitquhikkut niqitigut auladjutit uvalu niuvaanikkut niqit auladjutait, ilauyut aalanguqtirnirit piinagialiit, piyaangnirit, atungnirit, uvalu ihuangnirit niqit hapkunani auladjutini. Nunallaat aaniaqtailinikkut uvalu inuuhiqattiangnikkut titiraqhimayut ihumagiyait aalanguqtiqniit inugiangnigit aaniaqtailinikkut uvalu inuuhiqattiaqnikkut, ilauyut iqaiyaqnikkut, ihumakkut, uvalu ihumakkut aaniaqtailiniq; inungnun, ilamingnun, nunallaanunlu qayangnautit uvalu akhuugutit; piinarialaqihimanirlu munarhiliriniqmut aulapkaitjutikhanik havaaniklu. Havaaghatigut uvalu maniliungnikkut titiraqhimayut ihumagiyait aalanguqtirnirit havaaghanun pitquhikkut uvalu akiliuhiaqaqtut maniliurutit; ilihangnikkut ilihaidjutinunlu; maniliurnahuarnirmun kaantraaktittinirmunlu nanminiqarnikkutlu pivikhaqautikhanik; uvalu niuvaanikkut mahulingainiq. Ihivgiugutit hulaqutainun igluqpangnun uvalu kivgaqtuutinun ihumagiyauyut aalanguqtiqniit nunamun- uvalu tariumi-pihimayut ingilgadjutikkut igluqpait, kitut ikayuutauniaqtut ihuaqhiyuumiqlugit niuvaanikkut auladjutit uvalu niqailiuqnikkut uvalu niqitigut ataniudjutit, imaalu ihuaqhiyuumiqlugit qiniqhiayut uvalu anaktuinikkut uvani Havaaghap aviktungniini. Havaaghanun-ilauyut havaaghat amigaiqyuuminiaqtut qaffiuniit havaktut nuutiqtut haffumuuna Havaaghap aviktungniani, kitut amigaiqyuuminiaqtut piumayut nunallaani igluqpinikkut uvalu piyaangnirit inungnun kivgaqtuutinik uvaluuniin auladjutinik uvalu tadjakaffuk iglughanik uvalu iglunik piinagialingnik.

Kitikmeoni Aviktuqhimania ilalik tamatkiknik Inuit Nanminiriyai Nuna (IOL) tamnalu Kuin (Inungnut) Nuna. Agiqatiriigutauyuq uvuuna Nunavumi Nunataarutit Agiqatiriigutaini, Inuit Nanminiriyait Nunat iluaniitunik ihumaqhuutit tikuaqtauhimayut Inuinaqnit hivumuutiyaagani manikhaqhiurutit pivalianigit nakurutauyaagani nunataarutit inuit hanafaariagani hivumuuriaganilu Inuit nanminik ihumaliuqniginik nunani ihuaqutiniklu munarijutinik Kitikmeoni Nunami (Inuknik Atuqhimanit 2006-mi). Una aktilaanga ihumagiyauyuq aalanguqtirnirit nunat atuqniitigut naunaiyaqhimayut, piyaangnirit uvalu atuqniit nunat uvalu ikayuutit uyagakhiuqtunun uvalu nanminiqaqtut anguniaqnikkut, aquinikkut, uvalu hulilukaaqnikkut, uvalu piyaaqniq uvalu atuqniit tariumi avatingit.

WKR katitiqhiyut tungavikhanik qanuginiitigut kangiqhidjutit imaa attautimukhugit Inuit-hivuliqhuqtauyut uvalu havaqatigiiknikkut ilihimanikkut katitiqhimayut (ilauyut Havaaghat-kitunun Inuit Ilihimayaitigut uniudjutit katitiqtauhimayut hamanga NTKP tutquumavianin uvalu IAG katimaqyuagutinin), inungnun piinagialgit kangiqhidjutit hapkunanga Nunaqaqaaqtunun katimayiinin ihumagiyauyut pihimayut Havaaghap, uvalu ilauqatigiiknikkut uqaqtauyut Kitikmiut, aalat Nunaqaqaaqtut katimayiit, uvalu aalat hulaqiniaqtut nunallaat ayungnaqtutigut naunaiyautit katitiqtauyut haffumuuna uataani nalunaqtuliqinikkut atuqtauyut. Attautimukhimayut hapkua ilihimanikkut ihumagiyauyut uvalu uataani nalunaqtuliqiyut atuqtauyut kangiqhipkaqhugit uvalu ihivriuqhugit hulaqutikkut uqaqhimayut tamainun pingahut iluaniitut inuit avatiini.

Qurluqtuaryungmi Apqutikhaa Umiat Tulakvikhat Havaktauyukhaq (tamna "Havaaqhaq") itiyumi imarmi tuluqtaqvikhaq taima 230nik kilaamitanik ukiuk tamaat apqutikharnik pivalliadjutikharnik tukhiqtauhimayuq talvanga Uataani Kitikmeot Resourceskut Kuapuraisingit (WKR), nayugaqaqtuq talvani Kitikmeoni avikturviani Nunavunmi. Tulaktaqvikhaq iniqarniaqtuq iluani Coronation Gulf-mi, imaakiaq 50 km hivuraani Northwest Passage-mi apqutaani Ukiuqtaqtukkut ataniaqtuqlu talvuuna ukiuraaluk apqutaani talvunga umikhimajumun Jericho Ujaraghiurvianun uvani Jericho Station-mi, uvani tunungani uativyaani haniraani Contwoyto Tahiani, Nunavut. Tamna ukiuk tamaat apqut katitiqhimaarniaqtuq ukiuk tamaat talvunga Tibbitt talvunga Contwoyto Winter Road (TCWR) ukiuk tamaat. WKR upalungaiyaiyut Hulaqutinun Naunaitkutinik naunaiyariangini uvalu ihivriuqlugit avatingnun uvalu Inuuhinut-piyangaiyautikkut hulaqutait pidjutauyut hapkunanga Havaaghanin tapkua ihuaqtut piyakhat titiraqhimayut uvani Nunavunmi Nunataarutaanut Angirutaa ukualu Nunavunmi Avatilirinirmut Katimayiit Atugahait Upalungaiyautinun Hulaqutinun Titiqqat haffumunga (NIRB File No. 24XN038; NIRB 2026). Una makpiraaq IS-mi tuniyuq naunaiyainiq piniaruknaqhiuq avatinganut ayurhautingit qangaraaluknitat pitquhiungittunullu nunamut, tariuqmut, ikayuutimullu aturninnganik; Niqailliurnaittumik unalu Niqikhaqattiarniq unalu Niqikhailiurniq, Nunalingni Aaniaqtailiniq unalu Nakurudjutingit, Havaakhat unalu Maniliurniq, Aulapkaidjutikhanik unalu Havaangit, unalu Ilitquhingit Avatingit.

Inikhangit kiklivikhangitlu naunaiyagiikhimayut ikayuutikharnik pivalliadjutikharnik akhurnaqtunik hanaqidjutikharnik (VC) ihivriudjutikharnik, naunairutiqaqtun talvuuna aulayunik kangikhidjutikharnik pigiaqaqtun Havaaqhangit ayungnautiqarniaqtun allaniklu aulahimayut naunairutingnik. Tamna Havaaqhangit Pivalliadjutikharnik Nayugaani (PDA) ilauqaqtuq iqaiyaliqinikkut nayugaingit tamaita Havaaqhangit hanaqidjutikhangit, ilauyutlu tamangnik aulayukharnik tadjakaffuklu ayungnautiqaqtunik (imaatun itun, hivutunikharnik Havaaqhangit igluqpangit, upalungaikhimayut piiyaqtauniaqtun, iliugaivikhangitlu nayugaingit). Nunamingni Naunaiyainikkut Nayugait (LAA) anginiqhaq nayugaa humi havaaghanun-kitunun avatingnun hulaqutainun itqungniaqtauyaaqtut ihuangnikkut uvalu ihuangnikkut.

TLMRU LAA piqaqtuq 5 km kiklikhaanik haniani PDA, kitut anginiqhaq anginiqhaq LAAs ikayuutighaq uumayutigut VCs (hilap qanuginia, nipiquqtuyumik uvalu hayuknikkut, nunap, nuna, uvalu nunap qiqumania, nauhimayut, hugadjat uvalu hugadjat nayugait, imaq ikayuutit, iqaluknik uvalu iqaluit nayugait, uvalu tariumi avatingit) uvalu nayugait kitut tugaaqhimayut (imaa nayugait tamaqpaliayut) uvalu ihuangitut (imaa mihingnautikkut ulapiqutauyut) hulaqutit Havaaghamun haffumunga TLMRU atuqtauniaqtut. Ukua LAA niqighaqattiarnirmun niqighaqattiarnirmunlu, nunallaani aanniaqtailinirmun inuuhiqattiarnirmunlu, igluqpinirmun kivgaqtuutinunlu, havaaghanunlu maniliurnirmunlu ilauyut talimat Kitikmeoni nunallaat: Kugluktuk, Iqaluktuuttiaq, Kugaaruk, Taloyoak, Uqhuqtuurlu. Nunalaani inuuhirinikkut inuuhirinikkutlu iglukpakharnik ikayuutikharniklu, Yalunaimi, Nunatsiarmi (NT) ilauyurlu talvani LAAmi, taima Yalunaimi ikayuutiginiaqtun auladjutikharnik nayugakhangitlu talvani Havaaqharni. Pitquhiungitut nunat, tariumi, uvalu ikayuutikkut atuqtauyut hulidjutit qanitukkut atauyut aulaviinun, uvalu uyagakhiuqtut, iqaluit, uvalu hugadjat ikayuutit tapkua anguyauyut, ukua LAA pihimayut iqaluknun, hugadjanun, uvalu tariumi ihivgiugutikkut kikliitigut uvalu ilauyut imaa:

- 2 km-mik angitilaanga pihukvik qitqani Apqut PDA
- 4 km kiklikhaa Tulaktaqvik PDA (Nunami Igluqpait)
- 4 km ungahiktilaanga Milviup PDA, uvalu
- 1 km kiklikhaa Tulaktaqvik PDA (Tariumi-pihimayut Igluqpait).

Ilitquhikkut ikayuutit, LAA ihumagiyauyuq aadjikiiktuq PDAmun ihumagiyauyuq anginiqhaq nayugaa kitut hulaqutit itqungniaqtauyaaqtut uvaluuniin aktilaaqtauyut ihuangnikkut.

Avikturhimayumi Naunaiyainiq Nayuganga (RAA) ilaliutiyaa PDA unalu LAA tuniyuqlu avikturhimayumi qanurittaakhaanik qanuqtut havauhikhaq-piyut ayurhautingit pipkaidjutiniaqtuq nanminiriyait VCs, qanuqtullu hapkuat ayurhautingit ilaliutiniaqtuq tahapkununnga aadlanut qangaraaluknit, tadja, ihuaqtumikluuniit ihumagiyauyuq havauhikhat. Tamna TLMRU RAA piqaqtuq anginirmik hanaqidjutikharnik RAAngit ikayuutikharnik uumayuliqiyunik VCnik, taima naunairutiqaqhimayuq talvuuna katitiginikkut Tuktut VCngit Tariumilu Huradjat VC RAAngit. Niqailliurnaittumik unalu niqighailliuqtailiniq, havaaghat maniliurnirmunlu, pitquhiungitullu nunat tariumilu ikayuutit atuqtauyut tamaita aadjikiiktumik RAAqaqtut, kitut Kitikmeoni Nunavunmi, kitut ilauyut ukiutigut nunallaangit Kingautmi unalu Umingmaktuokmi. Nunagiyauyumi aaniagitaagani inuuhiqatiaqnikhamiklu hanahimayuniklu ikayuutiniklu RAA Qitiqmiuni Nunami Nunavumi Yalunaimilu, NT-mi. Nunami Ilituqhaqniginik Hunauniginik uqatiaqhimagitut inuujuhiqnik ihuaqutinik PDA-guyut LAA-lu amigainiqhat nunat aktuqniqaqniginik nalautaarutaulaaqtunik naunaiyaqlugiluniit.

VS.9.1 Pitquhikkut Nunani, Tariumi, uvalu Ikayuutikkut Atuqtauyut

Qangaraaluk itqaumayauyuq, Kitikmiut aalallu hulaqutauyut Nunaqaqaaqtut katimayiit ilauyut pitquhikkut nunani, tariumi, ikayuutiniklu atungnirit (TLMRU) hulidjutit tapkua qitqani inuuhirmingni, pitquhiit, uqauhiit, kavamaliqinikkut auladjutit, inuuhiqattiarnirmunlu. Naunaiyaqhimayuq uvani naunaiyautini, TLMRU hulidjutait hulaqutiginiaqtaat tamaita Ihumagiyauyut Iluaniitut (VC) tamaini Hulaqutikkut Uqaqtait (IS), aalanguqtirnirit hugadjat, tariumi ikayuutit, inuuhinut-piyangaiyautikkut qanuriniit, ahinunlu. Una ihivriudjutikhaq pittiarutiqaqhimayuq anginirmik avatiliqinikkut inuuhirinikkut-maniliurutikharnik

ayungnautiqarniaqtun taima aituiniaqtun allanguqtirutikharnik talvani TLMRUmi ihumagiluaqtaingitlu ihivriudjutikharnik pigiaqaqtunik Kitikmiut allaniklu ayungnautiqaqtunik Nunaqaqqaqhimayunik katimayiingit aulahimaagianganik atugianganik nunanik pitquhiliqinikkut hanaqidjutikharnik talvani tamangnik Havaaqhangit-aulahimayut katitiqhimaaqtunik ayungnautiqaqtunik.

Tamna TLMRU VC ihivriudjutikhangit ihumagiplugit hanigaingit humi Kitikmiut allatlu ayungnautiqaqpakhimayut Nunaqaqqaqhimayunik katimayiit ilauvakhimayut talvani TLMRU hulilukaaktunik. Naunaiyaqhugit hulaqutauniaqtut Havaaghanun-ilauyut hulidjutit haffumunga TLMRUmun, hivuliulugit pitquhikkut anguniaqviit, aalallu qayangnaqtut nayugait. Hapkua nayugait ilauyut Havaaghat Pivallianirmun Nayugait (PDA), Nunamingni Naunaiyainikkut Nayugait (LAA), uvalu Aviktungniini Ihivgiuqnikkut Nayugait (RAA).

VS.9.1.1 Kiklinga

Kitikmiut aalallu hulaqiyaaqtut Nunaqaqaaqtut uniudjuiyut atuqhugit ukua TLMRU LAA unalu RAA hapkununga TLMRU hulidjutinun, anguniaqhutik, iqalukhiuqhutik, naniriaqtuqhutik, nauhimayuniklu katitiqhutik. Tautukhugillu huradjat ihivriuqtauyut tamaini IS-mi, nayugait, kitullu nayugait pitquhikkut aghuungnaqtut. Unaluttauq, Kitikmiut aallallu aktuqtauniarunaqhijut Nunaqaqqaaqhimajut katimajiit uqaqtut qanuqtut pivagiakhamingnik atuqtakhanik, najugainnik, imaaluuniit najugainnik, imaalu uqautigiplugit qaujimajamingnik ilitquhikkut atuqpagainnik, uqauhirmik aturnikhanik, kinguliriiktunut qaujimajainnik nuutiutikhanik, imaalu kavamaliqinikkut atuqtaujunik.

VS.9.1.2 Havaaqhangit Ayungnautiqarniaqtun

Havaaghat hulaqutait ihivriuqtauyut pihimablugit humi havaaghat hulidjutait nayugaini humi TLMRU hulidjutit atuqtauyut, pitquhikkut aghuungnaqtut uvaluuniin humi piyaangnirit ikayuutit nayugainun nayugainunluuniin humi TLMRU atuqtauyut. Ilakuit hulaqutait uvalu naunaiyautait tahapkua ilakuit hulaqutait tuniyauyut:

Aadlangurniq qanurittaakhaanik, qaffiuyunik, tuniqhaininnganikluuniit ikayuutinik ilauyut ihariagiyulluuniit TLMRU-mut:

- Ilavaluit ihuilijutit uumayunit, iqaluknik, nautianik, tagiumi ihuaqutinik, immaqlu ihuilijutaulaaqtuq igilraat hulijutinik ikayuqtauyunik ukunanga ihuaqutinik, agunahuaqniginiklu, naniriaqtuqniginik, iqalukhiuqniqmik, nautianik agunahuaqniqmik, ilitquhiqmilu atuqniginik immavaluit ahiilu atuqniqaqtut ihuaqutit. Aalakiit uumayutigut uvalu inugiangnikkut maniliungnikkut qanuginiit hulaqutauniaqtut anguniaqniqmun.
- Iluani PDA-mi, tammainiaqtut nunamit nauhimayunik, tammailutik nauttianik nunagiyainniklu. Iluani LAA unalu RAA, pidjutauniarungnaqhiyut hulaqutinun nunami hugadjat, tariurmiutat, uvalu tagiumi hugadjat ilauyut uvaluuniin piyakhat hapkununga Kitikmiut uvaluuniin aalat hulaqutauniaqtut Nunaqaqaaqtut katimayiit' TLMRU hulidjutait, nigiuktauyut anginiqhakkut pidjutauyut mihingnautikkut ulapiqutainun umianin uvalu aghaluutituqtunun aulayut uvalu havaaghatigut hulidjutit.

- Tamainun, tamangni Igluqpiyut uvalu Auladjutit uvalu Munagidjutit havaktauyut, uvalu malikhugit atuliqniit ihuaqhaidjutit, ihuaqhiyuumigutit, uvalu munagidjutikkut aktilaangit, ilakuit hulaqutait Havaktakhap aalanguqtiqniitigut qanuginiit, qaffiuniit, uvaluuniin tuniuqhaidjutait ikayuutit ilauyut uvaluuniin piyakhat hapkununga Kitikmiut uvaluuniin aalat hulaqutauniaqtut Nunaqaqaaqtut katimayiit' TLMRU itqungniaqtauyut ihuangitumik idjuhiit uvalu mikiyut qitqani anginiqhait hapkunani PDA, LAA, uvalu RAAmi, uvalu atuqtauyut naittumik kikliit (imaa Hananikkut havauhiit avaliituq) hivituyumun (imaa hivituqyuumilugit Auladjutit uvalu Ihuaqhaidjutit), nigiuktauyut aktilaangit utiffaaqtaaqtut (imaa tadjakaffuk havakviit uvaluuniin naittumik-kikliqaqtut attautit idjuhiit aalanguqtut) hamunga utiffaalimaitut (imaa havagaanginaqtut havaaghat ilauyut uvaluuniin attautit huiqtut).

Aadlangurniq ihuaqtumut pitquhimut akhuurutauyuq talvani TLMRU piyuq:

- Ilakuit hulaqutait aalanguqtirnirmun kitunun nayugainun pitquhikkut akhuuqnaqtut atuqtauluangniaqtut havaktautilugit humi havaaghat hulidjutit ilauyut havaknikkut apqutinik uvalu tulakvikhanik aalanguqata nayugait uvalu anguniaqviit nayugait tamangnun (nunatigut hulaqutit) uvalu turaaqhimangitut (mihingnautikkut ulapiqutauyut) hulidjutit.
- Talvungaqpiaq nuna hulaqutiniq talvani havagutimi nakuungittuq utiffaalimaittuqlu, kihiani piffaaqtaaqtun nunat (imaatun, tadjakaffuk havagviit, iliurarviit) kinguagun nappaqtirnirnin iluani LAA.
- Talvuuna Auladjutikharnik Ihuaqhaidjutikharnik havaangani, umiat akhaluutitlu aulayut ihuaqhaidjutikharnik havaaqhangit napaqtirutikharnik naunairutiqarniaqtun ihuangitumik, hivutunirmik, aulahimaaqtunik ayungnautiqarniaqtun anguniarvikharnik hanigaini talvani LAA talvuuna mihingnautiqaqtunik ayungnautiqarniaqtun amigairyumiqtitiyaangatlu inungnik hulilukaaktunik. Ayungnautiqarniaqtun anguniarvikharnik nayugainik talvani PDAmi pigiaqaqtun talvuuna nayugaingit alanguqtirniaqtun tuktunun, allaniklu uumayunik, tingmianik, iqalungnik, nauttianiklu aulavingitlu allanguqtun tuktunun talvuuna Hanayunik Auladjutikharnik Ihuaqhaidjutikharnik havaktautilunik.
- Taimainigani, aginiga ukua aktuqnigit nahuriyauyut mikiyumik qitqaniluniit aginiqhanik pijutauniganit LAA-mi atulaaqtuqlu hivituyumik, atuqhimaginariagani aktuqniit.

Aadlangurniq piinarialaqininnga ikayuutinut nayuganginnulluuniit humi TLMRU piyuq:

- Talvuuna napaqtirutikharnik Auladjutikharnik Ihuaqhaidjutikharnik hanaqidjutikhangit, havaaqhangit iglukpakharnik naunairutiqarniaqtun amigairyumirutikharnik pidjutikharnik talvunga Kitikmeoni. Atuliqniit apqutit, tulakviit, uvalu nutaat tingmitikkut ingilradjutit igluqpait nigiuktauyut amigaiqyuumilugit piyaaqniq pitquhikkut ikayuutit, nayugait, pidjutauyut tamangnun ihuaqtumik uvalu ihuangitumik hulaqutainun Kitikmiunun uvalu aalat hulaqutauniaqtut Nunaqaqaaqtut inuit.
- Nakuuyut hulaqutit ilauyut amigaiqyuumiyut piyaangnirit nayugainun tapkua kinguani ayungnaqtut piyaangini uvaluuniin piyariaqaqtut ilaliutihimayunik ikayuutinik piyaangani. Unaluttauq, havaakhat havaakhat amigaigyuumidjutikhanik ikiglitiyuniklu uukturvikhanik ilaudjutikhainik ilitquhikkut maniliurutikhanik amigaigyuumingmata maniliurutikhat ikigliyuumiutiyullu himmautigiiktarlutik havaakhat, pidjutauyut tamagingnut ihuaqtumik ihuitumiklu pidjutauvaktut.

- Ihuangitumik aalanguqtiqniq piyaaqniqmik ikayuutinun, nayugainun, uvaluuniin nayugainun havaktautilugit uvalu Auladjutit uvalu Munagidjutit havaktauyut pidjutauyut havaaghat hulidjutainun pittailidjutit, pittailidjutit, uvaluuniin pittailidjutit piyaaqniqmik uvani PDAmi pidjutauyut qayangnautikkut ihumaaluutit uvaluuniin mihingnautikkut ulapiqutauyut, hapkua niriuktauyut naitumik hivituniit.
- Havaaqhangit naunairutiqarniaqtun ihuaqtumik allanguqtirutikharnik piyaanganik pitquhiliqinikkut nayugainik talvuuna amigairyumirutikharnik pidjutikharnik anguniarvikharnik, taima naunairutiqarniaqtuq amigairyumirutikharnik katimavikharnik nayugainik talvani LAAmi.
- Kinguani atuliqniitigut ihuaqhainikkut aktilaangit uvalu munagidjutikkut upalungaiyautit, ihuangitut aalanguqtiqniit piyaaqniq pitquhikkut ikayuutit, nayugait, uvaluuniin nayugait nigiuktauyut mikiyumik qitqani aktilaangit, naittumik kikliit uvalu kikliqaqtut hapkununga PDA uvalu LAA (mikiyuq atuqtilugu Hananikkut havaktauyut pidjutigiblugit pittailinikkut piyaaqniq pidjutauyut Havaaghap hulidjutainun
- Talvuuna Auladjutikharnik Ihuaqhaidjutikharnik havaktautilunik, ilakungit ayungnautiqarniaqtun ikikliyumirniaqtun talvani PDAmi LAAmilu. Havaaqhangit ayungnautiqarniaqtun talvuuna Auladjutikharnik Ihuaqhaidjutikharnik hivutunigaalukmik aulaniaqtun, taima pidjutikharnik amigairyumirutikharnik pidjutikharnik talvunga Havaaqhangit hanigaini anguniaqtiuyunik ihumagiyauyut aulahimaarniaqtun talvani Havaaqharni

Aadlangurniq pitquhimut pitquhingit, maligangit, piyunnautingillu qanuriliurutingit naunaipkaqtaa qanuqtut TLMRU piyuq:

- Tamarmik nakuungittut nakuuyullu ilakunga ayurhautingit pitquhimut nuutiqtirniq itqurnarutauyuq pipkaidjutiniaqtuq uumannga Havauhikhaq. Nauhimayunik ahivaiyut nappaqtirilutiklu havaakhamik nappaqtirutikhanik nappaqtiqtautitlugit pidjutiqarniaqtut tammailutik nauhimayunik nayugainniklu; mihingnautikkut ulapiqutauyut umidjanit aghaluutituqtuninlu, qagaqtautinin aalallu havaaghat hulidjutait. Una talvungaqpiaq piiyaqtauniaqtuq aadlangurlugilluuniit nayugangit atuqtauniaqtuq ayuirhariami pitquhimut nuutiqtirniq (ukunatitut, anguniarviit, ilihaivingit).
- Aadlangurninngit pitquhimut nuutiqtirniq pivikhaqautingit piniaqtuqlu pipkaidjutinganit aadlangurninnga qanuqtut ihumagiyanganik nunannga aaniaqtailininnga qanurittaakhaaniklu, angikliyuumirumiluuniit aullaaqtut ikaarninnganik, akingit, ungahiktullu ihariagiyauyuq ilaugiami uumani pitquhimut nuutiqtirniq pivikhaqautikhaq.
- Tamna apqut pipkalaqtai Inuit tikilaqni inait piqaqnitlu hivuani ayuqnaqtut uvaluniit hivuranaqtut tikitaagani, talvuuna ilagiaqni pilaqnit ilitquhiliqutit nuutnit.
- Inuit ihumaliuqnikkut ihumaliugutit nigiuktauyut atuqlutik ihuaqtumik hulaqutinik pidjutigiblugit hapkua Kitikmeot Inuit Katimayiit ilaunikkut haffumunga Havaaghamun anginiqhaq tigumiaqtiuyuq uvalu ihumaliuqti haffumunga Havaaghap idjuhikhaanun uvalu Hanayaunikkut hulidjutinun.
- Anguniarniq aulahimaarniaqtuq munagiyauluni kavamatkut maliguagahaitigut uvalu pihimablugit uqariiqtauhimayut ataani Nunavunmi Nunataarutaanut Angirutaa, havaktauhimayut hapkunanga Nunavut Tunngavik Incorporatedkunin ukualu Kitikmeot Inuit Katimayiit ihuaqtullu HTOtkut.

- Nakuungittut ilakungit ayurhautingit itqurnarutauyuq angivallaangittuq piyuqlu RAA pikmat aadlatqiiktut ayurhautingit titiraqhimayut hamna qaangani. Ilavaluit hulaqutait naittumik-kikliqaqtut hivituyumun qanuginiitigut hulaqutainun havauhiinun; Pittaarninnga ilaugiami uumani pitquhitigut uuktuutingit itqurnarutauyuq naittumik akuniraalukmut piluni.

VS.9.1.3 Angikliyuumiqtuq Qanuriliurutingit

Katitiqhimayut hulaqutit haffumunga TLMRU niriuktauyut nakuungilutik uvalu mikiyut qitqani anginiqhait aalanguqtirnirit haffumunga TLRMU niriuktauyut atuqtaulutik pidjutauyut hulaqutinun uvalu mihingnautikkut ulapiqutauyut iluani RAAmi. Nakuunggittut katitiqhimayut aktungnarniit TLMRU pidjutihimmaangniaqtut. Ikaaknikhangit aulangitun, kihiani ihuaqtunik atuqtakharnik, qaffiutilaanganik, tuniqhaiyaangatlu hanaqidjutikharnik ilauyut talvani piqaqtukharnikluuniit talvani TLMRUmi, taima huradjat nigiuktauyut aturniaqtun anginirmik anginirmik ayungnautiqaqtunik talvuuna naunairutingnik iqaiyaliqinikkut havaaqhangit hulilukaaktuniklu. Taimaitpat ihuangnikkut ihumagiyauyut uvalu RFI havaaghat havaktaukpata, amigaiqpaliayut hulaqutit niriuktauyut hivituyumik-kikliit niriuktauyut atuqtaulutik Hananikkut uvalu Auladjutit uvalu Ihuaqhainikkut havauhiit Havaaghap, apqut atuqtauhimaaqniaqtuq. Tamaita hulaqutit niriuktauyut utiffaalimaitut. Nakuuyut hulaqutit aalanguqtirnirmun piyaangnirit ikayuutinun uvaluuniin nayugainun nayugainunluuniin humi TLMRU atuqtauyuq uvalu aalanguqtirniq pitquhikkut atuqtauyut, maligat, uvalu ataniudjutikkut auladjutit tapkua kangiqhipkaiyut qanuq TLMRU atuqtauyuq nigiuktauyut pidjutigiyaat ayungnaitqiamik piyaaqniq ikayuutinun uvaluuniin nayugainun hapkua TLMRU hulidjutit, uvalu pidjutauyut amigaiqyuuminirmun havaatigut uvalu maniliungnikkut pidjutauyut amigaiqyuuminirmun maniktigut ikayuutit tapkua ikayuutauniaqtut hunanun, uqhuqyuat, tamayallu ihariagiyauyut ilauyaamingni uvani TLMRU. Atuqtipkailirnikkut hulaqutinik aulapkainikkut qanuriliurutini, ilakunga angiklijuummiqtirnikkut hulaqutinik uvani TLMRU itqurnarutaujuq angijuungittun.

VS.9.1.4 Anginiqhaq

Atulirnikhanut ihuaqhautikhanut, munaqhidjutikhanut, imaalu ihuaqhautikhanut aktilakhangit, tamna Havaakhaq ilakungit aktuutauniit TLMRU itqurnarutauyut angivallaangittut imaalu amigaigyuumiyut aktuutauniit TLMRU itqurnarutauyut angivallaangittut.

VS.9.1.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Ihuaqhaidjutiluat , munagidjutit, uvalu ihuaqhiyuumigutikhat aktilaangit tapkua nigiuktauyut pittailidjutikhat uvaluuniin ikiliyuumiqlugit ihuangitut hulaqutit qanuginiitigut, qaffiuniit, uvaluuniin tuniuqhaidjutit pitquhikkut ikayuutit pidjutauyut haffumanga Havaamin ilauyut:

- Apqut nallaumaninga pidjutiqarniaqtuq nunallaami ilaupkainikkut uqautainnik ihuaqqat.
- WKRkut ilauvakhimayut aulahimaarniaqtunlu ilaulukaagianganik Inuit katimayiingit pidjutikharnik munagidjutikharniklu talvani Havaaqharni, tamna Kitikmeot Inuit Katidjutiqatigiingit.

- WKRkut havakhimaarniaqtun aulahimaaqtukharnik ilauyukharnik Nunavut Kavamangit unalu/unaluuniit Inuit Katimayiingit, allaniklu ayungnautiqarniaqtun katimayiingit talvuuna tautuminaqtunik ayungnautiqaqtunik.
- WKR tuhaqtinniaqtait nunallaat havaakhat hulipkaidjutainnik ublukhainniklu, ilauyullu iluaniitut Havaakhat nunauyat qanurinnikhainullu ilangit, uqautigilugillu pitquhikkut anguniarviit.
- Havaaghaq atungniaqtut kinguani ulapiqutauyut nayugait havaaghat hulidjutainun, havaaghap igluqpait uvalu havagviit, ihuangnikkut (imaa Jericho Station).
- WKRkut havakhimaarniaqtun havaqatigiyaangat Kitikmeoni nunaqaqtunik, nunalaangit allatlu tigumidjutiqaqtunik ikayugianganik naunaiyaiyaangat tamna Havaaqhaq napaqtiqhimayuq aulayukharnik avikturvingmi pidjutikharnik tautugumayainiklu. Nunallaat ilituripkaqtauniaqtut auladjutaani Havaaghap. WKR naunaiyainiaqtun malikhautikharnik qilaminuaq Havaaqhangit nuutaanguqtiqhimayunik, kiudjutikharnik kiudjutikharnik tuniyauvakhimayunik, naunairutikharniklu aulayukharnik havaktukharnik ayuiqhautikharnik pidjutikharnik. Inuinnaqtun Inuktitullu uqaqtiliqtuiyut/numiktigakhallu tuniyauniaqtut katimatitlugit ilaupkaidjutikhainik tamaita nunamingni ilauyut.
- Ilaupkainiq piniaqtait nunamik atuqtunun naunaijariami humiittaakhaanik aturutikhainniklu ilitturipkaidjutinik taapkununga nipiquqtuhittailinikkut hulidjutinik (imaatun, tunngavikhanik algaknikkut, ikuutarnikkut) ihumagijauttaaqtun.
- Apqutinik Munagidjutikkut Upalungaiyautit uvalu Tulaktaqvikhat Munagidjutikkut Upalungaiyautit: ilauyuq haffumunga Apqutinun Munagidjutikkut Upalungaiyautit uvalu Tulaktaqvikhat Munagidjutikkut Upalungaiyautit, piyaaqnikkut ihuaqhaidjutit ilauniaqtut piyaangini ihuaqtumik piyaaqniq nunamun uvalu tariuqmun nayugait munagiyaulutik tamaini havauhiitigut hapkua Havaaghat hapkununga nunamingni uvalu Inuit inugiangnigit. Hapkua upalungaiyautit ilauniaqtut iluaniitut apqutinun, tulakvingmun, milvikmun, ilauyullu igluqpait. Naunaiyattiaqhimayut piyaangnirit maligahat piyauhimayut pittailidjutighat pinahuangitumik pittailidjutit, ikiliyuumiqlugit ihuiguhuutit, ikiliyuumiqlugit maligakuungitut anguniaqpalaat, ikayuqlugillu qayangnaitumik pittiarnikkut atungnirit Havaaghap igluqpait.
- Qagaqtautit qagaqtautit ihuaqhaqtauniaqtut qayangnaluangitumik hivituniani (imaa ikaangniitigut aalanguqtiqnikkut, atuqtaungilutik pitquhikkut nunanik atuqniitigut hulidjutinik).
- Ilihimayauyut nayugait katitiqhimayut nauttianik ihumagiyauyut Inuit Katimayiinun uvalu aalat hulaqutauniaqtut pittailiyauniaqtut humi piyaaqqat.
- Hikuilruqtirilimaittut tulakvikhat aulapkaititlugit Hanatitlugit uvaluuniit Auladjutikhangit Munaridjutikhanginiklu havaktautitlugit Havaakhaq. Tulaktaqvikhaq piniaqtuq umiainnarnik talvani hikuiqhimaliqqat, pivaktuq nunguliqqat June-min October-mun, taimaatunlu, niriuktaungittuq aallanguqtiqlugin Dolphin ukualu Union tuktuit amihuarjuit (DUH) tuktuit aulaviit.
- Uumayunik Kayakutikhanik uvunalu Munakgiyauyukhanik Pangnattauyunik pilutik havaklutik havakhiktaulutiklu. Piqarniaqtuq naunaiyattiaqhimayunik munaridjutinik uvalu ihuaqhainikkut aktilaangit atuliqtauyukhat hivituniani Hananikkut uvalu Auladjutit uvalu Munagidjutit Havaaghap.

VS.9.2 Niqailliurnaittumik Niqailliurnaittumik Niqailliurnaittumik

Una ilangani naunaijaqtaa qanuqtun Qurluqtuaryungmi Apqutikhaa Tulaktaqvikhaqlu Havaktaujukhaq (Havaktaujukhaq) hulaqutiniarungnarhijuq niqailliurnaittumik niqiqarnikkullu aulapkaidjutinik inungnun Kitikmeoni nunallaani. Niqailliurnaittumik taimaittuq: "qanurinia ittuq taimaa tamaita inuit, ubluq tamaat, timimikkut, inungmiunikkut maniliurnirmunlu piinnarialgit nakuuyunik, aanniqnaittunik niqiriktuniklu niqinik nirilluarumayainnik hulilukaariamingnik inuuhiringnaqtumiklu inuuhirmingni" (FAO 2022). Ihumaliurutinga niqikhanut aulapkaininnga angikliyuumiqtaa kangirhininnga niqikhaqarnikkut ilaliutigiami "pilaarutingit inungnut aaniaqnaittumut pitquhimullu ihuaqtut niqit piliurhimayut avatimut nakuuyut nungulaittumiklu piyut, pilaarutingillu naunaiyariami nanminiriyait niqingit nautiinirmullu timiqutigiyangit" (Nyeleni 2007). Inuit niqitigut ataniudjutikkut pidjutiqaqtut aghuungnaqtut nunamun uvalu avatingnun uvalu Inuit pitquhiit, ukpigiyait, uvalu inuuhiqattiangnikkut niqitigut auladjutit (Panikkar unalu Lemmond 2020; Nunavunmi Niqailliurnaittumik Katimayiit 2014).

VS.9.2.1 Kiklinga

Niqailliurnaittumik niqikhaqarnikkut imaalu niqikhaqarnikkut atanniqtuidjutikkut qaujiharniq ihumagijaujut aallangurniarunaqhijut ilitquhikkut niqinut atuqtakhangit imaalu niuvvaviit niqikhat atuqtaujut nappaqtiqtautitlugit imaalu aulapkaidjutikhangit munaqhidjutikhainiklu. Aallangurniarungnaqhiyut tamangnut niqinut atuqtakhainut ihumagiyauyut hitamat niqikhaqarniq, ilauyullu hailidjutikhat, pittaaqtangit, aturnikhait, nungulaittumiklu niqainnarnik niuvvavingnillu niqinik.

Kangiqhipkaqlugit Niqailliurnaittumik Niqailliurnaittumik Niqailliurnaittumik Niqailliurnaittumik Malikkuutainnik qanurinmanggaatigut, amigaittut naunaitkutikhat ihumagiyauyut, taapkuatlu nampait, ilihattiaqhimayunut taiguat, Inuit, Nunaqaqqaarhimayut, Nunallaamilu Qauyimayainnik ihumagiyauyut ukpiriyainniklu katitiqhimayut ilauqatigiingnikkut, ayuiqhaplutik qaritauyakkutlu ihivriungnikkut qanurinmanggaat, nalvaaqhimayainniklu nunallaami ihivriungnikkut.

VS.9.2.2 Havaaqhangit Ayungnautiqarniaqtun

Havaaghaq hulaqutauniaqtuq niqailiurnirmun niqighaqattiarnirmunlu tamangnun ihuaqtumik ihuangitumiklu pihimayut Havaaghap iluaniitut hulidjutillu ilauyut apqutiliuqtut, amigaiqyuumilugit aghaluutit piyaangniillu, tulakvikhat pivalliadjutighait, ihuaqhiyuumiqlugillu inuit talvaniitut, qanuriniit naittumik imaa:

Allanguqtiqhimayuq pitquhiliqinikkut niqivalungnik hanaqidjutikhangit:

- Tamna Havaaqhaq ihumagiyauyuq piqarniaqtuq tamangnik ihuaqtumik ihuangituniklu ayungnautiqarniaqtun pitquhiliqinikkut niqivalungnik hanaqidjutikharnik. Nakuuyut ilakuit hulaqutait nigiuktauyut atuqtaulutik qanuginiit ihuaqhiyuumiqnikkut piyaaqniq anguniaqnikkut ikayuutit kitut ikiliyuumigutiniaqtut piyaaqnikkut ayuqhautinik.

- Havaaghaq niriuktauyuqlu ihuangitumik hulaqutainun pitquhikkut niqinun auladjutinun amigaiqyuumilugit mihingnautikkut ulapiqutauyut uvalu puyuqmik apqunmi; aalanguqtirnirit, uvalu tamaqpalianiit, nunami uvalu tariumi nayugait pidjutauyut Havaaghat hananikkut hulidjutit; ayungnautiqarniaqtun huradjanik aulaviingit, ilauyutlu tuktut amigaitilaangit ilautitihimaaqpakhimayut tuktut aulaviingit anginirmiklu Kingaukmi tuktut ivaavingit nayugaingit.
- Piinagialik uvalu ihuangnikkut niqainait nigiuktauyut tautungnaqtut havaktautilugit uvalu aulalihaaliqtilugit uvalu ihuaqhainikkut havaktauyut, humi hulidjutit anginiqhauyut.
- Aktilaangit maligaqaqtut aghaluutinik, atugahanik qagaqtitinikkut, uvalu pittailiniq aghaluutinik atungniq havaktinin havaktauhimayut ikiliyuumigiangani ayuqhautit anguyauyut hugadjat (imaa tuktut, tagiumi hugadjat), tapkua uqaqhimayut, ilangit tadjakaffuk ahinungaqtitauyut atuqtauhimaaqniaqtut.
- Piinarialaqininnga qangaraaluknitat niqingit aturninngalu niqainnarnik ihumagiyauyut nakuungittuq angunahuaqtunut Kitikmeoni havaktut, pipkaidjutiyuq ikitqiamik pivikhaqarninnga ilaugiami qangaraaluknitat angunahuarniq.
- Ikikliyumirutikharnik ilauyukharnik talvani pitquhiliqinikkut niqivalungnik hanaqidjutikharnik angikliyumiqtitiniaqtun inungnun igluqaqtuniklu atuinagianganik niuvaivingmi niuviqtauhimayunik niqinik, allanguqtiqhugitlu atugianganik niqinik (imaatun itunik, ikikliyumiqtitiyaangat aulavikhangit qanuritmangaangitlu nunami niqivaluit amigairyumiqtitilutiklu qaffiutilaanganik qanurituniklu niuvaivingmi niqivalungnik nigiyainik). Ahiagullu, pilluarumaplugit niqainait, imaalu niqainait ihumagiyauyut inuuhiringnaqtut, nutaangutqiyat, nunamittutuqat tapkunanga niuvvavingnit niuvviktauhimayut niqit, nutaaq apqutikhaq piliuqtauhimayuq Havaakhamit LAA pidjutauniarunaqhiyuq nunamik atuqtunut, ilauyut Inirnikhaat inulrammiillu, anguniarvikhanik nunami, taimaittumik, Amigaigyuumilugit niqainnarnik niriyakhanik aallanut tuniuqhailutiklu aallanut nunaqaqtunut.
- Nakuungitumik ilakuit hulaqutainun nigiuktauyut mikiyut anginiqhait (piyaaqniitigut anguniaqviit nayugaini), qitqani anginiqhait (haffumunga ihuangnikkut, piinagialiknikkut, uvalu taimaali atuqniit hugadjat ihagiagiyauyut pitquhikkut niqitigut auladjutit, imaatun tuktut), taimaali Havaktakhaq hulaqutiginiaqtaat niqainait uvalu hulaqutiginiaqtait qanuginiit uvaluuniin ihumagiyauyut qanuginiit niqainait (imaa halumailgukkut uvaluuniin ihumagiyauyut halumailgut), pidjutauyuq pittailiniqmik.

Allanguqtiqhimayuq niuvailiqiyunik niqivalungnik hanaqidjutikharnik

- Tamna Havaaqhaq ihumagiyauyuq ihuaqtumik ayungnautiqarniaqtun niuvailiqiyunik niqivalungnik hanaqidjutikharnik.
- Nakuuyut ilakuit hulaqutait niriuktauyut atuqtaulutik pidjutigiyaat ihuaqhiyuumiqtut ihuangnirit niuvaavingni-niuviqhimayut niqit haffumuuna hananikkut ingilradjutikkut igluqpait Kitikmeoni uvalu ihuaqhiyuumiqtut piyaangnirit uvalu atungnirit niuvaavingni-niuviqhimayut niqit haffumuuna Havaaghanun-ilauyut havaaghat, maniliurutit, uvalu maniliurutit.
- Piqangittuq niriuktaujunik ilakunik hulaqutinik Havaktaujukhami uvani urhurjuaqtarviinni atuqhutik umiakkuurutikkut havagutinik tunirhainikkullu paniupajunik tamajanik iliqpiknilu-aularaanginnaqtunik hunanik Kitikmeoni nunallaanun.

VS.9.2.3 Angikliyuumiqtuq Qanuriliurutingit

Talvuuna uuktuutikharnik ihuaqhaidjutikharnik, munagidjutikharnik, ihuaqhaidjutikharnik uuktuutikhangit, ilakungit katitiqhimaaqtunik ayungnautiqarniaqtun aulaniaqtun, itqurniaqtauvakhimayutlu ihuangitumik ikikliyumirutikharnik anginirmik talvani RAAmi, ihumagiplugit katitiqhimaaqtunik ayungnautiqarniaqtun nunami niqivalungnik ilauyut tuktunik (anginirmik ayungnautiqarniaqtun aulaviingit aulaviingitlu), tariumi huradjat (qitqaniitunik tuquvakhimayut aanniqtuqaqqanlu ayungnautiqarniaqtun talvuuna umiangit tuluqtautilunik), uvalu tariumi imaq (ihumagiyauyuq mikiyumik qitqani anginiqhaq hulaqutauyuq taimaali hulaqutit kikliqaqtut haffumunga PDAmun). Havaaqhangit ayungnautiqarniaqtun hivutunigaalukmik aulaniaqtun aituiniaqtunlu katitirutikharnik ayungnautiqaqtunik talvanga RFInik havaaqhangit talvuuna aulahimaaqtunik mihingnautiqaqtunik akuktauvakhimayut unalu unguvaqtirnikkut/allanguqtitinikkutlu nayugaingit nunami niqivalungnik. Kihiani, pigiaqaqtunik nunami niqivalungnik pigiaqaqtuniklu nunami niqivalungnik aulaniaqtun pigiaqaqtun talvuuna RAAmi.

Atulirniitigut ihuaqhaidjutit, ihuaqhiyuumirutit, munaridjutillu aktilaangit, amigaiqpaliayut hulaqutait niuvaanikkut niqitigut auladjutait niriuktauyut nakuuniaqtut.

VS.9.2.4 Anginiqhaq

Tahapkununa aullaktikgutikhanik kayaknaitumik, ihuaqhiyumiktukhanik, imalu munakgiyauyukhanik malikgalingniklu, mikharut nakungikgutauvaktunik mikharut Havagiyauyukhanik uvunalu atautimukyumivaktunik nakungikgutivaktunik mikharut nikiikhailiurnaitumik imalu nikiikhailiurnaitumik atadjutigiyauvaktunik nallautakgutauvaktunik havakhiktaulimaitunik pidjutilimainmanik piyukhanik imalu piyukhanik ilingakpaliayunik imalu/naliak takuyauyunik nakungikgutivaktunik niikitianik nirgitinik naliak nakungikgutivaktunik niikitianik nikkikhautinik talvanitunik nunalingni nallautakgutauvaktunik kanukgilidjutilimaitunik tadja naliak naahugiyauvaktunik hulilukakgutauvaktuniklu, atugakhat, imaaluuniit ihuaqhautikhangit maliqatqujauhimajut.

VS.9.2.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Ihuaqhautikhat , munaqhidjutikhat, imaalu ihuaqhautikhangit nahurijaujut ikiglinahuarutikhanik ihuidjutaujunut imaalu amigaigjuumijut pidjutaujut Havaakhamut ilitquhikkut niuvvanikkullu niqikhat pidjutaujut taffumanga Havaakhamut ilaujut:

- WKRkut Apqutikkut Munagidjutikkut Upalungaiyautit ikayuutauniaqtut kikliniklugit Havaaghanun-ilauyut ulapiqutauyut hugadjanun imaa havaklugit naunaitumik nigiuktauyut havakvikyuat auladjutainun. Una pangnattauyukhanik ilaudjutiqarniaqtuq ilidjuhikgivakgainik piyukhanik apkuunmut, tulaktaqvikhanik, milviknut, uvunalu atadjutauvaktunik ikalukautikhainik uvunalu malikgalingnik havakhiktauyukhanik pihimayunik ikikliyumiktukhanik akhaluutinik uumayuniklu pitauvaktunik uvunalu ikayutauyukhanik kayaknaitumik, naunaittunik huranik ingilgayanginik ingilgayanginik nunainilu pitquhik atuktauvaktunik angunnahuaktauvaktunik.

- WKR piliurniaqtut atuliqlugillu Tulaktaqvikhat Munaridjutikhainut Upalungaiyautit ilauyut pitquyauhimayut taffumani *Tariukkut Ingilradjutikhanut Qayangnaitkutikhanut Maligaq* qayangnaittumik auladjutikhainut nanminiqaqtut umiat aulayut haniani tulaktarviup.
- WKR agyarniaqtait tamayat tamayallu hilataanin aviktungniinin Havaaghap nayugaanun atuqlugit umiaqyuat, umiakkut, tingmitit, uvalu/uvaluuniin aghaluutiqyuat katulaaktitauhimayut kitunun Havaaghamun uvalu ihuaqhailutik havaqatigiiklutik umiakuuqtitinikkut aghuurutinik, piyaaqqat, nunamingni uvalu aviktuqhimayuni kavamat. WKR-kut ikiglinahuarniaqtait ihuirutauvaktut umiakkut agyaqtauyunut, tingmitikkut agyaqtaqtut, nunakkullu agyaqtaqtut, piyuminaqqan.
- WKR amigaigjuuminiaqtait uukturvikhat nunamingni Inuit havaakhainnik imaalu ikajurlugit avikturniinni imaalu Inuit nanminirijaujut ilaudjutikhainnik uumani Havaakhami atulirnikhanut Havaktuliqinirmut Qanuriliurutikhat, Ajuiqharnikkut Qanuriliurutikhat, imaalu Niuvrutikhanut Qanuriliurutikhat. Unaluttauq, WKR havaqatiginiaqtait Kitikmiut, aallat Nunaqaqqaaqhimayut katimayiit, aallallu aktuqtauniarunaqhiyut nunallaat aulladjutaani Havaakhap.

VS.9.3 Nunani Aanniaqtailinikkut Inuuhiringnaqtumiklu

Una ilangani naunaijaqtaa qanuqtun una Qurluqtuaryungmi Apqutikhaa Tulaktaqvikhaqlu Havaktaujukhaq (Havaktaujukhaq) hulaqutiniarungnarhijuq nunallaami aanniaqtailinikkut inuuhiriknikkullu inungnun Kitikmeoni nunallaani Yalunaimilu. Uvani titiraqhimayuni, aaniaqtailiniq uvalu inuuhiqattiaqniq ilauyut iqaiyaqnikkut, ihumakkut, uvalu inuuhiqattiaqnikkut uvalu inuuhiqattiaqniq.

VS.9.3.1 Kiklinga

Naittuq ittut (ukunatitut, tunngavinga) qanurittaakhaanik nunallaani aaniaqtailiniqmut nakurudjutimullu unalu aaniaqtailiniqmut aulapkaitjutikhanik havaaniklu, timimitigut aaniaqtailiniqmut qanurittaakhaanik qanuriliurutingillu, ihumamitigut aaniarutilgit qanurittaakhaanik qanuriliurutingillu, inuup aaniaqtailiniqmut pitquhingit, nunallaani ilamiknilu nakuuyumik pigiami, nunallaani aaniqtailiniq, unalu timimitigut pipkaidjutingit aaniaqtailiniqmut katitiqtauyut aturhutik hivulliqpaanga nampangit (inungmut hivayautikkullu apirhuqtauyut) tuglialu nampangit tunngavingit (taigualiurniqmut ikayuutikhat).

VS.9.3.2 Havaaqhangit Ayungnautiqarniaqtun

Nunallaat aaniaqtailinikkut uvalu inuuhiqattiangnikkut ihumagiyauyut ilauyut qanitukkut ilauyut aalanun Inungnun Avatingini ukpigiyauyut ilauyut pitquhikkut nunat uvalu ikayuutikkut atuqtauyut, niqailiuqnikkut uvalu niqailiuqnikkut akhuugutait, havaaghat uvalu maniliuqnikkut, uvalu igluqpinikkut uvalu kivgaqtuutinik. Ihivgiugutit nunallaat aaniaqtailinikkut uvalu inuuhiqattiaqnikkut ilauyut hapkua hulaqutit:

Aadlangurniq piinarialaqininnga aaniaqtailiniqmut aulapkaitjutikhanik havaatlu:

- Tamna Havauhikhaq piqarniaqtuq nakuuyumik nakuungittumiklu ayurhautipkaiyuq aaniaqtailiniqmut aulapkaitjutikhanik havaaniklu. Ihuaqtut ilakuit hulaqutit atuqtauniaqtut maniliurutit, taaksiit, uvalu maniliqtuidjutit tapkua pipkaiyut kavamanun atugahanik maniknik ikayuutighat aanniaqtailinirmun inuuhiqattiarnirmunlu ikayuutighat pinahuarutinunlu, ilauyut aanniaqtailinirmun igluqpait kivgaqtuutillu.

- Kitikmeonmi ikittunik kivgaqtuidjutikhaqaqtut havaakhaqaqpallaaqpaktut. Aanniarviliarahuat tingmitikkut aullaqtukhat Yellowknife-mut imaaluuniit hivuraanut Kanadami pijariaqaqtut nunaqaqtut pijariaqaqtut ajuittiaqhimajunik aanniaqtunik kivgaqtuidjutikhanik imaalu munaqtaudjutikhainnik. Tamna Havauhikhaq tuniniaqtuq angikliyuumiqtumik ihariaginingga aaniaqtailiniqmut aulapkaitjutikhanik havaaniklu Yalunaimi ukunannga hilataanit avikturhimayumit havaktut; kihiani, tamna Havaaqhangit havakviangit ihumagiyaungitun qinigianganik munarhiliarutikharnik Kitikmeotmi Avikturviani nunalaangitni. Nakuungittut ilakungit ayurhautingit piniaqtuq hilataanit avikturhimayumit Havauhikhaq havaktut angikliyuumirniaqtaa ihariaginiq munarhitkunni ulaasiliqiitkullu LAA piyut aaniqtuqarumi aaniarutilluuniit, talvuuna ikikliyuumiutiyuq piinarialaqininngga piinarialaqininngalu ilanginnut inungnut.
- Niriuktaungitut tapkua hilataani aviktungniini havaktit nuutiqlutik nunallaanun LAA havaktautilugit uvalu Auladjutit uvalu Ihuaqhaidjutait havaktautilugit Havaaghap. Taimaali, nigiuktauyut tapkua hilataani aviktungniini Havaaghat aulahimaaqlutik atuqlugit aaniaqtailinikkut igluqpait uvalu kivgaqtuutit nayugaqaqtut nunamingni munagiyaangini aaniaqyuaqtut qanuginiit uvalu ikayuutaulimaitut piumayunun aaniaqtailinikkut igluqpait uvalu kivgaqtuutit nunallaani LAAmi.
- Uuktuutinganut ingattaqtailiniqmut, munariniq unalu ihuarhainiqmut qanuriliurutingit, nakuungittut ilakunga ayurhautingit ihumagiyauyut mikkauyuq angininnga angikliyuumiqtuq ihariaginingga pittaarninnga aaniaqtailiniqmut aulapkaitjutikhanik havaangillu ittuq qanittuaniluuniit tunngavinganut qanurittaakhaanik unalu naunaitkutat havaamut pilimaittuq ukunuuna himmautinga qilamiuqtuqaliqqat ihumaliurniq. Ilakuit hulaqutait niriuktauyut atuqtaulutik uvani LAAmi, hivituyumik-kikliqaqtut, amigaitut, ihuangitumik hulidjutit, uvalu utiffaalimaitut pidjutigiblugu hivitunia Havaaghap, kihimi, Hanayaukpat iniqtaukpat, niriuktauyuq ikiliyuumiqlutik havaktut Auladjutini kitut hivumut ikiliyuumigutiniaqtut aalanguqtirnirmun aaniaqtailinikkut igluqpait uvalu kivgaqtuutit.

Aalaguqnigit amigainigit hiamayalaaqtut aaniarutit:

- Nakuungittut ilakungit ayurhautingit nampanganut hiamitiqtuq aaniarutingit piniaqtuq angikliyuumirumi ingilraninnga inungnik, uumanilluaq hilataanit avikturhimayumit havaktut, ukunuuna Yalunaimi ukunuuna inungnut ilauniq maniqami hiniktarvingani.
- Ikikliyumiqtitiyaangat hiamitiqtaaqtunik aanniarutingnik hiamitirnaitumik, WKRngit aulatitiniaqtun Inuuhirinikkut Munarhiliqinikkutlu Ikayuutikharnik Upalungairutikharnik. Tamna upalungairutikhaq ilauqaqtuq pivalliadjutikharnik auladjutikharnik hiamitiqtaaqtunik aanniarutingnik nutqaqtitiyaangat hiamitiqtunik malikhautikharnik atuquyaangat inuuhirinikkut atuqtakharnik, ilitagiyaangatlu aanniarutingnik hiamitirnaitumik, ikikliyumiqtitiyaangatlu aanniarutingnik hiamitirnaitumik. Aanniarnikkut aanniqtuqaqqan ikayugiaqaqtunik pigiaqaqtun talvani Havaaqhangit nayugaani talvuuna Napaqtiligumik Auladjutikharnik Ihuaqhaidjutikharniklu.
- Iliurainingga ikikliyuumiutiniq, munariniq ihuarhaininngalu qanuriliurutingit, ilakunga ayurhautingit nampanganut hiamitiqtaaqtut aaniarutingit ihumagiyauyut nakuungittut mikkauyumiklu mikkauyumut mikkauvallaaqtuq. Pidjutigiblugu hiamitiqtuq hiamitiqtuq aaniarut kikliqaqat attautinun havaktunun havakvikmi, anginiqhaa niriuktauyuq mikiyuq. Anginiqhait mikiyut hiamitiqtut aanniarutit hiamitiqata aalanun attautinun igluqaqtununlu LAAmi. Pilimaittuq tamaat nunallaaq aannialaqilimaittungnarhijuq. Hiamittaaktut aanniarutit hiamitiqtaaqtut qakuguliqaak, ihuaqhaqhimaittumik ublukhainnik (aallanguqattangittunik hulipkaidjutikhanik).

Aalanguqniq ihumakkut aaniaqtailiniq, ihumakkut aaniaqtailiniq, uvalu pidjutigiblugit havauhiit:

- Tamna Havaaqhaq ihumagiyauyuq aituiyaangat ihuaqtumik hanaqidjutikharnik ihumarlukhimayunik inuuhirinikkutlu talvuuna amigairyumirutikharnik havaktukharnik pidjutikharnik maniliurutikharnik hivutunirmik tuniyauyukharniklu. Amigaiqyuumiyut havaaghanun-ilauyut havaaghat maniliurutailu mikhiyuumirutiginiaqtaat inmi ilailu maniliqinikkut ayuqhautit tapkua ihuaqhiyuumirutighat ihumakkut aanniaqtailinirmun qanuriniit inuuhirmunlu pidjutauyut inuuhirmun imaatun iglutigut niqailiurnirmunlu.
- Himmautigiiktaqhutik havaktakhait imaalu tangmarviit hiniktarvikhait, ilaujut aullaqhimalutik ilannamingnit ilamingnitlu, pidjutauniarunaqhijut ihumalungnirmik imaalu aimavikhairnirmik. Una pidjutauniaqtuq, angikliyuumigutiluni ayuqhautinun pidjutinun (imaa aangayaangnaqtunik atungniq) uvalu maniliugutit havaktut pidjutauniaqtut amigaiqyuumilugit aktilaangit aangayaangnaqtunik atungnikkut.
- Tingmiyaami hilataanun nunamingnin pidjutiqangniaqtut ihuaqtumik hulaqutinik ihumakkut ihumakullu inuuhirmun ilanginun inungnun LAAmi kitut havaaniktitauyut Havaaghami.
- Ihuangitun ayungnautiqarniaqtun ihumarlukhimayunik inuuhirinikkutlu talvuuna havaktitiunik talvani Havaaqharni ayungnautiqarniaqtun ihumarlukhimayunik inuuhirinikkutlu atuqtakharnik talvani LAAmi.
- Nakuungittut ilakungit ayurhautingit ihumagiyauyuq qitqani aadlangurninnga ihumamitigut unalu ihumamitigut aaniarutilgit unalu qanuriliurninnga qanuriliurutingit ayurhaqtipkainiaqtaa tamarmik inuit havaktut Havauhikhami ilamiknullu, talvuuna angikliyuumiqtuq iglumiuqatigiiktunut. Ilakuit hulaqutit atuqtauniaqtut amigaitut ihuangitumik hulidjutit. Allanguqtiqhimayut ihumarlukhimayunik inuuhirinikkutlu aulahimayut talvuuna havakvingmi qanuritmangaangit himmiqtauffaarniaqtun kingunganirmi havaguigungnaigumi talvani Havaaqharni; Kihimi, aangayaangnaqtunik atungnikkut-ilauyut hulaqutait aulahimaangniaqtut ipigalaingningmun pidjutainun.

Aadlangurniq ilamiknut unalu nunallaani akhuurninnga atauttimuurniqlu:

- Nakuuyut nakuungittullu qanuriliurutingit ilamiknut nunamiknullu akhuurninnga atauttimuurniqlu ihumagiyauyut piniaqtuq uumannga Havauhikhaq. Maniliurutait Havaakhanut-pidjutiqaqtunik havaakhanut ikajuutauniarunaqhijut kiinaujakhanut ajuqhautinut ilagiiktunut, himmautigiiktarlutik havaakhanut naunaitkutikhat ajuqhautauniarunaqhijut ilagiiktunut havaqatigiiktunut. Havaaghanun-pihimayut maniliurutit ikayuutauniaqtut ilinganirmun ilamingnun nunallaanunlu, pidjutauyullu amigairyuuminirmun aangayaangnaqtunik atungnikkut.
- Ilangit nunallaangillu naunairniaqtait qanuriliurutingit aadlangurninnganit havaktut ihumamitigut aaniarutilgit qanurittaakhaanik qanuriliurninnganikluuniit ilangit havaktut aadlangurniarunaqhikmat pitquhinginnik.
- Nakuuyut ilakuit hulaqutit naunaiyaqtauhimangitut hivuani. Nakuungittut ilakungit ayurhautingit ihumagiyauyuq angivallaangittuq taimaa ayurhautingit piyuq iglumiuqatigiiktunut. Hivitunikhaa hivituniqarniaqtuq hivikittumit hivituyumut, pidjutigiplugu hivitunianik havaktit havakhimmaarniaqtut havaakhami. Hulaqutait niriuktauyut atuqtaulutik amigaitut ihuangitut, nalaumayut havaktut himauhiqataqnigit uvalu ukiutigut hulidjutit.

Aadlangurniq nunagiyamikni unalu inuup aanniqtailininnga:

- Havaaghaq ihuangitumik hulaqutauniaqtuq nunallaanun uvalu inuup qayangnautainun pidjutauyut havaknikkut qanuginiit uvalu Havaaghanun-ilauyut havaatigut uvalu maniliungnikkut.
- Himmautigiiktaqhutik havaatigut atugahat uvalu maniqami hiniktaqviit pidjutiqangniaqtut ihuangitumik ihumagiyauyunik uvalu hulaqutinik inuup qayangnautaitigut ihumaaluutinik imaa inukluguhungniq, inukluguhungniq, uvalu uumilguhainiq. Havaaghanun-ilauyut maniliurutit ikayuutauniaqtut amigaiqyuuminirmun aangayaangnaqtunik atungnikkut, kitut hulaqutiginiaqtaat nunallaat qayangnautait.
- Pijaarniq Qurluqtuaryungmi Apqutimun uvanilu Qurluqtuaryungmi Tulaktaqvikhamun Yellowknife-min kikliqarniaqtuq ukiumi apqutainni, munarijaujuq amirijaulunilu WKR-kunnin uvani Qurluqtuaryungmi Tulaktaqvik uvanilu Jericho Station-mi, kikliqaqtipkainikkut agjaqtaunirnik aangajaaqnaqtunik taanganiklu LAA aturluni Havaktaujukhami aulapkaidjutikhanik. Taimaatullu, Qurluqtuaryungmi Apquti piqalimaittuq atadjutiqalimaittuq qujaginnanun nunallaanun Kitikmeoni Avikturhimaniani, taimaalu niriuktaujuqlu kikliqaqtipkailuni agjaqtaunirnik aangajaaqnaqtunik taanganiklu Kitikmeoni nunallaanun.
- Atulingnikkut tukhiqtauyut ihuaqhaidjutit, munaridjutit, ihuaqhiyuumirutillu aktilaangit, ilait hulaqutait nunallaanun uvalu inuup qayangnautait niriuktauyut ihuangitumik uvalu angivalaangitumik, atuqtauyut amigaitut ihuangitut hulidjutit uvalu utiffaalimaitut hivituniatigut haffuma Havaaghap.

Aalaguqniganik aaniagitaagani aktuqniqmit halumailrunik aanirutaulaaqtuniklu:

- Ilavaluit hulaqutait aaniaqtailiniqmun aktuqniqmik halumailgunik uvalu nipiquqtuyumik nigiuktauyut hivituqluni Hananikkut uvalu Auladjutit uvalu Munagidjutit havaktauniinun. Hilap qanuginiatigut atugahat tautungnaqtut havaktautilugit uvani Qurluqtuaryungmi hiniktaqviit, iluaniitut sulphur dioxide (SO2), nitrogen dioxide (NO2), halumailguit (PM10) uvalu mikiyut halumailgut (PM2.5) iluaniitut "Nakuuyut" qanuginiit Hilap Qanuginiitigut Naunaitkutini (AQI) tamaat. Aktuqniq SO2-mut PM10-mullu piqaqtuq mikiyumik qayangnaqtumik, uuktuutigiyauyuq piqaqtumik ataani uumannga Nunaryuaptikni Aaniaqtailiniqmut Timiqutigiyangit anirhaaktaptiknik qanurittaakhaanik maliktakhangit. Aktuqniq NO2-mut PM2.5-mullu mikiyumik ihumaluknaqniganik pijutiqaqmata 0-mik ihumaluknaqniganik aktuqniqaqniqmi. Aktuqniq haffumunga NO2 unalu PM2.5 aktilaangitigut ilauyut mikiyumik-aktilaangit anirnirlungnikkut hulaqutainun tamavyainun havaktautilugit (imaa mikiyumik kukulaqiblutik qalangmun, iingnun, qingaqnun, iggiarnun) inungnun anirnirluktut imaatun anirnirlungniq uvaluuniin puvaklungnikkut ayuqhautit. Aanniangittun inuit atulimaittungnarhijun hapkuninnga nakuungittunik hulaqutinik. Talvani Jericho Station-mi hiniktarviinni hiniktarviinni ungahiktunilu nunani imaatun ujaraghiurnikkut qinirhianikkut haniqpani haniani apqutimi pihukviinni innilu talvani Inuit anguniarvigivaktait niqainnarnik, aannialaqinnarniq qajangnatqijaujuq, pidjutiqalimaittungnarhijuqlu angijunik aanniaqtailinikkut qajangnarutinik inungnun.

- Hilap qanuginia atugahat tautungnaqtut atuqtilugu Auladjutit uvalu Ihuaqhainikkut havauhiit uvani Qurluqtuaryungmi hiniktaqviit, iluaniitut hapkua NO2, SO2, PM10 unalu PM2.5 ilauniaqtut "Nakuuyut" qanuriniit hapkua AQI tamaat. Aktuqniq SO2, PM10 unalu PM2.5 piqaqtuq mikiyumik qayangnautinik, aktilaangit ataani Nunaqyuami Aaniaqtailinikkut Katimayiit anirhaaktaqnikkut qanuginiitigut atugahat. Aktuqniq haffumunga NO_2 pidjutiqaqtuq mikiyumik qayangnautinik, aadjikiivyaktuq havaktautilugu, uvalu ilauyut aadjikiiktumik qanuginiinik mikiyumik aniqhaaktaqnikkut hulaqutinik attautinun hivungani aniqhaaktaqnikkut ayuqhautiqaqtunun. Kihimi, hapkua hulaqutauniaqtut niriuktauyut atuqtaulutik naitqiamik, naamavyaktuq attauhiqmik pingahunin attautini ukiuni, pidjutigiblugit ikiliyuumiqtut hiamitiqtut atuqtilugu Auladjutit uvalu Ihuaqhainikkut havauhiit. Aanniangittun inuit atulimaittungnarhijun hapkuninnga nakuungittunik hulaqutinik. Talvani Jericho Station-mi hiniktarviinni hiniktarviinni ungahiktunilu nunani imaatun ujaraghiurnikkut qinirhianikkut haniqpani haniani apqutimi pihukviinni innilu talvani Inuit anguniarvigivaktait niqainnarnik, aannialaqinnarniq qajangnatqijaujuq, pidjutiqalimaittungnarhijuqlu angijunik aanniaqtailinikkut qajangnarutinik inungnun.
- Nipiquqtuhinikkut tautuktitiyut qayangnautinik ihuiguhuutinik uvalu hinigiamingnik ulapiqutauyut havanginikkut havaktut nayugaqaqtut hiniktaqviini uvani Qurluqtuaryungmi uvanilu Jericho Stationmi, inuit uyagakhiuqtut haniani apqutit pihukviit, uvalu Inuit uvalu Nunaqaqaaqtut inuit havaktut pitquhikkut niqainangnik niqighaqhiuqtut hulidjutinik.

VS.9.3.3 Angikliyuumiqtuq Qanuriliurutingit

Angikliyuumiqtuq ayurhautipkaiyuq aaniaqtailiniqmut, Havauhikhap hilamut halumailruq nipiquqtuyulluuniit hiamitiqtuq qaliriiktukhaq aadjikutaani atauttikkullu hiamitiqtunit aadlanit hulilukaarutinit. Hiamitirnirit aadjikiingitpata aktilaangitigut uvalu tadjakaffuk, attautimulimaitut piliuqlutik amigaiqyuumilugit hulaqutit. Naunaiyattiaqhimayut ayungnaqtutigut kangiqhidjutit hivungani uyagakhiuqviit, ihuaqtut ikayuutikhat naunaiyaqhimayut aaniaqtailinikkut-pihimayut ihivriurutit, piinalimaitut. Piqagitpat ukuniga hivuniqhijutinik, pilimagituq nalautaariagani aginiga qanurituuniginikluniit avatauyumi aktuqniginik pijutiqaqtunik ukuniga naunaitunik pijutauyunik havaanik.

Tamainun, amigaiqpaliayut aalanguqtirniq inuuhirmun aktungnirmun hilap halumailgut uvalu nipiquqtuyumik niriuktauyuq nakuunginiaqtuq kihimi mikiyuq anginiqhaq. Nunanga qanuraaluktut ayurhautingit ittuq RAA (piyuq uumannga RAA uumunnga anirhaaktaptiknik qanurittaakhaanik nipiquqtuyumiklu ayurhautingit). Mihingnautiqangituq hulaqutainun ilauyut ikaangniitigut. Hivitunikhaa hivituyumik, hivitunikhaa Havaakhap, aullaranginaqtumik pidjutauvaktuq hiamitirnirit aallanit havaakhanit aullahimmaarniaqtut amihuni ukiuni. Katitiqhimayut hulaqutit utiffaalimaitut.

VS.9.3.4 Anginiqhaq

Atulirnikhanut ihuaqhautikhat, ihuaqhiyuumirutikhat, munaridjutikhanullu uuktuutikhat, ilakungit pidjutauvaktut Havaakhamut angiglivalliayullu pidjutauvaktut nunani aanniartailidjutikhanut inuuhiringnaqtumiklu itqurnarutauyut angivallaangittut. Tamna Havauhikhaq ihumagiyauyuq piliuriami avatquttugit piinarialik pittaarninnga aaniaqtailiniqmut aulapkaitjutikhanik havaaniklu, angiyumikluuniit ikikliyuumiqtuq qanurittaakhaanik havaat, tuniyauyuq pihimmaaqtumik pihimmaaqtumiklu, ihuaqhilimaittuq nutaamut ihumagiyauyumulluuniit pinahuarutingit, maligangit, ikikliyuumiutingaluuniit, munariniq, unalu

ihuarhaininnga. Tamna Havaaqhaq aulatitilimaituq uuktuutikharnik tautuktauhimayunikluuniit allanguqtirutikharnik talvanga aulayunik iqaiyaliqinikkut, ihumarlungnikkut, inuuhirinikkutlu inuuhirinikkut inuuhirinikkutlu nunalaani qullirutiqaqtunik taima pittaililimaitun ikikliyumiqtitiyaangatluuniit ihuaqtumik qullirutikharnik talvuuna ihuaqhaidjutikharnik havaaqhangit, atugakhangit, upalungairutikhangit, unaluuniit talvuuna allanik ihuaqhaidjutikharnik, munagidjutikharnik, ihuaqhaidjutikharnik uuktuutikharnik. Havaaghaq niriuktaungituq anginirharmik inuuhirmun hulaqutainun inungnun aktungniranun halumailgunik nipiquqtuyuniklu.

VS.9.3.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Ihuaqhaidjutiluat , munaridjutit, ihuaqhiyuumirutillu aktilaangit tapkua niriuktauyut ikiliyuumiqlugit ihuangitut uvalu katitiqhimayut hulaqutait Havaaghap nunallaat inuuhiinun inuuhiqattiarnirmunlu pidjutauyut Havaaghamun ilauyut:

- Aulaaqnikut pitquhiq pijutauyumi havaktut aulaaqniginik talvuga/talvangalu Havaap inigiyaanit hilarlukhimakpata nunagiyauyumi. Tamna Tingmiyukharnik Atugakhaq ilauqarniaqtuq upalungairutikharnik hiniktaqvikharnik, niridjutikharnik, atugianganik nunalaani aanniaqtunik ikayuutikharnik, unalu allanik pidjutikharnik havaktinun tingmiyukharnik kinguvaktitun
- Ilihaqnikkut pinahuagutit kangiqhipkaqlugit havaktut aalakiinik aaniaqtailinikkut kivgaqtuutinik piinagialgit havakvikmi
- HSSE upalungaiyaut ilauniaqtut qayangnautikkut ilihaidjutinik piyakhanik havaktunun, uvalu qayangnautikkut uvalu kiudjutikkut havauhiit
- Niuvirnirmut Qanuriliurutikhat piliuqtauniaqtuq atuliqtaulunilu ikayuriami avikturhimayuni Inuinnaillu havakvingit ilaugiamikni, unalu tuniyuq hivulliqpaamik pivikhaqautikhaq avikturhimayunut unalu Inuit nanminiriyangit, talvani akihaqtuiyut. Tamna Niuvirnirmut Qanuriliurutikhat hivulliutiniaqtait aturniit nunamingni nappaqtiridjutikhat ingilrutit ikiglinahuarutikhanik agyaqtauyukhanik ingilrutinik ahianit avikturniinnit
- Ayuiqhautikharnik Hanaqidjutikhangit ilitaginiaqtun naunaitunik ayuittiarutikharnik piqaqtukharnik havaktukharnik talvani Havaaqharni havaqatigilugitlu nunalaani avikturvingmilu ayuiqhautikharnik iliharvikharnik angikliyumiqtitiyaangat pidjutikharnik nunalaani Inuit havaktukharnik, aulatitiyaangatlu havakhimaaqtilunik ayuiqhautikharnik ayuiqhaqtukharnik ilihairutingnik
- Arnaunikkut/angutaunikkut, aajjikkiiktipkainikkut, aallakkiikniqarnirniklu atugakhanik turaanganiqaqtunik havaktikhaqhiurnikkut Inuinnarnik, aallaniklu Nunaqaqqaaqhimajunik inungnik, arnaniklu amigaiqjuummiqtirnikkut Havaktaujukhami havaktikhanik taapkunani ilaupkaqtitaulluangittuni inugiangnirni
- Piyaangnirit nayugaini hivayautikkut tuhaqtidjutit ikayuutighat hivayaqlugit ilatik Iningnikhaluuniin tuhaqtitinikkut kitut ihuaqhiyuumirutiyut ilagiingnun atadjutinun
- Aangayaangnaqtutigut uvalu Taangatigut Maliguagahat tamna atuqtauniaqtuq tamainun havaktunun uvalu katulaaktut havakvikmi, havakvikni aulaaqtitiblutik, uvalu aulaaqtilugit nunallaanun

- Aangayaangnaqtutigut taangarniklu naunaiyainikkut havauhiit naunaiyaqhimayunun tigumiaqtauyununlu tingmidjutini
- Ilitquhikkut qaujimaniq imaalu mihingnaqtunik ajuiqhainiq tamainnut havaktiujunut kantraqaqtunullu
- Havaktut Idjuhikhait tapkua ilauyut inukluguhungniq, alianaiguhukniq, uvalu uumilguhainiq havakvikmi maliguagahat uvalu ihuaqtut ilihaidjutit
- Pittailiniq-uumilguhainiq uvalu ningakniq havakvikmi maliguagahat, havauhiit uvalu ilihaidjutikhat
- Nayugaani amiqhiyut havaktit uvalu itiqnikkut munagidjutit
- Nunallaami Ilaupkainikkut Hivunikhaq pinikkut kiunikkullu nunallaanin ihumagijainnik, ihumaaluutinik, ihuigijaujuniklu.
- Pivikhaqautikhaq havakvikmi Nunaqaqqaarhimayut havaktut ilaugiamikni nunallaani Inirniriit tunigiami atadjutimik nunagiyamiknut pitquhimullu uqaqatigiiktumik ikayuqtauyuq
- Inungnut-ikajuutikhangit Munaqtiunikhainnut Piliriakhaq (SEMP). Ukua SEMP ilauniaqtut ukiumi munaridjutikkut uniudjutit. Taiguagakhat tuniyauniaqtut NIRB-kunnut, ihariagiyaukpata.
- Unaluttauq, WKR havaqatiginiaqtait Kitikmiut, aallat Nunaqaqqaaqhimayut katimayiit, aallallu aktuqtauniarunaqhiyut nunallaat aulladjutaani Havaakhap.

VS.9.4 Havaakhat Maniliurutikhallu

Havaakhat manikhaqhiurutilu tikuaqtauyut atuqniqatiaqniganik ilagani (VC) ilituqhagakhaq Havaamut. Havaaghaq hulaqutauniaqtuq havaaghanun maniliurnirmunlu ihuaqtumik ihuangitumiklu aalanguqtirnikkut maniliurnikkut pivalliadjutinun piyaghanunlu, aalanguqtirniq havaaghanun, aalanguqtirniq iliharnirmun ilihaidjutinunlu, aalanguqtirniq katulaangnikkut nanminiqangnikkut piyaghat, aalangurlugulu akiit inuunirmun.

VS.9.4.1 Kiklinga

Naitumik uqauhiq taja qanuriniginik pijutauyunik havaktut manikhaqhiurutilu naunairutauyuq Nunavumi aalatqiinik manikhaqhiurutiqaqtut, tamaknik igilraat niuvaaviilu manikhaqhiurutini atuqtunik. Pitquhikkut maniliugutit pidjutiqaqtut ihagianangnikkut nunanik atuqniitigut uvalu atadjutiqaqtut pitquhikkut akhuuqnaqtut hulidjutit, ilauyut pitquhikkut anguniaqniq uvalu iqalukhiuqniq, uvalu havauhiit Inuit titirauyaqhimayait uvalu miqhuqhimayut. Niuvaanikkut, uvaluuniin akiliuhiatigut-pihimayut maniliurutit, ikayuqtauyut havagvikyuanin imaatun uyagakhiuqtut, inungnun auladjutit uvalu igluqpinikkut.

Nunavunmi havaaghatigut ikitqiat ilauyut havaaghallu amigaitilaangit aadjiliurutigiblugu kanatami amigaitilaangit, havaaghailliuqtut amigaitqiyauyut. Ilihainiq humi ittaakhaanik Nunavunmi ittuq ataani kaanatap nampanganit, Kitingmeonmilu, amihut nunaqaqtut piqangittut Angajukhiit Iliharvingmi Naunaitkutaliriniq. Akiit inuuyaami Nunavunmi akituyut ilauyut ilanginun Kanatami, ukualuat akiit niqit.

VS.9.4.2 Havaaqhangit Ayungnautiqarniaqtun

Havaaghaq hulaqutauniaqtuq havaaghanun maniliurnirmunlu tamangnun ihuaqtumik ihuangitumiklu pihimayut Havaaghap iluaniitut uvalu hulidjutit ilauyut apqutit havaktauyut, amigaiqyuumilugit aghaluutit uvalu piyaangnikkut, tulakvikhat pivallianiq, uvalu ihuaqhiyuumiqlugit inuit talvaniitut, qanuginiit naittumik imaa:

Aadlangurninnga maniliqinirmut pivallianiq pivikhaqautikhallu:

- Havaaghaq niriuktauyuq tunihiluni ihuaqtumik hulaqutinik maniliungnikkut pivalliadjutinun piyaghanunlu. Havaaghat hulidjuhiit akiliqtaghallu tamayaghanut, ingilrutinut ikayuutinullu amigaiqpaalliutauniaqtut manighiurutit hulilukaarutainut, ikayuutit naallugit nunaptingnit manighiutauyut (GDP), ikayuutillu nunallaanut, aviktuqhimayunut kavamatuqatkunnullu manighautait. Tamna Havaaqhaq ikayuutiginiaqtuq anginirmik maniliurutikharnik hivunikhangit Kitikmeotmi Nunavunmunlu.
- Havaaqhangit napaqtirutikhangit auladjutikharnik ihuaqhaidjutikharnik aulatitiniaqtun ikayuutikharnik talvunga Nunavunmi GDPmun nunaptingnilu kavamangit manikharnik.

Aallangurniq havaakhamut:

- Havaaghaq niriuktauyuq tunihiluni nakuunikkut uvalu ihuangitumik hulaqutinik havaanun. Piumaniq havaktukhanik, tamayanik, tamayanik, uvalu kivgaqtuutinik piliungniaqtut havaaghanik piyaghanik uvalu havaatigut maniliugutinik. Kihimi, una piumaniq piliuqtaaqtuqlu akitaqutautinikkut havaktinun. Havaakhat atuqtakhat pipkagauyut havaamit kikliqarutaulaaqtut pivikhaqarninginik upipkariagani ilitquhiit hulidjutaini, havaakhat manikhaat ikayuutauniaqtut ilauyaagani igilraat hulidjutaini.
- Havaaqhangit napaqtirutikhangit, auladjutikharnik ihuaqhaidjutikharniklu, aulatitiniaqtun havaaqharnik pidjutikharnik havaanganik maniliurutikharnik havaktunik nunaqaqtunik talvani Kitikmeotmi, Nunavunmi tamainilu Kanatami.
- Havaarijangit-ilagijangit havaakhat iniqhimalaaqtangit ilangit avaliqanngittut' ikaarningit unalu inikhautikhangit ilauqataugiami ilitquhirnirnut hulidjuhiit haffuminngatut angunahuarniq, naniriaqturniq, hanaugaliurniq miqhuqhimajut, iqalukhiurniqlu, havaktit haniqpani nunaqaqtut haniqpani himmautigiiktaqhutik himmautigiiktaqhutik talvaniungittumik Kitikmeot nunalingni. Taimaali havaatigut maniliugutit ilauyut haffumunga Havaamun tunihiniaqtut maniktigut ikayuutinik angitqiamik ilauqatigiiknikkut pitquhikkut hulidjutini, uvalu ilauyut piyakhat haffumunga ilihimanikkut nuutiqniq.
- Havaakhanut-pidjutiqaqtut havaakhanik piyumayauyut nappaktirilutik amigaigyuuminiarunaqhiyut akihaqtuidjutikhat havaktikhanik Kitikmeoni Avikturniani tamainnilu Nunavunmi.
- Nakuungittut ilakungit ayurhautingit akuniraalukmik piniaqtuq, taimaa havaakhat piniaqtuq tamarmikni nappaqtiriniq unalu aulapkaininngit ihuarhainiqlu, mikkauniaqtuq, angikliyuumiqtuq RAA-mut, pihimmaaqtuq himmautiffaaqtaaqtuqlu taimaa havaktukhat ihumagiyauyut hungiutigiami uumunnga aadlangurninnganut.

Aadlangurniq ilihainiqmut ayuirhainiqmullu:

- Tamna Havaaqhaq aituiniaqtuq ihuaqtumik ihuangituniklu ayungnautiqarniaqtun ilihairutikharnik ayuiqhautikharniklu. Havaaghaq niriuktauyuq havaklugit piyaghat iliharnirmun ilihaidjutinunlu, kitut amigaiqyuuminiaqtut atiliuqtut iliharnirmun ilihaidjutinunlu pinahuarutinun. Kihimi, Havaaghanun-ilauyut havaaghat pidjutiginiaqtait ilihaqtut ilihariaqtungilutik havagiamingni.
- Atulirnikhanut ihuaqhautikhat, ihuaqhaidjutikhat, munaqhidjutikhallu maliqatqujauhimajut, ilakungit pidjutaujut Havaakhamut aallangurnianut iliharnirmik ajuiqhaidjutikhaniklu nahurijaujut ihuarnikhanut.
- Nakuungittut pidjutauvaktut iliharnirmik iniqhijut amigaitilanginnik nahurijaujut mikijumik. Nakuungittut ilakungit ayurhautingit akuniraalukmik piniaqtuq, piniaqtuq nappaqtilirumi aulapkaininngalu munarininngalu, LAA-mi, pihimmaarniaqtuq himmautinginnarlunilu.

Aadlangurniq kaantraktigut unalu havakviup pivikhaqautikhangit:

- Tamna Havaakhaq ikayuutauhunguyuq ihuaqtumik pidjutauyunut kantraqaqtunut havagviuyunullu pidjutikhanut. Havaaqhangit akiliktuihimaaqtunik hunavalungnik, ingilrutikharnik ikayuutikharniklu aulatitiniaqtun niuvigianganik pidjutikharnik nanminiqaqtunik.

Aadlangurninnga nunallaani urhuryuaqtaffaarninnga akhuurninnga:

- Tamna Havaaqhaq aituiniaqtuq ihuaqtumik hanaqidjutikharnik nunalaani aquiqtuffaagianganik ayungnairutikharnik. Ihuangitumik ayungnautiqarniaqtun talvuuna amigairyumirutikharnik atuqtakharnik nunalaani urhuqyuaqtaqvikharnik katitirutikharnik talvuuna tingmitikkut agyaqtauyukharnik talvanga Havaaqharnin. Nakuuyut pidjutauyut nunallaanut uqhughaqtaffaarutinut mahulingainit pittaaqtut agyaqtaugumik nutaanik aulapkaitjutikhanik amigaigyuumidjutikhanik qakugunguraikpat qakugungurangat uqhughaqtaffaarnirmunlu.
- WKR-kut kaantulaaktittiniaqtut umiakkut agyautikhanik ingilrutinik tamayaniklu Havaktauyakhamut nayugakhaanut, ihuirutaulimaittut pittaaqtamingnut aktikkulaanullu tadja nanminiqaqtut umiakkut agyaqtaqtut auladjutikhainut ikayurahuaqhugit nunallaat ukuallu WKR havaqatiginiaqtait nunamingni avikturniinni kavamangit ikiglinahuarutikhanik ihuirutauvaktut umiakkut agyaqtaqtunut.
- Urhuqyuaqtaffaarninnga aturluni tingmitikkut agyaqtaqtut iniqtirniaqtait aturluni satakkumik tingmitinik Yalunaimit talvunga Havauhikhap nayugaanut, unalu hunavaluit (ukunatitut, igiinarialik) pilimaittut aadjikutaanit urhuryuaqtarvinganit tingmipkaqtauyut Kitikmeoni.
- Tamna Havaaqhaq akhurhainiaqtuq nunalaani urhuqyuaqtaqvikharnik auladjutikharnik Kitikmeotmi taima ilitugipkailutik nuutaamik nunami imarmilu auladjutikhangit ikayugianganik nunalaani umiaqtuffaaqtukharnik tuniyaangat ilauyukharnik pidjutikharnik talvunga Kitikmeonmun talvuuna umiakkut agyaqtuutikharnik talvuuna hikuigumi imarnik aulaligumi.
- Inikhaqaqat agyariagani ihuaqutit hunalu Qurluqtuaryungmi Tulaktaqvikhaq Kitikmeoni nunagiyauyunut, tulaktaqvikhaq pijutauniaqtuq ilagiarutimik umiaqtaqvikhamik, aalatqiinik tikilaqnikhanik Kitikmeoni nunagiyauyunut ihuaqhivaaliriaganilu nunami ilaliutiniginik.

VS.9.4.3 Angikliyuumiqtuq Qanuriliurutingit

Atulirnikhanut ihuaqhautikhat, ihuaqhiyuumirutikhat munaridjutikhanullu uuktuutikhat, amigaigyuumiyut pidjutauyut maniliurutikhanut pivalliadjutikhanut havagviuyullu atuqtakhat, kantraqaqtut havagviuyullu atuqtakhat nunallaanilu uqhughaqtaffaarutikhanut ihuatqiyauniaqtut. Akiliutiit tamayanut, hanalrutinut ikayuutinullu atayut ihuaqtumut naunaittuq nakuuyumiklu naunaittuq havauhikhat unalu hulilukaarniq, avataani akiliutiit uumannga Havauhikhaq, pipkaidjutiniaqtuq angikliyuumiqtuq maniliqinirmut hulilukaarniq, aittuutit GDP-mut, aittuutit haamlanganut, avikturhimayumut kaanatap kavamanganullu manikhaakhangit piliurniaqtuq niuvirnirmut pivikhaqautikhaq avikturhimayumi nanminiqaqtunut.

Atulirniitigut ihuaqhaidjutit, ihuaqhiyuumirutit, munaridjutillu aktilaangit, amigaiqpaliayut hulaqutait havaaghanun iliharnirmunlu ilihaidjutinunlu niriuktauyut tamangnun ihuaqtut ihuangitullu. Havaaghaq, ihuangnikkut ihumagiyauyut, uvalu ihuangnikkut ihumagiyauyut pidjutauyut havaaghat uvalu iqaiyangnikkut hulidjutit nigiuktauyut amigaiqyuumilugit havaaghat piyaghat, havaatigut maniliurutit, ilihaidjutit uvalu ilihaidjutikhat piyakhat uvani RAAmi.

Nakuungittut angikliyuumiqtuq ayurhautingit ihumagiyauyuq piniaqtuq akitaqutautiniqmut havaktunut angikliyuumiqlugulu atiliurniq ilihainiqmut ayuirhainiqmullu pinahuarutingit piniaqtuq taimaa piumaniq avatqutpat pittaarninnga, ukunatitut inugiakpallaarniq, ayurhaqtut ikayuutingit, pilimairumi pinahuarutinik, mikitqiamikluuniit qanurittaakhaanik havaat. Akitaqutautinikkut hulaqutit ihuaqhaqtauniaqtut qakugunguqqat qaffinik pidjutinik. Naunaitut, Nunavunmi inulramiit amigaiqyuumiyullu inugiangnirit aulahimaaqtumik piyariaqangniaqtut angiyumik nutaanik havaaghanik amigaitut attautit havaliqpaliakpata, taimaalluaq aviktuqhimayumi aulahimaaqtut amigaitut havaaghailliuqtut ilauyut kanatami aktilaangitigut. Angikliyuumiqtuq qanuriliurutingit piumaninnganut havaamut, unalu uuktuutingit havaktunut, piniaruknaqhiuq qitqani quulitqiamut angininnganik, piinarialik tamainni RAA, akuniraalukmik piluni, pihimmaarniaqtuq himmautiffaaqtaaqtuqlu taimaa havaamut hungiutigumi uumunnga aadlangurninnganut (ukunatitut angikliyuumiqtuq akiliuhiangit, angikliyuumiqtuq ayuirhainiq, angikliyuumiqtuq nuutirniq, nuutiffaarniq havaktunik tamainni havakvikyuani). Kihimi, kitut angiyumik angikliyuumiqtuq akuniraalukmik ilihainiqmut ihariagininnga kiuniaqtaalu ilihainirmut tuniyut (ukunatitut NAC) aadlamut aktikkulaanga, ilihaidjutimik tuniqhainiq, unalu/unaluuniit aadlat maligat. Nigiuktauyut tapkua aviktungniitigut havaaghanik pivalliayut, ilauyut WKR, havaqatiginiaqtait Kavamatkut Nunavunmi Iliniaqtuliqiyit uvalu aalat tunihiyut naunaiyagiangani hivungani ihagiagiyauyut uvalu ikayuutit hapkununga.

VS.9.4.4 Anginiqhaq

Atulirningagut ihuaqhautikhat, ihuaqhivaalirutit, munarinigagutlu ihuaqhautit, ilavaluit ihuilijutit Havaami havaktunut manikhaqhiurutinilu qanuriniginik LAA RAA-nilu nalautaaqtauyut agivalaagitaagani hatqirutauginmata naunairutauginmata ihuitumik aalaguqniganik taja qanuriniginit aulanigilu munariyaulimagitut ihuaqhalimagitunikluniit, Havaaq pijutaulimagitut mikhivaaliriagani aipagutuaraagat GDP-mi agiklivalianiga ukiuqtaqtumi qanurinigani.

Ihuangitumik ilakuit katitiqhimayut hulaqutait havaatigut uvalu maniliuqnikkut qanuginiit uvani LAA uvalu RAA itqungniaqtauyut angivalaangitut taimaali, taimaali Havaaghaq, attautimukhimayut kinguani, tadja, ihuaqtut tautuknaqtut, uvalu ihuangnikkut ihumagiyauyut pidjutauyut pivalliadjutit, niriuktauyut pidjutiqaqlutik aktilaangitigut ihuangitumik aalanguqtirnirmik atuqtauyunin qanuginiit uvalu aulaniit, hapkua hulaqutit nigiuktauyut ihuaqtumik munagiyaulutik ihuaqhainikkut pinahuagutinun, maliruagahat, upalungaiyautillu, imaalu atulirniitigut ilaliutihimayut ihuaqhaidjutit.

VS.9.4.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Ikikliyuumiutiniq, munariniq, ihuarhainiqmullu qanuriliurutingit ihumagiyauyut ikikliyuumiriami nakuungittut ayurhautingit ihuarhigiamilu nakuuyumik qanuriliurutingit.

- Inungnut-Ikajuutikhangit Munaqtiunikhainnut Piliriakhaq (SEMP) atauhiuniaqtuq maligakhanut atulirnikhanut ingattaqtailinahuarutikhanut munaqhidjutikhanullu uuktuutikhat, aktilaarlugit ihuarnirit ingattaqtailinahuarutikhanut munaqhidjutikhanullu uuktuutikhat, aktilaarlugit qanuqtut nunallaat atuqpagait aktuqtauniit (tamangnik ihuaqtut nakuungittullu), ikajuutikhat maniliurutikhanut inungnut-ikajuutikhangit pivalliadjutikhat Inuit nunanginni, pillahilugillu hungiutihimajut munaqhidjutikhait nutaat/hatqiqpaliajut inungnut-ikajuutikhangit pidjutauvaktut.
- Havaktuliqinirmut Qanuriliurutikhat piliuqtauniaqtuq iliuraqtaulunilu ihuarhigiami pihimagiamilu nunamikni Inuinnait havaktut, ihumagilluarlugu piumalluaqtait Inuinnait havaktittiniq. Havaktuliqinirmut Qanuriliurutikhat naunaiqniaqtait ayuitaminik ilauliriami ihariagiyanginnik, havaktut ikayuutingit, havaktut uqaqatigiikniq, havaamut himmautigiiktaqtumik naunaitkutat, havaktut naunaipkaidjutingit pinahuarutingit ikayuqhimmaarninngalu Havauhikhamut havaktut havaktilluni. Una ilauyuq:
- Arnaunikkut/Angutaunikkut, aajjikkiiktipkainikkut aallakkiikniqarnirnilu atugakhani turaanganiqaqtuq havaktikhaqtipkainikkut Inuinnarnik, aallaniklu Nunaqaqqaaqhimajunik inungnik, arnaniklu angikliharnikkut Havaktaujukhami havaktukhanik taapkunani ilaupkaqtitaulluangittuni inugiangnirni.
- Una Havaktini Maligutikhaq Qanuriliurnirnun ilaqaqtuq inukluguhukhimaittumik, pikallaktaqhimaittumik, pikallaktarnirnikluunniit havagvingmi atugakhami pidjutiqaqtuniklu ajuirharnirni.
- Ayuirhainiqmut Maligaq piliuqtauniaqtuq iliuraqtaulunilu ilitarigiami ihuaqtuq ayuitaminik ihariagiyangit havagiami Havauhikhami, tuniluni havaliqtinnagu ayuirhainiq Inuinnaqnut inulramiinullu (havaqatigiikhutik nunamikni sikuurvingit unalu Inuit timiqutigiyangit), iliurariamilu havakvikmi ayuirhainiq unalu ayuirhainiqmut pinahuarutit.
- Niuvirnirmut Qanuriliurutikhaq, ihumagilluaqtaa Inuit kaantraakhanut pivikhaqautikhaq, piliuqtauniaqtuq iliuraqtaulunilu ikayuriami avikturhimayuni unalu Inuit havakvingit ilaugiamikni.

VS.9.5 Aulapkaidjutikhanik Kivgaqtuidjutikhaniklu

Kitikmeoni nunallaamiutat ilitarihimajaa Nunavutip alappaarnaittumi hilami, ungahiktumi, akituvallaarninginni, naittunilu nappaqtirnirnin pidjutivaktun nappaqtirutikhanik aulapkaidjutikhanik ajurnarhivaktun nappaqtiriami munarigiamilu. Amigaitut aviktuqhimayup igluqpait utuqanguqpaliayut, igluiliuqtut amigaitut, nunallaallu piqangitut ukiutigut apqutinik uvaluuniin uiguliriinik atadjutinik. Urhuryuaqtarvinga agyaqtaqtut qakunguraangat, akituvallaangittuq, ihariagiyaungittuqlu, pipkaidjutiyuq hakugiktumik piumayut ihuarhigiami ingilraniq qakunguraikpat urhuryuaqtaffaarniq. Tamna Havaaqhaq ayungnautiqarniaqtun napaqtirutikharnik ikayuutikharniklu tamangnik ihuaqtumik ihuangitumikluuniit.

VS.9.5.1 Kiklinga

Nunavut pidjutivaktut anggiyuamik nappaktirinirmun ayuqhautimik talvamit Kanatami. Qillaminuaq hila, ungahiktuq nuna, naituq igluqpinikkut ukiuni, kikliqaqtut ikayuutit, uvalu hilap aalanguqtingniganun igluqpiniq uvalu ihuaqhainiq igluqpangnik aghut ayungnaqtuq. Amigaitut ublumi igluqpait utuqanguqpaliayut uvaluuniin avatqutugit atuqtauyut. Tamna ayungnautigivakhimayaingit nunalilihaaliqtilunik allaniklu naunairutingnik aituihimaaqpaktun ihualuangitumik inuuhinut-piyangaiyautikkut qanuritmangaangit Nunavunmi Kitikmeotmilu nunalaangitni. Talvalluaqli, ikitpallaangniit igluqhat, igluqhaqalluanggittut, inaigutikkutlu pidjutivaktut amigaittuni Kitikmeoni. Ilangit amihuuninngit ayurhaqtitauniaqtuq piqalluanginmat nunallaani aulapkaitjutikhanik havaaniklu amigaitpallaaqtumik. Nunallaat Nunavunmi inmikuuqtut ungahiktunun uvalu atadjutiqangitut attautinun uvaluuniin ilanginun Kanatami ukiutigut apqutikkut uvaluuniin uiguliriiktunun atadjutinun. Nunavut piqalluanginmat imakkut auladjutikhanik, atauhiinnarmik itiyumi tulaktaqvikhaqaqhuni Iqalungni, tukiqaqtuq amigaittut umiat uhiiyaivaktut umiaryuanut mikiyunulluuniit qayanut, amigaittullu nunat piqangittut ihuaqtunik aulavikhanik nunauyanik. Nunallaani agyaqtaqtut Kitikmeoni nunallaanginnut tadja iniqtiqtauyut umiakkut atauhiqmik malruiqtuqhuguluuniit atauhiqmi ukiumi unalu tingmitikkut agyaqtaqtut, taimaa aadlanguqtaaqtut, tuuliiqpakhutik, taimaaqtitauyulluuniit.

VS.9.5.2 Havaaqhangit Ayungnautiqarniaqtun

Tamna Havaaqhaq ayungnautiqarniaqtun napaqtirutikharnik ikayuutikharniklu tamangnik ihuaqtumik ihuangitumiklu talvuuna allanguqtirnikkut nunalaani iglukpakharnik piyaangatlu nunalaani ikayuutikharnik alruyaqtuutikharnikluuniit, allanguqtirnikkut hiniktaqvikhangit iglukhangitlu pigiaqaqtun, allanguqtirlutiklu ingilradjutikharnik nappaqtiqhimayunik, allanguqtirlunilu nunalaani umiaqtuffaaqtukharnik naitumik titiraqhimayuq ataani.

Aalaguqnigit nunagiyauyumi hanayakhanik atulaaqniginiklu inuit ikayuutainik aulajutauyunikluniit:

- Hulaqutit nunallaanun igluqpinikkut piyaangnikullu inungnun kivgaqtuutinun uvaluuniin auladjutinun nigiuktauyut tamangnun ihuaqtut uvalu ihuangitut.

- Tamna Havaaqhaq ilautitiniaqtuq nuutaamik nunami tariurmiituniklu napaqtirutikharnik taima ikayuutiginiaqtun Umiaryuangit Amiriyiit qiniqhiayiitlu (SAR) hulilukaarutikhangit, ihuaryumiqtitiyaangat aulavikharnik, aulatitiyaangatlu kavamangit maniliurutikharnik taima pidjutiqarniaqtun nunalaani iglukpakharnik nunalaani ikayuutikharnik.
- Havaaqhangit hulilukaarutikhangit aulatitiyaangatlu havaktukharnik angikliyumiqtitiniaqtun atuqtakharnik nunalaani iglukpakharnik, amigaqhuutiqaqqan ikayuutikharnik, alruyaqtuutikharniklu talvuuna nuutiqhimaaqtunik havaktukharnik talvuuna Kitikmeotmi Yalunaimilu. Nakuungittut ilakungit ayurhautingit itqurnarutauyuq mikkauvallaaqtuq, akuniraaluk piniaqtuq piyuqlu ihuangittumik utiffaalimaittumiklu qanuriliurutingit.

Aalaguqnigit hiniktaqvikhat igluukhalu qahakniginik:

- Akturningit hiniktarvikhat iglukhaqarniillu nahuriyauyut tamangnik ihuaqtut ihuidjutauyullu.
- Atukaffuktut uvalu aulaaqhimaaqlutik aulaaqtitiniaqtut amigaitqianik havaktunik, mikhiyuumigutiyut ayuqhautinik nunamingni iglutigut; Kihimi tadjakaffuk piumayut hulaqutiginiaqtaat hiniktarviit uvalu akiliqtuiyut hiniktarviit.
- Tamna Havaaqhaq ihuaryumiqtitiniaqtuq iglukharnik pigiaqaqtunik taima ihuaryumirutikharnik nunami tariurmiituniklu napaqtirutikharnik, taima ayungnairutikharnik auladjutikharnik igluqpiyukharnik hunavalungnik Kitikmeoni nunalaanun.
- Ihuangitumik ilakuit hulaqutait hiniktaqviit uvalu iglut piinagialgit itqungniaqtauyut hivituyumik, mikiyut anginiqhait, uvalu atuqtauyut tamangnun (ihuaqhaqhimayut himauhiqataqtut) uvalu ihuangitumik (hilap kinguvaqtidjutait). Hapkua ihuanginirit hulaqutait ihumagiyauyut utiffaalimaitut uvalu naunaitpiaqhutik ukiumi tatqighiutini humi hiniktaqvikhat piumayauyut Yalunaimi amigaiqpaliatilugit.

Allanguqtiqhimayuq ingilradjutikharnik nappaqtiqhimayunik:

- Hulaqutit Havaktauyumun ingilgadjutikkut igluqpait nigiuktauyut tamangnun ihuaqtut uvalu ihuangitut. Nutaaq ingilradjutikhanut nappaqtirutikhat piliuqtauhimajut Havaktaujukhamit (apqutit, tulakvikhat, imaalu tingmitiqarviit) ihuaqhijuuminiaqtait katilviudjutikhait Kitikmeoni Avikturnianni talvanillu Yellowknife.
- Tamna Havaaqhaq ihumagiyauyuq ihuangitumik ayungnautiqarniaqtun ingilradjutikharnik nappaqtirutingnik talvuuna amigairyumirutikharnik atuqtakharnik talvani TCWRmi ukiumi apqutaani tingmitikkutlu ingilradjutikharnik nappaqtirutikharnik.
- Nakuungittut ilakungit ayurhautingit mikitqiyauniaqtuq, akuniraalukmik piniaqtuq, piniaqtuq ihuangittumik piyut utiffaalimaittuqlu.

Aallannguqtirutit nunallaaqnit uqhughaqtarviit:

- Hulaqutit Havaktakhamun nunallaanun umiaqtuffaarutinun niriuktauyut nakuuyumik. Tamna Havaaqhaq angikliyumiqtitiniaqtuq nunami- tariurmilu-aulahimayunik napaqtirutikharnik talvani RAAmi ihuaryumiqtitiniaqturlu nunalaani umiaqturvikharnik talvuuna agyaqtuutikharnik hunavalungniklu talvanga Qurluqtuaryungmi Tuluqtaqvikharnik Kitikmeoni nunalaanun. Tamna agyarniq hunavaluknik hunavalukniklu Umiat Tulakvianit Kitikmeoni nunallaanginnut iniqtiqtaaqtuq inmikkut piluni talvuunaluuniit piliurninnga nutaamik havakvikmik agyariami agyariamiluuniit hunavaluknik tamayaniklu.
- Nutaaq ingilradjutikhanik nappaqtirutikhanik ikajuutauniaqtuq qakugunguraikpat ihuaqpiaktumiklu agjaqtarvikhanik tamajanik Kitikmeoni nunallaanut.
- Piqangittuq ihumagiyauyuq ilakunganik ayurhautipkaiyuq Havauhikhamut nunallaani urhuryuaqtaffaarninnga aturninnganit umiaryuakkut agyaqtaqtut unaluuniit tingmitikkut agyaqtaqtut havaat agyariami tamayat unalu Aulapkaininngit Munarininngalu uumannga Havauhikhaq.

VS.9.5.3 Angikliyuumiqtuq Qanuriliurutingit

Katitiqhimayut ayungnautiqarniaqtun napaqtirutikharnik ikayuutikharniklu ilauniaqtun tamangnik pidjutikharnik akhurutikharniklu: nuutaanik nunami tariurmiituniklu napaqtirutikharnik talvanga Havaaqharni allaniklu tautuminaqtunik pivalliadjutikharnik ikayuutiginiaqtun Umiaryuangit Amiriyiit SARkutlu atuqtauyukharnik, ihuaryumiqtitiniaqtun aulavikharnik, ayungnairutikharnik iglukharnik napaqtirutikharnik atuguminaqtunik nunalaani umiaqtuffaarutikharnik, taima aulatitihimaaqtilunik maniliurutikharnik taima ihuaryumiqtitiniaqtun nunalaani ikayuutikharnik hivunirmi. Atautikut, aulanigit atulaaqtulu nuuniginik havaktut, ukualuat Yellowknife-kut, pijutaulaaqtut hivituyumik, ikiniqhanik qitqaniitunik, utirutaulimagituniklu akhuurutauyunik nunagiyauyuni hanayakhanik, igluukhanik, aularutiniklu atuqtunik (ukualu tikmiakut aulaarutit TCWR-lu), ikayuutiniklu ayuruirutinik, ukua akturningit nahuriyauyut atuqtaulimagitut talvaniilutik hanianiluniit atuqtuni atuqtuni kiklikhaini.

VS.9.5.4 Anginiqhaq

Ilavaluit katitiqhimayut hulaqutit igluqpinikkut uvalu kivgaqtuutit uvani RAA itqungniaqtauyut angivalaangitut taimaali avatqunginmata piinagialgit aktilaangit igluqpinikkut uvalu kivgaqtuutit uvalu pidjutiqangitut angiyumik ikiliyuumiqniqmik qanuginiitigut kivgaqtuutit tuniyauyut, aulahimaaqtumik uvalu aulahimaaqtumik pihimayut, kitut mikhiyuumilimaitut tadjamin uvaluuniin nigiuktauyut pinahuagutit, atugakhat, imaaluuniit ihuaqhautikhangit maliqatqujauhimajut.

VS.9.5.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Ihuaqhaidjutiluat , munaridjutit, ihuaqhiyuumirutillu aktilaangit tapkua niriuktauyut ikiliyuumiqlugit ihuangitut ilait uvalu amigaiqpaliayut hulaqutit Havaaghamun havaaghanun maniliurnirmunlu pidjutauyut Havaaghamun ilauyut:

- Una Tingmiyukharnik Atugakhaq malikhautikharnik hiniktaqvikharnik, niridjutikharnik, aanniaqtunik ikayuutikharnik pidjutikharnik allaniklu pidjutikharnik havaktinun ilauvakhimayut talvuuna tingmiyukharnik kinguvaktilunik.
- HSSE upalungaiyaut ilauniaqtut qayangnautikkut ilihaidjutinik piyakhanik havaktunun, uvalu qayangnautikkut uvalu kiudjutikkut havauhiit.
- HMSP ilauniaqtut pittailinikkut uvalu munagidjutikkut aktilaangit aanirnikkut, aanialaqinikkut, uvalu aaniaqtailinikkut/munagidjutikkut, uvalu naunaiyaqhimayut nayugaani munaqhinikkut/aaniqtuqaqat ikayungnikkut kivgaqtuutit, uvalu qilamiuqnikkut kiudjutit ilauyut anipkaqnikkut.
- Qayangnautikkut Munaridjutit uvalu Qilamiungnikkut Kiudjutikkut Upalungaiyautit naunaiyaqniaqtait tuhaqtidjutit maligahat nunamingni qiniqhiayit uvalu CCG/CCGA, ilauyut ikayuutikkut piyakhat ikayuutitik atuqtaukpata.
- Tulaktaqvikhaq Munagidjutikharnik Upalungairutikhaq munaginiaqtait qayangnairutikharnik auladjutikharnik nanminiqaqtunik umianik aulayut haniani port.in malikhautiplugu atuqtakharnik talvani Tariumi Ingilradjutikharnik Qayangnairutikharnik Maligaq.
- Niuvigakhanik Atulirumayainik ikayuutauniaqtuq Inuinaqnik nunamilu manikhaqhiurutinik ilauniginik, atuqaarumayainik nunagiyauyumi piqutinik, ihuaqhivaaliriaganilu nunagiyauyumi manikhaqhiurutini nakurutauyunik
- Inungnut-Ikajuutikhangit Munaqtiunikhainnut Piliriakhaq (SEMP) munariniaqtait inungnut-ikajuutikhangit qanurilinganingit, nalunaiqhimalugit ingattaqtailitikhangit nakuuqpiaqtumik, titirarlugit nunalingni atuqhimajangit, unalu ikajuqhimalugit hungiutihimajut munarijangit.

WKRkut aulahimaarniaqtun kiuyaangat apiqutingnik ihumaluutigiyainiklu talvanga Kitikmiutnin, allaniklu Nunaqaqqaqhimayunik katimayiingit, allaniklu ayungnautiqarniaqtun nunalaangit talvuuna aulahimaaqtunik ilauyukharnik hanaqidjutikharnik. WKR piliurniaqtuqlu "Naunaiyainiq Ilaliutigiami Nunallaani Ihumagiyanginnik unalu Inuinnait, Nunaqaqqaarhimayut, unalu Nunallaani Ilihimaniq" nakuuyumik ilaliutigiami una akhuurutauyuq naunaitkutaq ilihimaniqlu havauhikhamut aulapkaininnganut.

VS.9.6 Pitquhiungitut Nunat, Tariumi, uvalu Ikayuutikkut Atuqtauyut

Kitikmeoni Aviktuqhimania ilalik tamatkiknik Inuit Nanminiriyai Nuna (IOL) tamnalu Kuin (Inungnut) Nuna. Agiqatiriigutautilugit uvuuna Nunavumi Nunataarutit Agiqatiriigutaini, Inuit Nanminiriyait Nunat iluaniitunik ihumaqhuutinik tikuaqtauhimayut Inuinaqnit pivaaliriagani manikhaqhiurutit pivalianiginik nakurutauyaagani nunataarutit nunataaqhimayut agiqatiriigutiqaqtut hanafaariaganilu hivumuuriaganilu Inuit nanminik ihumaliuqniginik nunani ihuaqutiniklu munarijutinik Kitikmeoni Nunami (Inuit Inuujuhiini 2006-mi).

Pitquhiungitut Nunat, Tariumi, uvalu Ikayuutikkut Atuqtauyut naunaiyaqtauyut imaa VC ihivgiuqtauyukhat haffumunga Havaaghamun. Havaaghaq pidjutiginiaqtait Inuit Nanminiit Nunait (IOL) ukualu Kuin nunait. Tamna Havaaqhaq ihumagiyauyuq ilaulukaagianganik allatqiinguyut pitquhiungitunik nunanik, imarmi, hanaqidjutikharnik atuqtunik talvuuna allanguqtiginikkut pidjutikharnik atugianganiklu nunanik hanaqidjutikharnik uyaraqhiuqtunik, allanguqtiginikkut pidjutikharnik atugianganiklu nunanik hanaqidjutikharnik nanminiqaqtunik anguniarnikkut, pulaaqtuliqiyunik hulilukaaktukharniklu, allanguqtiginikkutlu pidjutikharnik imarmun atuqtaunginaqtun tariumi aulavikharnik.

VS.9.6.1 Kiklinga

IOL piqaqtuq mikhaani 6.6 million ha uataani Kitikmeoni, 5.6 million ha piqarhuni qaangani pilaarutinik imaakiaq 1.0 million ha (15 pusantinga [%]) piqaqtuq nunap iluanin pilaarutinik. Kuin nunait aktilaangit naamavyaktuq 47 million ha uataani Kitikmeoni. Qitiqmiuni Nunami qiniqtauhimayuq taimani ukuniga gold-mik, havivaluit, piniqutikhat, platinum-guyulu hunaqaginigini hunaliqaa. Tamna Goose Uyaraqhiurvik (B2Gold Corp.) avaliituq aulayuq uyarakhiurvik Kitikmeoni. Piqaqtun qaffiuyunik hivutunirmik uyaraqhiuqtunik nalvaaqhiuqtunik havaaqharnik Kitikmeotmi.

Piqaqtuq qaffinik aquihimayunik, anguniaqtitiyit, uvalu munaqhiyut nanminiqaqtut aulayut Kitikmeoni. Hapkua nanminiqaqtut tunihiyut iqalukhiuqtitiblutik, anguniaqtitiblutik, uvalu hulilukaaqhutik atuqhimayamingnik aquiyunun aviktungniinun. Pitquhiungitut tariukkut atuqtauyut Kitikmeoni Aviktungniani ilauyut qainat hulilukaaqtut, ilauyut nanminiqaqtut qayat, kavamatkut qayat, hikumik ahiruqtirutit, uvalu mikiyut (inmi atuqtait) qayat. Maniliurahuaqtut umiat ingilrayut amihumik tikitakhamut umiakkuurniq, ukiumi umiakkut agyaqtut tamayanik Ukiuqtaqtumut nunallaanginnut, aullaaqtulluuniit (ukunatitut, umiaryuakkut umiaryuakkut) talvunga talvangalu Ukiuqtaqtumi nayugainnut.

VS.9.6.2 Havaaqhangit Ayungnautiqarniaqtun

Tamna Havaaqhaq ayungnautiqarniaqtun pitquhiungitunik nunanik, tariurmiitunik, hanaqidjutikharnik atuqtauyukharnik tamangnik ihuaqtumik ihuangitumiklu naunaiyagiikhimayut Havaaqhangit hanaqidjutikhangit hulilukaarutikhangitlu ilauyut apqutingnik havaktauyukharnik, amigairyumirutikharnik aulavikharnik pigiaqaqtuniklu, tuluqtaqvikharnik pivalliadjutikharnik, unalu ihuaryumirutikharnik inungnik talvaniitunik, naunairutikhangit naitumik titiraqhimayut:

Aallannguqtirniq nunamik aturnikhanut naunaitkutikhat:

- Kavamatuqatkut nunaqutingit unalu Inuit Nanminia Nuna (IOL) avikhimanit ikaqtauniaqtut apqutikkut tulaktaqvikhakkullu, kihimik aallangulimaittut nunamik aturnikhanut tikkuaqtauhimayut. Kitikmeot Inuit Katudjiqatigiit tautuktaat apqut nalruyut akiani Inuit Nanminia Nuna ikayuutauyuq Inuinnarnun pidjutigiyaat piqaqtitlugu anginiqhaq piyaaqniq nayugainun ataani Inuit Nanminia Nuna pidjutainun.
- Tamainun, malikhugit atulirnirit ihuaqhaidjutit, munaridjutit, ihuaqhiyuumirutillu aktilaangit, ilakuit hulaqutait aalanguqtirnirmun piyaangnirit uvalu atungnirit nunat uvalu ikayuutit uyagakhiuqtunun Havaktautilugit uvalu Auladjutit uvalu Ihuaqhaidjutit nigiuktauyut nakuulutik taimaali Havaaghaq tunihiniaqtuq piyaaqniqmik kinguani upaguminaituq nayugaa uyagakhiuqnikkut uvalu uyagakhiuqtut. Nakuuyut ilakuit hulaqutit naunaiyaqtauhimangitut hivuani.

Aalaguqnigit aturiagani atuqnigilu nunat ihuaqutilu uyarakhiuqniqmi:

- Tamna Havaaqhaq ihumagiyauyuq ihuaqtumik ayungnautiqarniaqtuq piyaangat atugianganiklu nunanik hanaqidjutikharnik uyaraqhiuqtunik taima Havaaqhaq tuniniaqtuq pidjutikharnik hivunirmi upaguminaituq nayugaani uyaraqhiuqtunik qiniqhiayaangatlu. Tamna Havaaqhaq angikliyumiqtitiniaqtuq pidjutikharnik nayugainun talvani LAA uvanilu RAA nanminiqaqtunik anguniarvikharnik, pulaaqtuliqiyunik hulilukaaktukharniklu. Nakuuyut ilakuit hulaqutit naunaiyaqtauhimangitut hivuani.
- Nakuungittut hulaqutit niriuktaujun mikijumik aktilaanganik taimaatun ilangit atuqtiit pijumaniarungnarhingmata pittailinikkut PDA-mik talvani nappaqtirnirmi amigaittuniluunniit aulapkaidjutini havagutini tulaktarvingmi haniraaniluunniit apqutimi kikliqarlunilu ukununga PDA-mun LAA-mullu. Ilavaluit hulaqutait hivikittumut (tadjakaffuk piyaarnikkut pittailidjutit uvalu mihingnautikkut ulapiqutauyut ilauyut Hananikkut hulidjutinun) hivituyumik-kikliqaqtut (mihingnautikkut ulapiqutauyut ilauyut Auladjutinun uvalu Ihuaqhaidjutinun) hivituniani, uvalu atuqtauhimaaqtut/aulahimaaqtumik atuqtauhimaaqtut. Hulaqutait qayangnaqtut pidjutigiblugit ukiutigut qanuginiit nanminiqaqtut anguniaqtut, ilauyut anguniaqtut uvalu iqalukhiuqtut. Ilakuit hulaqutit utiffaalimaitut, taimaali Havaaghaq atuqtauhimaaqniaqtuq.

Aalaguqnigit aturiagani atuqnigilu nunat ihuaqutilu manikhaqhiurutini agunahuaqniqmi, pulaaqtuliqinikut tuninguiqtirijutiniklu:

- Havaaghaq hulaqutauniaqtuq piyaangnirmun uvalu atuqnikhaanun nunap uvalu ikayuutit hapkununga nanminiqaqtunun anguniaqniqmun, aquiyunun uvalu hulilukaagutinun. Havaaghaq tunihiniaqtuq piyaaqniqmik kinguani upaguminaitut nayugait hapkununga hulidjutinun kihimi pidjutiqaqniaqtuq mihingnautikkut ulapiqutinik uvalu ihuiguhuutinik nunamun uvalu ikayuutinun atuqtunun uvalu nanminiqaqtut anguyauyut hugadjat, kitut hulaqutiginiaqtaat anguniaqnikkut nakuuyumik anguniaqtut anguniaqtitiyunun.

- Iliurainingga ikikliyuumiutinganik, munariniq unalu ihuarhainiq qanuriliurutingit, nakuungittut ilakunga ayurhautingit ihumagiyauyut mikitqiamik piyuq, kikliqaqtuq PDA unalu LAA, naittumik akuniraalukmut pitillugu unalu pihimmaaqtuq/pihimmaaqtuq pihimmaaqtuq. Ilakuit hulaqutit utiffaalimaitut, taimaali Havaaghaq atuqtauhimaaqniaqtuq.

Aalaguqnigit aturiagani atuqnigilu immavaluit taqyumi aulavigiyaagani:

- Tamna Havaaqhaq angikliyumiqtitiniaqtuq tariurmi-aulahimayunik igluqpangnik atuqtauyukhat uataani Kitikmeoni Avikturviani unalu ihumagiyauyuq ihuaqtumik ayungnautiqarniaqtun tariumi aulavikharnik talvuuna ihuaryumirutikharnik aulavikharnik ikayuutikharnik, nunauyarnik, aulavikharniklu, taima naunairutiqarniaqtun ihuaqhaidjutikharnik qayangnairutikharnik.
- Havaakhanut-pidjutiqaqtunik umiakkuurutikhanut hulipkaidjutikhat pidjutauniarunaqhiyut tadja aullavigivaktainut angiyunut qainanut ukuallu mikiyut qayat ilangilu nunamingni atuqtut pittailiniarunaqhiyut Qurluqtuaryungmi hanayautitlugu imaaluuniit umiaryuakkut aullavikhanik pilutik aallamik apqutikhamik (e.g., unngahitqiyanik hinaanit).
- Iliurainingga ingattaqtailiniqmut, munariniq ihuarhainiqmullu qanuriliurutingit, nakuungittut ilakungit ayurhautingit aulavinganut RAA-mi ihumagiyauyut mikitqiamik, naittumik-kikliqaqtuq himmautiffaaqtaaqtuqlu taimaa ittut umiaqtuqtut ilihimaliqmata piqattarninnga humungauvingillu umiat.

VS.9.6.3 Angikliyuumiqtuq Qanuriliurutingit

Havaakhaq nahuriyaunginmat aallangurnianik nuna tikkuaqtauhimayuq, ilakungit havaakhat ihuirutaungittut itqurnarutaungittut taimaitumiklu hamna pidjutaungittuq hivumuuqtitaungittuq ihumagiyauyukhaq amigaigyuumiyut titiraqhimayut. Havaktaujukhaq aallallu tautungnarhijun pivallialiurniit niriuktaujun angiklihaqjuummiqtiqlugin nunakkut tariukkullu tunnganiqaqtunik aulapkaidjutikhanik uvani Avikturhimanirmi Qaujiharnikkut Najugaani, piliurluni nakuujunik amigaiqjuummiqtirnikkut hulaqutinik ujaraghiurnikkut piqutinik pivallialiuqtinun taimaatun pimmarigharnikkut pijaarnikkut qinirhianikkut nunani tamangni IOL uvanilu Kavamatuqain nunainni. Taimaali mihingnautikkut ulapiqutauyut hamanga Havaamin attautimukniaqtut ulapiqutainun aalanin hulidjutinin, hapkua katitiqhimayut hulaqutait pitquhiungitunun anguniaqniqmun, aquiyunun, uvalu hulilukaaqnikkut itqungniaqtauyut mikiyut anginiqhait, hivituniit, aulahimaaqtut, uvalu utiffaalimaitut, kihimi pittailidjutaungitut atuqtauyut hulidjutit aulahimaaqlutik kikliitigut aktilaangit. Aadjikiivyaktuq, nutaat tulakvikhat igluqpait ihuaqhiyuumirutiniaqtut tariumi auladjutainun umianun, aquiyunun, uvalu mikiyut qainat, amigaiqyuumilugit tariumi aulayut pidjutiqangniaqtut mikiyumik, hivituyumik, uvalu utiffaalimaitut ihuiguhuutit aalanun atuqtunun; Kihimi, hapkua aalanguqtiqniit nigiuktaungitut nutqaqtilugit tamainun tariumi atungnirit aviktungniini.

VS.9.6.4 Anginiqhaq

Atulirnikhanut ingattaqtailitikhanik munaqhidjutikhaniklu uuktuutikhat, ilakungit aktuutauniit Havaakhamut katitiqhimayut aktuutauniit ilitquhikkut nunani, tariurmi, atuqtakhaniklu aturniinik itqurnarutauyut angivallaangittut. Katitiqhimayut hulaqutit ulapiqinikkut uvalu ulapiqutainun atuqtaungitut nunat, tariumi, uvalu ikayuutikkut atuqtauyut nigiuktaungitut atuqtaulutik aktilaangitigut tapkua pittailidjutiqaqtut pitquhiungitunun nunanun, tariumun, uvalu ikayuutinun atungnikkut hulidjutit taimaali atuqtauyut aulahimaalimaitut iluani RAA tadjamin aktilaangit.

VS.9.6.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Hapkua ihuaqhaidjutighat, munaridjutit, ihuaqhiyuumirutighallu aktilaangit atuliqtauniaqtut kikliqariangini hulaqutainun atuqtaungitut nunat, tariumi, ikayuutillu atuqtauyut:

- WKR pivallianiaqtun aulatitiniaqtunlu Apqutingnik Munagidjutikharnik Upalungairutikharnik, ilauyutlu malikhautikharnik apqutikharnik, tulakvikharnik, milvikharnik, aulayuniklu igluqpangnik.
- WKR munariniaqtait apqutit angirutikkut aalakiit atuqtut katimayiit. Uyaraqhiuqtunik atuqtunik pigiaqaqtun apqunmun akiliktuihimaaqtukharnik, umiat tulakvikhangit apqutingitlu atuqtauyukharnik akikhangit naunaiyagiikhimayukhat talvuuna angirutitigun tapkuninga WKRngit uyaraqhiuqtunik/qiniqhiayuniklu havakviingit. Munaqhiyut uvalu aalat inungnun kavamat atuqtut piyaangniaqtut apqunmun angigutikkut havaktauyukhat qitqani WKR uvalu ihuaqtut kavamatkut havagviit uvaluuniin timiqutait. Nunallaani atuqtiit piqarniaqtun akiittumik apqutimik aullaarnikkut ingilradjutikkullu pidjutiqaqtunik, pidjutiqarluni angirutimik maliklutik qajangnaittumik aulapkainikkut havagutinik. Atuqtut qiniqhiayut apqutinun anguniagiamingnik piyariaqaqtut hivuani angirutinik hapkunanga Kitikmeot Inuit Katimayiit ukualu Inuit Uumayuliqiyit Katimayiit (HTA).
- WKR piliurniaqtut atuliqlugillu Tulaktaqvikhat Munaridjutikhainut Upalungaiyautit maliqalugit pitquyauhimayut taffumani Tariukkut Ingilradjutikhanut Qayangnaitkutikhanut Maligaq qayangnaittumik auladjutikhainut nanminiqaqtut umiat aulayut haniani tulaktarviup
- WKR aghuuqtut angmaumayumik tuhaqtitinikkut havagvikyuanun nuatqatimingnun uvalu humi piyaaqqat atuliqlugit atadjutikkut pinahuarutit uqautigilugit kangiqhidjutit.
- WKR tuhaqtinniaqtait nunallaat havaakhat hulipkaidjutainnik ublukhainniklu, ilauyullu iluaniitut Havaakhap nunauyangit qanurinnikhainullu ilangit.

Hapkuat maliqatqujauhimajut naunaiqtauhungujut aullaranginnaqtumik ilaupkaidjutikhanik Inuit nunanginni.

VS.9.7 Heritage Resources

Ilitquhikkut ikayuutit atadjutiqaqtut pitquhiinun uvalu ingilgaaqnitatigut Kitikmiut. Ilitquhikkut ikayuutit uvalu nayugait akhut atadjutiqaqtut ukpigiyauyunun nunanun, pitquhikkut atuqtauyut, uvalu pidjutiqaqtut TLMRU hulidjutainun, tamaini qulini ukiuni, ukiuni, uvaluuniin ingilgaanin ukiuni. Ihivgiugutit ilitquhikkut ikayuutit pittiaqhugit atuqniit ilitquhikkut ikayuutit uvalu nayugait uvalu tugaaqhimayut tamaqtailinikkut hapkua iqaiyaqnikkut itqaumadjutit pitquhiqmun uvalu ingilgaaqnitatigut.

VS.9.7.1 Kiklinga

Tamna Kitikmeot Avikturnia atuqtauhimayuq inungnit qangaraalukmit, hivuani tadja nunallaat atuqtauliqtinnatik. Inuit Qauyimayatuqangit ilitagidjutigiyait Omingmaktok (nunallaaq haffuma Bay Chimo), Kingaok (nunallaaq Kingaut), Perry Rivermi (Kugyoak) hamanilu Ikaluktutiak (Ekaluktutiak) Kitikmiut katilviluangit nayugait Qurluqtuaryungmi nayugaa hivituyumik hiniktaqviuyuq nuna qaffinun Inuit ilagiinun. Amigaitut ingilgaaqnitat ihivgiugutit iniqtauyut aviktungniini, tahapkualuat ilauyut High Lake unalu Izok

Pihukvikkut havaaghat, kitut attautimun titiraqhimayut naamavyaktut 150-200 ilihimayauyut ingilgaaqnitat nayugait haniani tadjamin PDA. Tahapkuat inait ilalgit tikitpaktitni tapkuatlu atuqhimani hiniktaqvit, angunahuaqvit, inuksuit, iluviqaqvit, lithic hiamayutlu. Ilangit PDA-mi pidjutiqanginmata ingilraangnitatigut naunaiyainikkut, naunaiyautit ayuqhautit ihivgiuqtauniaqtut PDA iniqtaukpat naunaiyagiangani humi ilaliutihimayut ihivgiugutit piyakhat. Hivuniptingni ingilgaaqnitat maniqami pinahuagutit pulaaffaaqniaqtait kinguani titiraqtauyut nayugait uvalu ihivgiuqlugit ihivgiuqhimangitut nayugait, ihuaqhaqlugit (imaa pittailiniq, nunauyaq, algakniq, uvalu nunallaat ilaupkaqlugit) havaktauhimayut uqaqatigiblugit Kavamatkut Nunavunmi uvalu Inuit. Hadjamimun, haunituqavingit hanaqidjutikhangit ihivriuqtauhimangitun ilitugipkaktauniaqtunlu maligaliqiyunik talvuuna naunairutingnik katitiqhimayunik ihivriudjutikharnik.

VS.9.7.2 Havaaqhangit Ayungnautiqarniaqtun

Aalaguqnigit inuujuhiqmi ihuaqutit (ila ahiunigit ahiruqtiqnigiluniit inait iluaniitut inigiyauyulu qanurinigini) atulaaqtut ukunuga nuutpalianiginit qaaginit hulijutinit (tikilvikhat, nautiat ahivaqniginik), manikhaqniginit, algakniginit, akhaluutit aulaniginik atuqniginiklu havakviit hanayautilugit hulijutit. Aalaguqnigit inuujuhiqmi ihuaqutit atulaaqtulu agiqtauhimagitunit aktuqniginit katitiqniginikluniit igilraaqnitanik/uyaranguqhimayuniklu hanayautilugit pijutauyuniluniit hatqiqniginit nutaanik atulaaqtunik atuqtakhanik. Ulapiqiyaukpata, ilitquhikkut ikayuutit himmauhiqtaulimaitut, havaktauffaalimaitut uvaluuniin ihuaqhaqlugit.

Maliktaghaliuqtit (Pitquhiliqiyit Ingilraangnitaliqiyitlu, GN) munaqhiyut munarilugit kiklighait tamaqtailinirmun ingilraangnitatigut ikayuutit Nunavunmi. Tunihimaarniq atuqtakharnik tuniyauhimayut talvanga maligaliqiyunik ihivriudjutikharnik, ihuaqhaidjutikharnik, atuqtailinikkut katimadjutigiyaangatlu iniqtiqtauyukhat, Havagviat Pitquhiliqiyitkut Ilitquhiliqiyitkutlu ilitagihimayut piqangitun ayungnautiqaqtunik ilitquhiliqinikkut hanaqidjutikharnik.

VS.9.7.3 Angikliyuumiqtuq Qanuriliurutingit

Kinguani atuliqniitigut ihuaqhainikkut aktilaangit piyakhat hapkunanga Pitquhiliqiinin, GNkut piqangitut hulaqutainun ilitquhikkut ikayuutit nigiuktauyut. Taimaali, piqangituq piyakhanik ihumagilugit amigaiqpaliayut hulaqutit.

VS.9.7.4 Anginiqhaq

Kinguagut atuliqtaukpata ihuaqhautikhangit maliqatqujauhimajut Havagvianit Pitquhiliqijikkut, GN-kut ilakuqangittut Havaakhat pidjutaujut imaaluuniit amigaigjuumijut pidjutaujut ilitquhikkut atuqtakhat naahurijaujut.

VS.9.7.5 Ihuaqhaidjutit, Munaridjutit, uvalu Ihuaqhiyuumiqlugit Aktilaarutit

Tamna hivunikhangit ihuaqhaidjutikharnik ikikliyumiqtitiyaangat tamaqtailinikkut ilitquhingnik hanaqidjutikharnik, hunavalungnik nayugainiklu nayugainiklu nayugainiklu naunairutiqaqtunik talvuuna Havaaqhangit hulilukaaktunik. Hapkua aktilaarutit atuliqtauniaqtut pittailidjutikhat ihuangitumik hulaqutainun ilitquhikkut ikayuutinun:

- Nayugaingit talvani PDAmi naunairutingnik piqangitun ingilraangnitangnik hanigaini ihivriudjutikharnik aulaniaqtun ihivriudjutikharnik ilitagiyaangat nayugaingit.
- Naunaiyattiaqhimayut titiqat nutaat titiraqtauyut nayugait, pittaililugit nayugait humi piyariaqaqat, naunaiyaqhimayut nayugait uvalu nunauyat, qangani katitiqhimayut ingilraangnitatigut, nunallaat ilaupkaqlugit, havaknikkut munagidjutit uvaluuniin munagiyauyut ingilgaaqnitat algaklugit nayugait uvaluuniin ilangit nayugait havaktauniaqtut uvalu ikayuutauniaqtut ilihimanikkut pihimayut hapkununga aviktuqhimayut ingilgaaqnitat uvalu haunituqatigut naunaitkutit.
- Hivuniqhutit ihumagiyaunigilu pipkagauyut atuqtitlugu ilauniq atuqniqaqtut ilitquhiliqutit piqaqnit, ilautitlugit inait katitiqvit inait iluviilu atuqpiaqnialu qimiq, ihumagiyauniaqut atuqtitlugu tuhagakhat ilaguinaqnit naunaiyaqni naunaiqnialu qanuritnit qanuritnitlu inituqlituqat maniqami havagutit.
- Taima kingulirmi ilihimayaungitun ilitquhiliqinikkut hanaqidjutikhangit nayugait akhurnaqtun ilitagiyaugumik talvuuna hanayautilunik auladjutikharnik ihuaqhaidjutikharnik hulilukaaktunik, nalvaaqhiyaangat malikhautikharnik aulatitiniaqtun, ihuaqtumiklu ihuaqhaidjutikharnik uuktuutikhangit iliugaqtauniaqtun uqaqqatigilugit GNkutni talvuuna ilaulukaarnikkut Kitikmiutmiunun.

VS.9.8 Inungnun Avatingnun Hulaqutinun Uqaqtait

Ihivgiugutit pidjutauniaqtut haffumunga Qurluqtuaryungmi Apqutikhaa uvalu Tulaktaqvikhaq Havaaq haffumunga TLMRU, niqailiuqnikkut uvalu ataniuniqmun, nunallaat aaniaqtailinikkut uvalu inuuhiqattiaqnikkut, havaaghat uvalu maniliugutit, igluqpinikkut uvalu kivgaqtuutit, atuqtaungitut nunat, tagiumi uvalu ikayuutikkut atuqniit, uvalu ilitquhikkut ikayuutit ilakuit hulaqutait uvalu amigaiqpaliayut hulaqutit itqungniaqtauyut angivalaangitut.

VS.9 ᐃᓄᐃᑦ ᐊᕐᓂᑎᖏᑦ

ᐃᓄᐃᑦ ᐊᕐᓂᑎᓪᓚᑕ ᐊᖏᑕᓂᓪᓚ ᐃᓗᓕᖅᑐᑐᖅ ᐃᓅᑉᖢᑎᒋᔭᓂᕐᒧᑦ ᑭᓇᐅᔭᓕᕆᐅᕋᓱᓂᕐᓗᓪᓗᓕᒃ ᐊᐅᓂᑎᖏᑦᓂᑦ ᐱᓕᕆᔨᑦ ᐊᖑᓪᓚᕆᐊᖃᓪᓚᑦᓯᓂᑦ, ᓱᓇᓗ ᓄᓇᐅᑦ ᐊᑐᖅᑕᐅᓂᓪᓚ, ᐃᓕᓴᐹᓱᓕᒧᑦ ᓱᓕᓂᔭᐅᔪᑦ, ᐃᖅᖢᓇᐃᒃᖢᓂᖅ ᐱᖅᔪᓱᑐᖅᑎᒍᑦ ᑭᓇᐅᔭᖅᑎᑦᓯᓚᖅᑐᑦ, ᓂᕆᑦᓴᖢᑦᓱᐊᕐᓂᕆᑦ, ᖃᓄᐃᓕᖅᑐᑦ ᖃᓄᐃᖅᑎᑦᓯᓚᖅᑐᑦᓯᓚᖅᑐᓪᓗ, ᐱᓕᕆᖃᑎᒌᒃᓴᓂᕐᓂᕐᓗᓪᓗ. ᐃᓄᐃᓐᓄᑦ ᐊᓱᐊᕐᓄᓪᓗᓂ ᓄᓇᖃᖅᖢᖃᓱᓕᔪᓄᑦ, ᐊᕐᓇᐅᔭᓕᖅᓴᓂᖅ ᐃᓕᓴᐹᓱᓕᒧᑦ ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦ, ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦᓯᓚᖅᑐᓪᓗᓂᓪᓗ. ᐃᓄᐃᓐᓄᑦ ᐊᓱᐊᕐᓄᓪᓗᓂ ᓄᓇᖃᖅᖢᖃᓱᓕᔪᓄᑦ ᐃᓕᓴᐹᓱᓕᒧᑦ ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦ ᐊᓱᐊᕐᓄᓪᓗᓂ ᓄᓇᖃᖅᖢᖃᓱᓕᔪᓄᑦ, ᐊᐅᓇᐅᔭᓕᖅᑐᑦ ᐃᓕᓴᐹᓱᓕᒧᑦ ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦ, ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦᓯᓚᖅᑐᓪᓗᓂᓪᓗ. ᐃᓄᐃᓐᓄᑦ ᐊᓱᐊᕐᓄᓪᓗᓂ ᓄᓇᖃᖅᖢᖃᓱᓕᔪᓄᑦ, ᐊᐅᓇᐅᔭᓕᖅᑐᑦ ᐃᓕᓴᐹᓱᓕᒧᑦ ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦ, ᐃᓕᓴᐹᓱᓕᒧᑦᓯᓚᖅᑐᑦᓯᓚᖅᑐᓪᓗᓂᓪᓗ. ᐃᓄᐃᓐᓄᑦ ᐊᓱᐊᕐᓄᓪᓗᓂ ᓄᓇᖃᖅᖢᖃᓱᓕᔪᓄ

ᖃᑎᖅᑎᐅᓪ ᐅᓄᕐᓚᕐᓴᐅᓪ ᑕᒪᖅᑎᑦ ᐃᓄᐃᑦ ᓇᖕᒥᓂᕐᓂᑦ ᓄᓇᐃᑦ (IOL) ᐊᐃᒪ ᒪᓕᒪᑐᖅᑲᓄᑦ (ᑭᖑᓂᐅᐃᓐᓇᖅᓂᑦ) ᓄᓇᕐᓄᑦᓯ. ᐊᐅᓚᖅᑎᑦᔪᑕᐅᑎᓐᓂᒍ ᓄᓇᓕᖅᑎ ᓄᓇᑦᓂᓕᒧᑦ ᐊᖏᖅᖃᑎᑦᔪᑎᖅᑲᓄᑦ, ᐃᓄᐃᑦ ᓄᓇᕐᓄᑦᓂᑦ ᓄᓇᐅᓕ᙮ ᖃᖅᓯᒪᑕ ᐊᑕᓐᓂᑐᓄᑦ ᐱᔪᓐᓇᐅᓂᓐᓂᑦ ᓂᑭᐊᖅᑕᐅᓕᐅᖅᓴᑦ, ᐃᓄᖕᓂ ᓄᓇᕐᓄᑦᓂᑦ ᓄᓇᐅᓕ᙮ ᐊᖏᖅᖃᑎᑦᔪᑎᖅᑲᓄᑦ ᐱᓕᕐᓂᑐᓄᑦ ᓄᓇᑦᓂᓕᒧᑦ ᓄᓇᑦ ᐊᒪᒍ ᐃᑲᔪᑎᑲᓄᑦ ᐊᐅᓪᓚᑦᑎᓂᑦ ᓄᓇᑦᓂᓕᒧᑦ ᓄᓇᑦ ᐊᒪᒍ ᐃᑲᔪᑎᑲᓄᑦ ᐊᐅᓪᓚᑦᑎᓂᑦᑐᓂ

TLMRU LAA ᐃᓗᓕᖅᑐᖅ 5 ᑭᓯᒥᑕᓂᐅᑦ ᓴᐳᓗᑕᒥᐅᑦ ᐊᓂᔪᐅᕕᓪᓗᓂᒃᓴᓂ PDA-ᒥ, ᐊᖏᕐᓯᖓᓪᓗᓂᒃᓴᓂ LAAs ᐃᑲᔪᖅᓯᐃᓂᕐᒧᑦ ᐅᒪᓂᖅᖁᖅᑐᓄᑦ VCs (ᐊᓂᖅᓴᖅᑐᑎᐅᕐᕿ ᐱᐅᓂᖏᓐᓄ, ᓂᐱᖏᓐᓄ ᐊᒻᒪ ᐊᐅᓪᓚᓂᖏᓐᓄ, ᓄᓇ, ᐃᓕᔪᖅ, ᐊᒻᒪ ᖃᓄᖏᔭᐃᓂᓇᐅᕐᓴᖅᑐᖅ, ᐱᑭᖅᑐᑦ, ᐅᒪᔪᓂ ᐊᒻᒪ ᐅᒪᔪᓂ ᓇᔪᖏᓐᓄᑦ, ᐊᒻᒪ ᐃᒪᕆᐅᑕᑦ ᐊᐸᑎᖏᓐᓄᑦ) ᐊᒻᒪ ᓄᓇᐃᑦ ᑐᕋᐃᓇᖅᑐᑦ (ᓄᓇᓕ, ᓇᔪᖏᓐᓄᑦ ᐊᓯᐅᐸᓪᓚᐊᔪᑦ) ᐊᒻᒪ ᑐᖏᓐᓕᕐᓂᐊᖅᖁᓪᓚᑐᑦ (ᓄᓇᓕ, ᐃᐅᐱᑎᕐᓄᑦ ᐱᓕᕆᓂᖅ) ᐊᐅᑐᐃᓵᔪᑕᐅᔪᑦ ᐱᓚᓀᐊᒧᑦ TLMRU-ᒧᑦ ᓴᖅᑭᑐᐃᓇᓀᐊᓚᓂᒃ. ᑕᐅᓇ LAA ᓂᕆᐅᓴᖏᕐᓂᐊᖏᓪᓗᑦ ᐊᒻᒪ ᓂᕆᐅᖏᕐᓂᐊᖏᓪᓗᑦ, ᓄᓇᓚᓐᓂ ᐋᓐᓂᐊᖏᖅᓯᖓᓪᓗᑦ ᐊᒻᒪ ᖃᓄᐃᙱᑦᑐᕐᓂᐊᖏᓪᓗᑦ, ᐊᐅᓚᔪᓇᐅᑎᓄᑦ ᐊᒻᒪ ᐱᔪᕐᑎᕐᓂᐊᖅᑎᓄᑦ, ᐊᒻᒪ ᐃᓚᖓᑕᖅᑐᑎᓄᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐊᓚᖓᑕᖅᑐᑎᓄᑦ ᐊᒻᒪ ᑭᓇᐅᔭᐅᓪᓚᕆᐊᖏᓪᓗᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐊᒻᒪ ᐃᓚᖓᑕᖅᑐᑎᓄᑦ, ᐊᒻᒪ ᐃᓕᓴᐅᓂᖅᑐᑦ ᐱᓕᕆᓂᖅᑐᑦ ᐊᒻᒪ ᐱᔪᕐᑎᕐᓂᐊᖅᑎᓄᑦ, ᐊᒻᒪ ᐃᓚᖓᑕᖅᑐᑎᓄ

ᐃᑲᔪᑕᐅᔨᓐᓇᖅᑐᓂᒃ ᐊᓯᔾᔨᕈᑕᐅᔨᓚᓄᑦ TLMRU−ᒧᑦ ᑕᐅᑐᒍᖏᓪᓗᐊᑕᖅᓯᓚᑦᓗ ᖃᐅᔨᓴᖅᓂᖏᑦ ᐱᔨᓐᓇᖅᓱᐃᑲᐅᔨᓂᒃ ᖃᑎᖅᑎᐅᓚᓄᑦ ᐊᓯᖏᓐᓄᓪᓗ ᐊᑐᖅᑕᐅᔨᓯᒪᔨᓚᓄᑦ ᓄᓇᖃᖅᐲᖅᓯᒪᔨᓚᓄᑦ ᐱᑕᓇᖅᑎᑦᓚᓄᑦ ᑲᔪᓯᓚᑎᑦ ᐊᑐᖅᓯᓚᑎᑦ ᓄᓇᒥᑦ ᐱᖅᑯᔭᑐᖅᑕᖅᑯᓂᒃ ᐃᓗᓕᖅᑎᓂᒃ ᑕᒪᐃᓐᓇᑦ ᐱᓕᕆᔨᒃᑯᓂ−ᐊᐅᑐᐊᓂᓕᖅᓂᒃ ᐊᒻᒪ ᑲᑎᕐᕕᖏᓐᓂᐊᑐᖅᓂᒃ.

TLMRU−ᓄᑦ VC−ᒧᑦ ᖃᐅᔨᓴᖅᓯᓂᖅ ᑕᐅᑐᖅᑕᖅᓯᐊᑕᖅᑐᖅ ᐃᓂᓂᒃ ᑕᒪᕐᓄᐋ ᑭᑎᖅᑕᐅᔨᓚᓄᑦ ᐊᓯᖏᓐᓇᕗᑦ ᐊᐅᑐᖅᑕᐅᔨᓯᒪᔨᓚᓄᑦ ᓄᓇᖃᖅᐲᖅᓯᒪᔨᓚᓄᑦ ᑲᑎᕐᕕᖏᓐᓂᐊᑐᖅᓂᒃ TLMRU−ᒧᑦ ᐱᓕᕆᔨᐊᖅᓯᒪᓂᒃ. ᖃᐅᔨᓴᕈᑕᐅᓂᖅᑐᖅ ᐊᐅᑐᖅᑕᐅᔨᓴᖅᓯᒪᓕᐅᖅᑕᐅᓚᓄᑦ ᐱᓕᕆᔨᐊᖅᓯᒪᔨᓚᓄᑦ ᐊᐅᑐᖅᑕᐅᔨᓯᒪᔨᓚᓄᑦ ᐱᓕᕆᔨᐊᖅᓯᒪᔨᓚᓄᑦ TLMRU−ᓄᓇᓕᒃ, ᓯᓚᑐᓪᓕᖅᑐᖅᑕᐅᔨᓯᒪᔨᓚᓄᑦ ᐱᓕᕆᔨᐊᖅᓯᒪᔨᓚᓄᑦ TLMRU−ᓄᓇᓕᒃ, ᓯᓚᑐᓪᓕᖅᑐᖅᑕᐅᔨᓯᒪᔨᓚᓄᑦ ᐱᓕᕆᔨᐊᖅᓯᒪᔨᓚᓄᑦ ᐊ

- ᑕᒪᐃᑎᒍᑦ, ᓴᓇᕗᓂᖅᓯᐅᑎᑦᓯᒍ ᐊᐅᓪᓚᑕᐅᓂᖅᓱᓚᓗ ᐊᑐᖅᑭᐅᒪᑎᑕᐅᓂᖅᓱᓚᓗ, ᐊᑐᓕᖅᑎᑕᐅᓪᓚᕗᖅᑎᑦᓯᒍᓗ ᐊᕼᑐᐃᓗᖅᑕᐃᓕᓕᑎᑦᑎᓂᖅ, ᐱᐅᔪᓕᐊᖅᑎᑦᑎᓂᖅ, ᐊᐅᓪᓚᑦᓂᖅᔪᒍᑦᓯᓗᓪᓕᐅᕐᓂᑦ ᐅᕼᑐᑎᑦᑎᓂᖅ, ᐊᒥᐊᕼᑦᓯᓄᐃᐃᓕᑦ ᐊᕼᑐᑎᑦᑎᓂᖅ ᐱᓕᕆᓂᐊᒍᑦ ᐊᕼᐅᑦᑐᖅ, ᐅᓄᐅᓂᖅᑐᐅᓂ, ᑐᓄᐅᖅᑲᐃᓕᓂᖅᓱᓚᓗ ᐃᓕᐅᖅᑕᐅᔪᓄᑦ ᐱᐅᓂᖅᑕᐅᓪᓚᐊᓕᖅᓱᓚᓗ ᐊᕼᑐᖅᑕᐅᑐᐃᓄᖅᓱᓚᓗ ᐊᕼᑐᑎᑦᑎᓂᖅᓱᓚᓗ ᓄᓇᖅᑲᕼᓕᓕᑎᑦᑎᓂᖅ ᑲᑎᖅᑕᓕᕆᔨᒃᑯᑦ TLMRU ᓇᓕᐅᑦᑕᖅᑕᐅᔪᑦ ᐱᐅᖅᑭᓂᓪᓚᑐᓂ ᐊᑎᑎᑦᑐᑎ ᐊᒋᓂᓂᖅᓯᖅᑐᒍᒪᔨᓗ ᐊᖏᓂᓪᓚᑐᓂ ᐃᓗᓕᔪᑦ PDA-ᒥ, LAA, ᐊᑦᒪ RAA, ᖃᓄᐃᒪᐅᓴᒋᑦ (ᓄᑦᓗ, ᓴᓇᕗᓂᖅᓯᐅᑎᑦᓯᒍᓗᐊᖅ) ᐊᒋᓂᓂᖅᔪᒍᑦ (ᓄᑦᓗ, ᐅᖅᓚᖓᓕᐊᖅᑕᐅᓗᓂᓂ ᐊᐅᓕᑎᑦᓴᓂᓂᐊᖅᑕᑦ ᐊᑦᑭᐱᒪᔨᓴᓂᓂᓗ), ᓂᓕᐅᑎᑦᐅᔪᑦ ᐊᓯᔨᓴᑦᓴᐅᓗᓂᑦ (ᓄᑦᓗ, ᐃᖅᑲᓇᐃᔨᖅᓴᖅᑐᐅᓕᓕᐅᑦᑲᑦ ᐅᕐᖏᓖᓂᓪᓚᑐᓂ ᖃᓄᐃᒪᐅᓴᒋᑦ ᐃᓚᐅᑦ ᐃᓕᓕᐅᑦᑲᑦ ᐊᓯᔨᓴᑦᓗᓂᑦ) ᐅᑎᖅᑎᑦᓴᑦᓴᐃᓕᓕᐅᑦᑲᑦ (ᓄᑦᓗ, ᐱᓕᕆᓂ᐀ ᐃᓗᓕᐅᑦᑲᑦ ᐅᖏᓖᓂᓪᓚᑐᓂ ᐊᑐᖅᑭᐅᒪᑎᑕᐅᓪᓚᕗᖅᑎᑦᓯᒍᓗ ᐊᕼᑐᑎᑦᑎᓂᖅᓱᓚᓗ

- ᐱᐅᖏᑦᑐᑦᓂᐅᔪᑦ ᐊᓯᔾᔨᖅᓂᐅᔾᔪᑦ ᐊᑐᖅᑕᐅᔾᔨᓇᖅᑐᓇᓄᑦ, ᐃᓂᒋᔭᐅᔾᔪᑦ, ᐃᓂᓇᓕᒻᒥᓂᐅᔾᔨᓂᐅᓚᐅᑎᓕᓗᒍ ᐊᐅᓪᓚᑕᐅᓂᖓᓄᓕᒫᓂᖅ ᑲᐃᒪᐃᔾᔪᑎᖅᑎᓂᖅᓴᓕᒫᓂᖅ ᐱᓕᕆᓂᖅᓴᓂᖅ ᐃᓕᓴᕐᓂᖅᓴᓂᖅ ᐃᓕᓴᕐᓂᖅᓴᓂᖅᓯᒪᓕᖅᑐᑦ

VS.9.1.3 ᑲᑎᕿᓪᓕᐊᔪᑦ ᐊᐅᑐᑎᔪᑦ

ᑲᑎᕿᓪᓕᐊᔪᑦ ᐊᐅᑐᐃᓂᐅᔪᑦ TLRMU–ᒧᑦ ᓂᕆᐅᕈᑲᐅᔪᑦ ᐱᐅᙱᕈᑐᑐᒥᐅᑦ ᐊᑎᐅᑐᑐᒪᓗ ᐊᑯᓂᓂᖅᓴᖅᑐᒪᑦ ᐊᙱᑉᐸᑎᓂᐅᔪᑦ TLRMU–ᒧᑦ ᓂᕆᐅᕈᑲᐅᔪᑦ ᓴᖅᑭᓂᐊᑎᓂᖅᓯᓂᐅᓂᖅᐳᓂᐅᑦ ᑕᐃᒪᐃᓱᐊᑎᖅᑎᓂᑐᑎᓗ ᐊᐅᑐᖅᓴᐅᔪᔪᓂᒃ ᐃᓕᓴᐅᐊᑎᓂᓗᒍᓪᓗ ᐸᒃᓱᓴᑕᐅᔪᓂᒃ RAA–ᒥ. ᐱᐅᙱᕈᑐᑐᒃ ᑲᑎᕿᓪᓕᐊᔪᑦ ᐊᐅᑐᐃᓂᐅᔪᑦ TLMRU–ᒧᑦ ᓴᖅᑭᕿᓪᓕᐊᔪᑦ ᐊᙱᑉᐸᑎᓂᓕᖅᓴᐅᐊᑎᖅᑐᑦ. ᖃᖓᑲᑯᔪᓂᖓ ᐊᑐᙱᕈᑐᑐᖅ, ᑭᓯᐊᓂ ᐱᐅᓂᖓᓗᓂᒃ, ᐅᓂᔪᓂᕈᑎᓂᒃ, ᐅᐟᙵᔪᓂᐅᑦ ᑐᓂᐅᖅᑲᖅᑕᐅᓂᕈᑎᓂᒃ ᐃᑲᔪᑎᑦᓴᓂᑦ ᐃᓕᒥᐅᑦ ᐅᐟᙵᔪᓂᐅᑦ ᐱᐅᓂᖓᓗᓂᒃ TLMRU–ᔪᓂᒃ, ᐅᓕᓯᐃᓐᓂᐅᑦ ᐱᐅᓂᖓᓗᓂᒃ ᐱᓕᕆᔨᑐᑐᒃᑐᑦ TLMRU–ᒧᑦ ᐱᐅᓂᖓᓗᓂᒃ ᐱᓕᕆᔨᑐᑐᒃᑐᑦ. ᐃᒪᐃᓂᓂᕿᑦ ᓂᕆᐅᓇᖅᑐᑐᖅᑐᑦ ᐊᒪᒪ ᑐᓵᓯᕈᑎᑦᓂᐅᑦ ᐊᐅᑐᖅᑐᑦᑕᐃᓕᓗᑎᒃ ᐊᐅᑐᖅᑐᑦᓂᑦᑕᐃᓕᓗᑎᒃ ᐅᓕᖅᑭᑦᓂᐅᑦ

- WKR-ᓄᑦ ᐱᓕᕆᖃᑎᖃᓕᑕᐅᒪᔭᑦ ᖃᑎᖅᑎᐅᓂᖅ, ᓄᓇᓕᖓᓂᖅ ᐊᓯᖏᓐᓂᕐᓗ ᐱᖃᖃᑕᐅᔨᓂᖅ ᐃᖅᑭᑦᐱᔪᒪᓕᕐᓗᑎᑦ ᐱᓕᕆᐊᖅᑐᑦ ᒪᓕᓂᑎᐊᖅᑐᑦ ᐊᐃᓴᓪᓚᐅᔪᓐᓇᖅᑐᑦ ᐱᓕᕆᐊᖅᑐᑦ ᓂᕆᐅᑎᔾᔪᐅᔨᓂᓗ. ᓄᓇᓕᓂᑦ ᑐᓴᕆᐊᖅᓯᖃᖅᑕᑦᑐᓂᐊᖅᑐᑦ ᐱᓕᕆᖅ ᐃᖏᓐᖁᓂᒪᓐᓇᖅ. WKR-ᓄᑦ ᐱᑎᑎᖃᑦᑕᖅᓂᐊᖅ>ᑦ ᓱᓪᒪᖅᓄᑕᑎᓗᑎᑦ ᐱᓕᕆᐊᖅᓯᓂᕐ ᓄᑦᖃᓐᓂᖅᓯᒪᔨᓂᖅ, ᑭᐅᔭᓕᑕᐅᔨᓂᖅ ᐅᖃᐅᓯᐅᓯᒪᔨᓂᖅᑕ, ᑐᓴᖅᑕᐅᔪᖅᓴᓂᓪᓗᓪᓕ ᐊᓯᖏᖅᑕᐅᓂᖅ ᐃᖅᑲᐅᓂᖅᓴᓂᖅᓗᓂᖅᑐᑦ ᐊᐱᕐᖅᐸᓪᓕᐊᔨᓂᖅ ᐃᖅᑲᓇᐃᔾᔪᖅᓴᓂᖅ ᐊᐱᕐᖅᐸᓪᓕᐊᔨᓂᖅ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᓄᓇᕗᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᑐᓴᐅᔪᖅᑐᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐃᓕᓴᐅᔪᖅᑐᑦ ᐃᓕ

VS.9.2.1 ᐃᓱᒪᓂᖅ ᐱᖁᑎᖓᓚᐅ

ᓂᕆᐺᖏᑦᑎᐊᖁᓂᖅᓯᒪᑦ ᐊᖏᒪ ᓂᕆᕆᖏᑦᑎᐊᓕᐊᖏᖁᓂᖅᓯᒪᑦ ᖃᐅᔨᐺᖁᓂᖅ ᐃᓱᒪᒋᔭᖏᖁᓕᐅᕐᓂᑦ ᐊᓱᔨᑐᐃᓐᓇᓕᐊᓕᖅᓂᖅ ᓂᕆᑐᖏᐃᓕᖅ ᐱᓕᕐᓚᕐᔪᓐᓂᖅ ᐊᖏᒪ ᓂᐅᕐᐃᒪᐺᐅᓂᑦ ᓂᕆᓕᓚᔪᐅᑎᓐᓂᑦ ᓂᕆᑕᓚᔪᐅᑎᓐᓂᑦ ᐱᓕᕐᓚᕐᔪᓐᓂᖅ ᐊᖏᒪ ᐊᐅᓕᑕᐅᑎᓐᓂᑦ ᐊᖏᒪ ᐊᐅᓕᑕᐅᑎᓐᓂᑦ ᐊᖏᒪ ᐃᓕᓴᐅᒪᔭᐅᑎᓐᓂᑦ ᐊᖏᒪ ᐊᐅᓕᑕ

- ᐅᓄᑭᓂᓚᐊᖅᓱᒪᓕᕆᓂ ᐃᓕᐅᖅᑕᕐᑐᑐᑐᑐᓂ ᓂᕆᔨᓕᑕᒃᓴᓂ ᐱᓕᕆᔨᓴᓵᓂ ᐊᖏᑎᓕᓕᒫᐊᖅᑎᑎᑎᐱᓂᓇᖅᓴᖅ ᐃᓄᖓᓂ ᐃᓚᒋᐅᐳᖅᑎᒋᔭᓚᓗ ᑕᑎᖅᑎᓂᖅᓴᐳᓕᕆᓂᓗᑎᑦ ᓂᐅᐃᖅᑕᐅᓂᐅᓂ ᐊᓯᔪᓐᓇᒋᑦ ᐊᑐᖅᑕᐅᓂᖓᓂ ᓂᕆᑭᓂ (ᓱᓂᓗ, ᒥᔨᓕᐊᖅᑎᑎᓗᓂᑦ ᐊᐻᒪᐃᓐᓂᑦᓂᓂᔨᓂᓚᓗ ᓂᕆᑭᓂᓕᕆᑦᑦ ᖃᓄᐃᑦᑐᓂᓂᓚ ᓂᕆᑭᓕᕆᓂᓗᑎᑦ ᐅᓄᖓᓂᐊᖅᓴᐳᓂᓂ ᓂᕆᑭᓂ ᐱᔨᓴᑦ). ᐊᓯᐊᔪᓐᓇᖅ, ᐱᔾᒥᑦᓴᐅᓂᖅᓴᐅᓂᖅᓂᓂᓄᓂ ᓂᕆᑭᓂᓕᕆᑦᑦ, ᐊᖏᒪᓗ ᐃᓄᓕᖅᑕᐃᑦ ᓂᕆᑭᑦ ᐃᓱᒪᒋᑦᓴᐅᓂᖅ ᑎᑎᒧᑦ ᐱᐅᓂᖅᓴᐅᓂᖅᓂᓂᓄᑦ, ᓄᑦᑎᐊᖅᔪᓐᓇᖅᓴᐅᓂᖅ, ᐊᖏᒪᓗ ᓄᓇᒥᓐᓄᑦᓂᖅᓴᐅᓂᖅᓂᓂᓄᑦ ᓂᐅᐃᖅᑎᖅᓚᖓ ᓂᐅᐃᖅᑕᐅᓱᓂᑦ, ᓄᑦᑎᖅ ᐊᖅᔨᓂᑎᒋᐅᓂᐊᖅᑎᑐᖅ ᓴᖅᑭᑕᐅᓕᐅᖅᑐᖅ ᐱᓕᕆᐊᒧᑦ LAA-ᒥ ᓄᓇᒥᑦ ᐊᑐᖅᑎᓂᑦ, ᐃᓕᐅᔨᓕᓂᑎᑦ ᐃᓄᖓᓇᑦ ᒪᑦᔨᑐᓕᓗ, ᐊᖅᔪᓐᓇᒧᑦᓂᓂᓄᑦ ᓄᓇᒥᑦ, ᐊᖏᒪᓗ ᑕᐃᒪᐃᓂᖅᓄᓕᕆᑦ, ᐅᓄᖓᓴᓕᕆᓂᓗᑎᑦ ᓂᕆᑭᓂᓕᕆᑦᑦ ᐅᓂᒃᑯᑦᓂᓗᑎᑦ ᐊᖏᔪᓂᖅᓴᐅᓂᖅᓂᓂᓄᑦ ᓄᑦᑎᐅᑦᓂᓗᑎᑦ (ᐊᖅᔪᓄᔨᖃᐅᔨᓴᓇᖅᑐᓄᓕᑦ), ᐊᖑᓕᐊᔪᓐᓇᓂᓗᑎᑦ (ᓱᓕᕐᓗᓂᐊᖅᑐᓂᖅᓄᓕᑦ, ᐊᖏᒪᓗ ᑕᐃᒪᐃᓂᖅᓄᓕᑦ ᐊᑐᖅᑕᐅᓂᖅᑎᑦ ᐅᐸᒃᓴᑦ ᐊᓴᐅᖅᓴᐅᓂᖅᓄᓕᑦ, ᓱᓕᓗ ᑐᐃᑐᐃᑦ), ᐱᓕᕆᐊᖅ ᐊᖅᑐᐃᑐᐃᓴᓇᕆᐊᖃᖅᓴᖅᓄᓕᑦ ᓂᕆᑭᓂᕆᑕᓂᖅ ᐊᖅᑐᐃᑐᐃᓴᓇᕆᐊᖃᖅᓴᓐᓂᓗ ᐱᐅᓂᖅᑐᓂᖅ ᐃᓱᒪᒋᑦᓴᐅᓂᖅᓂᓂᓄᑦ ᓂᕆᑭᓂᕆᑕᓂᖅ (ᓱᓂᓗ ᓱᑕᕐᓗᑐᖅᑐᐃᖅᑎᖃᖅᑐᐃᓂᖅ), ᓱᓂᒋᑎᐅᓂᖅᑐᐃᖅᑎᖃᖅᑐᐃᓂᖅ ᐊᑐᖅᑕᐅᓂᖅᑎᑦ ᐅᐸᒃᓴᑦ ᐱᓕᕆᔨᓴᓵᓂ ᑐᖃᖅᑎᐅᓂ ᐱᐅᓂᖅᑐᐃᓂᖅᓄᓕᑦ ᐊᑐᖅᑕᐅᓂᖅᑎᑦ ᐅᐸᒃᓴᑦ ᐱᓕᕆᔨᓴᓵᓂ

VS.9.2.4 ᐅᑦᐸᖅᓭᓐᓂᑦ

ᐊᑐᓕᖅᑎᑕᐅᑎᓪᓗᓂᑦ ᐊᑦᑐᐃᓗᐊᖅᑕᐃᓕᓕᒋᑎᓂᖅ, ᐱᐅᓂᒋᐊᖅᑎᑎᓂᖅ, ᐊᓱᒪ ᐊᐅᓪᓚᑦᑎᓂᖅᓴᖓᑦ ᐅᑦᑐᑐᕈᐅᑎᑦ, ᐊᒥᐊᑦᑯᓐᓄᐃᐃᑦ ᐊᑦᑐᐃᐅᓂᐅᓴᖅ ᐱᓕᕆᐊᖓᑦ ᐊᓱᒪ ᑲᑎᒪᓪᓕᐊᓂᖅ ᐊᑦᑐᐃᐅᓂᐅᓴᖅ ᓂᕆᐸᖅᓴᖅ ᐊᓱᒪ ᓂᕆᖏᐃᐅᓐᓇᕐᓇᖅᓴᖓᑦ ᓂᓗᐅᑎᓴᐅᓴᖅ ᐅᑦᐸᖅᓚᐊᖅᓴᖅᓴᖅᓂ ᓯᖏᓐᓄᐃᒪ ᓴᖅᐳᑎᑎᒥᖅᓴᖅᓴᖅᓂ ᑲᓱᓂᓚᖅᑐᒥᑦ ᐊᓱᒪ ᐅᓇᕐᓂᖅᓱᓕᕆᐊᖅᑕᐅᖅᓴᖅᑎᓪᓗᒥᑦ ᐊᑐᐃᐅᓇᐅᔪᓂᖅ ᐊᓱᒪ/ᐅᕐᓂᓚᓂᓕᒃ ᐱᐅᓇᓯᑲᐅᔪᓂᖅ ᓂᕆᖏᓕᒥᑎᖅ ᐅᕐᓂᓚᓂᓕᒃ ᐅᑦᑐᕋᖓᑦᓴᖅᐳᖅᑎᑦ ᐊᓯᐃᓴᖅᑐᓂᖅ ᓂᕆᐸᖅᓴᖅᓴᖅᓂ ᐃᓇᓕᓐᓂ ᒥᑦᓯᓕᖅᑕᐅᔪᓇᖅᑕᑎᓂᖅ ᐃᓕᓇ ᓂᓗᐅᑎᑲᐅᔪᓂᖅᓱᓂᓚᓂᓕᒃ ᐱᓕᕆᐊᖅᓴᖅᓂᒃ, ᐊᑐᐊᖅᓴᖓᑦ, ᐅᕐᓂᓚᓂᓕᒃ ᐱᓕᕆᐊᖅᓴᖅᓂᒃ.

VS.9.2.5 ᐊᑦᑐᐃᓗᐊᖅᑕᐃᓕᓕᒋᑎᓂᖅᑎᓂᖅ, ᐊᐅᓪᓚᑦᑎᓂᖅᑎᓂᖅ, ᐱᐅᓂᒋᐊᖅᑎᑎᓂᖅᓴᓗ

ᐱᓵᓗᐊᑕᐃᑦ ᐊᑦᑐᐃᓗᐊᖅᑕᐃᓕᓕᒋᑎᓂᖅᑎᓂᖅ, ᐊᐅᓪᓚᑦᑎᓂᖅ, ᐱᐅᓂᒋᐊᖅᑎᑎᓂᖅᓴᓗ ᐅᑦᑐᑐᕈᐅᑎᑦ ᓂᓗᐅᑎᑲᐅᔪᓂᖅᓱᓂᓚᓂᓕᒃ ᐃᓕᓴᕐᓂᖅᑎᓂᖅᑐᑦᓯᓂᖅᑐᓂᖅ ᐱᐅᖅᑎᑦᑐᓂᖅ ᐊᒥᓂᖅᑐᑦᓯᓂᖅᑐᓂᖅ ᐊᑦᑐᐃᓗᐊᖅᑕᐃᓕᓕᒋᑎᓂᖅᑎᓂᖅᓴᓗ ᐊᑦᑐᐃᓗᐊᖅᑕᐃᓕᓕᒋᑎᓂᖅᑎᓂᖅᓴᖓᓂᒃ ᐱᐅᓇᓱᐊᖅᑐᓂᖅᓴᖅᓴᖅᓂ ᐃᓕᓴᕐᓂᖅᑎᓂᖅᑐᑦᓯᓂᖅᑐᓂᖅ

VS.9.3 ᓄᓇᕗᒻᒥ ᐊᓂᒪᓂᖅᓴᖅᑕᕐᑐᑎᓕᕐᓂᖅ ᐊᒻᒪ ᐃᓅᓯᑎᐊᕐᓂᖅ

ᑕᓪᓗ ᐊᒻᔪᖅᓯᒪᓂᖓ ᖃᐅᔨᓴᖅᑐᖅ ᖃᓄᖅ ᕿᔪᓐᓇᖅᑐᐊᕐᕕᒃᑐ ᐊᖅᔨᑎ ᐊᒻᒪ ᑐᓭᓐᑕᕐᓴᐅᑦ ᐊᓂᒍᑐᐃᓐᓇᐅᓴᖅᑎᓪᓗᒍ ᓄᓇᕗᒻᒥ ᐊᓂᒪᓂᖅᓴᖅᑕᕐᑐᑎᓕᕐᓂᖅᑎᑦ ᐊᒻᒪ ᖃᓄᐃᖅᑕᕐᑎᐊᑭᓯᕐᓂᖅᑎᑦ ᖃᑎᖅᑎᐅᓄᑦ ᐊᒻᒪ ᓴᓇᓀᐊᒃ (ᐱᓕᕆᐊᖅ) ᐊᐅᑐᐃᑐᐃᓀᐊᕐᖃᖅᓴᖅᑎᓪᓗᒍ ᐊᒻᒪ ᖃᓄᐃᖅᑕᕐᑎᐊᑭᓯᕐᓂᖅᑎᑦ ᐊᒻᒪ ᖃᓄᐃᖅᑕᕐᑎᐊᑭᓯᕐᓂᖅᓴᓐᓂ ᐃᓕᖃᖅᐳᖅ ᐃᓕᓴᖃᑎᒌᖅᑐ

- ᐊᑐᖅᑎᑕᐅᑎᓪᓗᓂᑦ ᐊᐅᑐᐃᓗᐊᖅᑕᐃᓕᓕᑎᑎᓂᖅ, ᐊᐅᓪᓚᑦᑎᓂᖅ ᐊᒻᒪ ᐱᐅᓯᕆᐊᖅᑎᑎᓂᖅᓯᖏᑦ ᐅᐸᑐᕋᐅᑎᑦ, ᐱᐅᙵᕐᑐᑦ ᐊᒥᐊᐳᑯᑦ ᐊᐅᑐᐃᓗᐊᖅᑐᑦ ᐊᑎᑎᐅᑦᑐᓂᖅᓯᖏᓪᓗᑦ ᐊᐳᑐᕋᕆᐊᖅᑎᑦ ᐊᐅᓪᓚᑦᑎᓂᖅᓯᖏᓪᓗᑦ ᐊᖏᕐᓂᖅ ᐊᖏᕐᓂᓕᕆᐊᖅᑎᓪᓗᒍ ᐱᓕᕐᓂᖅᓯᖏᓪᓗᑦ ᐃᓐᓇᐃᓐᓂᖅᓯᖏᓪᓗᑦ ᐊᐅᓪᓚᑦᑎᓂᖅᓯᖏᓪᓗᑦ ᐊᐅᓪᓚᑦᑎᓂᖅᓯᖏᓪᓗᑦ ᐊᒻᒪ ᓚᓐᓄᑕᐅᐸᐃᑐᑦ ᐱᓕᕐᓂᖅᓯᖏᓪᓗᑦ ᐊᐅᑐᑎᑕᐅᓂᖅᓯᖏᓪᓗᑦ ᐊᐅᓪᓚᑦᑎᓂᖅᓯᖏᓪᓗᑦ ᐊᒻᒪ ᓚᓐᓄᑕᐅᐸᐃᑐᑦ ᐊᐅᓪᓚᑦᑎᓂᖅᓯᖏᓪᓗ

- ᓂᑭᑦᑕᖅᓴᓂᒃ ᐃᖅᑲᓇᐃᔨᓂᕐᓗᑦ ᐊᑦᑭᒃᑕᐅᓯᒪᔪᑦ ᑕᖏᒧᖅᓯᐦᐃᓕᓐᓄᑦ ᐊᓪᓚᕆᐅᑦᓄᓂᒃ ᖃᒪᐃᓯᒪᔪᓂᖅᓴᓂᖅ ᐱᓕᕆᓂᖅ ᐃᓕᓴᐅᔪᓂᖅ ᐃᓚᒌᒃᑲᓐᓂᕆᐅᑉ ᐊᑐᓂᓚᐅᐊᖅᑎᓂᖅᓴᓂᖅ ᐊᑐᓂᓚᐅᐊᖅᑎᓂᖅᓴᓂᖅ ᐊᑐᓂᓚᐅᐊᖅᑎᓂᖅᓴᓂᖅ (ᓯᓚᓗ ᐊᒥᓱᓕᕆᓂᖅᓴᓂᒃ ᐊᑐᖅᑕᐅᓂᖅᓴᓂᖅ) ᐅᓇᐅᑉᓚᐊᓗᐅᔪᓚᓗ ᐃᖅᑲᓇᐃᔨᖅᑎᓄᑦ ᐱᐅᓂᖅᓴᓂᖅ ᐊᑐᓂᓚᐅᐊᖅᑎᓂᖅᓴᓂᖅ ᐃᓚᒌᒃᑲᓐᓂᕆᐅᑉ ᐊᑐᓂᓚᐅᐊᖅᑎᓂᖅᓴᓂᖅ

ᐊᓯᔨᕃᑐᑦ ᓄᓇᓕᖅᓂ ᐊᒻᒪ ᓇᖕᒥᓂᖅ ᐊᑦᑕᕐᓇᖅᑕᐃᓕᓕᓂᖅ:

- ᐱᓕᕆᐊᖅ ᐊᐅᑐᐃᓂᖅᑐᐃᓇᕆᐊᓕᓕᐅᕐ ᓄᓇᓕᖕᒥᑦ ᐊᒻᒪ ᓇᖕᒥᓂᖅ ᐊᑦᑕᖕᓇᖅᑕᐃᓕᓕᒪᑎᑦᑎᓗᓂ ᐃᖅᑲᓇᐃᔪᖏᓐᓄᑦ ᖃᓄᐃᓕᖕᓂᖅᓱᓄᑦ ᐱᓕᕆᓐᓂᒃᑯᑦ ᐃᖅᑲᓇᐃᔭᑦ ᐹᓇᐅᔪᓕᐊᓄᓕᓪᓕᐊ.
- ᓂᑭᑦᑕᖅᓯᓂᐅᑦ ᐃᖅᑲᓇᐃᔪᖏᓂᖓᓕᒫᑦ ᐊᖏᑭᑕᐅᔨᓕᕆᓂ ᐊᒻᒪ ᑕᖏᒪᖅᓯᖓᕐᒫᑦ ᑐᑕᑦᓇᖅᑕᐃᓕᓕᒪᓂᖓᓕᒫᑦ ᐃᓕᓴᕐᓂᐅᐊᕐᓇᖅᑐᖅ>ᑦ ᐱᐅᖏᑦᑐᓂᐅᑦ ᐃᓕᓴᒪᓕᐅᕐᓇᓂᑦ ᐊᒻᒪ ᓴᖅᑭᑦᓯᐊᕐᓂᐅᑦ ᓇᑦᑐᖅᑕᐅᔨᓕᕆᓂᖅᑐᑦ ᐃᓕᓴᒪᓕᐅᕐᓇᓂᑦ ᓱᓕᓗ ᐅᓪᓗᓂᖅᑎᑎᑦᑕᒥᖅᓯᓂᖅ, ᐊᒻᒪ <ᓚᐲᐱᓇᓂᖅ. ᐱᓕᕆᐊᒧᑦ–ᐊᐅᑐᐃᓂᓕᒫᑦ ᑭᓇᐅᔨᓕᕆᓂᐊᕐᓂᖓ ᐃᓕᓴᕐᓂᐅᑐᐃᓇᕆᐊᓕᓕᐅᕐ ᐃᓕᓴᒪᓕᐅᕐᓇᓂᑦ ᐅᓇᖅᓯᓂᐅᑐᐃᓇᕆᐊᖅᑐᑦ ᑕᓪᓕᐊᓂᖅᓯᓂᐅᑦ ᐊᑐᖅᑕᐅᓂᖅ ᐊᑦᑕᕐᓇᖅᑕᐃᓕᓕᒪᓂᖓᓕᒫᑦ.

- Grays Bay ᐊᖅᑯᑦ ᐊᒻᒪ ᖃᐅᔨᓴᖅᑐᐊᖃᕐᓂᖓᓂᕐᒥ ᑐᓴᐅᑦᑕᖃᓄᑦ ᓴᓇᓕᐃᒥ ᑭᓯᐅᖅᑎᑕᐅᓕᕆᔨᖅᑐᖅ ᐅᑭᐅᓕᖅᑯᑦ ᐊᖅᑯᑦ, ᐊᐅᑕᒥᐅᓂᐊᕐᓂᖓᓂᕐᒥ ᐊᐅᓚᑦᑕᐅᓂᖓᓂᕐᒥ WKR–ᑯᓘᓄᑦ ᑕᒪᐃᓘᑦ ᖃᐅᔨᓴᖅᑐᐊᖃᕐᓂᖓᓂᕐᒥ ᑐᓴᐅᑦᑕᖃᓄᑦ ᐊᒻᒪ ᔨᐅᑎᑯ ᑐᓴᐅᑦᑕᖃᓄᑦ ᐃᒥᐊᓪᓘᓂᓪᓕ LAA–ᒧᑦ ᐊᑐᖅᓯᓂᑦ ᐱᓕᕆᐊᒧᑦ ᐊᐅᓚᓯᘁᓄᑦ. ᐊᒻᒪᓗᑲᑲᘁᓂᕐᑕᐅᖅ, ᖃᐅᔨᓴᖅᑐᐊᖃᕐᓂᖓᓂᕐᒥ ᐊᖅᑯᑦ ᐊᑦᑐᐊᓂᖅᑲᓐᓂᕐᓚᖅ ᓇᓚᐊᐅᑕᐃᓘᑦ ᓄᓇᓕᖕᓂᑦ ᖃᑎᖅᑎᐅᓂ, ᑕᒪᘁᓇᓗ ᓂᓪᐅᑦᑎᐅᑦᑕᓗᓂ ᐃᓯᓚᑦᑎᓂᑎᑎᓂᖅᓗᓂᖅᑐᑦ ᓇᒧᓐᓄᑕᐅᑎᓂᑎᓪᓗᓂᖅᑐᑦ ᐊᒻᒪ ᐅᑎᖅᑎᐊᑲᐅᑎᓂᖅᑐᑦ ᐊᐅᓚᑦᑕᐃᔪᖏᓂᖓᓂᕐᒥ ᐊᑐᖅᑕᐅᓂᖅᑐᑦ ᐊᑐᖅᑕᐅᓂᖅᑐᑦ ᐊᐅᓚᑦᑕᐃᔪᖏᓂᖓᓂᕐᒥ

- ᐊᓂᖏᓴᖅᑐᑎᐅᐸ ᐱᐅᓂᖅᓯᓄᑦ ᐃᑦᖁᑭᐅᒪᔨᓕᐅᕆᓂᖅ ᑕᑯᖏᐅᑎᑦᑎᐅᓐᖅ ᐊᐅᓪᑕᐅᓂᖅᓯᓂ ᐊᒻᒪ ᐃᑦᖁᑭᐅᒪᑎᑕᐅᓂᖅᓯᓂ ᖃᓄᐃᖅᑐᑦᑕᐊᖏᖓᑕ, ᐱᑕᖅᖃᓂᖅᑎᑦ NO2, SO2, PM10 ᐊᒻᒪ PM2.5 ᐃᓗᐊᓂᒃᑲᖅᑐᑦ 'ᐱᐅᔨᖏ' ᖁᓇᐃᑦᑐᓂᖅ AQI ᖁᖅᓯᓪᓚᑎᑎᐊᖅ. ᓴᑦᑎᐊᖏᐅᑕᖅᖃᓂᖅ SO2, PM10 ᐊᒻᒪ PM2.5 ᑎᑭᑦᑐᒃ ᖃᓄᐊᖅᓴᓇᕐᓇᖅᓯᖅ, ᐃᑦᑭᐸᓂᒪᔨᑦ ᐱᑕᖅᖃᓂᖅᑎᑦ ᐊᑦᓯᓪᓚᐊᓪᓚᒪᑎ ᐃᓂᓂᐊᖅᑎᖅᑕᑦᑐᓪᓚᐅᓂᖅᓯᒪᑦ ᑲᑐᔪᖅᑎᓯᓇ ᐊᓂᖅᓴᖅᑐᑎᐅᐸ ᐱᐅᓂᖅᓯᓇ ᒪᓪᑐᑕᐅᓂᓕᓂᐊᖅᑐᑐᓂ. ᓴᑦᑎᐊᖏᐅᑕᖅᖃᓂᖅ NO_2–ᒧᑦ ᐊᑦᑎᖅᑐᑎᑦ ᖃᓄᐊᖅᓴᓇᕐᓇᖅᓯᖅ, ᐊᑦᔨᖅᓴᓪᓚᓂᐅᖅ ᓴᓇᔭᐅᓂᓕᓂᐊᖅᑐᓪᓚᔭᔪᔪ, ᐊᖅᑐᐊᓂᖅᖃᓂᓪᓚᐅᓂᖅ ᐃᓕᖅᑭᖅᑐᓂ ᐊᔨᔪᖅᑎᓂᖅ ᐊᓂᖅᓴᖅᑐᑎᓂᓪᓚᖅᑎᓂ ᐊᐅᓂᖅᓴᖅᑐᑎᓂᓪᓚᖅᑎᓂ ᐃᓕᖅᑭᖅᑐᑎᓂᓪᓚᖅᑎᓂ ᐊᐅᖅᓯᕐᓚᐅᕕᒃᓴᐅᔪᓂ. ᑕᐃᒪᐃᖅᑲᐊᑦᖁᑎᓪᓚᔭᔪᔪ, ᑕᑯᔪᖅᓯᓂᐅᖅᑐᑦ ᐃᓕᖅᑭᖅᑐᑎᓂᓪᓚᖅᑎᓂ ᐊᐅᓂᖅᓴ

ᐃᓱᒪᓂᖅᑎᑎᓂᖅ ᐅᓂᒃ ᐅᖃᐅᓯᖅᑐᖅ ᐅᑭᐅᓂᖅ ᐊᒻᒪᓗ ᐅᓪᓗᓕᕆᐅᔪᓂᖅ ᐱᓇᓱᐊᖅᓂᖅ ᐱᒋᐊᖅᑐᖅ ᐱᓕᕆᓂᖅ ᐊᒻᒪᓗ ᐃᓕᐅᖅᓯᖅᓴᖅ ᐃᓄᐃᑦ ᐃᓄᖅᑎᑐᑦ ᐊᐅᓚᑦᓯᖅᓯᖅ ᐱᓕᕆᓂᖅᓴᖅ ᐃᓕᓴᓕᖅᓯᒪᓂᖅ ᐊᒻᒪᓗ ᐅᑭᐅᓂᖅᓴᖅ ᐃᓕᓴᓕᖅᓯᒪᓂᖅ ᑕᑯᓂᓂ ᐃᓱᒪᓂᖅᓴᖅ ᐊᐅᓚᑦᓯᖅᓯᖅ ᐱᓕᕆᓂᖅᓴᖅ
ᐱᔪᓐᓇᖅ ᐊᐅᓚᑦᓯᐊᖅᑐᖅ ᐊᒻᒪᓗ ᐅᑭᐅᓂᖅ ᖃᓄᐃᓕᐅᑎᓯᓂᖅ ᐱᓕᕆᓂᖅᓴᖅ ᐊᐅᖃᐅᓯᖅᑐᖅ ᐃᓕᓴᓕᖅᓯᒪᓂᖅ ᑕᒪᔨᓂᓂ ᐃᓱᒪᓂᖅᓴᖅ ᐊᐅᓚᑦᓯᖅᓯᖅ ᐱᓚᑌᓚᐅᖅᑎᑎᓂᖅ ᐃᓕᓴᓕᖅᓯᒪᓂᖅ ᑕᒪᔨᓂᓂ ᐃᓱᒪᓂᖅᓴᖅ ᐊᐅᓚᑦᓯᖅᓯᖅ ᐱᓚᑌᓚᐅᖅᑎᑎᓂᖅ

VS.9.3.5 ᐊᒃᑐᐃᓕᐊᖅᑕᐃᓚᑎᑦᑎᓂᖅ, ᐊᐅᓪᓚᑦᑎᓂᖅ, ᐱᐅᔪᒋᐊᖅᑎᑦᑎᓂᔭᓕ

ᐱᓪᓗᐊᑕᐃᑦ ᒥᒃᓯᒋᐊᖅᑎᑦᑎᓂᖅ, ᐊᐅᓪᓚᑦᑎᓂᖅ, ᐱᐅᔪᒋᐊᖅᑎᑦᑎᓂᔭᓕ ᐅᒃᑐᑐᐅᑎᐅᑦ ᓂᓚᐅᒋᔨᐅᔪᑦ ᒥᒃᓯᒋᐊᖅᑎᑦᑎᓂᑲᓚᑦᓂᖅᓴᒃᓂᒃ ᐱᐅᖏᑦᑐᓂᒃ ᐊᒥᐊᒃᔨᓂᒃ ᐃᒃᑐᖅᒋᓂᐅᔪᓂᒃ ᐱᓪᓗᐊᑕᖏᓐᓇᖅ ᓄᓇᓕᖓ ᐁᒃᓂᐊᖅᑕᖅᓴᕐᑐᑦᑐᓂᓕᑦ ᖃᓄᐃᓕᖅᑕᐅᓇᓕᖅᑎᓪᓗᓂᒃ ᓴᖅᑭᑦᑐᓕᓂ ᐱᓪᓗᐊᑕᖏᓐᓇᖅ ᐅᔨᓂᖓ ᐁᒃᓂᐊᖅᑕᖅᓴᕐᑐᑦᑐᓂᓕᑦ ᖃᓄᐃᓕᖅᑕᐅᓇᓕᖅᑎᓪᓗᓂᒃ ᐃᓕᓴᓕᖅᓯᒪᓂᖅ ᐱᓪᓗᐊᑕᖏᓐᓇᖅ ᐅᔨᓂᖓ

- ᐊᐅᓪᓚᖅᑕᑦᓂᓕᑦ ᐊᑐᐊᒃᓴ ᐃᖅᑲᓇᐃᕐᑎᖅ ᐊᐅᓪᓚᖅᑕᓪᓕᐊᓂᖅ ᐱᓪᓗᐊᐊᒥᑦ ᐃᓂᒥᑦ ᓂᓚᓕᑦ ᐱᐅᓂᓵᓂᓂᕆᓂ ᓄᓇᕗᒻᒥᓂ. ᐊᐅᓪᓚᖅᑕᑦᓂᓕᑦ ᐊᑐᐊᒃᓴ ᐃᓕᖅᑎᓂᐊᖅᑐᑦ ᑐᓴᕆᐊᑎᓂᒃ, ᓄᓇᓵᐊᑎᓂᒃ, ᐊᑐᓂᓕᑦ ᓄᓇᕗᒻᒥᓂ ᐁᓵᓂᐊᐃᕐᒥ ᐱᓵᑎᑭᐅᑎᓂᒃ, ᐊᓂᖏᓵᓂᓪᓚᓗ ᐱᓕᐅᓴᖅᓚᐊᓕᒻᒥᓂᒃ ᐃᖅᑲᓇᐃᕐᑎᖅᑎᓂᒃ ᐊᐅᓪᓚᖅᑕᐅᓇᓕᖅᑎᓪᓗᓂᒃ ᐊᐅᓪᓚᖅᑕᓪᓕᐊᓂᖅᑎᓪᓗᓂᒃ ᐅᕐᓴᐅᓕᖅᑕᐅᓇᓕᖅᑎᓪᓗᓂᒃ
- ᐃᓕᓴᓂᐊᖅᑎᑦᑎᓂᓪᓗᓂᒃ ᐱᓕᕆᓚᐅᖅᓯᒪᔪᓂᒃ ᐃᖅᑲᓇᐃᕐᑎᖅᑎᓂᒃᓯᓚᐅᖅᑎᓂᒃ ᐃᓕᖅᑎᓂᐊᖅᑐᑦᑐᓂᓕᑦ ᐁᓵᓂᐊᐃᕐᒥᓂᒃ ᐱᓕᕆᓚᐅᖅᑎᓪᓗᓂᒃ ᐃᓕᓴᓕᖅᓯᒪᓂᖅᑎᓪᓗᓂᒃ ᐊᐅᓪᓚᖅᑕᐅᓇᓕᖅᑎᓪᓗᓂᒃ ᐃᓕᓴᓕᖅᓯᒪᓂᖅᑎᓪᓗᓂᒃ ᐊᐅᓪᓚᖅᑕᓪᓕᐊᓂ

- ᐃᖃᓄᐊᕕᖃᑎᓂᒃ ᐃᓕᓴᐅᔨᓂᕐᒧᑦᓯᓚᖓᓂᖅᓴᓂᖅᓯᒪᑦ ᓇᓗᓇᐃᔨᔪᑕᖅ ᐃᓕᐅᑎᑦᑎᔪᖅ ᐃᓕᐃᓐᓇᖅᓯᐅᕐᓂᖅᓯᒪᑦ, ᓴᖅᔭᕐᓂᖅᓯᒪᑦ, ᐸᑲᓇᕐᓂᖅᓯᒪᓕ ᐃᖃᓄᐊᕕᕐᕕᖅᑕᒪ ᐊᑐᐊᒪᖅᓯᒪᑦ ᐅᐃᑐᖅᓯᒪᑦ ᐱᓕᒪᓐᓇᖅᓯᒪᑦ
- ᐸᑲᕕᓂᖅᑕᐃᓕᒪᓂᖅ ᐋᐃᓂᖅᓴᓂᓗᓂᒃ ᐃᖃᓄᐊᕕᕐᕕᖅᑕᒪ ᐊᑐᐊᒪᐃᓕᑦ, ᐱᓕᒃᓴᐅᓕᑦ ᐊᒻᒪ ᐱᓕᒪᓐᓇᖅᓯᒪᓂᖅ
- ᐅᓴᕐᓂᓕᕆᕕᖅᑕᒪ ᐊᑎᑕᕐᓇᖅᑐᑦᓯᒪᑦ ᐱᓕᓐᓄᓴᑦ ᐊᒻᒪ ᐃᓕᓴᐅᔪᓂᑦᓯᒪᑦ ᐊᐅᓚᑦᑎᓂᖅ
- ᓄᓇᓕᑦ ᐃᓚᐅᑎᑕᐅᓂᖏᓐᓄᓕᑦ ᐸᑦᓇᐅᑎ ᐱᖅᑕᑕᑦᓯᐊᑎᓐᓂᑦ ᖃᒪᑎᕐᖅᑕᖅᓯᐊᑎᓐᓂᑦ ᓄᓇᓕᖓᓂ ᐃᓕᓚᑎᕐᐅᔪᓂᖅ, ᐃᓕᒧᓗᑕᐅᔪᓂᖅ, ᐊᒻᒪ ᐅᖅᐱᓗᑕᐅᔪᓂᖅ.
- ᐱᙵᐸᓴᐃᑦ ᐃᓂᓕᔾᐅᔪᒥ ᓄᓇᖅᖁᖅᑐᖅᑐᓄᕐᓂᑦ ᐃᖃᓄᐊᕕᖅᑎᑎᕐᐅᔪᓄᑦ ᐃᓚᐅᑎᑕᑎᓂᐊᑦᓯᓗᑎᓐᓂᑦ ᓄᓇᓕᖓᓂ ᐃᓕᓐᓄᑦ ᐱᑎᑕᑎᓐᓂᑦ ᐊᑕᓕᕐᓇᐊᑦᓯᓗᑎᓐᓂᑦ ᐊᑐᕐᓇᖅᑐᓂᖅᓴᓂᓗᑎᓐᓂᑦ ᐊᒻᒪ ᐅᖅᐱᓗᑕᐅᔪᓂᖅ.
- ᐱᙵᖅᓴᐃᓐ ᐃᓂᓕᔪᐅᒥ ᓄᓇᖅᖁᖅᑲᖅᑐᖅᑕᓄᕐᓂᑦ ᐃᖃᓄᐊᕕᖅᑎᑎᕐᐅᔪᓄᑦ ᐃᓚᐅᑎᑕᑎᓂᐊᑦᓯᓗᑎᓐᓂᑦ ᓄᓇᓕᖓᓂ ᐃᓐᓇᑦᓂᖅᓯᒪᑦ ᐱᑎᑕᑎᓐᓂᑦ ᓄᓇᓕᖓᓂ ᐃᓐᓇᑦᓂᖅᓯᒪᑦ ᐱᑎᑕᑎᓐᓂᑦ ᐊᑕᓕᕐᓇᐊᑦᓯᓗᑎᓐᓂᑦ ᐊᒻᒪ ᐅᖅᐱᓗᑕᐅᔪᓂᖅᓯᒪᑦ ᐱᙵᖅᓴᐃᓐ ᐃᓂᓕᔪᐅᒥ ᓄᓇᖅᖁᖅᑲᖅᑐᖅᑕᓄᕐᓂᑦ ᐃᖃᓄᐊᕕᖅᑎᑎᕐᐅᔪᓄᑦ ᓄᓇᓕᖓᓂ ᐃᓐᓇᑦᓂᖅᓯᒪᑦ ᐱᑎᑕᑎᓐᓂ

VS.9.4.2 ᐱᓕᕆᐊᒍᑦ ᐊᐢᑐᐃᓗᐯᑎᑦ

ᐱᓕᕆᐊᖅ ᐊᐢᑐᐃᐃᓂᖏᓐᓂᐊᖅᑐᖅ ᐃᖅᑲᓇᐃᔨᓂᐢ ᐊᒻᒪ ᒪᑭᒪᔨᔪᑎᐢᖏᓂᐢ ᑕᒪᐃᓐᓂᐢ ᐱᐅᔪᐢᑯᑦ ᐱᓕᕆᐊᖅᑐᑦ ᐃᓕᓴᐅᔪᓂᖅᑐᑦ, ᐊᓐᓂᕐᕿᔨᑐᑦ ᐅᓄᖅᓯᒪᓕᕐᓂᐊᑎᐢ ᐊᒻᒪ ᐃᓯᑐᓇᕐᓂᖏᐊᐅᓕᕐᓂᐊᑎᐢ, ᑐᓕᐢᑕᕐᓇᐅᖅᑕᕐᓂᐊᑎᐢ, ᐊᒻᒪ ᐃᓄᓐᓂ ᐱᑕᖅᓂᖏᐊᐅᓕᕐᓂᐊᑎᐢ, ᖃᓄᐃᓕᓐᓄᑦᓂᓂᑦ ᓇᐃᔨᓕᕆᐊᖅᓯᒪᔪᓂᐊᑎᐢ ᐃᒪᓐᓂᐢ.

ᐊᓯᔪᓐᓂᐅᔨᑦ ᐱᓯᔪᓕᕆᔨᓕᓂᖅ ᐊᒻᒪ ᐱᐃᓴᖅᓂᐊᑦ:

- ᐱᓕᕆᐊᖅ ᓂᕆᐅᑎᔪᐅᔨᖅ ᐃᑲᔨᐱᖅᑯᓂᐊᖅᓂᔭᓂᑲᓂᐢ ᐱᐅᔨᐢᑯᑦ ᐊᐢᑐᐃᓂᐅᔨᓄᑦ ᐱᓯᔪᓕᕆᔨᓕᓂᖅᑎᑦᑑᑦ ᐊᒻᒪ ᐱᐃᖅᓂᐅᔪᖅᓂᐅᔨᔪᓂᐢᖏᓂᖅ. ᐱᓕᕆᐊᓄᑦ ᖃᓄᐃᓕᐅᕈᑕᐅᔨᑦ ᐊᒻᒪ ᐊᑭᓕᐅᑎᑦ ᐱᐢᑯᑎᓄᑦ, ᐱᐢᑯᑎᓄᑦ ᐊᒻᒪ ᐱᐃᑦᑎᑭᐅᑎᓄᑦ ᐅᓄᖅᓯᒪᓕᕆᐊᓂᐊᖅᓂᐢᑑᑦ ᑭᓄᐅᓕᔪᓂᐊᖅᓂᐢᖏᓂᐢ ᐱᓕᕆᐊᖅᑐᓄᑦ, ᐃᑲᔨᑎᑦ ᐊᐢᑲᔪᒍᓂᐢ ᐃᓕᓴᐊᓂ ᓴᖅᑭᑎᑕᐅᔨᓂᖅᑐᑦ (GDP), ᐊᒻᒪ ᐃᑲᔨᑎᑦ ᕼᐊᐢᒪᓕᓄᑦᑯᓂᓄᑦ, ᓄᓇᕗᒻ ᐊᒻᒪ ᑲᓇᑕᒥ ᒪᓂᒪᑦᑯᑦ ᑭᓄᐅᓴᖅᑕᑦᓯᐅᔨᓂᐊᖅᓄᑦ. ᐱᓕᕆᐊᖅ ᐃᑲᔨᖅᑕᐃᔨᓄᓇᕗᖅ ᐊᖏᓂᖅᓴᓂᐢᖏᓂᐢ ᑕᔪᓚᓴᐅᔨᓄᑦ ᖃᑎᖅᑎᐅᓄᑦ ᐊᒻᒪ ᓄᓇᕗᒪᒧᑦ.

- ᐱᓕᕆᐊᑦᓴᐅᑦ ᐊᓇᓴᐅᓂᖓ ᐊᒻᒪ ᐊᐅᓪᓕᐊᑦᑐᓂᐢ ᐅᑦᑭᑭᐅᒪᔨᓕᓂᐢ ᐊᐅᓪᓕᐊᑦᑐᓂᐢ ᐊᐅᖅᓯᒪᓂᑕᑦ ᐃᖅᑲᓇᐃᔨᓕᓂᖅᑐᑦ ᐊᒻᒪ ᐃᖅᑲᓇᐃᔨᓕᓂᖅᑐᑦ ᐊᐅᓪᓕᐊᑦᑐᓂᐢ

ᐊᓯᔨᕐᓂᖅ ᐃᓕᓴᓂᐊᕐᓂᓕᕆᓂᐅᑉ ᐱᓕᒪᓴᕐᓂᕐᓗ:

- ᐱᓕᕆᐊᖅ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐃᑲᔪᑎᖅᓂᐊᕐᓂᖅᓱᓂᒃ ᐱᐅᔪᓂᒃ ᐱᐅᙵᒋᑕᒍᓂᒪᓗ ᐊᑲᑐᐃᓂᐅᔪᓂᒃ ᐃᓕᓴᓂᐊᕐᓂᕐᓕᑦ ᐱᓕᒪᓴᕐᓂᕐᓗᓪᓗᓂ. ᐱᓕᕆᐊᖅ ᓂᕆᐅᒋᔭᐅᔪᖅ ᓴᖅᑭᑎᓯᓂᕐᒥᑦ ᐱᐃᖅᑐᓂᐅᔪᓂᑦ ᐃᓕᓴᓂᐊᕐᓂᕐᓕᑦ ᐱᓕᒪᑕᕐᓂᕐᓗᓪᓗᓂ, ᐅᓄᖅᓯᓂᓯᓂᕐᒥᑦ ᐃᓕᓴᓂᐊᕐᖁᑕᐅᓂᕐᓕᑦ ᐱᓕᒪᓕᕐᓂᕐᓗᓪᓗᓂ ᐱᓕᕆᐊᓄᓂ. ᑭᓯᐊᓂᑕᐅᖅ, ᐱᓕᕆᐊᔪᓴᓂᓪᓕᐊᑐᓂ ᐃᖅᑲᓇᙵᕐᓂᒃ ᐃᓕᓴᓂᐊᕐᖁᑐᐃᓂᕐᒪᓂᒃ ᐃᖅᑲᓇᐃᕆᑕᕐᓂᓗᒍ ᐃᓕᓴᓂᐊᕐᓂᖅᓱᓂᒃ.
- ᐊᑐᓕᖅᑎᑕᐅᑎᓪᓗᒋᑦ ᐊᔪᑐᐃᓗᕐᖁᑕᐃᓕᒥᑎᒋᑎᓂᖅᓱᖅ, ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅ, ᐊᓘᒪᒪ ᐊᐅᓪᓚᑦᑎᓂᖅᓱᓕᒫᑦ ᐅᐊᑐᑕᖅᑐᓂ, ᐊᒥᐊᓂᒃᑯ ᐊᔪᑐᐃᓗᕐᖁᑕᐃᓕᒫᑦ ᐱᓕᒪᓴᕐᓂᕐᓗᓪᓗᓂ ᐊᓯᔨᕐᓂᖅᓱᓂᒃ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ.
- ᖃᓄᖅᑐᐃᓐᓇᖅ ᐱᐅᙵᒋᑕᐅᓂᒃ ᐊᔪᑐᖅᓯᓂᐅᔪᓂᒃ ᐃᓕᓴᓂᐊᕐᖁᑕᐃᓐᓇᑦᑎᓂᒃ ᖃᓄᖅᓯᓂᐅᓪᓚᖅᑐᓄᓂᒃ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐅᒥᐊᓂᒃᑯ ᐅᑎᓂᐅᑦᑎᓂᒃ ᐊᒥᓱᓕᐅᑎᓂᒃ, ᐊᑎᓂᐅᑎᓂᒃ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ ᐊᔪᑐᐃᓗᕐᖁᑕᐃᓐᓇᑦᑎᓂᒃ ᐃᓕᓴᓂᐊᕐᓂᖅᓱᓂᒃ ᐊᑐᓕᖅᑎᑕᐅᑎᓪᓗᒋᑦ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ, LAA-ᒥ, ᓴᖅᑭᖅᐸᓪᓕᐊᕐᓚᓐᓂᖅᓱᓕᕆᓂᖅᓴᖅ ᐅᑎᖅᑎᑯᓴᕆᐅᓗᓂᑦᑐᓗ.

ᐊᓯᔨᕐᓂᐅᔪᓂᒃ ᑲᓇᑕᓴᖅᓂᓕᒫᑦ ᓇᕐᒥᓂᕆᔨᐅᔪᓂᓪᓕᐊᑐᓗ ᐱᖓᓱᓕᐅᕐᓂᕐᓕᑦ:

- ᑕᓪᓓᓇ ᐱᓕᕆᐊᖓᔪᖅ ᓂᕆᐅᒋᔭᐅᔪᖅ ᐃᑲᔪᓂᐊᕐᓂᖅᓱᓂᒃ ᐱᐅᙵᒋᑦ ᐊᑐᑐᓴᓂᐅᔪᓂᒃ ᑲᓇᑕᖅᓯᓂᑎᑦᑎᓂᒃᓴᓂᕐᓂᕐᓕᑦ ᐊᓪᓚᑦᑎᓂᕐᓂᖅᓱᓂᒃ. ᐱᓕᕆᐊᓂᒃ ᐊᑭᓕᕆᓂᐅᔪᓂᓪᓕᐊᑐᓗ ᐱᖓᓱᓕᐅᕐᓂᕐᓕᑦ ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅᓱᓂᒃ. ᐱᓕᕆᐊᓂᒃ ᐊᑭᓕᕆᓂᐅᔪᓂᓪᓕᐊᑐᓗ ᐱᖓᓱᓕᐅᕐᓂᕐᓕᑦ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅᓱᓂᒃ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ. ᐱᓕᕆᐊᓂᒃ ᐊᑭᓕᕆᓂᐅᔪᓂᓪᓕᐊᑐᓗ ᐱᖓᓱᓕᐅᕐᓂᕐᓕᑦ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅᓱᓂᒃ ᐱᐅᓂᕐᓂᖅᓱᓂᒃ.
- ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅᓱᓂᒃ ᐱᐅᙵᒋᑕᐅᓂᒃ ᐱᐅᓯᒋᐊᖅᑎᒋᑎᓂᖅᓱᓂᒃ ᐱᐅᓂᕐᓂᖅᓱ

VS.9.4.3 ᑲᑎᕿᓪᓕᐊᔪᑦ ᐊᐢᑐᑎᔪᑦ

ᐊᑐᓕᖅᑎᑕᐅᑎᓪᓗᓂᑦ ᐊᐢᑐᐃᓗᐊᖅᑕᐃᓕᓕᑎᑎᓂᑎᓂᖅ, ᐱᐅᔪᓕᐊᖅᑎᑎᑎᓂᖅ ᐊᓱᒪ ᐊᐅᓪᓚᑎᓂᖏᑦ ᖃᐅᔨᓴᕈᑎᑦ, ᑲᑎᕿᓪᓕᐊᔪᑦ ᐊᐢᑐᐃᓂᐅᓂᐅᔪᓕᕆᓂᖏᑦ ᐊᓱᒪ ᓇᖏᒥᓂᖃᑎᓂᖏᑦ ᐃᖃᓗᐊᓂᖏᑦ, ᐅᖅᑐᓂᓪᓚᑎᓂᖏᑦ ᐊᓱᒪ ᓇᖏᒥᓂᖃᑎᓂᖏᑦ ᐱᖃᓴᕆᑦ ᐊᓱᒪ ᓄᓇᓕᖏᓐᓂ ᐱᕐᔪᐊᓂᖅᑎᑎᑲᓂᖏᑦ ᐊᔪᓂᐊᓂᖏᑦ ᓂᓚᐅᑦᓯᐅᓂᖏᑦ ᐱᐅᓂᐊᓂᖏᑦ. ᐊᑭᓚᐅᑎᑦ ᐱᕐᔪᑎᓄᑦ, ᐱᕐᔪᑎᓄᑦ ᐊᓱᒪ ᐱᔨᑦᑎᐊᑎᓄᑦ ᐊᐢᑐᐃᓂᓕᒃ ᓂᓚᐅᓇᖅᑐᑎᐊᖅᑐᓄᑦ ᐊᓱᒪ ᓂᓚᐅᓇᖅᑐᑎᐊᖅᑐᓄᑦ ᐱᓕᓚᐊᓄᑦ ᐊᓱᒪ ᑎᑎᒧᑦ ᐱᓕᓚᐊᓄᑦ, ᐊᑭᓚᖅᓯᓚᐊᓕᓚ ᐱᓕᓚᐊᑦ ᐅᖓᓱᒋᓄᑦ, ᐅᓄᖅᓯᓵᓕᕕᖅᓴᖅᓯᓂᖏᑦ ᑭᓇᐅᔨᓕᓚᐅᕆᔨᖅᓯᓂᖏᑦ ᐱᓵᓕᕕᖅᓯᓂᖏᑦ ᐱᓕᓚᐊᖅᓯᓂᖏᑦ, ᐃᑉᓗᒃ GDP-ᔨᓄᓄᑦ, ᐃᑉᓗᒃ Hᐊᓱᒪᓕᓄᔨᓄᓄᑦ, ᓄᓇᒋᒥ ᐊᓱᒪ ᑲᓇᑕᒥ ᑲᓛᒪᔨᓄᑦ ᑭᓇᐅᔨᖅᑕᓕᖅᐸᐅᔨᓕᕕᖅᓯᓂᖏᑦ ᓴᖅᑭᑎᓂᕕᖅᓴᖅᑐᓂᓗ ᓂᐅᕕᓴᓂᖏᑦ ᐱᖃᓴᕆᑦ ᐊᖃᕐᓂᖅᑐᓄᑦ ᓇᓗᓇᐃᖅᓯᓂᖏᑦ ᓇᓕᕕᖅᓴᖅᑐᓄᑦ ᐱᓕᓚᐊᓄᑦ, ᐊᑭᓚᖅᓯᓚᐊᓕᓚ ᐱᓕᓚᐊᑦ ᐅᖅᓱᑦᑎᓄᑦ, ᐅᓄᖅᓯᓵᓕᕕᖅᓴᖅᑐᓄᑦ ᐱᓕᓚᐊᑦ ᐱᓕᓚᐊᓄᑦ ᐅᖅᓱᑦᑎᓄᑦ, ᐊᑭᓚᖅᓯᓚᐊᓕᓚ ᐱᓕᓚᐊᑦ ᐱᓕᓚᐊᓄᑦ ᐅᖅᓱᑦᑎᓄᑦ ᐱᓕᓚᐊᓄᑦ ᐅᖅᓱᑦᑎᓄᑦ, ᐊᑭᓚᖅᓯᓚᐊᓕᓚ ᐱᓕᓚᐊᑦ ᐱᓕᓚᐊᓄᑦ ᐅᖅᓱᑦᑎᓄ

ᐱᐅᖏᑦᑐᑦ ᑲᑎᒪᓪᓗᓂᐊᕐᓂ ᐊᑐᑐᐃᓂᐅᕐᓂ ᐃᖅᑲᐃᔪᓂ ᐊᒻᒪ ᑭᓇᐅᔭᓕᐅᕆᔨᖅᓯᒪᔪᑦ ᐱᓕᕆᓂᐊᓂᖅᓯᐅᕐᓂ LAA ᐊᒻᒪ RAA ᓇᓕᐅᑦᑕᑕᐅᔭᑦ ᐅᓴᐃᖅᓗᓂᐊᖏᓪᓕᖅᓯᓕᖅᓯᓕᖅᑐᓂᖅ ΔᒪΔᓚᓂᖓᓂᑦ, ᐱᓕᕆᐊᖅ, Δᓕᖃᖅᖢᓂᓂ ᑭᐳᑎᑦᓯᓚᖅ, Ꮖᓚᓪᓕᐊᔪᓂᖅ, ᓂᕆᐅᓇᑦᑎᐊᖅᑐᓂᖅ, ᐊᒻᒪ ᓂᕆᐅᓇᑦᑎᐊᖅᑐᓂᖅ ᐱᐊᓂᓕᐊᑎᑕᐅᔪᓂᖅ, ᓂᕆᐅᑎᔨᐅᔪᖅ ᓴᖅᑭᑎᑦᑎᓂᐊᕐᔪᓂᖓᓂᖅ ᐅᖅᑐᑦᓴᓴᕆᐊᖃᖅ ᐱᐅᖏᑦᑐᑦ ᐊᓯᖏᓐᓂᐅᔪᖅ ᐱᐊᑕᖅᑎᑦᑕᐅᔪᓂᖅ ᖃᓄᐃᓕᓂᐊᕐᓂᖓᓂᖅ ᖃᓄᐃᓕᐊᖅᑐᓂᖅ ᐊᐱᖅᑯᑦᑎᐊᖅᑐᓂᖅ ᐊᑐᐃᓐᓇᖅᑐᓂᖅ, ᐊᑐᐃᓐᓇᖅᑐᓂᖅ ᐱᓕᕆᓂᐊᓂᖅᓯᒪᔪᓂᖅ ᐃᓕᓴᐃᔨᓂᖅ ᐊᑐᐃᓐᓇᖅᑐᓂᖅ ᐊᑐᐃᓐᓇᖅᑐᓂᖅ ᐊᑐᐃᓐᓇᖅᑐ

VS.9.5 ᓄᓇᕗᑦ ᐊᑐᖅᓯᐅᑎᑦ ᐊᐅᓚᔨᓇᖏᓐᓂᓗᑦ ᐱᔨᑎᑎᕋᓂᖅᑐᓪᓗ

ᖃᑎᖏᑕᐅᑦ ᓄᓇᓕᖏᑕᐅᑦ ᐃᓕᓴᖅᓯᐅᑦ ᓄᓇᓵᒃᐸ ᓯᓚᖅ ᓂᒃᓚᓯᑲᑐᐊᔪᓂᖅᓴᓄᑦ, ᐅᖅᓴᓯᑲᑎᒻᒥᓂᖅᓴᓄᑦ, ᐊᐸᑐᓗᐊᖏᓂᖅᓴᓄᑦ, ᖃᑭᓚᒥᐅᓂᖅᓴᓄᒃᓗ ᐃᒃᓗᓕᐅᑎᖏᓂᖅᓴᓄᑦ ᐊᔪᖏᓇᖅᑎᑎᐅᓂᖅᑐᑦ ᓇᐸᖅᑎᑎᐅᓂᖅᓴᓄᑦ ᐃᒃᓗᐸᑲᓂᖅᑐᑦ ᐱᓇᔪᓇᐊᕆᖏᓐᓄᑦ ᑲᔪᓯᑎᐱᓇᐊᕆᖏᓐᓂᓗ. ᓄᓇᓵᒃᐸ ᐊᐅᓚᔨᓇᐅᑎᖏᑕᑦ ᓄᑕᐅᔨᓴᓂᖅᐸᓪᓚᐊᐅᓂᖅᑐᑦ, ᐃᒃᓗᓄᑦᓴᖏᓐᓂᖅᑐᓪᓗ ᓄᓇᓕᓪᓗ ᐊᖏᕐᕋᒍᒪᖅᑐᑦ ᐊᖏᓂᖅᑐᓄᑦ ᓄᓇᓕᐅᑎᓂᒃᓯᓪᓚᐅᑎᓂᑦ ᐊᐅᓚᔨᓇᐅᑎᓂᑦ ᐊᖏᓂᖅᑐᓄᑦ ᓄᓇᓕᐅᑎᓂᒃᓯᓪᓚᐅᑎᓂᑦ ᐊᖏᓂᖅᑐᓄᑦ. ᐱᖏᓂᑦᓴᖏᑐᓂᖅᑐᓂᖅᓴᓂᖅ ᐊᑐᖅᑕᐅᑐᓴᓂᖅᑐᑦ ᐱᖏᓂᖅᑐᓄᑦ, ᐊᐸᑐᓗᐊᖏᓂᖅᑐᓄᑦ ᑕᑎᑐᓴᓂᖅᑐᑦ ᐊᐅᓚᔨᓇᐅᑎᓂᑦ ᐱᖏᓂᖅᑐᓄ

- ᐱᓕᓀᐊᖅ ᐃᓕᓴᕆᐊᖅᑐᖅ ᓄᑖᒥᑦ ᐃᒪᖏᑦᓭᓗ ᑐᖓᖏᓚᓕᕆᓕᒥᑦ ᒪᑭᒪᐅᑎᕆᑦ ᐃᑲᔪᖅᑐᐃᓐᔪᓀᖅᑐᕆᑦ ᓴᓴᐅᐅᑎᕆᑦ ᐱᖓᓱᓀᖅᑐᓚᓀᖅᑐᕆᓕᓭᓭᓴᐅᓗᑦ (SAR) ᐱᓕᓀᐊᖓᓂᕆᑦ, ᐱᐅᓴᓭᓕᓕᖅᑎᑎᓂᓗᑎᑦ ᓇᒧᖓᐅᓭᓕᓕᐊᕆᖓᓂᕆᑦ, ᐊᐅᑦᓯᐅᐃᓗᑎᑦ ᑭᓇᐅᑦᑕᓀᐅᐅᓭᓕᓕᐊᕆᑦ ᐃᑲᔪᖅᑐᐃᓐᔪᓀᖅᑐᕆᑦ ᓄᓇᓕᖓᑦ ᒪᑭᒪᐅᑎᓄᑦ ᐃᓄᓄᓕᓗ ᐱᔨᑎᑎᐅᑎᓄᑦ.
- ᐱᓕᓀᐊᖏᓄᑦ ᐱᓕᓀᐊᖏᓴᓄᑦ ᐊᐅᓚᓯᒋᐊᕈᐅᔪᓄᓕᓗ ᐃᖅᑲᓇᐃᔨᖅᑎᒋᔨᓄᑦ ᐊᖓᓱᓕᓕᐊᑎᖅᑎᑎᑐᖅᓴᐅᓇᐊᖅᑐᖅᓴᐅᑦ ᐱᔨᐅᑎᖃᑎᖅᑎᑎᐃᓐᓇᐊᖅᑐᖅᓴᐅᑦ, ᑐᐊᐃᖅᑐᐅᑦ ᓇᓪᓕᖅᑐᖅᓴᐅᑦ ᐃᖅᑲᓇᐃᔨᖅᑎᑎᐅᑎᓄᑦ ᐃᓄᓄᓕᓗ ᓄᓇᓕᖓᑦ ᓕᖕᒪᐃᓐᓇᖅᑐᑦ ᐃᓄᓄᓕᓗ ᐱᔨᑎᑎᐅᑎᓄ

- ᓄᒃᑕᑦ ᐃᓐᓕᕆᔨᓕᓚᖅᓯᒪᑦ ᐊᐅᓪᓚᑦᑐᐊᑎᒃᓴᖅᑎᑦ ᐊᔨᖏᓐᓂᖅᓴᖅᑐᓚᖅᓴᖅᑐᓵᖅᓴᖅᑐᑦ ᐊᑐᖅᑕᐅᑦᑎᐊᑕᐅᓚᖏᓂᖅᓴᖅᓯᒪᔪᓐᓇ ᐱᖏᓂᑕᖅᑎᑦᑎᐅᒃᓴᖅᓯᓪᓚᑎᓐᓇᒃ ᖃᑎᖏᑐᐅᑦ ᓄᓇᓕᓕᐅᓄᑦ.
- ᓂᓚᐅᑎᔨᐅᔨᖏᖓᕆᑐᖅ ᐊᑐᐊᑦᓂᓂᒃ ᐊᑐᑐᐃᓂᐅᐅᓚᖅᑐᓂᒃ ᐱᓕᕆᔨᒪᑦ ᓄᓇᓕᒪᑦ ᐱᑕᐅᓴᓂ ᐊᑐᖏᓐᓇᒃ ᐅᒥᐊᖏᔨᓂᑦ ᐊᑐᔨᐊᔨᓂ ᐅᓯᔨᐅᔨᓴᓄᓪᓗᓯᓂ ᐅᓯᔨᐅᔨᓴᓂᑦ ᐃᓐᓇᖏᓐᓂᑦ ᐱᓕᕆᓂᑦ ᐃᓕᓴᓂᓗ ᓴᓇᔨᐅᔨᓴᓂᑦ ᐊᐅᓚᑦᑎᐊᓂᓗ ᐊᑐᖏᓐᓇᑦᑎᐊᓂᓗ ᐱᓕᕆᔨᓂᓗ ᐊᑐᓚᐃᒪᑦ.

VS.9.5.3 ᑲᑎᕐᕕᒋᓪᓗᑦ ᐊᖏᔪᑎᓯᑦ

ᑲᑎᕐᕕᒋᓪᓗᑦ ᐊᖏᔪᑎᓯᑦ ᒪᑭᒪᐅᑎᓄᑦ ᐱᔨᑎᑕᐅᑎᓄᓪᓗᓂᓗ ᓂᓚᐅᑭᔨᐅᔨᓯᑦ ᐃᓕᖃᖅᓴᓂᐊᖏᓐᓂᖅᓴᖅᑐᓂᓗ ᑕᒪᐃᓐᓂᖅᓴᖅ ᐱᓇᓐᓕᕆᑐᑎᒃᓴᖅᓯᒪᔪᓐᓇᒃ ᐊᖏᔪᑕᐅᖅᑕᐅᓂᖅᓴᖅᑐᓂᒃ: ᓄᓇᓕᓂᑦ ᓄᓇᒪ ᐃᒪᖃᑦᓗ ᑐᙵᓚᐃᓪᓕᓂᑦ ᐊᐅᓪᓚᑦᑐᐃᓐᓂᑦ ᐱᓕᕆᓚᒥᑦ ᐊᔪᖏᓐᓂᓗ ᓄᓇᐅᓇᖅᑐᑦ ᐱᓇᓐᓕᕆᓚᐅᑎᑦᑕᐅᔨᓯᑦ ᐃᑲᔪᖅᑐᑐᐃᓐᓇᒃ ᐱᓕᕆᔨᓂᒃ ᓇᒪᙵᐅᓇᖅᑐᑦ ᐱᖏᓂᖅᓴᓂᐊᓕᕆᓂᖅᓴᖅᑐᑦ ᐃᓐᓇᖏᓐᓂᑦ ᐃᓚᖏᓐᓂᑦ ᐃᓐᓇᖏᓐᓂᑦ ᐊᑐᖅᑕᐅᓂᖅᓴᖅᑐᑦ ᐱᓕᕆᔨᒪᑦ ᐃᓚᖏᓐᓂᒃ ᐃᓚᐅᖏᓐᓂᒃ ᐃᓕᓴᖅᑐᓂᒃ ᐱᓕᕆᔨᒪᑦ ᐃᓚᐅᖏᓐᓂᒃ ᐃᓚᐅᖏᓐᓂᒃ ᐊᑐᐅᓚᑦᑎᐊᓂᓗ ᐊᑐᐅᓚᑦᑎᐊᓂᓗ ᐊᑐᐅᓚᑦᑎᐊᓂᓗ

- HMSP ᐃᓕᖅᖁᓂᐊᖅᓴᖅ ᐱᑕᖅᖃᑎᑎᑕᐃᓕᓕᓂᒪᑦ ᐊᐅᓪᓕᑎᓂᒪᓕᒫᑦᑐᑕᐅᔪᖅᑐᑦ ᐃᓕᓴᐅᑐᖅᖃᓂᓴᓚᓪᓕ, ᐊᐃᑦᑐᑦᓗᐃᑦᑕᐃᓕᓕᓂᒪᓂᔪᑦ, ᐁᑦᓂᐊᓚᐅᐅᓪᓕᖅᖃᓂᒪᓂᔪᑦ/ᐁᒻᓂᖅᑐᑦᓗᓕᒫᑦᑐᑕᐅᔪᖅᑐᑦ ᐱᓕᑎᑎᓂᓂᓚᐅᐅᓪᓕᖅᖃᓂᓗᓕ, ᑐᐊᖏᓴᖅᑐᑦᓗᓕᒫᑦᑐᑕᐅᔪᖅᑐᑦ ᐱᓕᕆᔨᑎᑦ

VS.9.6.1 ᐃᓱᒪᓂᖅ ᐱᖁᑎᖓᓚᐅ

ᐃᓄᐃᑦ ᓄᓇᖁᑎᖓᓚᐅ ᐊᖏᕐᓂᖅᖁᖅᑐᖅ ᐃᒪᒪᖏᕆ 6.6 ᒥᓪᓕᐊᓘ ha ᐱᖓᓱᓇᖅᐸᓱᐊᓂ ᖃᑎᖅᑎᐅᑦ, 5.6 ᒥᓪᓕᐊᓘ ha ᓄᓇᐅᑉ ᖃᐅᖓᓚᐅᑦ ᐱᓱᓇᐃᑎᖃᖅᑐᑎᑦ ᐊᒪᒪᓗ 1.0 ᒥᓪᓕᐊᓘ ha (15 >ᓴᖅᑎ [%]) ᓄᓇᐅᑉ ᖃᓚᑐᑦ ᐊᑕᐃᔪᑦ ᐱᓱᓇᐃᑎᖃᖅᑐᑎᑦ. ᑯᐃᓘ ᓄᓇᖁᑎᖓᑦ ᐊᖏᕐᓂᖅᖁᖅᑐᑦ 47 ᒥᓪᓕᐊᓘ hectares ᐱᖓᓱᓇᖓᓂ ᖃᑎᖅᑎᐅᑦ. ᖃᑎᖅᑎᐅᑦ ᖃᓂᖁᐃᐅᖃᖅᑕᖅᓯᒪᓕᕆᑦ ᑕᐃᒪᖓᓂᑐᖃᖅ ᔪᓗᒧᑦ, ᓴᐃᖅᑲᓴᖅᑎᑕᐊᖓᓗᑦ, ᐅᓴᖃᓄᑦ ᑎᓯᓂᖅᐸᓗᑦ, ᐊᒪᒪ ᔪᓗᓴᒥᓂᖅᑕᐃᓕᓴᐃᔨᑦ (B2Gold Corp.) ᐅᓴᖅᓂᓂᐊᖁᑎᑕᑎᑕᐊᖓᔪᖅ ᖃᑎᖅᑎᐅᑐᓂ.

ᖃᓄᓯᒥᓪᓚᖅᑐᖅ >ᓪᓕᖅᖃᓪᓚᓯᑕᖃᖅ>ᖅ, ᐊᐅᖏᓪᓪᑭᓯᓂᖅ, ᐊᒪᒪ ᐊᐅᖏᓪᓪᑭᓯᓂᖅ ᓇᖏᒥᓂᓚᐅᔾᔨᓂᖅ ᐊᐅᓪᓕᑎᐅᔾᔨᓂᖅ ᖃᑎᖅᑎᐅᓂ. ᑕᐅᔭᐅ ᓇᖏᒥᓂᓚᐅᔾᔨᓂᖅ ᐊᐅᓪᓕᑎᐅᔾᔨᓂᖅ, ᐊᖓᔪᓚᓯᑎᖅᑎᑎᓯᑦ, ᐊᒪᒪ ᑭᐱᙳᐃᐅᖅᑎᑎᖅᑐᑦ, ᐊᒪᒪ ᑭᐱᙳᐃᐅᖅᑎᑎᖅᑐᑦ ᐃᓪᓕᐊᓘᓴᓪᓗᑎᑦ, ᐃᓪᓕᑎᐅᔾᔨᓂᖅ ᐅᓇᐅᔾᔨᓂᖅ ᐊᐅᓪᓕᑎᐅᔾᔨᓂᖅ ᐱᓕᕆ

- ᐊᐢᑐᐃᓂᓪᓗᓂᐅᐯᐊᓪ ᓂᓚᐅᑎᔨᐅᓂᕐᐳᐊᕐᕋᕆᔨᑎᐅᓪᓕᓗᑎᐢ ᐃᓕᓴᒋᑦ ᐊᑐᖅᑎᐅᐯᐊᓪ ᐊᑐᕈᒪᒃᓴᓂᖅᑐᓂᓪᓗᖅᑐᓂᓪ ᐊᐅᓚᑦᑎᐊᖅᑎᓪᓕᓗᑎᐢ ᑐᓕᒪᒥᐅᔨᕐᓂᑦ (ᖃᓕᒪᒥᐅᔨᕐᓂᑦ ᐃᓱᒋᓚᓂᓪᓗᑦ ᑭᓪᓕᖅᑎᑦᑕᐅᔨᓂᑦ ᐊᒪᓕ ᐃᐢᐱᒋᔭᕐᓂᑦ ᐊᐢᑐᐊᓂᓕᖅᑐᓂᑦ ᐃᐢᓗᓂᐅᓂᓪᓗᑦ ᐱᓕᓂᐅᔨᕐᓂᑦ) ᐊᑯᓂᐅᔨᒍᑦ (ᐃᐢᐱᒋᔭᕐᓂᑦ ᐊᐢᑐᐊᓂᑕᐅᔨᓂᑦ ᐊᐢᑐᐊᓂᓂᓕᖅᑐᓂᑦ ᐊᐅᓚᑦᑎᐅᓂᕐᐳᑎᓂᑦ ᐊᑲᐸᐅᒪᐅᔨᕐᓂᑦᓴᓂᓪ) ᐊᑯᓂᐅᑎᑎᔨᕐᓂᑦ, ᐊᒪᓕ ᑕᐃᒪᐃᓚᔨᓂᐢᓂᑯᑦ/ᑲᔪᓯᓇᖅᑐᑐᕐᓂᑦ. ᐊᐢᑐᖅᑭᓂᐅᔨᕐᓂᑦ ᐊᐢᑐᖅᑕᐅᔭᓴᐃᑦᑐᒪᓗᐅᐅᓕᖅᑐᓂᑦ ᑕᐃᒪᐃᐱᔨᑎᖅᓴᓂ ᐊᑦᕋᒍ ᐃᓚᐃᓇᓇᓂᓂᓪᓗᖅᑐᓂᑦ ᐊᐢᑐᖅᑕᐅᔨᓴᐃᑦᑐᓂᓪ ᐃᓇᐃᓚᓇᓂᓂᓪᓗᖅᑐᓂᑦᓴᓂ, ᐃᓚᒋᔭᐅᓪᓂᓪ ᐊᖅᓯᓇᓇᓂᓂᓪᓗᖅᑐᓂᖅ ᐃᖅᓚᓂᓇᓂᓂᓪᓗᖅᑐᓂᑦᓴᓂᓪ. ᐊᒥᐊᓂᑦᑎᐊᓂᓪᓗᑦ ᐊᐢᑐᐊᓂᐅᔨᕐᓂᑦ ᐃᓕᓴᒋᑦ ᐊᑐᖅᑕᐅᔨᓴᐃᑦᑐᓂᓪ ᐃᓕᓴᒋᑦ ᐊᐢᑐᐊᓂᓂᓕᖅᑐᓂᑦ ᐃᓱᒋᑦᑐᓂᓪ ᐃᖅᑲᓇᓇᓂᓂᓪᓗᖅᑐᓂᑦ ᐃᓕᓴᒋᑦ ᐊᐢᑐᐊᓂᑕᐅᔨᓴᐃᑦᑐᓂᓪ ᐃᓕᓴᒋᑦ ᐊᐢᑐᐊᓂᓂᓕ

VS.9.6.3 ᑲᑎᕀᓯᓪᓗᐊᕐᓂ ᐊᐅᑐᑎᕐᓂ

ᐱᓕᓭᐊᖅ ᓂᓭᐅᒋᔭᐅᖏᓪᓕᒡᓗᑦ ᐊᓯᔾᔨᑕᑕᐅᓂᐊᕐᓂᓕᓴᓂᑐᑦ ᓄᓇᐅᐸ ᓇᓗᓇᐃᖅᑕᐅᓯᒪᓂᓕᓴᓂ, ᐊᒥᐊᐅᑯᓐᓄᓇᑐᑦ ᐱᓕᓭᐊᒪᑦ ᐊᐅᑐᑕᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᑕᐃᒪᐃᓐᓂᓕᓴᓂᓄᓐᓂᒃ ᑕᓐᓇᓪ ᐊᐅᑐᑕᐅᓂᐊᕐᓂᖅ ᑲᔪᓯᑎᑕᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐃᓕᓴᕐᓂᐊᕐᓂᖅ. ᐱᓕᓭᐊᖅ ᐊᔪᖏᓪᓗ ᓂᓭᐅᓇᖅᑐᑦ ᐱᓂᒃ ᐊᓂᔨᓕᓭᐊᑎᑕᐅᓂᐊᕐᓂᒃ ᐊᖏᕐᓚᓕᐊᓂᑎᓂᓂᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᓄᓇᒥᐤ ᐊᒪᒪ ᐃᒪᖏᐅᑕᓂᐤ ᐊᐅᓪᓚᐊᐅᑎᓂᐤ ᐱᓇᓪᓕᒡᓗᑎᓂᓂᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐊᑐᑭᓐᓇᖅᑐᑦ ᐅᐸᕆᔨᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐱᓇᓪᓕᒡᓗᑎᓂᓂᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐅᐸᕆᔨᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐱᓇᓪᓕᒡᓗᑎᓂᓂᐅᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐊᑐᑭᓐᓇᖅᑐᑦ ᐅᓇᕆᔨᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐃᓐᓇᐃᓐᓇᕐᓂᒃᑯᓂᖅᑐᑦ ᐅᐸᕆᔨᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐊᑐᑭᓐᓇᖅᑐᑦ ᐅᐸᕆᔨᓂᐊᕐᓂᒃᑯᓂᖅᑐᑦ ᐱᓇᓪᓕᒡᓗᑎᓂᓂᐅ

- WKR-ᔪᑦ ᐊᖏᑭᓯᐃᓂᐊᖏᓐᓄᑦ ᐊᑐᓕᖏᑎᑎᑐᑎᓪᓗ ᑐᓴᒃᑕᕐᕆᒃ ᐊᐅᓪᓚᑎᓂᖅᓴᓪᔪᑦ ᕿᕐᔪᐅᑎᒥᒃ ᒪᓕᒃᓗᑎᒃ ᐱᔨᐅᔭᓇᐊᓕᓐᓂᖅ ᐃᒪᒃᔪᑦ ᐃᓐᓕᕐᓂᔪᓇᓂᓪᓴᔪᑦ ᐊᑦᑕᕐᓇᖏᑐᑎᑦᑕᐃᓕᓕᓂᓪᓴᔪᑦ ᐱᕐᔪᕐᓂᔪᑦ ᐊᐅᓪᓚᑕᐅᓪᔪᓕᔪᑦ ᑐᓴᒃᑕᕐᓂᔪᑦ ᑐᓴᒃᑕᕐᓂᔪᑦ ᑐᓴᒃᑕᕐᓂᔪᑦ ᐊᐅᓪᓚᑕᐅᔪᓕ

ᐊᑐᖅᑕᐅᔨᓐᓇᖅᑐᓂ ᓴᖅᑭᑎᖅᑎᑦᓯᔪᒍ. ᐸᑲᓴᓕᑕᐅᐃᓚᒪᑎᒃ, ᐃᑦᑕᕐᓂᕐᓴᐃᑦ ᐊᓯᔨᖅᑕᐅᔨᓐᓇᖅᑭᑦᑐᑦ, ᓴᓇᓕᐅᖅᑲᓐᓂᕐᓇᖅᑭᑦᑐᑦ ᐅᐸᓪᓚᑦᓂᑦ ᐅᑎᖅᑎᑕᐅᔨᓐᓇᖅᑭᑦᑐᑦ.

ᐊᐅᓚᑦᑎᔨ (ᐃᓕᓴᕐᓂᓯᔨᕐᓂᑦ, ᓄᓇᕗᑦ ᓴᖅᒪᓚᖓ) ᑲᒪᒋᔪᓴᖅᑯᓴᖅ ᐊᐅᓚᑦᑎᓂᕐᒥᑦ ᐊᓂᐅᔨᕈᑐᐃᓐᓇᕐᓂᕐᓂᑦ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂ ᓄᓇᕗᒻᒥ. ᑕᒪᔭᓂᐊ ᐊᑐᖅᑕᐅᔨᓗᐊᓕᓪᓕᑦ ᑐᓂᓗᓕᕐᓂᓂᕐᒥᑦ ᖃᐅᔨᓴᖅᓂᒻᒥᑦ, ᒥᔅᓯᒋᐊᖅᑎᑎᓂᕐᒥᑦ, ᓯᓂᐅᑉᓴᖓᓂᕐᒥᑦ ᐊᒻᒪ ᐅᖃᖅᑎᖅᑎᖅᓂᕐᒥᑦ ᒪᓕᒃᑕᐅᑎᐊᖅᐸᑕ, ᐃᓕᓴᕐᓂᓯᔨᓂᓕᕆᓂᖅ ᐊᒥᐊᔨᓂᓕᕆᓂᖅ ᐊᑎᖅᑕᐅᔨᓐᓇᖅᑐᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐃᓕᓴᕐᓂᓯᔨᓂᓕᕆᓂᖅ ᐊᐸᑐᖅᓯᓂᖅᑕᖅᑐᓂᖅᓴᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂ.

VS.9.7.3 ᑲᑎᕐᐸᓪᓕᐊᔪᑦ ᐊᖅᑐᑎᔪᑦ

ᐊᑐᓕᖅᑎᑕᐅᑦᓱᓪᓚᓕᐅᖅᑎᓪᓗᒍ ᐊᖅᑐᐃᓚᐅᖅᑕᐃᓕᓕᑎᑎᑕᑎᓂᕐᒥᑦ ᐊᑐᖅᑕᐅᔨᕆᓚᐊᓪᓕᑦ ᐃᓕᖅᑎᓯᓕᓪᓚᐃᓐᓇᕐᓂᕐᓂᑦ, ᓄᓇᕗᑦ ᓴᙵᒪᖓᓄᑦ ᐊᒥᐊᖅᑎᓂᒻ ᐊᖅᑐᖅᓯᓂᖅᑲᕐᓂᕐᓯᑦᑐᐅᖅᓯᒪᓕᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᓗᑦ ᐊᑐᖅᑕᐅᔨᓐᓇᖅᑐᓗᑦ. ᑕᐃᒪᐃᓂᓂᖅᓴᓄᑦ, ᐱᕆᐊᖅᑐᖅᑐᐅᖅᓯᒪᓕᖅ ᐃᓕᓴᕐᓂᓯᔨᓂᓕᕆᓂᖅ ᐊᑐᖅᑕᐅᔨᓐᓇᖅᑐᓗᑦ ᐅᑎᖅᑎᑕᐅᔨᓐᓇᖅᑐᓂᖅᓴᓂᖅ ᐊᖅᑐᖅᓯᓂᐅᖅᓴᖓᓂᖅ.

VS.9.7.4 ᐅᓴᕐᓭᓂᖅᑎᑦ

ᐊᑐᓕᖅᑎᑕᐅᑦᓱᓪᓚᓕᐅᖅᑎᓪᓗᒍ ᐊᖅᑐᐃᓚᐅᖅᑕᐃᓕᓕᑎᑎᑕᑎᓂᕐᒥᑦ ᐊᑐᖅᑕᐅᔨᕆᓚᐊᓪᓕᑦ ᐃᓕᖅᑎᓯᓕᓪᓚᐃᓐᓇᕐᓂᕐᓂᑦ, ᓄᓇᕗᑦ ᓴᙵᒪᖓᓄᑦ, ᐊᒥᐊᖅᑎᓂᒻ ᐱᓕᓚᐊᒧᑦ ᐊᖅᑐᐃᓴᕐᑕᐅᔨᓂᖅ ᐅᖃᖅᑐᓂᖅ ᐊᖅᑐᐃᓴᕐᑕᐅᔨᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᓕᒫᑦ ᓴᓇᓕᐅᖅᑲᓐᓂᕐᓇᖅᑭᑦᑐᑦ.

VS.9.7.5 ᐊᖅᑐᐃᓚᐊᖅᑕᐃᓕᓕᑎᑎᑕᑎᓂᖅᓴᖅ, ᐊᐅᓚᑦᑎᓂᖅᓴᖅ, ᐱᐅᔪᒋᐊᖅᑎᑎᑕᑎᓂᕐᓂᓪᓚᒍ

ᑎᑭᑕᐅᓇᔪᐊᖅᑐᑐᖅ ᐊᖅᑐᐃᓚᐊᖅᑕᐃᓕᓕᑎᑎᑕᑎᓂᕐᓂᓪᓚᑦᑐᑦ ᐊᔪᐅᔨᓚᐊᕐᑯᓇᑦᑐᑦ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᑦ ᐱᕐᑯᑎᖅᑦᑐᑦ ᐊᒻᒪ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐅᑎᖅᑎᑕᐅᔨᓐᓇᖅᑐᓂᖅᓴᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅᐳᑦ ᐃᓚᓂᖅᑎᑦ ᐱᐅᔪᖅᑕᐅᔨᓚᐃᓐᓇᖅᑐᓂᖅ ᐱᓕᕆᔨᐊᓚᐃᓐᓇᖅᑐᓂᖅ. ᐅᑯᐊ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᐊᑐᓕᖅᑎᑕᐅᑦᓱᓪᓚᓕᐅᖅᑎᓪᓗᒍ ᐱᐅᓯᖅᓯᒪᔪᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᑦ:

- ᐃᓂᒋᔨᐅᔪᑦ PDA–ᒥ ᑎᑎᕋᖅᓯᒪᔪᑦ ᖃᐅᔨᔪᓴᖅᑕᐅᓂᐊᕐᑦ ᐱᑕᖅᓴᓕᓂᐅᔪᑦ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂ ᖃᐅᔨᔪᓴᖅᓯᒪᓂᕐᒧᑦ ᐱᔨᔪᑎᖅᑎᓂᐊᖅᑐᓴᐅ ᓇᓗᓇᐃᖅᓯᒪᓂᕐᒧᑦ ᐃᓂᓂᒃ.
- ᓇᓗᓇᐃᔨᖅᓯᒪᔪᑎᑦᑎᐊᖅᑐᑦ ᑎᑎᕋᖅᑕᐅᓴᓂᕐᓂᑦ ᓄᑦᑐᑦ ᑎᑎᕋᖅᑕᐅᓴᓂᕐᔪᑦ, ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᓯᓂᐊᑎᑦᓂᕐᓂᑦ, ᐊᔪᓐᓇᕐᓂᑦᑕᕐᓂᖅ, ᓇᓗᓇᐃᔨᖅᓯᒪᔪᑎᑦᑎᐊᖅᑐᑦ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐊᒻᒪ ᖃᓄᐃᑦᑕᐅᓴᖅᑐᓂᖅ ᓄᓇᓖᑦᓯᐊᕐᑎᓗᒃᑐᑦ, ᓄᓇᕗᒻᒥ ᐅᓇᖅᑐᖅ ᖃᐅᔨᓴᖅᓴᐅᓕᖅᑐᖅ ᐱᓕᕆᔨᐊᓚᐃᓐᓇᖅᑐᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐅᓇᖅᑐᖅᓯᒪᓕᖅᑐᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐱᓕᕆᔨᐊᓚᐃᓐᓇᖅᑐᓂᖅᓴᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐱᓕᕆᔨᐊᓚᐃᓐᓇᖅᑐᓂᖅᓴᓂᖅ ᐊᑐᖅᑕᐅᔨᓐᓇᖅᑐᓂᖅᓴᓂᖅ ᐃᑦᑕᕐᓂᓴᖅᓴᖓᓂᖅ ᐱᓕᕆᔨᐊᓚᐃ

VS.9.8 ᐃᓄᐃᑦ ᐊᕐᕌᒍᓂᓂ ᐊᐅᑐᐃᓱᑦ ᑎᑎᕋᖅᓯᒪᓱᑦ

ᖃᐅᔨᓴᖅᑕᐅᓂᖅᓴᒃ ᐊᐅᑐᐃᔨᓱᑕᐅᑐᐃᓐᓇᓕᐊᓕᓵᐅᒃ ᕿᓂᓪᓕᖅᑐᐊᖏᔪᒥᒃ ᐊᖅᓄᒧᒍᑦ ᐊᒻᒪ ᑐᓴᕐᑕᕋᖓᔪᑦ ᐱᓕᕆᐊᒧᑦ TLMRU-ᒧᑦ, ᓂᕈᐲᓴᖃᑎᐊᖏᓂᔪᑦ ᐊᒻᒪ ᓇᖏᒥᓂᖃᖅᑕᐅᓂᔪᑦ, ᓄᓇᓕᖏᓂ ᐋᔨᓂᐊᖃᖅᓇᖅᑎᑕᑐᓕᕆᓂᖅ ᐊᒻᒪ ᖃᓄᐃᖅᑎᑕᐊᖏᓂᖅ, ᐃᖅᖄᓇᐃᓲᖅᓴᑦ ᐊᒻᒪ ᒪᑭᒪᔨᐸᑎᖅᓴᑦ, ᐊᐅᓚᑦᓴᐅᑎᑕᐅᓇᖅᑐᑦ, ᐊᐅᑐᐃᓐᓇᓕᐊᑎᑕᐅᓇᖅᑐᑦ ᓄᓇᓗᖅᑐᑦ, ᐃᒪᖏᑕᐅᑦ ᐊᒻᒪ ᐃᑲᔪᑎᖅᓴᑦ ᐊᑐᖅᑕᐅᓯᑦ, ᐊᒻᒪ ᐃᑦᑕᕐᓂᓴᖃᖅᓯᒪᓂᖅ ᐊᒻᒪ ᑲᑎᕐᓂᐊᕐᕕᖅᓴᑦ ᐊᐅᑐᐃᔨᓱᑕᐅᕐᓴᑦ ᐅᔨᔨᖏᓇᓗᐊᖅᓯᒪᔨᐅᑎᖅᓯᑦᑐᑦ.

VS.9 Résumé du volume – Portée de l'évaluation du milieu humain

Le présent volume sur le milieu humain aborde les environnements sociaux et économiques de la région du projet, comme l'utilisation des terres, les activités culturelles, l'emploi dans les économies traditionnelles et basées sur les salaires, la sécurité alimentaire, la santé et le bien-être, ainsi que les interrelations entre ces éléments. Pour les Inuits et d'autres peuples autochtones, la pratique des activités traditionnelles, y compris la récolte traditionnelle aux fins de subsistance, et le lien avec la terre sont essentiels à la culture, à la langue et aux modes de vie inuits de façon plus large (Pauktuutit 2006). Les environnements sociaux et économiques constituent donc le fondement de l'évaluation des effets du projet sur les personnes et les communautés de la région du projet.

Ce volume comprend une évaluation des effets du projet sur l'utilisation traditionnelle et non traditionnelle des terres, des zones marines et des ressources; la sécurité alimentaire et la souveraineté alimentaire, la santé et le bien-être communautaires, l'emploi et l'économie, les infrastructures et les services, ainsi que les ressources patrimoniales. Il examine les changements potentiels dans l'utilisation des terres, de l'eau et des ressources indiqués par les Inuits de la région de Kitikmeot (c'est-à-dire les Kitikmiuts) et d'autres groupes autochtones potentiellement touchés et qui exercent leurs droits conférés par l'article 35 (de la *Loi constitutionnelle de 1982*) dans la région de Kitikmeot. Il aborde également les changements potentiels dans l'usage de la langue, la transmission culturelle, la gouvernance et d'autres pratiques de récolte et culturelles valorisées par ces groupes. Les ressources patrimoniales sont profondément liées à la culture et à l'histoire des Kitikmiuts. Les ressources et sites patrimoniaux peuvent aussi être profondément liés à des zones sacrées et à des pratiques culturelles, et représenter des activités de l'utilisation traditionnelle des terres, des zones marines et des ressources, et ce, depuis des décennies, des siècles ou des millénaires. La section sur les ressources patrimoniales examine les effets du projet sur ces ressources en observant les changements dans le contenu ou le contexte du site résultant d'activités liées au développement.

Ce volume aborde également les changements apportés au système alimentaire traditionnel comme au système alimentaire de marché, en observant notamment les modifications relatives à la disponibilité, à l'accès, à l'utilisation et à la stabilité des aliments au sein de ces systèmes. La section sur la santé et le bien-être communautaires rend compte des changements apportés aux déterminants sociaux de la santé et du bien-être, y compris la santé physique, mentale et émotionnelle; la sécurité et les dynamiques personnelles, familiales et communautaires; et l'accès aux infrastructures et services de santé. La section sur l'emploi et l'économie aborde les changements relatifs à l'emploi dans les économies traditionnelles et basées sur les salaires; l'éducation et la formation; le développement économique, la passation de marchés et les occasions d'affaires; et la résilience de la chaîne d'approvisionnement. L'évaluation des effets sur les infrastructures et les services rend également compte des changements apportés aux infrastructures de transport terrestre et maritime, qui peuvent soutenir une meilleure résilience de la chaîne d'approvisionnement, la sécurité alimentaire et la souveraineté alimentaire, ainsi qu'une amélioration de la recherche et du sauvetage dans la région du projet. L'emploi lié au projet pourrait augmenter le nombre de travailleurs en transit dans la région du projet, ce qui pourrait accroître la demande sur les infrastructures communautaires et sur l'accès aux services publics, ainsi que la disponibilité des hébergements et des logements temporaires.

La région de Kitikmeot est composée à la fois de terres inuites et de terres publiques. Comme négocié dans le cadre de l'Accord sur les revendications territoriales du Nunavut, les terres publiques avec droits tréfonciers ont été choisies par les Inuits pour faire progresser le développement économique au profit des bénéficiaires des revendications territoriales et afin de reconstruire et de promouvoir l'autodétermination inuite dans la gestion des terres et des ressources de la région de Kitikmeot (Public History Inc. 2006). Ce volume examine les changements survenus dans les affectations du sol, l'accès aux terres et aux ressources et leur utilisation pour l'exploitation minière, la récolte commerciale, le tourisme et les loisirs, ainsi que les changements survenus dans l'accès à l'environnement marin et son utilisation.

West Kitikmeot Resources Corp (WKR) a recueilli des renseignements sur les conditions de référence sur la situation en combinant la collecte de connaissances menée par les Inuits et de manière collaborative (y compris le rapport sur le savoir inuit propre au projet, établi à partir des renseignements de la base de données du Naonaiyaotit Traditional Knowledge Project [NTKP] et des ateliers du Groupe consultatif autochtone [IAG]), des renseignements publics provenant de groupes autochtones pris en compte dans le cadre du projet, ainsi que des commentaires sur la mobilisation formulés par les Kitikmiuts, d'autres groupes autochtones et d'autres communautés potentiellement touchées, avec des études techniques recueillies au moyen de méthodes scientifiques occidentales. La combinaison de ces perspectives en matière du savoir et de la science occidentale a été utilisée pour éclairer et évaluer l'étude d'impact des trois éléments du milieu humain.

Le projet de la route et du port de Grays Bay (le « projet ») est un port en eaux profondes et un aménagement routier praticable en toute saison de 230 km proposé par West Kitikmeot Resources Corp. (WKR), situé dans la région de Kitikmeot au Nunavut. Le port sera situé dans le golfe Coronation, à environ 50 km au sud de la voie du passage du Nord-Ouest par l'Arctique, et reliera par route en toute saison le site fermé de la mine Jericho à la station Jericho, sur la rive nord-ouest du lac Contwoyto (NU). Chaque année, la route praticable en toute saison sera reliée toute la saison à la route hivernale qui va du lac Tibbitt au lac Contwoyt, officiellement appelée Tibbitt to Contwoyto Winter Road (TCWR). WKR a préparé une étude d'impact pour repérer et évaluer les effets environnementaux et socio-économiques potentiels résultant du projet, qui répond aux exigences énoncées dans l'Accord du Nunavut et les lignes directrices de la Commission du Nunavut chargée de l'examen des répercussions pour la préparation d'une étude d'impact (dossier CNER n^{o} 24XN038; CNER 2026). Ce volume de l'étude d'impact présente l'évaluation des impacts environnementaux potentiels pour l'utilisation traditionnelle et non traditionnelle des terres, des zones marines et des ressources (TZMR); la sécurité alimentaire et la souveraineté alimentaire, la santé et le bien-être communautaires, l'emploi et l'économie, les infrastructures et les services, et ressources patrimoniales.

Des limites spatiales et temporelles ont été établies pour soutenir la réalisation des évaluations des composantes valorisées (CV), éclairées par la compréhension actuelle des effets potentiels du projet et d'autres facteurs pertinents. Le secteur d'aménagement du projet (SAP) comprend l'emprise au sol de toutes les composantes du projet, y compris les perturbations permanentes et temporaires (par exemple, l'étendue de l'infrastructure du projet, le défrichement prévu et les zones de déblaiement). La zone d'évaluation locale (ZEL) est la zone maximale où les impacts environnementaux propres au projet peuvent être estimés de manière qualitative avec un degré raisonnable de précision et de confiance.

La ZEL d'utilisation traditionnelle des TZMR correspond à une zone tampon de 5 km autour du SAP, ce qui constitue la plus grande étendue des ZEL à soutenir les composantes valorisées biophysiques (qualité de l'air, bruit et vibrations, terrain, sol et pergélisol, végétation, faune et habitat faunique, ressources en eau, poissons d'eau douce et habitat du poisson, et environnement marin) ainsi que les zones où les effets directs (par exemple, perte d'habitat) et indirects (par exemple, perturbation sensorielle) du projet sur l'utilisation traditionnelle des TZMR peuvent survenir. La ZEL pour la sécurité alimentaire et la souveraineté alimentaire, la santé et le bien-être communautaires, les infrastructures et services, ainsi que l'emploi et l'économie est composée des cinq communautés de Kitikmeot : Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak et Gjoa Haven. Pour la santé et le bien-être communautaires, et les infrastructures et services, Yellowknife, dans les Territoires du Nord-Ouest (T.N.-O.), est également comprise dans la ZEL, puisque Yellowknife servira d'emplacement logistique et de rassemblement pour le projet. Comme les activités d'utilisation non traditionnelle des terres, des zones marines et des ressources sont étroitement liées à la navigation, aux ressources minérales, aux ressources en poisson et aux ressources fauniques qui sont récoltées, la ZEL est basée sur les limites d'évaluation du poisson, de la faune et du milieu marin et comprend ce qui suit :

- Un corridor de 2 km de large centré sur le SAP routier;
- Une zone tampon de 4 km du SAP du port (infrastructure terrestre);
- Une zone tampon de 4 km du SAP de l'aérodrome;
- Une zone tampon de 1 km du SAP du port (infrastructure maritime).

Pour les ressources patrimoniales, la ZEL est la même que celle du SAP puisqu'elle est considérée comme la zone maximale pour laquelle les effets peuvent être prédits ou mesurés avec précision.

La zone d'évaluation régionale (ZER) englobe le SAP et la ZEL et fournit un contexte régional expliquant comment les effets liés au projet peuvent influencer les CV respectives, ainsi que la manière dont ces effets peuvent interagir cumulativement avec ceux d'autres projets passés, présents ou raisonnablement prévisibles. La ZER d'utilisation traditionnelle des TZMR correspond à la plus grande des ZER afin de soutenir les composantes valorisées biophysiques, dont l'information s'appuie principalement sur la combinaison de la composante valorisée du caribou et de celle des mammifères marins. La sécurité alimentaire et la souveraineté alimentaire, l'emploi et l'économie, ainsi que l'utilisation non traditionnelle des ressources terrestres et maritimes ont tous la même ZER, soit la région de Kitikmeot au Nunavut, qui comprend les établissements principalement saisonniers de Bathurst Inlet et d'Omingmaktok. Pour la santé et le bien-être communautaires, et les infrastructures et services, la ZER est la région de Kitikmeot au Nunavut et de Yellowknife, dans les T.N.-O. Les zones d'évaluation régionale ne sont généralement pas définies pour les ressources patrimoniales, car le SAP et la ZEL constituent la zone maximale pour laquelle les effets peuvent être prédits ou mesurés.

VS.9.1 Utilisation traditionnelle des terres, des zones marines et des ressources

Depuis aussi longtemps qu'on s'en souvienne, les Kitikmiuts et d'autres groupes autochtones concernés se sont engagés dans des activités d'utilisation traditionnelle des terres, des zones marines et des ressources (TZMR) qui sont devenues le cœur de leur mode de vie, de leur culture, de leur langue, de leurs systèmes de gouvernance et de leur bien-être. Comme il est décrit dans cette évaluation, les activités d'utilisation traditionnelle des TZMR peuvent être touchées par toutes les composantes valorisées dans toute l'étude d'impact (EI), provenant des changements à la faune, aux ressources marines, aux conditions socio-économiques, et au-delà. Cette évaluation respecte la large gamme d'effets environnementaux et socio-économiques qui peuvent contribuer à un changement dans l'utilisation traditionnelle des TZMR, et se concentre sur l'évaluation de la capacité des Kitikmiuts et d'autres groupes autochtones touchés à continuer d'utiliser la terre de manière traditionnelle, tant dans le contexte des effets liés au projet que des effets cumulatifs potentiels.

L'évaluation de la composante de valorisation de l'utilisation traditionnelle des TZMR se concentre sur les zones où les Kitikmiuts et d'autres groupes autochtones touchés participent à des activités liées à l'utilisation traditionnelle des TZMR. Elle évalue les effets potentiels des activités liées au projet sur cette utilisation traditionnelle, en accordant une priorité aux zones traditionnelles de récolte et à d'autres lieux sensibles. Ces zones comprennent le secteur d'aménagement du projet (SAP), la zone d'évaluation locale (ZEL) et la zone d'évaluation régionale (ZER).

VS.9.1.1 Base de référence

Les Kitikmiuts et d'autres groupes autochtones potentiellement touchés ont signalé avoir utilisé la ZEL et la ZER pour des activités liées à l'utilisation traditionnelle des TZMR, comme la chasse, la pêche, le piégeage et la récolte de plantes. Ils ont également fait des observations sur les espèces clés en cours d'évaluation dans l'EI, notamment leur habitat et les zones d'importance culturelle particulière. De plus, les Kitikmiuts et d'autres groupes autochtones potentiellement touchés ont commenté la façon dont ils accèdent aux ressources, aux sites ou aux zones, et transmettent leur savoir sur les pratiques culturelles, l'usage des langues, le transfert intergénérationnel du savoir et les systèmes de gouvernance.

VS.9.1.2 Répercussions du projet

Les effets du projet ont été évalués en fonction de l'emplacement des activités du projet dans une zone où les activités liées à l'utilisation traditionnelle des TZMR ont souvent lieu, ont une importance culturelle, ou dans une zone où accéder aux ressources, ou aux sites/zones où cette utilisation traditionnelle a lieu. Les effets résiduels et les caractérisations de ces effets résiduels sont fournis :

Changement dans la qualité, la quantité ou la répartition des ressources impliquées ou requises pour l'utilisation traditionnelle des TZMR :

- Les effets résiduels sur la faune, le poisson, la végétation, les ressources marines et l'eau peuvent avoir une incidence sur les activités traditionnelles soutenues par ces ressources, notamment la chasse, le piégeage, la pêche, la récolte des plantes et l'utilisation culturelle de l'eau ou d'autres ressources importantes. Diverses conditions biophysiques et socio-économiques peuvent également avoir une incidence sur la récolte.
- À l'intérieur du SAP, une perte directe de végétation indigène se produira, entraînant la perte de plantes et d'habitat. Au sein de la ZEL et de la ZER, les effets potentiels sur la faune terrestre, les poissons d'eau douce, les poissons de mer et les mammifères marins participant ou nécessaires aux activités d'utilisation traditionnelle des TZMR des Kitikmiuts ou d'autres groupes autochtones potentiellement touchés, sont principalement dus aux perturbations sensorielles causées par le trafic des navires et des véhicules ainsi que par les activités du projet.
- Dans l'ensemble, pendant les phases de construction, d'exploitation et de maintenance, et après la mise en œuvre des mesures d'atténuation, d'amélioration et de gestion, les effets résiduels du projet sur les changements dans la qualité, la quantité ou la répartition des ressources impliquées ou nécessaires à l'utilisation traditionnelle des TZMR des Kitikmiuts ou d'autres groupes autochtones potentiellement touchés devraient être défavorable de nature et d'importance faible à modérée au sein du SAP, de la ZEL et de la ZER; ces effets seront de courte durée (c'est-à-dire dans la phase de construction seulement) et de longue durée (c'est-à-dire s'étendront à l'ensemble de l'exploitation et de la maintenance), et devraient aller de réversibles (par exemple, espaces de travail temporaires ou changements comportementaux individuels de courte durée) à irréversibles (par exemple, composantes permanentes du projet ou mortalité individuelle).

Changement dans les zones d'importance culturelle précises où l'utilisation traditionnelle des TZMR a lieu :

- Les effets résiduels sur le changement dans des zones d'importance culturelle précises se produiront principalement durant la phase de construction, lorsque les activités du projet liées à la construction de la route et du port modifieront l'habitat et les zones de récolte par des activités directes (perturbations des terres) et indirectes (perturbations sensorielles).
- La perturbation directe des terres durant cette phase sera défavorable et irréversible, à l'exception des zones récupérées (par exemple, espaces de travail et aires de dépôt temporaires) après les travaux au sein de la ZEL.
- Pendant la phase d'exploitation et de maintenance, le trafic des navires et des véhicules ainsi que l'entretien des infrastructures du projet pourraient entraîner des effets négatifs, continus et de longue durée sur les zones de récolte au sein de la ZEL, en raison de perturbations sensorielles et d'une activité humaine accrue. Des effets sur les zones de récolte à l'intérieur du SAP sont possibles en raison d'une modification potentielle de l'habitat pour les caribous, d'autres animaux sauvages, les oiseaux, les poissons et les plantes, et à cause des changements migratoires des caribous durant les phases de construction, d'exploitation et de maintenance.
- Par conséquent, l'importance de ces effets devrait être de faible à modérée en raison de leur confinement à la ZEL et du potentiel d'effets continus et de longue durée.

Changement dans l'accès aux ressources ou aux sites/où l'utilisation traditionnelle des TZMR a lieu :

- Durant les phases de construction, d'exploitation et de maintenance, l'infrastructure du projet permettra un accès accru à la région de Kitikmeot. L'introduction d'une route, d'un port et d'une nouvelle infrastructure de transport aérien devrait permettre un meilleur accès aux ressources et sites traditionnels, entraînant des effets résiduels positifs et négatifs pour les Kitikmiuts et autres groupes autochtones potentiellement touchés.
- Les effets positifs comprennent une meilleure accessibilité accrue à des zones auparavant difficiles d'accès ou pour lesquelles l'accès nécessitait des ressources supplémentaires. De plus, l'emploi direct ou indirect découlant du projet a le potentiel d'augmenter et de diminuer les occasions de participer aux économies traditionnelles en raison de l'augmentation des revenus et de la réduction du temps disponible qu'entraînerait le travail en rotation potentiel, ce qui aura des effets positifs et des effets négatifs.
- Les changements défavorables dans l'accès aux ressources, aux sites ou aux zones durant les phases de construction, d'exploitation et de maintenance en raison des activités du projet peuvent empêcher, restreindre ou décourager l'accès au SAP en raison de préoccupations de sécurité ou de perturbations sensorielles; ces changements devraient être de courte durée.
- Le projet pourrait entraîner un changement positif dans l'accès aux sites culturels grâce à un meilleur accès aux zones de récolte, ce qui pourrait entraîner une augmentation des lieux de rassemblement au sein de la ZEL.
- Après la mise en œuvre des mesures d'atténuation et des plans de gestion, les changements défavorables pour l'accès aux ressources, sites ou zones traditionnels devraient être d'importance faible à modérée, de courte durée et limités au SAP et à la ZEL (importance modérée pendant la phase de construction en raison de l'accès restreint causé par les activités du projet).
- Pendant la phase d'exploitation et de maintenance, les effets résiduels seront faibles en importance et limités au SAP et à la ZEL. Les effets du projet pendant l'exploitation et la maintenance seront également de longue durée, puisque le potentiel d'un meilleur accès à la zone du projet par les récolteurs devrait être continu.

Changement des pratiques culturelles, des lois et des systèmes de gouvernance qui influencent la manière dont l'utilisation traditionnelle des TZMR se déroule :

- Des effets résiduels négatifs et positifs sur le transfert culturel devraient résulter du projet. Le défrichement de la végétation et la construction d'infrastructures pendant la phase de construction entraîneront la perte de plantes et d'habitats; il y aura des perturbations sensorielles causées par le trafic maritime et routier, ainsi que des explosions et d'autres activités du projet. Cela enlèvera ou modifiera directement les emplacements qui peuvent être utilisés pour réaliser le transfert culturel (par exemple, les lieux de récolte, les sites d'enseignement).
- Des modifications aux possibilités de transfert culturel peuvent aussi survenir à la suite d'un changement dans la perception de la santé et de la qualité des terres, ou à la suite de l'augmentation du temps de déplacement, des coûts et des distances nécessaires pour s'engager dans des occasions de transfert culturel.

- La route pourrait offrir aux Inuits un accès à des zones et des ressources auparavant difficiles ou dangereuses à atteindre, ce qui augmenterait les possibilités de transfert culturel.
- La prise de décision des Inuits devrait également bénéficier d'effets positifs grâce au projet, en raison de l'implication de la Kitikmeot Inuit Association dans le projet en tant qu'intervenant et décideur important pour les activités de conception et de construction du projet.
- La récolte continuera d'être gérée par des politiques gouvernementales et sur la base des promesses faites dans le cadre de l'Accord du Nunavut, mis en œuvre par Nunavut Tunngavik Incorporated, la Kitikmeot Inuit Association et les organisations de chasseurs et de trappeurs (OCT) concernées.
- On prévoit que les effets résiduels négatifs seront d'importance modérée et s'étendront à la ZER en raison des différents volets d'effets potentiels énumérés ci-dessus. Les effets résiduels seront de courte à longue durée selon le mécanisme d'effet; la capacité à s'engager dans des pratiques culturelles devrait être de courte à longue durée.

VS.9.1.3 Effets cumulatifs

Les effets cumulatifs sur l'utilisation traditionnelle des TZMR devraient être négatifs et d'importance faible à modérée, car des changements dans cette utilisation traditionnelle devraient survenir à la suite d'effets directs et de perturbations sensorielles au sein de la REL. Des effets cumulatifs négatifs sur l'utilisation traditionnelle des TZMR se produiront de manière continue. Le calendrier n'est pas applicable, sauf pour la qualité, la quantité ou la répartition des ressources impliquées ou requises pour l'utilisation traditionnelle des TZMR, car on s'attend à ce que la sensibilité des espèces soit de modérée à élevée à la suite des projets et des activités physiques. Dans l'éventualité où des projets raisonnablement prévisibles et raisonnablement prévisibles induits se poursuivent, les effets cumulatifs devraient être de longue durée, car ils devraient se produire durant les phases de construction, d'exploitation et de maintenance du projet, et la route sera permanente. Tous les effets devraient être irréversibles. Des effets positifs liés au changement dans l'accès aux ressources, aux sites ou aux zones où a lieu l'utilisation traditionnelle des TZMR, ainsi qu'au changement dans les pratiques culturelles, les lois et les systèmes de gouvernance qui ont une incidence sur la façon dont l'utilisation traditionnelle des TZMR se déroule, sont prévus en raison d'un accès plus facile aux ressources ou aux zones pour les activités d'utilisation traditionnelle des TZMR, et de l'augmentation de l'emploi et des revenus, ce qui entraîne une augmentation des ressources financières pouvant soutenir les engins de pêche, le carburant et l'équipement nécessaires pour participer ces activités. Avec la mise en œuvre de mesures de gestion des effets, les effets cumulatifs résiduels sur l'utilisation traditionnelle des TZMR ne sont pas considérés comme importants.

VS.9.1.4 Importance

Avec la mise en œuvre de mesures d'atténuation, de gestion et d'amélioration, les effets résiduels du projet sur l'utilisation traditionnelle des TZMR ne devraient pas être importants et les effets cumulatifs sur cette utilisation traditionnelle ne devraient pas l'être non plus.

VS.9.1.5 Mesures d'atténuation, de gestion et d'amélioration

Les principales mesures d'atténuation, de gestion et d'amélioration qui devraient éviter ou réduire les effets négatifs potentiels sur la qualité, la quantité ou la distribution des ressources traditionnelles résultant du projet comprennent ce qui suit :

- Le tracé de la route reflétera l'engagement communautaire dans la mesure du possible.
- WKR s'est engagée et continuera de collaborer avec la principale organisation inuite ayant des droits et responsabilités dans le domaine du projet, la Kitikmeot Inuit Association.
- WKR s'engage à maintenir une collaboration continue avec le gouvernement du Nunavut ou les organisations inuites, ainsi que d'autres parties potentiellement touchées concernant les effets perçus.
- WKR informera les communautés des activités et des calendriers du projet, notamment en fournissant des cartes et des composantes de conception du projet, et discutera des périodes clés de récoltes traditionnelles.
- Le projet utilisera des zones précédemment perturbées pour les activités du projet, l'infrastructure du projet et les espaces de travail, dans la mesure du possible (par exemple, la station Jericho).
- WKR s'engage à travailler en étroite collaboration avec les résidents de Kitikmeot, les communautés et d'autres intervenants afin de s'assurer que le projet est construit de manière cohérente avec les besoins et les aspirations de la région. Les communautés seront consultées tout au long de la durée du projet. WKR veillera à fournir des mises à jour opportunes sur les projets, des réponses aux commentaires fournis, ainsi que des renseignements sur les possibilités d'emploi et de formation à venir. L'interprétation/traduction en inuinnaqtun et en inuktitut sera assurée tout au long du processus de consultation afin de permettre la participation de tous les membres de la communauté.
- Des consultations seront menées avec les utilisateurs des terres pour déterminer l'emplacement et l'utilisation des zones afin d'éviter les activités génératrices de bruit (c'est-à-dire le roulement de pilotis, le forage).
- Plan de gestion routière et plan de gestion portuaire : dans le cadre du plan de gestion routière et du plan de gestion portuaire, des mesures d'atténuation en matière d'accès seront incluses afin d'assurer qu'un accès continu aux zones terrestres et marines soit maintenu tout au long de toutes les phases du projet pour les populations locales et inuites. Ces plans comprendront des dispositions pour l'accès à la route, au port, à la piste d'atterrissage et aux installations connexes. Des protocoles d'accès clairs visent à prévenir les restrictions non intentionnelles, à réduire les conflits, à diminuer le risque de surexploitation ou d'exploitation illégale des ressources marines, et à soutenir une utilisation sécuritaire et respectueuse de l'infrastructure du projet.

- Le dynamitage sera programmé à des périodes moins sensibles (par exemple, changement de quart, période sans activités traditionnelles d'utilisation des terres).
- Les zones de collecte de plantes connues et d'intérêt pour les organisations inuites et autres parties potentiellement touchées seront évitées dans la mesure du possible.
- Aucun déglaçage ne se produira lors des opérations portuaires normales, durant les phases de construction ou d'exploitation et de maintenance du projet. Le port ne recevra des navires que pendant la saison des eaux libres, qui se déroule généralement de la fin juin au mois d'octobre, et ne devrait donc pas modifier les trajectoires de migration des troupeaux de caribous de la harde de Dolphin-and-Union.
- Un plan d'atténuation et de surveillance de la faune sera élaboré et mis en œuvre. Il présentera des mesures détaillées de surveillance et d'atténuation à mettre en œuvre pendant la durée de la construction, de l'exploitation et de la maintenance du projet.

VS.9.2 Sécurité alimentaire et souveraineté alimentaire

Cette section évalue comment le projet de la route et du port de Grays Bay (le projet) peut avoir une incidence sur la sécurité alimentaire et la souveraineté alimentaire des résidents des communautés de Kitikmeot. La sécurité alimentaire « est assurée lorsque tous les êtres humains ont, à tout moment, un accès physique, social économique à une nourriture suffisante, saine et nutritive répondant à leurs besoins énergétiques et leurs préférences alimentaires pour mener une vie saine et active » (FAO 2022). Le concept de souveraineté alimentaire élargit la compréhension de la sécurité alimentaire pour y inclure « le droit des peuples à une alimentation saine, dans le respect des cultures, produite à l'aide de méthodes durables et respectueuses de l'environnement, ainsi que leur droit à définir leurs propres systèmes alimentaires et agricoles » (Nyeleni 2007). La souveraineté alimentaire inuite reflète l'importance de la terre et de l'environnement, ainsi que la culture, les valeurs et le bien-être inuits dans le système alimentaire (Panikkar et Lemmond 2020; Coalition sur la sécurité alimentaire du Nunavut 2014).

VS.9.2.1 Base de référence

L'évaluation de la sécurité alimentaire et de la souveraineté alimentaire a pris en compte les changements potentiels dans le système alimentaire traditionnel et le système alimentaire de marché durant les phases de construction, d'exploitation et d'entretien. Les changements potentiels pour les deux systèmes alimentaires ont pris en compte les quatre dimensions de la sécurité alimentaire, soit la disponibilité, l'accessibilité, l'utilisation et la durabilité des aliments prélevés dans la nature et de marché.

Pour mieux comprendre les conditions de base de la sécurité alimentaire et de la souveraineté alimentaire, plusieurs sources d'information ont été prises en compte, y compris des données statistiques, de la littérature didactique, de la littérature grise, les points de vue et les valeurs du savoir inuit, autochtone et communautaire recueillis par la mobilisation, des ateliers et les résultats d'examens par ordinateur, ainsi que des constations provenant de recherches primaires auprès des communautés.

VS.9.2.2 Répercussions du projet

Le projet aura une incidence sur la sécurité alimentaire et la souveraineté alimentaire de manière à la fois positive et négative, en fonction des composantes et activités du projet, notamment la construction de routes, l'augmentation du trafic et de l'accès, le développement portuaire et la présence humaine accrue, avec des résultats résumés comme suit :

Changement dans le système alimentaire traditionnel :

- On s'attend à ce que le projet ait des effets à la fois positifs et négatifs sur le système alimentaire traditionnel. Des effets résiduels positifs devraient se produire en raison d'une meilleure accessibilité aux ressources récoltées, ce qui pourrait réduire les barrières d'accès.
- Le projet devrait également avoir des effets résiduels négatifs sur le système alimentaire traditionnel en raison d'une augmentation des perturbations sensorielles et de la poussière provenant de la route; des modifications et une perte d'habitats terrestres et marins à la suite des activités de construction du projet; des effets sur le déplacement des espèces, y compris les populations de caribous, et des interactions avec la principale route migratoire des caribous et avec l'aire de répartition de vêlage des caribous de Bathurst.
- La disponibilité et la stabilité des aliments fiables prélevés dans la nature devraient être plus évidentes durant les phases de construction, d'exploitation initiale et de maintenance, lorsque les niveaux d'activité seront les plus élevés.
- Des mesures comme le trafic réglementé, les explosions programmées et l'interdiction de l'utilisation de véhicules récréatifs par les travailleurs visent à réduire le stress sur les espèces récoltées (par exemple, caribous, mammifères marins); cela dit, certains déplacements temporaires peuvent encore survenir.
- L'accessibilité du système alimentaire traditionnel et l'utilisation des aliments traditionnels devraient être défavorables pour les récolteurs employés dans la région de Kitikmeot, entraînant un temps de disponibilité réduit pour participer à la récolte traditionnelle.
- Une moindre participation au système alimentaire traditionnel pourrait augmenter la dépendance des personnes et des ménages aux aliments achetés en magasin, ce qui modifierait l'utilisation des aliments (c'est-à-dire diminution de la fréquence et du type d'aliments prélevés dans la nature et augmentation de la fréquence et du type d'aliments de marché consommés). Autrement, étant donné qu'il y a une préférence pour les aliments prélevés dans la nature, et que ces aliments sont perçus comme plus sains, plus frais et plus naturels que les aliments achetés en magasin, la nouvelle voie d'accès créée par le projet dans la ZEL pourrait permettre aux utilisateurs des terres, y compris les Aînés et les jeunes, d'avoir plus d'occasions de récolter sur les terres, et par conséquent, d'augmenter la quantité d'aliments prélevés dans la nature qu'ils peuvent consommer et partager avec la communauté élargie.
- Les effets résiduels néfastes devraient être d'importance faible (pour l'accessibilité aux zones de récolte) ou modérée (pour la stabilité, la disponibilité et donc l'utilisation des espèces nécessaires au système alimentaire traditionnel, comme le caribou), car le projet peut avoir des répercussions sur les aliments prélevés dans la nature et sur la qualité ou la qualité perçue de ces aliments (c'est-à-dire selon la contamination ou la contamination perçue), ce qui pourrait entraîner un évitement.

Changement dans le système alimentaire de marché

- Le projet devrait avoir des effets positifs sur le système alimentaire de marché.
- Des effets résiduels positifs devraient se produire grâce à une meilleure stabilité de la chaîne d'approvisionnement des aliments achetés en magasin, à la construction d'infrastructures de transport dans la région de Kitikmeot ainsi qu'à une meilleure accessibilité aux aliments achetés en magasin et une utilisation élargie de ces aliments, par l'intermédiaire d'emplois, de revenus et de bénéfices liés au projet.
- Il n'y a pas d'effets résiduels prévus du projet sur la chaîne d'approvisionnement utilisant les services de transport maritime et sur la distribution de produits secs et d'articles de longue conservation aux communautés de Kitikmeot.

VS.9.2.3 Effets cumulatifs

Avec l'application de mesures d'atténuation, de gestion et d'amélioration, des effets cumulatifs résiduels sont susceptibles de survenir, et l'on prévoit qu'ils seront défavorables et d'importance faible à modérée dans la ZER, en tenant compte des effets résiduels cumulatifs sur les aliments prélevés dans la nature, y compris les caribous (effets modérés sur l'habitat et les déplacements), les mammifères marins (mortalité modérée et risque de blessures résultant des collisions avec des navires), et l'eau marine (des effets d'importance faible à modérée prévus étant donné que les effets sont limités au SAP). Les effets résiduels du projet seront de longue durée et contribueront aux effets cumulatifs des projets raisonnablement prévisibles induits (RPI) en raison des perturbations sensorielles continues et de l'enlèvement ou de la modification de l'habitat pour la nourriture prélevée dans la nature. Cependant, la disponibilité des aliments prélevés dans la nature et l'accès à ces aliments devraient demeurer dans toute la ZER.

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets cumulatifs sur le système alimentaire de marché devraient être positifs.

VS.9.2.4 Importance

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets résiduels du projet et les effets cumulatifs sur la sécurité alimentaire et la souveraineté alimentaire ne seront pas importants, car ils n'entraîneront pas une baisse constante et substantielle de la disponibilité ou de la qualité perçue des aliments prélevés dans la nature, ni un changement mesurable dans le système alimentaire de marché au niveau des communautés qui ne peuvent pas être atténués par les programmes, les politiques, ou les mesures d'atténuation actuels ou prévus.

VS.9.2.5 Mesures d'atténuation, de gestion et d'amélioration

Les principales mesures d'atténuation, de gestion et d'amélioration qui devraient réduire les effets négatifs résiduels et cumulatifs du projet sur les systèmes alimentaires traditionnels et de marché résultant du projet comprennent :

- Le plan de gestion routière de WKR aidera à limiter les perturbations à la faune liées au projet, en établissant des attentes claires concernant la circulation industrielle. Ce plan comprendra des dispositions pour l'accès à la route, au port, à la piste d'atterrissage et aux installations connexes, et des mesures visant à réduire les interactions entre les véhicules et la faune et à soutenir un déplacement sécuritaire et prévisible de la faune dans les zones traditionnellement utilisées pour la récolte.
- WKR élaborera et mettra en œuvre un plan de gestion portuaire qui comprendra les exigences de la *Loi sur la sûreté du transport maritime* pour l'exploitation sécuritaire des navires commerciaux opérant à proximité du port.
- WKR transportera de l'équipement et des fournitures de l'extérieur de la région vers le site du projet à l'aide de barges, de transport maritime, d'avions ou de camions spécialement engagés sous contrat pour le projet et coordonnera les efforts conjoints de ravitaillement, si possible, avec les gouvernements locaux et territoriaux. WKR réduira également les interférences avec les efforts de ravitaillement par transport maritime, aérien et terrestre, dans la mesure du possible.
- WKR augmentera les occasions d'emploi local pour les Inuits et facilitera la participation des entreprises régionales et inuites au projet grâce à la mise en œuvre d'une stratégie de relations de travail, d'une stratégie de formation et d'une stratégie d'approvisionnement. De plus, WKR collaborera avec les Kitikmiuts, d'autres groupes autochtones et d'autres communautés potentiellement touchées tout au long de la durée du projet.

VS.9.3 Santé et bien-être communautaires

Cette section évalue la façon dont le projet de la route et du port de Grays Bay (le projet) peut avoir une incidence sur la santé et le bien-être communautaires des résidents des communautés de Kitikmeot et de Yellowknife. Dans ce contexte, la santé et le bien-être comprennent la santé physique, mentale et sociale.

VS.9.3.1 Base de référence

Un résumé des conditions existantes (c'est-à-dire de référence) pour la santé et le bien-être communautaires, y compris les infrastructures et services de santé, l'état de santé physique et les résultats en matière de santé physique, l'état de santé mentale et les résultats en matière de santé mentale, les comportements personnels liés à la santé, la stabilité communautaire et familiale, la sécurité communautaire et les déterminants biophysiques de la santé, a été recueilli à l'aide de données brutes (entrevues en personne et téléphoniques) et de sources de données secondaires (ressources littéraires).

VS.9.3.2 Répercussions du projet

La composante valorisée pour la santé et le bien-être communautaires est étroitement liée à d'autres composantes valorisées pour l'environnement humain, notamment l'utilisation traditionnelle des terres et des ressources, la sécurité alimentaire et la souveraineté alimentaire, l'emploi et l'économie, ainsi que les infrastructures et services. L'évaluation de la santé et du bien-être communautaires comprend les effets suivants :

Changement dans l'accès aux infrastructures et services de santé :

- Le projet pourrait avoir des effets positifs et négatifs sur les infrastructures et services de santé. Des effets résiduels positifs peuvent survenir en termes de revenus, d'impôts et de financement qui pourraient permettre aux gouvernements de diriger des fonds pour soutenir les ressources et programmes en santé et sociaux, y compris les infrastructures et services de santé.
- La région de Kitikmeot dispose de services limités qui sont souvent surchargés. Un déplacement médical à Yellowknife ou dans le sud du Canada est obligatoire pour les résidents qui ont besoin de services et soins médicaux spécialisés. Le projet pourrait contribuer à une demande accrue pour les infrastructures et services de santé à Yellowknife de la part de la main-d'œuvre hors région; cependant, la main-d'œuvre du projet ne devrait pas avoir recours à des soins médicaux dans les communautés de la région de Kitikmeot. Des effets résiduels négatifs peuvent aussi survenir, car la main-d'œuvre du projet hors région pourrait augmenter la demande en services de santé et en services sociaux dans la ZEL, en raison de blessures ou problèmes médicaux potentiels, réduisant ainsi la disponibilité et l'accès pour certains résidents.
- Il n'est pas prévu que des travailleurs hors région déménagent dans des communautés de la ZEL pendant les phases de construction, d'exploitation et de maintenance du projet. On s'attend donc à ce que les travailleurs du projet hors région continuent d'utiliser les infrastructures et services de santé situés dans leur communauté d'origine pour traiter des problèmes de santé chroniques, et qu'ils n'augmentent pas la demande sur les infrastructures et services de santé dans les communautés de la ZEL.
- Avec l'application de mesures d'atténuation, de gestion et d'amélioration, on s'attend à ce que les effets résiduels soient faibles, car la demande accrue sur la capacité des infrastructures et des services de santé serait au niveau ou proche des conditions de référence, et les normes de service ne seront probablement pas touchées par la planification des solutions de rechange et des contingences. Des effets résiduels devraient survenir dans la ZEL, être de longue durée, se produire sous forme d'événements multiples et occasionnels, et être irréversibles compte tenu de la perpétuité du projet; cependant, une fois la construction terminée, on prévoit une main-d'œuvre réduite pendant l'exploitation, ce qui réduira encore les changements potentiels dans les infrastructures et services de santé.

Modification du taux de maladies transmissibles :

- Des effets résiduels négatifs sur le taux de maladies transmissibles pourraient survenir en raison d'une augmentation des déplacements de personnes, en particulier des travailleurs hors région, par la ville de Yellowknife et par des interactions sociales dans les logements des camps.
- Pour réduire la transmission des maladies transmissibles, WKR mettra en place un plan de santé et de services médicaux. Ce plan comprend l'élaboration et la mise en œuvre de protocoles de prévention des maladies transmissibles et en cas d'éclosions afin de promouvoir des comportements sains, de cerner les éclosions potentielles et de limiter la transmission des maladies. Des services médicaux et de premiers soins seront disponibles sur le site du projet pendant la construction, l'exploitation et la maintenance.
- Avec l'application de mesures d'atténuation, de gestion et d'amélioration, les effets résiduels sur le taux des maladies transmissibles devraient être négatifs et d'importance faible à modérée. Dans le cas où la propagation des maladies transmissibles soit limitée aux individus travaillant sur le site, l'importance devrait être faible. L'importance peut être modérée si des maladies transmissibles sont transmises à d'autres personnes et ménages dans la ZEL. Il est peu probable qu'une communauté entière soit infectée. La transmission de maladies transmissibles peut survenir à tout moment, sans que l'on puisse en fixer les périodes (événements occasionnels).

Changement dans la santé mentale, la santé émotionnelle et les mécanismes d'adaptation :

- On s'attend à ce que le projet contribue à des effets positifs sur la santé mentale et émotionnelle grâce à l'augmentation des possibilités d'emploi ainsi qu'à l'augmentation et à la répartition du revenu. Une augmentation de l'emploi et du revenu liés aux projets pourrait alléger les pressions financières personnelles et familiales, ce qui pourrait améliorer les résultats en santé mentale et les déterminants sociaux de santé comme le logement et la sécurité alimentaire.
- Les horaires du travail en rotation et l'hébergement au camp, qui augmentent le temps passé loin des amis et de la famille, peuvent contribuer à des sentiments de stress et de nostalgie. Cela peut ensuite augmenter des mécanismes d'adaptation nuisibles (par exemple, consommation de substances) et le revenu d'emploi peut aussi contribuer à une augmentation du taux de consommation de substances.
- La possibilité de voyager à l'extérieur des communautés d'origine pourrait avoir des effets positifs sur la santé mentale et émotionnelle de certains résidents de la ZEL qui trouvent un emploi dans le cadre du projet.
- Les effets négatifs sur la santé mentale et émotionnelle résultant de l'emploi au sein du projet peuvent aggraver les problèmes de santé mentale et émotionnelle existants au sein de la ZEL.
- Les effets résiduels défavorables devraient être d'importance modérée, car des changements dans la santé mentale et émotionnelle ainsi que les mécanismes d'adaptation pourraient toucher à la fois les personnes employées dans le projet et leurs familles, s'étendant ainsi au niveau des ménages. Des effets résiduels peuvent survenir sous forme d'événements occasionnels multiples. Les changements dans la santé mentale et émotionnelle liés aux conditions de travail seront probablement réversibles après la fin de l'emploi au sein du projet; cependant, les effets liés à la consommation de substances peuvent persister en raison de leur nature addictive.

Changement dans la dynamique et la cohésion familiale et communautaire :

- On s'attend à des effets positifs et négatifs du projet sur la dynamique et la cohésion familiale et communautaire. Les revenus provenant de l'emploi lié au projet peuvent alléger les pressions financières pour les familles, bien que les horaires du travail en rotation puissent mettre à rude épreuve la dynamique et la cohésion familiale. Les revenus liés aux projets peuvent augmenter les inégalités au sein des familles et des communautés, et peuvent contribuer à une augmentation du taux de consommation de substances.
- Les familles et les communautés peuvent ressentir des effets d'un changement dans l'état de santé mentale ou des mécanismes d'adaptation des travailleurs, car certains travailleurs peuvent présenter des changements de comportement.
- Les effets résiduels positifs ne sont pas plus caractérisés. Les effets résiduels négatifs devraient être d'importance modérée, car les effets s'étendent jusqu'au niveau du ménage. Ils seront de courte à longue durée, selon la durée de l'emploi des travailleurs dans le cadre du projet. Les effets sont prévus sous forme d'événements occasionnels multiples, en fonction de la rotation des travailleurs et de l'activité saisonnière.

Changement dans la sécurité communautaire et personnelle :

- Le projet peut nuire à la sécurité communautaire et personnelle en raison des conditions de travail ainsi que de l'emploi et des revenus liés au projet.
- Les horaires de travail en rotation et l'hébergement dans les camps peuvent contribuer à des perceptions négatives et à une prévalence des préoccupations de sécurité personnelle comme le racisme, la discrimination et le harcèlement. Les revenus liés au projet peuvent contribuer à une augmentation du taux de consommation de substances, ce qui peut avoir une incidence sur la sécurité des communautés.
- L'accès à la route et au port de Grays Bay depuis Yellowknife serait limité à la saison routière hivernale, et il serait contrôlé et surveillé par WKR à la fois au port de Grays Bay et à la station Jericho, limitant ainsi le transport de drogues et d'alcool vers la ZEL à l'aide des infrastructures du projet. De plus, la route de Grays Bay ne sera pas reliée physiquement aux communautés de la région de Kitikmeot, ce qui devrait aussi limiter le transport de drogues et d'alcool vers ces communautés.
- Avec la mise en œuvre des mesures proposées d'atténuation, de gestion et d'amélioration, les effets résiduels sur la sécurité communautaire et personnelle devraient être négatifs et d'importance modérée, survenir sous forme d'événements multiples, occasionnels et irréversibles compte tenu de la permanence du projet.

Changement dans la santé en raison de l'exposition aux polluants et aux dangers :

- Les effets résiduels sur la santé liés à l'exposition aux polluants et au bruit devraient s'étendre tout au long des phases de construction, d'exploitation et de maintenance. La modélisation de la qualité de l'air montre que pendant la phase de construction au camp d'hébergement de Grays Bay, les concentrations de dioxyde de soufre (SO2), de dioxyde d'azote (NO2), de matière particulaire grossière (PM10) et de matière particulaire fine (PM2,5) étaient en tout temps dans la catégorie « Bon » de l'indice de la qualité de l'air (IQUA). L'exposition au SO2 et au PM10 représente un risque négligeable, avec des concentrations modélisées en dessous des lignes directrices de l'Organisation mondiale de la santé sur la qualité de l'air. L'exposition au NO2 et au PM2,5 représente un risque faible, car ces substances sont associées à un risque non nul à n'importe quel niveau d'exposition. L'exposition au NO2 et au PM2,5 aux concentrations modélisées est associée à des effets respiratoires de faible intensité pendant la majeure partie de la phase de construction (par exemple, légère irritation des muqueuses, des yeux, du nez et de la gorge) chez les personnes ayant des problèmes respiratoires existants comme l'asthme ou une maladie pulmonaire obstructive chronique. Les personnes en bonne santé sont peu susceptibles de subir ces effets indésirables. Au camp d'hébergement de la station Jericho et dans des endroits plus éloignés comme les camps d'exploration minière le long du corridor routier, ainsi que les endroits où les Inuits peuvent récolter des aliments traditionnels prélevés dans la nature, le risque pour la santé est plus faible et peu susceptible de présenter un risque important pour les personnes.
- La modélisation de la qualité de l'air montre que pendant la phase d'exploitation et de maintenance au camp d'hébergement de Grays Bay, les concentrations de NO2, SO2, PM10 et PM2.5 seraient en tout temps dans la catégorie « Bon » de l'IQUA. L'exposition au SO2, au PM10 et au PM2,5 comporte un risque négligeable, avec des concentrations modélisées en dessous des lignes directrices de l'Organisation mondiale de la santé sur la qualité de l'air. L'exposition au NO_2 comporte un faible risque, similaire à celui de la phase de construction, et est associée aux mêmes types d'effets respiratoires de faible intensité chez les personnes ayant des problèmes respiratoires préexistants. Cependant, ces effets potentiels devraient se produire sur une période plus courte, soit environ un tiers de chaque année, compte tenu des émissions réduites durant la phase d'exploitation et d'entretien. Les personnes en bonne santé sont peu susceptibles de subir ces effets indésirables. Au camp d'hébergement de la station Jericho et dans des endroits plus éloignés comme les camps d'exploration minière le long du corridor routier, ainsi que les endroits où les Inuits peuvent récolter des aliments traditionnels prélevés dans la nature, le risque pour la santé est plus faible et peu susceptible de présenter un risque important pour les personnes.
- La modélisation du bruit montre un risque négligeable d'inconfort et de perturbation du sommeil pour les travailleurs hors service résidant dans les camps d'hébergement de Grays Bay et de station Jericho, les personnes dans les camps d'exploration minière le long du corridor routier, et les Inuits et Autochtones menant des activités traditionnelles de récolte d'aliments prélevés dans la nature.

VS.9.3.3 Effets cumulatifs

Pour qu'un effet cumulatif sur la santé se produise, les émissions de polluants atmosphériques ou de bruit du projet doivent avoir lieu au même endroit et en même temps que les émissions d'autres activités. Si les émissions ne coïncident pas dans l'espace et le temps, elles ne peuvent pas se combiner pour créer des effets cumulatifs. Aucune information technique détaillée n'est disponible sur l'ouverture potentielle de mines dans le futur ni suffisamment pertinente pour appuyer des évaluations basées sur la santé. Sans cette information, il n'est pas possible d'estimer l'importance ou le type d'impacts environnementaux associés à ces projets raisonnablement prévisibles induits.

Dans l'ensemble, le changement cumulatif en matière de santé en raison de l'exposition aux polluants atmosphériques et au bruit devrait être défavorable, mais de faible importance. L'étendue géographique des effets se situe dans la ZER (basée sur la ZER pour les effets de la qualité de l'air et du bruit). La sensibilité des effets ne dépend pas d'une période particulière. Les effets seront de longue durée, tout au long de la durée de vie du projet, et continus, puisque les émissions d'autres projets se poursuivront pendant des années. Les effets cumulatifs sont irréversibles.

VS.9.3.4 Importance

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets résiduels du projet et les effets cumulatifs sur la santé et le bien-être communautaires ne seront pas importants. On ne s'attend pas à ce que le projet dépasse la capacité disponible des infrastructures et services de santé, ni à ce qu'une baisse importante de la qualité d'un service, offert de façon persistante et continue, ne puisse pas être atténuée grâce aux programmes et politiques ou aux mesures d'atténuation, de gestion et d'amélioration actuels ou prévus. Le projet ne devrait pas entraîner un changement mesurable ou observé par rapport aux conditions et tendances actuelles en matière de santé physique, mentale et sociale et de bien-être au niveau communautaire, qui ne peut être évité ou réduit à un niveau acceptable par des ajustements aux programmes, politiques et plans ou par d'autres mesures d'atténuation, de gestion et d'amélioration. On ne s'attend pas à ce que le projet entraîne un effet négatif important sur la santé des personnes en raison de leur exposition aux polluants et au bruit.

VS.9.3.5 Mesures d'atténuation, de gestion et d'amélioration

Les principales mesures d'atténuation, de gestion et d'amélioration qui devraient réduire les effets négatifs résiduels et cumulatifs sur la santé et le bien-être communautaires résultant du projet comprennent :

- Une politique sur les déplacements dans le cas où le personnel en transit vers/depuis le site du projet est victime d'intempéries dans une communauté. La politique sur les déplacements comprendra des plans relatifs à l'hébergement, aux repas, à l'utilisation des services médicaux communautaires et à d'autres besoins du personnel lors des retards dans les déplacements.
- Un programme d'éducation doit informer les travailleurs de la gamme de services de santé disponibles sur place.
- Un plan de santé, sécurité et environnement (SSE) comprendra des exigences de formation sur la sécurité pour le personnel, ainsi que des procédures en matière de sécurité et d'intervention.

- La stratégie d'approvisionnement sera élaborée et mise en œuvre pour faciliter la participation des entreprises régionales et inuites, en offrant notamment une première occasion aux entreprises régionales et inuites, dans tout processus concurrentiel. La stratégie d'approvisionnement donnera la priorité à l'utilisation d'équipements de construction locaux afin de réduire le besoin de transporter de l'équipement de l'extérieur de la région.
- La stratégie de formation mettra en évidence les besoins précis en matière de compétences pour l'emploi dans le cadre du projet et travaillera avec des établissements locaux et régionaux de formation et d'éducation afin d'augmenter les possibilités d'emploi chez les Inuits locaux, et de mettre en œuvre des programmes de formation et d'apprentissage en milieu de travail.
- Des politiques sur le genre, l'équité et la diversité axées sur l'embauche d'Inuits, d'autres Autochtones et de femmes afin d'augmenter l'emploi lié au projet parmi les populations sous-représentées.
- Un accès à des outils de télécommunication virtuels ou téléphoniques sur place pour appeler des membres de la famille ou pour communiquer avec les Aînés, ce qui pourrait améliorer les liens familiaux.
- Une politique sur les drogues et l'alcool qui s'appliquera à l'ensemble du personnel et des entrepreneurs sur place, dans les camps de travail et durant le transit dans les communautés.
- Des procédures de dépistage de drogues et d'alcool pour les bagages enregistrés et les bagages à main lors des vols nolisés.
- Une formation à la sensibilisation et à la sensibilité culturelle pour l'ensemble du personnel et des entrepreneurs.
- Un code de conduite des employés qui comprend une tolérance zéro en matière de discrimination, d'intimidation et de harcèlement dans la politique sur le milieu de travail ainsi qu'une formation pertinente à cet égard.
- Des politiques, procédures et formation contre le harcèlement et la violence en milieu de travail.
- Du personnel de sécurité sur place et un contrôle d'accès.
- Un plan de mobilisation communautaire visant à recevoir les suggestions, les préoccupations et les plaintes de la communauté et à y répondre.
- Des occasions pour les travailleurs autochtones sur place d'échanger avec les Aînés de la communauté afin d'établir un point de connexion avec les communautés d'origine et permettre un counseling traditionnel.
- Un programme de surveillance socio-économique (PSSE). Le PSSE comprendra des rapports annuels de surveillance. Les rapports seront soumis à la Commission du Nunavut chargée de l'examen des répercussions (CNER), au besoin.
- De plus, WKR collaborera avec les Kitikmiuts, d'autres groupes autochtones et d'autres communautés potentiellement touchées tout au long de la durée du projet.

VS.9.4 Emploi et économie

L'emploi et l'économie ont été considérés comme une composante valorisée (CV) à évaluer pour le projet. Le projet peut avoir un impact positif ou négatif sur l'emploi et l'économie par un changement dans le développement et les possibilités économiques, un changement dans l'emploi, un changement dans l'éducation et la formation, un changement dans la passation de marchés et les occasions d'affaires, ainsi qu'un changement dans le coût de la vie.

VS.9.4.1 Base de référence

Le résumé des conditions actuelles en matière d'emploi et d'économie indique que le Nunavut repose sur une économie mixte, comprenant un système économique traditionnel et un système économique de marché. L'économie traditionnelle repose sur une utilisation des terres pour la subsistance et est liée à des activités culturellement importantes, notamment la récolte et la pêche traditionnelles, ainsi que la production d'art et d'artisanat inuits. L'économie de marché ou basée sur les salaires est soutenue par des industries clés comme l'exploitation minière, l'administration publique et la construction.

La main-d'œuvre du Nunavut présente des taux de participation et d'emploi plus faibles que la moyenne nationale, tandis que le chômage est plus élevé. Le niveau d'éducation au Nunavut demeure inférieur à la moyenne nationale, et dans la région de Kitikmeot, la plupart des résidents n'ont pas de diplôme d'études secondaires. Le coût de la vie au Nunavut est élevé par rapport au reste du Canada, en particulier le coût de la nourriture.

VS.9.4.2 Répercussions du projet

Le projet aura un impact à la fois positif et négatif sur l'emploi et l'économie, en fonction des composantes et activités du projet, notamment la construction de routes, l'augmentation du trafic et de l'accès, le développement portuaire et la présence humaine accrue, avec des résultats résumés comme suit :

Changement dans le développement et les possibilités économiques :

- On s'attend à ce que le projet produise des effets positifs sur le développement et les possibilités économiques. Les activités et dépenses du projet en matériaux, équipements et services entraîneront une augmentation de l'activité économique et contribueront au produit intérieur brut (PIB) et aux revenus municipaux, territoriaux et fédéraux. Le projet pourrait également soutenir des objectifs économiques plus larges pour la région de Kitikmeot et le Nunavut.
- Les activités de construction, d'exploitation et de maintenance du projet contribueront au PIB du Nunavut et aux revenus du gouvernement territorial.

Changement lié à l'emploi :

- On s'attend à ce que le projet produise des effets positifs et négatifs sur l'emploi. La demande de main-d'œuvre, de matériaux, d'équipement et de services créera des possibilités d'emploi et des revenus d'emploi. Cependant, cette demande pourrait aussi créer une concurrence chez les travailleurs. Les possibilités d'emploi offertes par le projet pourraient limiter le temps nécessaire pour s'engager dans les activités traditionnelles, tandis que les revenus d'emploi fourniront des ressources financières qui pourront soutenir la participation aux activités traditionnelles.
- Les activités de construction, d'exploitation et de maintenance du projet créeront des possibilités d'emploi et des revenus pour les travailleurs résidant dans la région de Kitikmeot, au Nunavut et dans le reste du Canada.
- L'emploi lié au projet peut limiter le temps et la capacité de certaines personnes à s'adonner à des activités traditionnelles comme la chasse, le piégeage, l'artisanat et la pêche, car les travailleurs résideront dans des camps pendant leurs quarts plutôt que dans des communautés de Kitikmeot. Sans doute, les revenus d'emploi associés au projet pourraient fournir des ressources financières pour soutenir une plus grande participation aux activités traditionnelles et de ce fait, des occasions de transfert du savoir.
- La demande de main-d'œuvre liée au projet pendant la construction pourrait accroître la concurrence pour les travailleurs dans la région de Kitikmeot et dans tout le Nunavut.
- Les effets résiduels négatifs seront de longue durée, car l'emploi surviendra dans les activités de construction, d'exploitation et de maintenance, sera de faible importance, s'étendra à la ZER, se produira de façon continue; cependant, ces effets seront réversibles, car la main-d'œuvre devrait s'adapter progressivement à ce changement.

Changement dans l'éducation et la formation :

- On s'attend à ce que le projet produise des effets positifs et négatifs sur l'éducation et la formation. Le projet devrait créer des possibilités d'éducation et de formation, ce qui pourrait augmenter l'inscription aux programmes d'éducation et de formation. Cependant, les occasions d'emploi liées au projet peuvent amener les étudiants à quitter l'école pour travailler.
- Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets résiduels du projet sur les changements dans l'éducation et la formation devraient être positifs.
- Tout effet négatif sur les taux de réussite scolaire devrait être négligeable. Les effets résiduels négatifs seront de longue durée, car ils surviendront durant les activités de construction, d'exploitation et de maintenance, dans la ZEL; ils se produiront de façon continue et seront réversibles.

Changement dans la passation de marchés et les occasions d'affaires :

- On s'attend à ce que le projet produise des effets positifs sur la passation de marchés et les occasions d'affaires. Les dépenses des projets en matériaux, équipements et services créeront des occasions d'approvisionnement pour les entreprises.

Changement dans la résilience du réapprovisionnement communautaire :

- On s'attend à ce que le projet produise des effets positifs sur la résilience du réapprovisionnement communautaire. Des effets négatifs pourraient survenir en raison d'une demande accrue sur la capacité de réapprovisionnement communautaire par le transport aérien du projet. Des effets positifs sur la résilience du réapprovisionnement communautaire pourraient se produire par la mise en place de nouvelles infrastructures qui pourraient prolonger le calendrier et augmenter la fréquence du réapprovisionnement.
- WKR engagera des transports maritimes dédiés pour transporter l'équipement et les fournitures vers le site du projet, ce qui évitera de nuire à la capacité des opérations du transport maritime commercial existant, utilisé pour desservir les communautés, et WKR collaborera avec les gouvernements locaux et territoriaux pour réduire les interférences potentielles liées à la livraison par transport maritime.
- Le ravitaillement par transport aérien sera effectué par des compagnies aériennes nolisées de Yellowknife, directement vers le site du projet, et les marchandises (par exemple, les consommables) ne seront pas fournies par les mêmes fournisseurs que celles qui sont transportées dans la région de Kitikmeot.
- Le projet pourrait renforcer la résilience du réapprovisionnement communautaire dans la région de Kitikmeot en établissant de nouvelles infrastructures terrestres et marines pour soutenir le ravitaillement communautaire, en fournissant un point d'accès supplémentaire à la région de Kitikmeot par transport maritime pendant la saison des eaux libres.
- S'il existe des moyens de transporter des marchandises et des matériaux du port de Grays Bay vers les communautés de Kitikmeot, le port servirait d'option supplémentaire de ravitaillement, diversifiant les points d'accès aux communautés de Kitikmeot et améliorant la connectivité régionale.

VS.9.4.3 Effets cumulatifs

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets cumulatifs sur le développement et les possibilités économiques, la passation de marchés et les occasions d'affaires ainsi que la résilience du réapprovisionnement communautaire devraient être positifs. Les dépenses en matériaux, équipement et services associés à des projets et activités physiques raisonnablement prévisibles et raisonnablement prévisibles induits, au-delà des dépenses du projet, entraîneront une augmentation de l'activité économique, contribueront au PIB et aux revenus municipaux, territoriaux et fédéraux et créeront des occasions d'approvisionnement pour les entreprises régionales.

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets cumulatifs sur l'emploi, l'éducation et la formation devraient être à la fois positifs et négatifs. Le projet raisonnablement prévisible et raisonnablement prévisible induit et les activités physiques devraient augmenter les possibilités d'emploi, les revenus d'emploi, et des possibilités d'éducation et de formation dans la ZER.

Des effets cumulatifs négatifs devraient se produire par une concurrence chez les travailleurs et l'augmentation des inscriptions dans les programmes d'éducation et de formation qui pourraient survenir si la demande dépasse les capacités, se manifestant notamment par une surpopulation, des ressources sous pression, l'incapacité d'accéder aux programmes ou la qualité moindre des services. Les effets de la concurrence risquent d'être modérés au fil du temps à cause de plusieurs facteurs. Il est à noter que la

population jeune et croissante du Nunavut continuera d'avoir besoin d'un grand nombre de nouvelles occasions d'emploi à mesure que de plus en plus de personnes entreront sur le marché du travail, compte tenu, surtout, du taux de chômage élevé qui persiste dans le territoire par rapport au niveau national. Les effets cumulatifs sur la demande en main-d'œuvre et la concurrence pour les travailleurs peuvent être d'importance modérée à élevée, applicables dans toute la ZER et de longue durée; ils se produiront de façon continue et seront réversibles à mesure que le marché du travail s'adaptera à ce changement (par exemple, augmentation des salaires, formation accrue, migration accrue, réaffectation des travailleurs entre secteurs). Cependant, toute augmentation substantielle de la demande en matière d'éducation à long terme sera probablement traitée aussi par les fournisseurs dans le domaine de l'éducation (par exemple, Commission canadienne d'accréditation des établissements d'enseignement et de formation) au moyen d'une capacité supplémentaire, d'offres de cours ou d'autres stratégies. On prévoit que les développeurs régionaux de projets, y compris WKR, travailleront en étroite collaboration avec le ministère de l'Éducation du gouvernement du Nunavut et d'autres fournisseurs afin de cerner les besoins et ressources futurs dans ce domaine.

VS.9.4.4 Importance

Avec la mise en œuvre de mesures d'atténuation, d'amélioration et de gestion, les effets négatifs résiduels du projet sur les conditions d'emploi et économiques dans la ZEL et la ZER ne devraient pas être importants, car ils ne créent pas un changement défavorable mesurable par rapport aux conditions et tendances actuelles qui ne peut être géré ou atténué, et le projet n'entraînera pas une réduction de la croissance annuelle du PIB au niveau du territoire.

Les effets cumulatifs résiduels défavorables sur les conditions d'emploi et économiques dans la ZEL et la ZER ne devraient pas être importants. En effet, bien que le projet, combiné aux développements passés, actuels, raisonnablement prévisibles et raisonnablement prévisibles induits, soit censé entraîner un changement défavorable mesurable par rapport aux conditions et tendances existantes, les effets devraient être gérés efficacement par des ajustements aux programmes, politiques et plans, ainsi que par la mise en œuvre de mesures d'atténuation supplémentaires.

VS.9.4.5 Mesures d'atténuation, de gestion et d'amélioration

Des mesures d'atténuation, de gestion et d'amélioration devraient réduire les effets négatifs et renforcer les effets positifs.

- Un programme de surveillance socio-économique (PSSE) sera l'une des stratégies clés pour guider la mise en œuvre des mesures d'atténuation et de gestion, évaluer l'efficacité des mesures d'atténuation et de gestion, mesurer comment les communautés expérimentent les effets (tant positifs que négatifs), aider au développement économique et socio-économique des communautés inuites, et permettre une gestion adaptative des effets socio-économiques émergents/nouveaux.

- Une stratégie axée sur les relations de travail sera élaborée et mise en œuvre pour améliorer et conserver l'emploi inuit local, en mettant l'accent sur l'embauche préférentielle des Inuits. La stratégie axée sur les relations de travail détaillera les compétences et les exigences d'entrée, les avantages sociaux des employés, la communication entre employés, les horaires de rotation de travail, les programmes d'orientation des employés et un soutien continu aux travailleurs du projet pendant leur emploi. Cela comprend :
- Des politiques sur le genre, l'équité et la diversité axées sur l'embauche d'Inuits, d'autres personnes autochtones et de femmes afin d'augmenter l'emploi lié au projet parmi les populations sous-représentées.
- Un code de conduite des employés qui comprend une tolérance zéro en matière de discrimination, d'intimidation ou de harcèlement dans la politique sur le milieu de travail ainsi qu'une formation pertinente.
- Une stratégie de formation sera élaborée et mise en œuvre afin de cerner les besoins précis en matière de compétences pour l'emploi dans le projet, d'offrir une formation préalable à l'emploi pour les Inuits et les jeunes (en partenariat avec les établissements d'éducation et les organisations inuites sur place), et de mettre en œuvre des programmes de formation et d'apprentissage en milieu de travail.
- Une stratégie d'approvisionnement, axée sur les possibilités de passation de marchés inuites, sera élaborée et mise en œuvre afin de faciliter l'implication des entreprises régionales et inuites.

VS.9.5 Infrastructures et services

Les membres de la communauté Kitikmeot reconnaissent que le climat rigoureux du Nunavut, son isolement, ses coûts élevés et la courte saison de construction rendent les infrastructures difficiles à construire et à entretenir. Une grande partie des infrastructures du territoire vieillit, les besoins en logements sont élevés et les communautés ne disposent pas de liaisons routières ou ferroviaires toutes saisons. Les livraisons de fournitures sont peu fréquentes, coûteuses et peu fiables, ce qui suscite un fort intérêt pour un réseau de transport amélioré et un ravitaillement plus fréquent. Le projet peut avoir des répercussions positives ou négatives sur les infrastructures et les services.

VS.9.5.1 Base de référence

Le Nunavut fait face à un important déficit infrastructurel par rapport au reste du Canada. Le climat rigoureux, l'éloignement géographique, les courtes saisons de construction, les ressources limitées et les changements climatiques rendent la construction et l'entretien des infrastructures extrêmement difficiles. Une grande partie des infrastructures actuelles est vieillissante ou a dépassé sa durée de vie. Les répercussions du colonialisme et d'autres facteurs ont contribué aux mauvaises conditions socio-économiques dans les communautés du Nunavut et de Kitikmeot. La pénurie de logements, leur état médiocre et la surpopulation touchent de nombreux résidents de Kitikmeot. Certaines sous-populations peuvent être touchées de façon disproportionnée par un manque d'infrastructures et de services communautaires. Les communautés du Nunavut sont généralement séparées par de grandes distances et ne sont pas reliées entre elles ni au reste du Canada par des réseaux routiers ou des liaisons ferroviaires en toute saison. Le Nunavut dispose d'une

infrastructure maritime très limitée, avec un seul port en eaux profondes à Iqaluit, ce qui signifie que la plupart des navires doivent décharger leur cargaison sur des barges ou de petites embarcations, et de nombreuses régions manquent encore de cartes de navigation adéquates. Le ravitaillement communautaire auprès des communautés de Kitikmeot se fait actuellement par transport maritime une ou deux fois par année, et par transport aérien régulier, mais ils sont sujets à des modifications, retards et annulations.

VS.9.5.2 Répercussions du projet

Le projet peut avoir une incidence sur les infrastructures et les services, tant positivement que négativement, par un changement dans les infrastructures communautaires et l'accès aux services publics, un changement dans la disponibilité des hébergements et des logements, un changement dans les infrastructures de transport, et un changement dans le ravitaillement communautaire, comme résumé ci-dessous.

Changement dans l'infrastructure communautaire et l'accès aux services publics :

- Les effets sur les infrastructures communautaires et l'accès aux services publics devraient être à la fois positifs et négatifs.
- Le projet ajoutera de nouvelles infrastructures terrestres et maritimes qui pourront soutenir les activités de la Garde côtière canadienne (GCC) et de recherche et de sauvetage (SAR), améliorer la signalisation et générer des revenus gouvernementaux qui pourraient bénéficier aux infrastructures communautaires et aux services publics.
- Les activités du projet et la mobilisation de la main-d'œuvre pourraient augmenter le fardeau des infrastructures locales, des services d'urgence et des services publics en raison du déplacement des travailleurs dans toute la région de Kitikmeot et de Yellowknife. Les effets résiduels négatifs devraient être de faible importance, de longue durée et survenir sous forme d'événements occasionnels et irréversibles.

Changement dans la disponibilité des hébergements et des logements :

- Les effets sur la disponibilité des hébergements et des logements devraient être à la fois positifs et négatifs.
- Les camps temporaires et permanents logeront la plupart des travailleurs et permettront de réduire la pression sur l'habitation locale; mais la demande de logements provisoires peut avoir des répercussions sur les hôtels et les logements locatifs.
- Le projet pourrait améliorer la disponibilité des logements en renforçant les infrastructures terrestres et maritimes, facilitant ainsi le transport des matériaux de construction vers les communautés de Kitikmeot.
- Les effets résiduels négatifs sur la disponibilité des hébergements et des logements devraient être de longue durée, de faible importance, et survenir à la fois de façon régulière (rotations programmées) et de façon ponctuelle (retards dus aux conditions météorologiques). Ces effets négatifs sont considérés comme irréversibles et sont particulièrement marqués durant les mois d'hiver, lorsque la demande d'hébergement à Yellowknife est déjà élevée.

Changement dans l'infrastructure de transport :

- Les effets du projet sur les infrastructures de transport devraient être à la fois positifs et négatifs. Les nouvelles infrastructures de transport créées par le projet (route, port et aérodrome) amélioreront la connectivité dans la région de Kitikmeot et avec Yellowknife.
- Le projet devrait avoir des effets résiduels négatifs sur les infrastructures de transport en raison d'une demande accrue sur la route d'hiver de Tibbitt à Contwoyto (TCWR) pendant la saison hivernale routière et sur les infrastructures de transport aérien.
- Les effets résiduels négatifs seront de faible importance, de longue durée, et surviendront sous forme d'événements occasionnels et seront irréversibles.

Changement dans le réapprovisionnement communautaire :

- Les effets du projet sur le ravitaillement communautaire devraient être à la fois positifs et négatifs. Le projet renforcera les infrastructures terrestres et maritimes dans la ZER et pourrait améliorer le réapprovisionnement communautaire grâce au transport de marchandises et de matériaux, du port de Grays Bay vers les communautés de Kitikmeot. Le transport de marchandises et de matériaux du port vers les communautés de Kitikmeot peut se faire individuellement ou par l'établissement de nouvelles entreprises en transport de marchandises et de matériaux.
- De nouvelles infrastructures de transport pourraient faciliter un ravitaillement plus fréquent et fiable des marchandises aux communautés de Kitikmeot.
- Il n'y a pas d'effets résiduels prévus du projet sur le ravitaillement communautaire provenant de l'utilisation de services de transport maritime ou de transport aérien pour le déplacement de marchandises et de matériaux en vue des activités de construction, d'exploitation et de maintenance du projet.

VS.9.5.3 Effets cumulatifs

Les effets cumulatifs sur les infrastructures et les services devraient comprendre à la fois des avantages et des pressions : de nouvelles infrastructures terrestres et maritimes issues du projet et d'autres développements prévisibles soutiendront les activités de la Garde côtière et de la recherche et sauvetage (SAR), amélioreront la signalisation et pourraient faciliter la construction de logements et assurer un ravitaillement communautaire plus fiable, tout en générant des revenus qui pourraient améliorer les services publics au fil du temps. En même temps, le déplacement et la possible immigration de travailleurs, principalement par Yellowknife, pourraient exercer une pression supplémentaire à long terme, de faible à modérée et irréversible sur les infrastructures communautaires, le logement, les systèmes de transport (y compris le transport aérien et la TCWR) ainsi que sur la capacité des services, bien que l'on s'attende à ce que ces effets se produisent de façon ponctuelle et demeurent à l'intérieur des limites existantes du système, ou proches de celles-ci.

VS.9.5.4 Importance

Les effets cumulatifs résiduels sur les infrastructures et les services dans la ZER ne sont pas importants, car ils ne dépassent pas la capacité disponible des infrastructures et des services; de plus, ils n'entraînent pas une baisse substantielle de la qualité d'un service fourni (de façon persistante et continue) qui ne peut être atténuée par les programmes, politiques ou mesures d'atténuation actuels ou prévus.

VS.9.5.5 Mesures d'atténuation, de gestion et d'amélioration

Les principales mesures d'atténuation, de gestion et d'amélioration qui devraient réduire les effets négatifs résiduels et cumulatifs sur l'emploi et l'économie résultant du projet comprennent ce qui suit :

- Une politique sur les déplacements régira l'hébergement, les repas, l'accès aux services médicaux et d'autres besoins du personnel soumis à des retards dans les déplacements à cause d'intempéries.
- Un plan de santé, sécurité et environnement (SSE) comprendra des exigences de formation sur la sécurité pour le personnel, ainsi que des procédures en matière de sécurité et d'intervention.
- Le plan de santé et de services médicaux comprendra des mesures de prévention et de gestion des blessures, des infections et la prévention ou la gestion des maladies, ainsi que des détails sur les services médicaux/premiers soins sur place et l'intervention d'urgence, y compris l'évacuation.
- Un plan de gestion des risques et d'intervention d'urgence définira des protocoles de notification avec les groupes locaux de recherche et sauvetage et la GCC/Garde côtière auxiliaire canadienne (GCAC), y compris les exigences en matière de compensation si leurs ressources sont utilisées.
- Un plan de gestion portuaire assurera l'exploitation sécuritaire des navires commerciaux opérant à proximité du port conformément aux exigences de la *Loi sur la sûreté du transport maritime*.
- Une stratégie d'approvisionnement soutiendra la participation des Inuits et des entreprises régionales, priorisera l'équipement local et améliorera les avantages économiques locaux.
- Un programme de surveillance socio-économique (PSSE) surveillera les conditions socio-économiques, suivra l'efficacité des mesures d'atténuation, documentera les expériences communautaires et soutiendra la gestion adaptative.

WKR continuera de répondre aux questions et préoccupations des Kitikmiuts, d'autres groupes autochtones et d'autres communautés potentiellement touchées grâce à ses efforts de mobilisation continus. WKR élaborera également des orientations visant à intégrer les perspectives communautaires, le savoir inuit, le savoir autochtone et les connaissances de la collectivité, afin d'intégrer de manière significative ce précieux savoir dans les activités du projet.

VS.9.6 Utilisation non traditionnelle des terres, des zones marines et des ressources

La région de Kitikmeot est composée à la fois de terres inuites et de terres publiques. Comme négocié dans le cadre de l'Accord sur les revendications territoriales du Nunavut, les terres publiques avec droits tréfonciers ont été choisies par les Inuits pour faire progresser le développement économique au profit des bénéficiaires des revendications territoriales et afin de reconstruire et de promouvoir l'autodétermination inuite dans la gestion des terres et des ressources de la région de Kitikmeot (Public History Inc. 2006).

L'utilisation non traditionnelle des terres, des zones marines et des ressources a été définie comme une composante valorisée à évaluer pour le projet. Le projet interagira avec des zones faisant partie de terres inuites et de terres publiques. Le projet devrait interagir avec certains utilisateurs non traditionnels des terres, des zones marines et des ressources par des changements dans l'accès aux terres et aux ressources et leur utilisation pour l'exploitation minière, des changements dans l'accès aux terres et aux ressources et leur utilisation pour la récolte commerciale, le tourisme et les loisirs, ainsi que des changements dans l'accès aux eaux et leur utilisation pour la navigation maritime.

VS.9.6.1 Base de référence

Les terres inuites comprennent environ 6,6 millions d'hectares dans la région ouest de Kitikmeot, 5,6 millions d'hectares avec droits de superficie et environ 1 million d'hectares (15 pour cent [%]) avec droits tréfonciers. Les terres publiques représentent environ 47 millions d'hectares dans la région ouest de Kitikmeot. La région de Kitikmeot a été explorée historiquement pour l'or, les métaux communs, les diamants et les éléments du groupe du platine. La mine Goose (B2Gold Corp.) est la seule mine en activité dans la région de Kitikmeot. Il existe plusieurs projets d'exploration minérale avancée dans la région de Kitikmeot.

Plusieurs entreprises proposent des activités touristiques, de l'équipement et des guides dans cette région. Ces entreprises offrent des activités de pêche sportive, de chasse sportive et des loisirs pour les touristes de la région. L'utilisation maritime non traditionnelle dans la région du Kitikmeot comprend l'activité des navires de mer, y compris des navires commerciaux, des navires du gouvernement, des brise-glaces et de petites embarcations (par exemple, à usage personnel). Le trafic maritime commercial sert principalement à l'expédition vers une destination, aux transports maritimes annuels pour livrer des fournitures aux communautés de l'Arctique, ou aux voyages (c'est-à-dire croisières) vers et depuis des emplacements dans l'Arctique.

VS.9.6.2 Répercussions du projet

Le projet aura une incidence sur les terres, les zones marines et les ressources non traditionnelles de manière à la fois positive et négative, en fonction des composantes et activités du projet, notamment la construction de routes, l'augmentation du trafic et de l'accès, le développement portuaire et la présence humaine augmentée, avec des résultats résumés comme suit :

Changement dans l'affectation du sol :

- Les terres publiques et les parcelles de terrain inuites seront traversées par la route et le port, mais il n'y aura aucun changement dans l'affectation du sol. La Kitikmeot Inuit Association considère que l'alignement routier dans les terres inuites est à leur avantage, car il offre un meilleur accès aux zones sous désignation de terres inuites.
- Dans l'ensemble, après la mise en œuvre des mesures d'atténuation, de gestion et d'amélioration, les effets résiduels sur l'accès aux terres et ressources et sur leur utilisation pour l'exploitation minière devraient être positifs, car le projet offrira un accès à une zone auparavant inaccessible pour l'exploration et l'exploitation minières. Les effets résiduels positifs ne sont pas plus caractérisés.

Changement dans l'accès aux terres et ressources et dans leur utilisation pour l'exploitation minière :

- On s'attend à ce que le projet ait des effets positifs sur l'accès aux terres et aux ressources et leur utilisation pour l'exploitation minière, puisque le projet fournira un accès à une zone auparavant inaccessible pour l'exploration et l'exploitation minières. Le projet pourrait accroître l'accès aux zones de la ZEL et de la ZER pour la récolte commerciale, le tourisme et les loisirs. Les effets résiduels positifs ne sont pas plus caractérisés.
- Les effets négatifs devraient être de faible importance, car certains utilisateurs pourraient choisir d'éviter le SAP pendant les périodes de construction ou d'activité opérationnelle intense au port et le long de la route, et se limiter au SAP et à la ZEL. Les effets résiduels seront probablement de courte durée (restrictions d'accès temporaires et perturbations sensorielles liées aux activités de construction) et de longue durée (perturbations sensorielles liées à l'exploitation et à la maintenance), et réguliers/continus en fréquence. Les effets sont très sensibles en raison de la nature saisonnière de la récolte commerciale, y compris la chasse et la pêche. Les effets résiduels seront probablement irréversibles, car le projet sera permanent.

Changement dans l'accès aux terres et ressources et leur utilisation pour la récolte commerciale, le tourisme et les loisirs :

- Le projet pourrait avoir une incidence sur l'accès aux terres et ressources et leur utilisation pour la récolte commerciale, le tourisme et les loisirs. Le projet peut donner accès à des zones auparavant inaccessibles pour ces activités, mais il pourrait aussi causer des perturbations sensorielles et des effets nuisibles sur les utilisateurs des terres et des ressources ainsi que sur les espèces récoltées commercialement, ce qui pourrait porter préjudice au succès de la récolte pour la chasse sportive.
- Avec l'application de mesures d'atténuation, de gestion et d'amélioration, on prévoit que les effets résiduels seront de faible importance, limités au SAP et à la ZEL, de courte à longue durée et réguliers/continus en fréquence. Les effets résiduels seront probablement irréversibles, car le projet sera permanent.

Changement dans l'accès aux eaux et dans leur utilisation pour la navigation maritime :

- Le projet renforcera les infrastructures maritimes utilisables dans la région ouest de Kitikmeot et devrait avoir des effets positifs sur la navigation maritime grâce à l'amélioration des aides à la navigation, de la cartographie et de la signalisation, ce qui entraînera une amélioration de la sécurité.
- Les activités de navigation liées au projet peuvent avoir une incidence sur les parcours de navigation existants pour les grands navires et les petites embarcations, et certains utilisateurs de la communauté peuvent choisir d'éviter Grays Bay pendant les périodes de construction ou d'activités maritimes opérationnelles intenses, et choisir un autre itinéraire (par exemple, plus loin du littoral).
- Avec l'application de mesures d'atténuation, de gestion et d'amélioration, les effets résiduels négatifs sur la navigation dans la ZER devraient être de faible importance, de courte durée et réversibles, à mesure que les navigateurs existants se familiarisent avec la fréquence de passage et les itinéraires des navires en mer.

VS.9.6.3 Effets cumulatifs

Comme le projet ne devrait pas entraîner un changement dans l'affectation du sol, aucun effet résiduel du projet n'est prévu et donc, cet effet n'est pas pris en compte dans l'évaluation des effets cumulatifs. Le projet et d'autres développements prévisibles devraient étendre les infrastructures terrestres et marines dans la zone d'évaluation régionale, créant des effets cumulatifs positifs pour les promoteurs de ressources minérales en améliorant l'accès aux zones d'exploration sur les terres inuites comme sur les terres publiques. Bien que les perturbations sensorielles causées par le projet puissent se combiner à celles d'autres activités, ces effets cumulatifs sur la récolte, le tourisme et les loisirs non traditionnels devraient demeurer faibles en importance, être de longue durée, continus et irréversibles, mais pas au point d'empêcher les activités existantes de se poursuivre à leurs niveaux de référence. De même, de nouvelles infrastructures portuaires amélioreront la navigation maritime pour l'expédition, le tourisme et les petites embarcations, bien qu'une augmentation du trafic maritime puisse créer des effets nuisibles modérés, de longue durée et irréversibles pour d'autres utilisateurs; cependant, ces changements ne devraient pas freiner l'utilisation globale des navires dans la région.

VS.9.6.4 Importance

Avec la mise en œuvre de mesures d'atténuation et de gestion, les effets résiduels du projet sur l'utilisation traditionnelle des terres, des zones marines et des ressources ne devraient pas être importants. On prévoit que les effets cumulatifs provenant des interruptions et perturbations dans l'utilisation non traditionnelle des terres, des zones marines et des ressources ne devraient pas atteindre des niveaux qui restreignent ces activités, au point où l'utilisation existante des terres, des zones marines et des ressources ne peut pas se poursuivre dans la ZER aux niveaux actuels.

VS.9.6.5 Mesures d'atténuation, de gestion et d'amélioration

Les mesures clés d'atténuation, de gestion et d'amélioration suivantes seront mises en œuvre pour limiter les effets résiduels sur l'utilisation non traditionnelle des terres, des zones marines et des ressources :

- WKR élaborera et mettra en œuvre un plan de gestion routière, y compris des dispositions pour l'accès à la route, au port, à la piste d'atterrissage et aux installations connexes.
- WKR contrôlera l'accès à la route par l'intermédiaire d'ententes avec divers groupes d'utilisateurs. Les utilisateurs miniers auront accès à la route, mais seront soumis à des péages, avec des frais d'utilisation portuaire et routière établis par l'intermédiaire d'ententes entre WKR et les compagnies d'exploitation/exploration minière. Les responsables de la sécurité et autres utilisateurs du secteur public auront accès à la route grâce à des accords qui seront conclus entre WKR et le ministère ou l'organisme gouvernemental concerné. Les utilisateurs de la communauté auront un accès libre à la route aux fins de déplacements et de transport, à la condition qu'ils acceptent de se conformer aux procédures d'utilisation sécuritaires. Les utilisateurs souhaitant accéder à la route à des fins de récolte devront obtenir l'approbation préalable de la Kitikmeot Inuit Association et de la Inuit Wildlife Organization (HTA).
- WKR élaborera et mettra en œuvre un plan de gestion portuaire conformément aux exigences de la *Loi sur la sûreté du transport maritime* pour assurer l'exploitation sécuritaire des navires commerciaux opérant à proximité du port.
- WKR s'engage à communiquer ouvertement avec ses voisins de l'industrie et, dans la mesure du possible, à mettre en œuvre des programmes conjoints pour échanger l'information.
- WKR informera les communautés des activités et des calendriers du projet, en fournissant notamment des cartes et des composantes de conception du projet.

Ces mesures seront orientées par une collaboration continue avec les communautés inuites.

VS.9.7 Ressources patrimoniales

Les ressources patrimoniales sont profondément liées à la culture et à l'histoire des Kitikmiuts. Les ressources et sites patrimoniaux peuvent aussi être profondément liés à des zones sacrées et à des pratiques culturelles, et représenter des activités de l'utilisation traditionnelle des TZMR, depuis des décennies, des siècles ou des millénaires. L'évaluation des ressources patrimoniales respecte la valeur des ressources et des sites patrimoniaux et se concentre sur la préservation de ces rappels physiques de la culture et de l'histoire.

VS.9.7.1 Base de référence

La région de Kitikmeot est utilisée par les populations depuis longtemps, bien avant l'existence des communautés actuelles. Le savoir inuit a désigné Omingmaktok (communauté de Bay Chimo), Kingaok (communauté de Bathurst Inlet), Perry River (Kugyoak) et Cambridge Bay (Ekaluktutiak) comme principaux lieux de rassemblement Kitikmiut, et la région de Grays Bay comme terrain de camping à long terme pour plusieurs familles inuites. De nombreuses études archéologiques ont été réalisées dans la région, en particulier celles associées aux projets de High Lake et du d'Izok Corridor, qui documentent ensemble environ

150 à 200 sites archéologiques connus près de l'actuel SAP. Ces sites comprennent des camps préalables aux contacts et historiques, des sites de chasse, des inukshuks, des sites funéraires et des dispersions lithiques. Comme certaines parties du SAP n'ont pas fait l'objet d'une évaluation archéologique sur le terrain, une analyse des données manquantes sera réalisée une fois le SAP déterminé afin de déterminer les emplacements où des études supplémentaires sont nécessaires. Les futurs programmes archéologiques sur le terrain revisiteront des sites déjà enregistrés et évalueront les zones non étudiées, avec des mesures d'atténuation (par exemple, évitement, cartographie, fouilles et mobilisation communautaire) élaborées en consultation avec le gouvernement du Nunavut et les Inuits. À l'heure actuelle, les ressources paléontologiques n'ont pas été évaluées et seront traitées avec les organismes de réglementation lors de l'étape d'analyse des données manquantes.

VS.9.7.2 Répercussions du projet

Un changement dans les ressources patrimoniales (par exemple, perte ou perturbation du contenu des sites et de leur contexte) peut se produire par des perturbations liées aux activités superficielles (accès, enlèvement de la végétation), le nivellement, l'excavation, la circulation automobile et l'utilisation des espaces de travail lors des travaux de construction. Un changement dans les ressources patrimoniales peut aussi survenir par l'intermédiaire d'impacts non autorisés, la collecte d'artefacts ou de fossiles pendant la construction ou à la suite de la création de nouvelles possibilités d'accès. Une fois perturbées, les ressources patrimoniales ne peuvent plus être remplacées, recréées ou restaurées.

L'organisme de réglementation (ministère de la Culture et du Patrimoine, gouvernement du Nunavut) est responsable de la gestion du seuil de perte pour les ressources patrimoniales au Nunavut. À condition que les exigences émises par les organismes de réglementation en matière d'évaluation, d'atténuation, d'évitement et de consultation soient respectées, le ministère de la Culture et du Patrimoine reconnaît qu'il n'y a aucun effet résiduel sur les ressources patrimoniales.

VS.9.7.3 Effets cumulatifs

Après la mise en œuvre des mesures d'atténuation requises par le ministère de la Culture et du Patrimoine du gouvernement du Nunavut, il ne devrait y avoir aucun effet résiduel sur les ressources patrimoniales. Par conséquent, il n'est pas nécessaire d'évaluer le potentiel d'effets cumulatifs.

VS.9.7.4 Importance

Après la mise en œuvre des mesures d'atténuation requises par le ministère de la Culture et du Patrimoine du gouvernement du Nunavut, aucun effet résiduel ou effet cumulatif du projet sur les ressources patrimoniales n'est prévu.

VS.9.7.5 Mesures d’atténuation, de gestion et d’amélioration

L’objectif de l’atténuation est de limiter la perte des ressources, des matériaux et des sites patrimoniaux ou la perte de contexte des sites à cause des activités du projet. Les mesures suivantes seront mises en œuvre pour prévenir les effets résiduels négatifs sur les ressources patrimoniales :

- Les zones du SAP qui présentent des données manquantes pour l’évaluation archéologique sur le terrain seront soumises à des études visant à cerner les sites.
- Une documentation détaillée des sites nouvellement enregistrés, l’évitement des sites dans la mesure du possible, la cartographie détaillée des sites et des caractéristiques, la collecte de surface d’artefacts, la mobilisation communautaire, la surveillance de la construction ou la fouille archéologique contrôlée des sites ou de parties de sites seront réalisées et pourront contribuer à la base de connaissances pour le registre archéologique et paléontologique du territoire.
- Les renseignements et préoccupations fournis lors de la mobilisation qui sont pertinents pour les ressources patrimoniales, y compris l’emplacement des sites de rassemblement et des tombes, ainsi que l’importance des eskers, seront pris en compte lors de l’analyse des données manquantes et de la détermination de la nature et de la portée des programmes archéologiques sur le terrain.
- Si des sites de ressources patrimoniales jusque-là inconnus et de valeur sont découverts lors des activités de construction ou d’exploitation et de maintenance, des protocoles de découverte seront mis en œuvre, et des mesures d’atténuation appropriées seront appliquées en consultation avec le gouvernement du Nunavut et par une collaboration avec les Kitikmiuts.

VS.9.8 Étude d’impact sur le milieu humain

Une évaluation de l’influence potentielle du projet de la route et du port de Grays Bay sur l’utilisation traditionnelle des TZMR, sur la sécurité et la souveraineté alimentaire, sur la santé et le bien-être communautaires, sur l’emploi et l’économie, sur les infrastructures et services, sur l’utilisation non traditionnelles des terres, des zones marines et des ressources et sur les ressources patrimoniales conclut que les effets résiduels et cumulatifs ne devraient pas être importants.

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Appendix 25A People and Communities Baseline Report

Appendix 26A Human Health and Ecological Risk Assessment

Abbreviations

2SLGBTQQIA+ ..... two-spirit, lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, other identities and orientations

ACL ..... Arctic Co-operatives Limited

AIA ..... Archaeological Impact Assessment

AQG ..... Air Quality Guideline

AQHI ..... Air Quality Health Index

BCH ..... Bathurst caribou herd

BMP ..... Best Management Practices

CCG ..... Canadian Coast Guard

CIRNAC ..... Crown-Indigenous Relations and Northern Affairs Canada

CLC ..... Community Learning Centre

CMHC ..... Canadian Mortgage and Housing Corporation

CPI ..... Consumer Price Index

CSI ..... Crime Severity Index

DFO ..... Department of Fisheries and Oceans

DUH ..... Dolphin and Union herd

EFAP ..... Employee and Family Assistance Program

EMS ..... emergency medical services

FIFO ..... fly-in fly-out

FTE ..... full-time equivalent

GBA Plus ..... Gender-Based Analysis Plus

GBRP ..... Grays Bay Road and Port

GDP ..... Gross Domestic Product

GHG ..... greenhouse gas

GN ..... Government of Nunavut

GNWT ..... Government of Northwest Territories

HMSP ..... Health and Medical Services Plan

HSSE ..... Health, Safety, Security, and Environment

HTA ..... Hunters and Trappers Associations

HTO ..... Hunters and Trappers Organization

IAG ..... Inuit Advisory Group

IBA ..... Important Bird Area

ICFI ..... Inuit Child First Initiative

IEAP ..... Inuit Employee Assistance Program

IOL ..... Inuit Owned Land

IS ..... Impact Statement

ITK ..... Inuit Tapiriit Kanatami

JVMC ..... Joint Venture Management Committee

LAA ..... Local Assessment Area

LOC ..... License of Occupation

MLA ..... Marine Laydown Area

MTS ..... Marine Transportation Services

NAC ..... Nunavut Arctic College

NAVWARNs ..... Navigational Warnings

NDC ..... Nunavut Development Corporation

NEM ..... Nunavut Emergency Management

NHC ..... Nunavut Housing Corporation

NIRB ..... Nunavut Impact Review Board

NNC ..... Nutrition North Canada

NO_2 ..... nitrogen dioxide

NPC ..... Nunavut Planning Commission

NSMA ..... North Slave Métis Alliance

NT ..... Northwest Territories

NTI ..... Nunavut Tunngavik Incorporated

NTKP ..... Naonaiyaotit Traditional Knowledge Project

NU/NT ..... Nunavut/Northwest Territories

Nunavut Agreement ..... Nunavut Land Claims Agreement

NWMB ..... Nunavut Wildlife Management Board

Pauktuutit ..... Pauktuutit Inuit Women of Canada

PDA ..... Project Development Area

PIL ..... project inclusion list

$PM_{2.5}$ ..... fine particulate matter

project, the ..... Grays Bay Road and Port Project

RAA ..... Regional Assessment Area

RCMP ..... Royal Canadian Mounted Police

RFI ..... reasonably foreseeable induced

RNFB ..... Revised Northern Food Basket

SAR ..... search and rescue

SCIPIOM ..... Statistics Canada Inter-Provincial Input Output Model

SDOH ..... social determinants of health

SEMP ..... Socio-Economic Monitoring Program

TCWR ..... Tibbitt to Contwoyto Winter Road

TLMRU ..... traditional land, marine, and resource use

UNDRIP ..... United Nations Declaration on the Rights of Indigenous Peoples

VC ..... Valued Component

WHO ..... World Health Organization

WKR ..... West Kitikmeot Resources Corp.

YKDFN ..... Yellowknives Dene First Nation

YKFD ..... Yellowknife Fire Division

Symbols and Units of Measure

%HA ..... percent highly annoyed

dB ..... decibel

ha ..... hectare

kg ..... kilogram

km ..... kilometre

km/h ..... kilometres per hour

km^2 ..... square kilometre

m ..... metre

m^2 ..... square metre

Glossary

Term	Definition
Community Knowledge	For the purposes of the Impact Statement, the term Community Knowledge is used, to align with the revised draft Nunavut Impact Review Board (NIRB) guidelines for the Impact Statement where it is defined as “the wisdom and experience of community members, including observations and understandings about the environment and how knowledge is generated, stored, applied, and shared with others”.
Country foods	“The traditional diet of Inuit and other Indigenous groups (Inuvialuit, First Nations, and Metis), including caribou, musk-ox, bears, whales, seals, birds, arctic char, shellfish and berries among other foods that are hunted, fished or gathered locally” (NIRB 2026).
Employed	Persons who, during the reference week, did any work for pay or profit, or had a job and were absent from work (Statistics Canada 2021).
Employment Rate	Also referred to as “employment/population ratio,” it is the number of employed persons expressed as a percentage of the population aged 15 years and over. The employment rate for a particular group is the number employed in that group expressed as a percentage of the population for that group (Statistics Canada 2021).
Engagement	Refers to the ongoing, two-way exchange of information, knowledge, and perspectives between the Proponent, Indigenous organizations, communities, governments and other participants throughout all phases of the Project, with the goal of building relationships, identifying interests, and incorporating feedback into Project design, mitigation, and monitoring (IAAC 2019, CIRNAC 2011).
Gender	An individual's personal and social identity as a man, woman, or non-binary person (a person who is not exclusively a man or a woman).

Term	Definition
Gross Domestic Product	Gross domestic product measures the total output created through the production of goods and services in a country or geography during a certain period.
Indigenous group	Refers to First Nations, Inuit and Métis Nations, and other Indigenous governments or organizations.
Indigenous Knowledge	The accumulated body of knowledge, observations and understandings about the environment, and about the relationship of living beings with one another and with the environment, that is rooted in the traditional way of life of Indigenous people of a designated area (NuPPAA 73(1) 2013). Indigenous Knowledge is also referred to as Traditional Knowledge. In the IS, Indigenous Knowledge refers to the knowledge of transboundary Indigenous people outside of the Kitikmeot Region (e.g., Northwest Territories Indigenous Governments and Indigenous Organizations).
Inter-jurisdictional employees	Individuals who maintained a permanent residence in one province or territory during the year as indicated on their T1 tax return, while reporting earnings from a different province or territory during the year as indicated on a T4 Statement of Remuneration.
Inuit	Indigenous peoples traditionally inhabiting the Arctic and subarctic regions of Canada. In the context of Nunavut, for the purpose of the IS, the term refers to those receiving benefits under the Nunavut Agreement (NIRB 2025a).
Inuit Knowledge	Intergenerational knowledge, including values, beliefs, principles and experiences about the human and natural environment. Inuit Knowledge has been verified through multiple generations and between multiple individuals (Banci and Spicker 2024). In the IS, Inuit Knowledge refers to the knowledge of Inuit of the Kitikmeot Region, or Kitikmiut. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge over *Inuit Qaujimajatuqangit* as the general term to use throughout the Impact Statement.

Term	Definition
Inuit Nunangat	Refers to the Inuit homeland in Canada (ITK 2025). It is a distinct cultural, political, and geographical area composed of the four Inuit regions whose boundaries have been defined through treaty and statute.
Inuit Qaujimajatuqangit	What Inuit have always known to be true, referring to “a set of values and practices, the relevance and importance of these, and ways of being and looking at things that are timeless” (Karetak et. al. 2017).
Inuit Qaujimaningit	“Inuit Traditional Knowledge as well as Inuit epistemology without reference to temporality”.
Kitikmeot Inuit Association	A not-for-profit designated Inuit organization with community-elected leadership representing Inuit of the Kitikmeot Region of Nunavut. Their goal is to support Kitikmeot Inuit, providing them with more educational, employment, and business opportunities (Kitikmeot Inuit Association 2024).
Kitikmeot Region	The most western region of the Nunavut territory. It consists of the southern and eastern parts of Victoria Island with the adjacent part of the mainland and includes five communities of Cambridge Bay (*Iqaluktuuttiaq/Ikaluktutiak*), Gjoa Haven (*Uqsuqtuuq*), Kugaaruk, Kugluktuk, and Taloyoak, and seasonal settlements such as Bay Chimo (*Omingmaktok*) and Bathurst Inlet (*Kingaok*).
Kitikmiut	Inuit of the Kitikmeot Region.
Labour Force	Civilian non--institutional population 15 years of age and over who, during the survey reference week, were employed or unemployed (Statistics Canada 2021).

Term	Definition
Local Knowledge	See also “Community Knowledge”. Knowledge shared by community members through individual observations and stories. It may draw from Inuit Knowledge, Indigenous Knowledge, in addition to personal perspectives but has not been verified and may not be representative of the majority. Local Knowledge provides valuable insight into current conditions, community concerns, and areas requiring further investigation or monitoring (Banci and Spicker 2024).
maligarjuat	Inuit laws or “big things that must be followed” (Karetak et al. 2017)
Men+	"Men＋" includes men and boys (cis-gender and trans-gender), as well as some non-binary persons. Individuals in the “non-binary persons” category are distributed in the other two gender categories and are denoted by the + symbol.
-miut (suffix)	“People of” (added to as a suffix to placenames) (Banci and Spicker 2024).
Nunavut Agreement	Formally known as the Nunavut Land Claims Agreement, it is the agreement between Inuit of the Settlement Area and the Crown, including its preambles, schedules and any amendments.
Nunavut Land Claims Agreement	Formally known as the Nunavut Land Claims Agreement, it is the agreement between Inuit of the Settlement Area and the Crown, including its preambles, schedules and any amendments (NIRB 2026).
Participation Rate	Total labour force expressed as a percentage of the population aged 15 years and over (Statistics Canada 2021).
Potentially affected communities	“A community or communities with the potential to be impacted, either positively or negatively, by a proposed project or development. Such communities may be defined physical entities or comprised of dispersed populations in the area of influence of a project”.

Term	Definition
Unemployed	Persons who, during the reference week, were available for work and were either on temporary layoff, had looked for work in the past four weeks, or had a job to start within the next four weeks (Statistics Canada 2021).
Unemployment Rate	Number of unemployed persons expressed as a percentage of the labour force. The unemployment rate for a particular group (age, sex, marital status, etc.) is the number unemployed in that group expressed as a percentage of the labour force for that group (Statistics Canada 2021).
Women+	"Women＋" includes women and girls (cis-gender and trans-gender), as well as some non-binary persons. Individuals in the “non-binary persons” category are distributed in the other two gender categories and are denoted by the + symbol.

24 Assessment of Potential Effects on Traditional Land, Marine, and Resource Use

Traditional Land, Marine, and Resource Use (TLMRU) has been identified as a Valued Component (VC) of the Impact Statement (IS) based on the potential for the Grays Bay Road and Port Project (Project) to affect the land and water use, food security, language, cultural activities, and harvesting by Inuit and other potentially affected Indigenous groups exercising their section 35 rights of the *Constitution Act,* 1982 within the Kitikmeot Region of Nunavut (NIRB 2026). In accordance with the NIRB Guidelines, this includes consideration of Inuvialuit, First Nations, and Métis (NIRB 2026).

Referred to as Traditional Activity and Knowledge in the Nunavut Impact Review Board (NIRB) Guidelines, TLMRU is informed through Inuit, Indigenous, and Community Knowledge. This knowledge includes, but is not limited to, information about language, cultural activities, intergenerational knowledge transfer, governance systems, specific resources, and sites or areas or access to these resources, sites, and areas.

The assessment of effects on TLMRU was not conducted in isolation; it is linked to the assessment of other VCs, and these other VCs have also been informed by Inuit, Indigenous, and Community Knowledge, values, and perspectives. This assessment is supported by and informed the following VCs:

- **Air Quality (Volume 5, Section 11):** Air emissions from project equipment and activities may result in changes to sensory disturbances and enjoyment of the land.
- **Climate (Volume 5, Section 12):** Greenhouse gas emissions from the Project may contribute to climate change, which may result in changes to harvesting windows, cultural transmission, and travel and access.
- **Noise and Vibration (Volume 5, Section 13):** Increased noise and vibration levels from blasting and Project construction, operation, and maintenance may result in changes to sensory disturbances and enjoyment of the land.
- **Terrain, Soils, and Permafrost (Volume 6, Section 14):** Change in landforms, terrain and soil conditions may result in changes to visual landscapes, and TLMRU sites or areas.
- **Vegetation (Volume 6, Section 15):** Effects on species diversity and wetland functions may result in changes to vegetation and the availability of plant resources.
- **Wildlife (Volume 6, Sections 16 [caribou], 17 [birds], and 18 [other wildlife]):** Potential project-related activities may result in changes to wildlife habitat, including calving areas, migration routes, and the availability of harvested species.
- **Water Resources (Volume 7, Section 19):** Changes to the quality and quantity of water may result in changes to drinking water sources or water-based TLMRU sites or areas.
- **Freshwater Fish and Fish Habitat (Volume 7, Section 20):** Disruption and alteration of fish habitat may result in changes to fish habitat and the availability of harvested fish.

- **Marine Environment (Volume 8, Sections 21 [marine water and sediment], 22 [marine fish and fish habitat], and 23 [marine mammals]):** Increased noise, vessel traffic, and artificial lighting may result in changes to marine habitat and the availability of harvested species.
- **Human Environment (Volume 9, Sections 25 [food security and food sovereignty], 26 [community health and well-being], 27 [employment and economy], 28 [infrastructure and services], and 29 [non-traditional land, marine, and resource use]):** Potential project-related activities may result in changes to food security and sovereignty, community health and well-being, employment and economy, and infrastructure and services, such as a change in access to TLMRU sites or areas.
- **Heritage Resources (Volume 9, Section 30):** Loss or disturbance of sites may result in changes to TLMRU sites or areas, including camps, burial sites, gathering areas, or other culturally important sites.

The conclusions of the above VCs have been incorporated into the assessment of potential project-related adverse and, where applicable, positive effects on TLMRU.

24.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on the VC and the perspectives, values, and the regulations and policies that guide the scope.

24.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR), as well as the previous proponents, the Government of Nunavut and the Kitikmeot Inuit Association, have been engaging on the Project since 2016, through meetings, workshops, and other forms of information exchange. In preparing the IS, WKR engaged with Inuit organizations, Elders, land users, other potentially affected Indigenous groups, and representatives from other potentially affected communities to understand what values and perspectives should guide the Project.

A table of feedback received through Project-specific engagement activities and other Inuit, Indigenous, and Community Knowledge sharing opportunities is included in Section 24.2.2.1. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project.

24.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge was reviewed with consideration to the proposed spatial boundaries. The Local Assessment Area (LAA) considers the area where Project-specific environmental effects on traditional resources are expected to occur, including effects identified by Kitikmiut and other potentially affected Indigenous groups (see Section 24.1.4). Table 24.1 in Section 24.3.4 lists the harvesting locations, habitat, and cultural sites identified by Kitikmiut and other potentially affected

Indigenous groups that helped to inform the spatial boundaries and assessment of potential effects on TLMRU.

24.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

Inuit, Indigenous, and Community values and perspectives, in combination with western science, form the foundation of the project design and the IS. As described in Volume 3, three main categories of knowledge have been shared by Indigenous Peoples through the Project's engagement activities – Inuit, Indigenous, and Community Knowledge. Inuit, Indigenous, and Community Knowledge provide personal and intergenerational observations, values, and experiences, while scientific studies contribute to quantitative and technical analyses. Woven together, these knowledge systems provide a more fulsome understanding of the biophysical and human environment and the potential project effects, as well as methods to mitigate adverse effects and enhance benefits from the Project.

Inuit, Indigenous, and Community Knowledge have been integrated throughout this assessment, as it forms the basis of baseline conditions described in Section 24.2. For example, Kitikmiut and other potentially affected Indigenous groups reported using the TLMRU LAA and Regional Assessment Area (RAA) for TLMRU activities, such as hunting, fishing, trapping, and plant gathering. They also made observations about key species that have been assessed throughout the IS, their habitats, and specific areas of cultural importance. In addition, Kitikmiut and other potentially affected Indigenous groups commented on how they access resources, sites, or areas, and share knowledge about cultural practices, language use, intergenerational knowledge transfer, and governance systems. See Section 24.2.1 for an overview of the three knowledge types.

24.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

Inuit, Indigenous, and Community Knowledge was also integrated into the assessment of Project effects on TLMRU. For example, comments, concerns and recommendations related to caribou were used to inform the assessment on change in the quality, quantity, or distribution of traditional resources. In addition, identified wildlife habitats, harvesting areas, and habitation sites were used to inform the assessment of potential change to specific areas of cultural importance, and change in access to traditional resources, sites, and areas. Kitikmiut and other potentially affected Indigenous groups also shared comments and feedback on the Project that identified potential pathways and mitigation measures for change to cultural practices, language use, intergenerational knowledge transfer, and governance systems (see Section 24.3).

24.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Comments regarding the potential impact of cumulative effects on TLMRU activities and section 35 rights were raised by Kitikmiut and other potentially affected Indigenous groups during the Project's engagement activities, and through a review of publicly available literature. For example, potential cumulative effects on caribou and the ability to continue harvesting this species were often noted.

These concerns, comments, and recommendations informed the potential effects pathways for the assessment of cumulative effects on TLMRU, along with WKR's proposed mitigation measures and the cumulative effects assessment for TLMRU (see Section 24.4).

24.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on the Significance of Effects

As described in more detail in Section 24.1.6, significance criteria were informed with consideration of the priorities and values identified through Inuit, Indigenous, and Community Knowledge (see Volume 3). This included a September 2025 Inuit Advisory Group (IAG) workshop where participants discussed significance with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations were integrated into the Project's environmental, social, and economic plans (IAG 2025b).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR has developed the IAG, and its purpose is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee advises WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge.
- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).
- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

24.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, Kitikmiut and other potentially affected Indigenous groups shared valuable comments and recommendations that were used to develop mitigation, management, and enhancement measures for the Project. During IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Participants also provided feedback regarding the involvement of Kitikmiut in the development and execution of monitoring programs, and focusing management efforts on the key concerns, and species used by, Inuit (e.g., caribou) (IAG 2025b). Discussions during these workshops also informed measures to improve marine navigability and safety along the road and port from existing conditions, helping to enhance benefits from the Project (IAG 2025b). Other recommendations brought forward by Kitikmiut and other potentially affected Indigenous groups are highlighted in the residual and cumulative effects assessments in Sections 24.3 and 24.4.

24.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

24.1.2 Regulatory and Policy Setting

In Nunavut, TLMRU is governed by the *Nunavut Lands Claim Agreement Act* (1993) which recognizes and protects the rights of Inuit in the territory. These include the right to:

- Participate in decision-making concerning the use, management and conservation of land, water and resources (including offshore resources).
- Harvest wildlife and participate in decision-making concerning wildlife harvesting.
- Participate in decision-making concerning water.
- Financial compensation and means of participating in economic opportunities.
- Self-reliance and cultural and social well-being.

The *Nunavut Land Claims Agreement Act* came into effect through the Nunavut Land Claims Agreement (Nunavut Agreement; 1993), which further defined Inuit water rights, entry and access rights, harvesting rights, and governance rights, and led to the creation of Nunavut in 1999 (Nunavut Agreement 1993, GOC 2024b). Under Section 103(3) of the *Nunavut Planning and Project Assessment Act* (NuPPAA) (2022), Community Knowledge and Traditional Knowledge must be considered in environmental assessments. For the purpose of this IS, Traditional Knowledge is considered under the broader umbrella of Inuit, Indigenous, and Community Knowledge (see Glossary).

The *Constitution Act* (1982) recognizes and affirms the rights of Inuit and other Indigenous Peoples, and the Supreme Court of Canada has confirmed that Aboriginal[1] title gives the holder the right to use, control, and manage lands for both traditional activities and modern purposes (GOC 1982, 2025b). Under the *Constitution Act* and the Nunavut Agreement, Inuit have the right to harvest on Crown land, Commissioner's Land, and Inuit Owned Land (IOL; GOC 1982; Nunavut Agreement 1993). The *Nunavut Land Claims Agreement Act* does not limit the ability for other Indigenous Peoples to engage in their right to harvest on Crown land in accordance with the *Constitution Act*; however, harvesting is also overseen by Inuit Hunters and Trappers Organizations (HTO),Regional Wildlife Organizations in Nunavut, and the Government of Nunavut to regulate the harvesting practices of both Inuit and non-Inuit Indigenous Peoples, including First Nations people and Métis (Nunavut Agreement 1993).

The TLMRU assessment can also be understood through the lens of several federal and territorial policies to uphold and promote the rights, cultural transmission, and well-being of Kitikmiut and other potentially affected Indigenous groups. For example, the Government of Canada is seeking to advance socio-economic and cultural equity for Inuit through its Inuit Nunangat[2] Policy, which includes goals to recognize and promote the use of Inuktut (the collective term for Inuit languages spoken across Inuit Nunangat), consistent with the *Indigenous Language Act* (2019) (GOC 2025a). Separate from the *Official Languages Act* (1969), which aims to create equal status of English and French in Canada, the *Indigenous Language Act* recognizes Indigenous language as a protected right for Indigenous Peoples under section 35 of the *Constitution Act* (Hudon 2023; Brideau and Collier 2019). Within the territory, the Government of Nunavut's *Inuit Language Protection Act* (2022) similarly includes a strategy and implementation plan for revitalizing and promoting the use of Inuit languages (GN 2012, 2022). Furthermore, the Government of Canada has committed to co-developing legislation with First Nations, Métis, and Inuit to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (2007) through the *UNDRIP Act* (2021) (GOC 2021; SCC 2021).

Table 24.1 summarizes the regulatory requirements, acts and agreements, and polices that the TLMRU assessment has considered. Additionally, socio-economic research that helped to support the assessment of potential effects on TLMRU was conducted in accordance with a permit licensed by the Nunavut Research Institute (04 012 25R-M). Complementary interviews were also conducted in Yellowknife in 2025 under a research license issued by the Government of the Northwest Territories through the Aurora Research Institute (AC-REC 24-09).

[1] The term Aboriginal is retained in quotes or legal usage. Otherwise, the term Indigenous is used throughout the IS in alignment with the NIRB IS guidelines and to respect contemporary terminology in Canada. Indigenous is understood to have the same meaning as Aboriginal within section 35 of the *Constitution Act*.
[2] Inuit Nunangat refers to the Inuit homeland in Canada (ITK 2025). It is a distinct cultural, political, and geographical area composed of the four Inuit regions whose boundaries have been defined through treaty and statute.

Table 24.1 Regulatory Requirements, Acts, and Policies Considered in the Assessment of Effects on Traditional Land, Marine, and Resource Use

Government of Nunavut	
NIRB Guidelines (2026)	Guidelines developed by the NIRB for the Project's IS, including the assessment of effects on TLMRU.
Nunavut Agreement (1993)	Modern land claim agreement defining the rights of Inuit and the establishment of Inuit Owned Land in Nunavut.
Nunavut Lands Claim Agreement Act (1993)	Federal legislation that recognizes and protects the rights of Inuit in Nunavut.
Nunavut Planning and Project Assessment Act (2022)	Federal legislation regarding the impact assessment process in Nunavut.
Inuit Language Protection Act (2022)	Territorial legislation to revitalize and promote the use of Inuit languages.
Government of Canada	
Constitution Act (1982)	Federal legislation defining the rights of Indigenous Peoples in Canada.
Nunavut Planning and Project Assessment Act (2013)	Federal legislation authorizing the NIRB to oversee the environmental assessment process in Nunavut.
Indigenous Languages Act (2019)	Federal legislation establishing measures for the recognition, preservation, and promotion of Indigenous languages in Canada.
UNDRIP Act (2021)	Federal act to co-develop legislation with First Nations, Métis, and Inuit to implement UNDRIP.
Inuit Nunangat Policy (2025)	Federal policy to advance socio-economic and cultural equity for Inuit, including goals to recognize and promote the use of Inuktut, consistent with the *Indigenous Language Act.*

24.1.2.1 Land Ownership and Land Use Planning

Land in Nunavut is classified as either Crown land, Commissioner's land, or IOL, which can include both surface and subsurface rights. Crown-Indigenous Relations and Northern Affairs Canada oversees Crown land through the federal *Territorial Lands Act,* while Commissioner's Land is governed under the Government of Nunavut's *Commissioner's Land Act* (2024), and is administered by municipalities. Inuit Owned Land is protected under the *Nunavut Lands Claim Agreement Act* (GOC 2024b). In the Kitikmeot Region, the Kitikmeot Inuit Association oversees the management of 106,360 square kilometres (km^2) of IOL (Kitikmeot Inuit Association 2025). Subsurface exploration agreements and production leases for IOL are managed by Nunavut Tunngavik Incorporated (GOC 2024b).

Inuit Owned Land comprises approximately 6.6 million hectares (ha) in the western Kitikmeot Region, 5.6 million ha with active surface rights and approximately 1.0 million ha (15%) with active subsurface rights (Tunngavik Federation of Nunavut and Department of Indian Affairs and Northern Development 1992).

In the Kitikmeot Region, the Kitikmeot Inuit Association oversees the management of 106,360 km^2 of IOL (Kitikmeot Inuit Association 2025). Subsurface exploration agreements and production leases for Inuit Owned Land are managed by Nunavut Tunngavik Incorporated (GOC 2024b).

The Project is on a combination of IOL and Crown land administered by the Kitikmeot Inuit Association and the Government of Canada respectively. However, Crown land administration will be managed by the Government of Nunavut as of April 1, 2027, in accordance with the Nunavut Lands and Resources Devolution Agreement (2024) (GOC 2025d). Approximately 116 kilometres (km) of the 230 km Project road are located within IOL. The remainder of the Project is on Crown land. Under Article 41 of the Nunavut Agreement, the Contwoyto Lake Lands, within the Project LAA, were granted to the Kitikmeot Inuit Association as Inuit Fee Simple Lands. Additional organizations are involved in overseeing and administering resource management and land use in Nunavut, including:

- Nunavut Planning Commission – responsible for developing and administering land use plans that set out where different land uses may occur in the Nunavut Settlement Area based on environmental, socio-economic, and cultural needs.
- Nunavut Tunngavik Incorporated – represents Inuit and is responsible for the implementation of the Nunavut Agreement.
- Nunavut Wildlife Management Board – oversees wildlife and habitat management in a co-management system, based on principles of conservation, sustainability, and ecosystemic integrity. The Nunavut Wildlife Management Board may approve plans for wildlife management and protection.
- Hunter and Trappers Organizations – oversee harvesting, wildlife management, and regulation of practices of both Inuit and non-Inuit Indigenous peoples.
- Government of Nunavut – manages public services (e.g., education, healthcare, housing, social services), territorial laws, and promotes cultural preservation. Responsibilities for public lands, natural resources, and rights in respect to water will be transferred from the Government of Canada to the Government of Nunavut by April 1, 2027, as per the Nunavut Land and Resources Devolution Agreement (2024).

24.1.3 Potential Effects, Pathways, and Measurable Parameters

This section provides context for how potential adverse and positive effects of the Project on TLMRU were identified, how the Project may interact with TLMRU (pathways), and what parameters will be used to measure changes.

As outlined in the NIRB guidelines for the IS, the traditional activity and knowledge assessment “shall consider land and water use, food security, language, cultural activities, and all harvesting by Inuit and other potentially affected Indigenous groups (Inuvialuit, First Nations, and Metis)” (NIRB 2026). For the purposes of this assessment, traditional activity and knowledge is referred to as TLMRU and is understood to encompass the following practices:

- Customs, Protocols, and Laws
- Hunting and Trapping
- Plant Harvesting
- Fishing

- Access to Land and Water
- Cultural Practices and Places

Traditional land, marine, and resource use also accounts for the sites or areas that are tied to intergenerational knowledge transfer, conditions of use, seasonal cycles, important landforms and named places, governance and management of lands and resources, use of preferred language, and other factors that provide context, setting, or understanding for the practices of TLMRU.

Traditional land, marine, and resource use must also be understood in the context of past and future use. Past and current TLMRU is based on Kitikmiut and other potentially affected Indigenous groups' living memory and accounts for contemporary activities and long-term observations of existing conditions, as presented in Section 24.2. Future use pertains to opportunities for future Inuit and other Indigenous peoples to continue practicing and engaging in TLMRU. During the Project's engagement activities, WKR and past proponents heard comments and concerns from Kitikmiut and other potentially affected Indigenous groups about potential project-related effects on the future of TLMRU. These were incorporated into the assessment of TLMRU residual and cumulative effects in Sections 24.3 and 24.4.

Framing TLMRU in the context of past, current, and future use acknowledges the importance of cultural transmission, which speaks to the ability to continue historical practices, traditions, or customs as time and circumstances evolve. As a result, this assessment accounts for the following potential effects on TLMRU:

- Change in quality, quantity, or distribution of TLMRU resources
- Change to specific areas of cultural importance where TLMRU occurs
- Change in access to resources or the sites or areas where TLMRU occurs
- Change to cultural practices, laws, and governance systems that inform how TLMRU occurs

In an environmental or socio-economic assessment, project-related effects are often measured using quantifiable measurable parameters (such as a change in the abundance of a particular species). In some cases, this approach is applicable for assessing a potential project-related effect on TLMRU. For example, a change in the availability of suitable harvesting areas can be quantifiable, since the total amount of harvesting areas identified before a proposed project is constructed can be compared with the total amount of harvesting areas available after the project is built. However, in other instances, some effects on TLMRU must consider comments received from Kitikmiut and other potentially affected Indigenous groups, as well as past project experience and professional judgement. For example, a change in the availability of harvesting areas should also account for qualitative observations from land users regarding the perceived value or quality of the harvesting areas, due to the presence of dust, noise, and visual disturbances, or other factors. Potential project-related effects, the effect pathways (or project activities) they may occur from, and the measurable parameters that will signify a change has occurred are provided in Table 24.2.

Table 24.2 Potential Effects, Effects Pathways and Measurable Parameters for Traditional Land, Marine, and Resource Use

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in quality, quantity, or distribution of TLMRU resources	• Alteration to the current and future quality, quantity, or distribution of country foods and other harvested resources and species of cultural importance (e.g., wildlife, fish, plants, marine resources) • Loss or alteration of habitat supporting harvested resources • Alteration to harvesting methods, timing, or seasonality • Sensory disturbances (e.g., change in noise levels, air quality, traffic) that influence availability of habitat or distribution of species of importance, quality of experience, or other required conditions for use	• Availability of habitat for harvested resources • Availability of harvested resources • Area of accessible land • Qualitative consideration of preferred methods, timing, and seasonality of use • Perceptions of land, marine, and resource health, including quantitative and qualitative consideration of available habitat for harvested resources • Qualitative consideration of factors contributing to quality of experience (e.g., traffic, small craft harbour access, changes in visual aesthetic) • Qualitative evaluation by Kitikmiut and other potentially affected Indigenous groups of strength of cultural connections to resources and places • Other changes or concerns raised by Kitikmiut and other potentially affected Indigenous groups
Change to specific areas of cultural importance where TLMRU occurs	• Loss or alteration of sites or areas accessed for TLMRU, including harvesting areas, habitation areas, and cultural areas • Sensory disturbances (e.g., visual aesthetics, dust, noise levels), which influence the conditions for use of a site or area	• Known preferred locations or areas of use • Area of accessible land • Qualitative consideration of factors contributing to loss or altered use, and opportunities to transmit knowledge at TLMRU features, locations, or areas • Perceptions of land and marine health and quality • Change in preferred methods, timing, and seasonal use of areas • Other changes or concerns raised by Kitikmiut and other potentially affected Indigenous groups
Change in access to resources, sites, or areas where TLMRU occurs	• Alteration, loss, or creation of access routes or ability to travel to or through preferred use areas/sites of interest (e.g., roadways, travel ways, navigable waterways and waterbodies) • Alteration of ability to travel to or through preferred use areas • Increased access by non-Indigenous harvesters or land users • Temporary disruptions associated with Project activities • Sensory disturbance (e.g., change in noise levels, air quality, traffic) that affects the conditions for use or access	• Availability of access routes, including waterways • Area of accessible land • Distance, time, and effort to access areas from communities of residence • Qualitative consideration of factors contributing to lost, created, or altered access and access routes, including land and water routes • Qualitative evaluation of harvesting pressure due to improved access for land users through road use or project workforce • Perceptions of land health and resource quality • Other changes or concerns raised by Kitikmiut or other potentially affected Indigenous groups

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change to cultural practices, laws, and governance systems that inform how TLMRU occurs	• Alteration of conditions of use, including access to land, water, resources, and culturally important places • Alteration to cultural transference opportunities, including use of preferred language(s) and transmitting histories, stories, and cultural practices to future generations • Alteration to decision-making abilities regarding land and water, and ability to uphold cultural traditions, laws, and governance systems that inform TLMRU • Alterations to community conditions associated with project workforce	• Area of accessible land • Distance, time, and effort to access land, water, resources, and culturally important places from communities of residence • Perceptions of land, marine, and resource health and quality • Known stewardship areas, land use or management plans, preferred lands and resources • Qualitative consideration of known Inuit and other Indigenous land-based economic activities • Capacity of accommodations, heath care and social services, emergency services, and other services and amenities • Opportunities for and perspectives on Project benefits, including employment, training, contracting • Population and workforce • Capacity of existing Indigenous workforce and businesses to provide supplies and services required for the Project • Other changes or concerns raised by Kitikmiut or other potentially affected Indigenous groups

24.1.4 Boundaries

24.1.4.1 Spatial Boundaries

The Project is within the Kitikmeot Region of Nunavut. Project components will be located on a combination of Crown land and IOL.

The TLMRU spatial boundaries were selected based on consideration of Inuit, Indigenous, and Community Knowledge, past project experience, guidance from regulators, and professional judgment. These boundaries represent the areas where data was compiled to characterize baseline conditions in support of the Project-specific effects assessment and the cumulative effects assessment. The following sections describe the Project Development Area (PDA), LAA, and the RAA, and their boundaries. These spatial boundaries were developed in consideration of the spatial boundaries for the biophysical VCs, including Air Quality (Volume 5, Section 11), Noise and Vibration (Volume 5, Section 13), Terrain, Soils, and Permafrost (Volume 6, Section 14), Vegetation (Volume 6, Section 15), Wildlife (Volume 6, Sections 16-18), Water Resources (Volume 7, Section 19), Freshwater Fish and Fish Habitat (Volume 7, Section 20), Marine Water and Sediment (Volume 8, Section 21), Marine Fish and Fish Habitat (Volume 8, Section 22), and Marine Mammals (Volume 8, Section 23). TLMRU may be directly or indirectly affected by effects on these VCs given reliance on the associated resources in order to practice TLMRU.

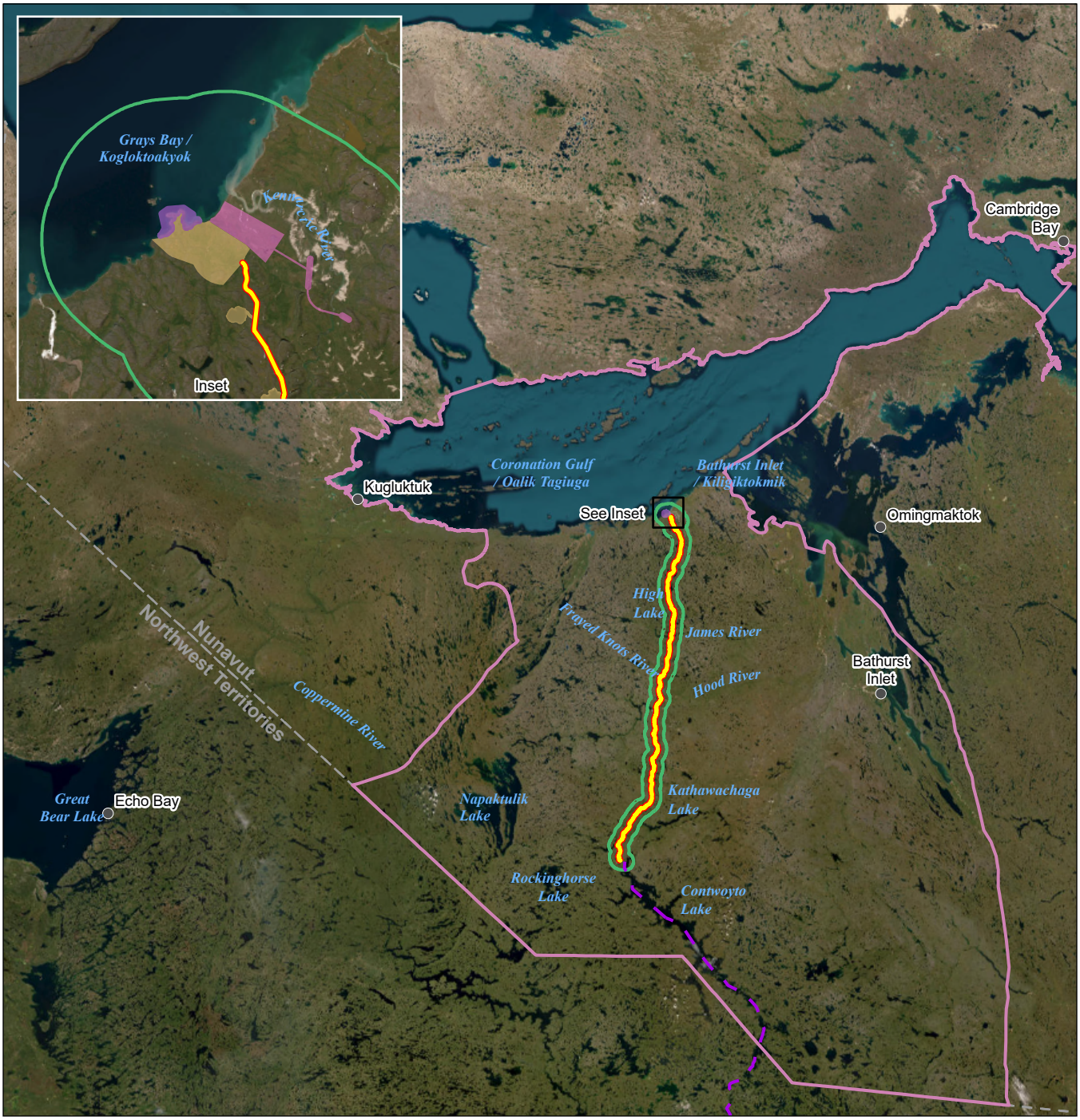
Project Development Area

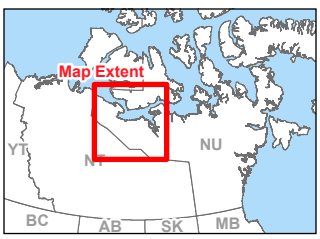
The PDA encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. The boundaries of the PDAs were created by applying buffers around where the Project components will be sited, and varies by each of the sub-areas depending on necessary flexibility for final siting of certain Project components based on conditions on the ground. For the Road PDA and Winter Road PDA, a 75 metre (m) buffer was applied to the road's centreline, for the Port PDA and the Aerodrome PDA, the areas were subdivided based on the conceptual Project component locations and then buffered approximately 1,000 m for the landside Port PDA, approximately 300 m for the marine Port PDA, and 500 m for the Aerodrome PDA. The Jericho Station PDA was buffered based on the existing development from the old Jericho Mine site that will be used for the Project and the need for additional space to accommodate the Project components that will be developed as part of the Project for this location. The Winter Road PDA will only exist annually between the beginning of February and end of March, will be built on land where the existing Jericho Station road ends, at the southeastern portion of Jericho Station, to the shoreline of Contwoyto Lake where it will connect to the Tibbitt to Contwoyto Winter Road (TCWR). For the purposes of the impact assessment, the PDA is the same as the Site Study Area identified in the IS Guidelines.

The PDA is 5,019.8 ha, shown in Figure 24.1.

Local Assessment Area

The TLMRU LAA consists of a 5 km buffer around the PDA, which is the greatest extent of the LAAs for supporting biophysical VCs (air quality, noise and vibration, terrain, soils, and permafrost, vegetation, wildlife and wildlife habitat, water resources, freshwater fish and fish habitat, and marine environment) and the areas in which direct (e.g., habitat loss) and indirect (e.g., sensory disturbance) effects of the Project on TLMRU may occur. The LAA is approximately 246,476 ha, shown in Figure 24.1. This LAA definition does not preclude consideration of interactions beyond the TLMRU LAA, as identified through engagement with Kitikmiut or other potentially affected Indigenous groups; where Kitikmiut or other potentially affected Indigenous groups have shared information about TLMRU beyond the LAA, this has been considered in the larger context of TLMRU within the territories or harvesting areas of potentially affected Indigenous groups.





Grays Bay Road
Local Assessment Area (LAA)
Regional Assessment Area (RAA)

Project Development Area (PDA)
- Aerodrome
- Port (Landside Infrastructure)
- Port (Marine-based Infrastructure)

Community
Territorial Boundary
Tibbitt to Contwoyto Winter Road

0 25 50 Kilometres
(At original document size of 8.5x11)
1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Government of Canada, Stantec
3. Service Layer Credits Earthstar Geographics

Project Location
West Kitikmeot Region
Nunavut

Prepared by SL on 2026-02-05
TR by EB on 2026-02-05

Client/Project 123514868_172
West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
24.1

Title
Traditional Land, Marine, and Resources Use LAA and RAA Overview

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Regional Assessment Area

The TLMRU RAA consists of the greatest extent of the RAAs for supporting biophysical VCs, (air quality, noise and vibration, terrain, soils, and permafrost, vegetation, wildlife and wildlife habitat, water resources, freshwater fish and fish habitat, and marine environment). Its boundaries were predominately informed by the combined RAAs for the Caribou VC (Volume 6, Sections 16) and the Marine Mammal VC (Volume 8, Section 23), representing the greatest anticipated effects on TLMRU resources at sites or areas identified by Kitikmiut and other potentially affected Indigenous groups. In particular, the caribou RAA includes the Dolphin and Union caribou herd's winter range on mainland Nunavut as well as the cumulative land disturbance framework established by the Government of the Northwest Territories in their *Bathurst Caribou Range Plan* for the Bathurst caribou herd.

With the combined terrestrial and marine components, the TLMRU RAA is approximately 10,848,448 ha, as shown in Figure 24.1. This RAA definition does not preclude consideration of interactions beyond the TLMRU RAA, as identified through engagement with Kitikmiut or other potentially affected Indigenous groups; where Kitikmiut or other potentially affected Indigenous groups have shared information about TLMRU beyond the RAA, this has been considered in the larger context of TLMRU within the territories or harvesting areas of potentially affected Indigenous groups.

24.1.4.2 Temporal Boundaries

Temporal boundaries describe when an effect is evaluated in relation to specific project phases and activities. Temporal boundaries are based on the timing and duration of project activities and the nature of the interactions with TLMRU. The following temporal boundaries are used in the assessment of Project-related effects on TLMRU:

- The **Construction** phase of the Project will take approximately five years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The **Operations and Maintenance** phase of the Project will start in 2035 and will continue in perpetuity.

Refer to Table 2.1 in Volume 2, Section 1-4 (Preliminary Schedule of Project Activities [Post-Project Certificate]) for a more detailed construction schedule. At this stage, there is no plan to decommission or abandon the Project.

24.1.5 Residual Effects Characterization

Traditional land, marine, and resource use is dependent on many factors, including the availability of healthy resources, access to resources and areas that hold cultural values such as campsites, burial sites, or places associated with important stories and teachings, trails, and the opportunities to transfer Inuit, Indigenous, and Community Knowledge within the TLMRU spatial boundaries. The analysis and assessment of residual effects on TLMRU in Sections 24.3 and 24.4 is informed by Inuit, Indigenous, and Community Knowledge, engagement feedback, and the findings of relevant VCs.

Criteria used to characterize residual effects on TLMRU are provided in Table 24.3.

Table 24.3 Characterization of Residual Effects on Traditional Land, Marine, and Resource Use

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect	**Positive –** a residual effect that moves measurable parameters in a direction beneficial to TLMRU relative to baseline. **Adverse –** a residual effect that moves measurable parameters in a direction detrimental to TLMRU relative to baseline. **Neutral –** no net change in measurable parameters for TLMRU relative to baseline.
Magnitude	The extent of a change in measurable parameters or the VC from baseline conditions.	**No measurable change –** no measurable change in the measurable parameter of TLMRU can be noted. **Low –** effect may increase the effort necessary but will not reduce the ability to conduct TLMRU activity **Moderate –** effect may reduce but not eliminate the ability to conduct TLMRU activity **High –** effect will greatly reduce or eliminate the ability to conduct TLMRU activity
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	**PDA –** residual effects are restricted to the PDA **LAA –** residual effects extend into the LAA **RAA –** residual effects interact with those of other projects in the RAA
Timing	Considers when an effect is predicted to occur, where relevant to the VC.	**Not applicable –** TLMRU activity occurs year-round **Moderate sensitivity –** effect on preferred seasonality or timing of TLMRU activity may occur during a lower sensitivity timing period, as identified by related VCs and/or Kitikmiut or other potentially affected Indigenous groups **High sensitivity -** effect on preferred seasonality or timing of TLMRU activity may occur during a higher sensitivity timing period, as identified by related VCs and/or Kitikmiut or other potentially affected Indigenous groups
Duration	The time required until the measurable parameter or the VC returns to its baseline condition, or the residual effect can no longer be measured or otherwise perceived.	**Short-term** – the residual effect is restricted to no more than the duration of the Construction phase (five years). **Long-term** – the residual effect extends beyond the Construction phase and into Operations and Maintenance.
Frequency	How often an effect is predicted to occur.	**Single event** **Multiple irregular event –** occurs at no set schedule **Multiple regular event –** occurs at regular intervals **Continuous –** occurs continuously
Reversibility	The degree to which a VC can be returned to baseline conditions or other established reference point after relevant activities have ceased.	**Reversible –** the residual effect is likely to be reversed **Irreversible –** the residual effect is unlikely to be reversed

24.1.6 Significance Definition

Evaluating the significance of potential project-related effects is a subjective and value-dependent judgement of importance that requires consideration of the potential for the Project to alter or decrease the value, quality, or quantity of VCs beyond an acceptable limit. Evaluating whether project-related effects are significant (an unacceptable change) involves the perspectives and knowledge of engaged parties, including Kitikmiut and other potentially affected Indigenous groups, supplemented by research studies, comparable assessments, standards, and guidelines. However, a lack of laws, policies, management plans, and standard industry practice regarding thresholds for effects on TLMRU makes choosing and applying significance thresholds challenging. The subjective nature of describing and understanding the importance of effects on TLMRU means that selected thresholds might not evenly apply across potentially affected Indigenous groups' circumstances. Additionally, due to a range of historical or current TLMRU activities within the TLMRU spatial boundaries, WKR recognizes that Kitikmiut and other potentially affected Indigenous groups may have differing perspectives on the meaning of significance.

During the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to TLMRU, feedback received from IAG members (IAG 2025b) identified the following priorities, when considering unacceptable changes as a result of the Project:

- That Inuit perspectives are considered and addressed in project design,
- That the Project does not negatively affect peoples' ability to harvest caribou and put food on the table,
- That hunters have access to the Grays Bay area, and to hunting supplies at Grays Bay and Jericho Station, and
- That wildlife and water are protected.

Considering the above, for the purposes of this assessment, a significant adverse effect on TLMRU is one that, following the implementation of mitigation, management, and enhancement measures, will create a long-term permanent change or disruption to TLMRU to a point where the activities cannot continue at or near current levels within the TLMRU RAA. This may include a long-term or permanent change or disruption to TLMRU even in instances where supporting biological assessments (e.g., caribou, vegetation) or physical sites (e.g., heritage sites or traplines) in the TLMRU RAA are not significantly affected. For example, harvesters may elect to avoid certain harvesting areas as a result of the Project's activities, despite the habitat and resource(s) still being accessible.

24.2 Baseline Conditions

24.2.1 Methods

The desktop analysis completed in support of this baseline conditions section consisted of a review of the Project-specific *Naonaiyaotit* Traditional Knowledge Project (NTKP) study report (described in detail in Section 24.2.1.1), workshop summaries, interview transcripts, and engagement feedback, as well as a literature review of publicly available documents describing TLMRU for Indigenous groups who shared information about use in the project area. The literature review focused on information regarding the extent and nature of TLMRU in the project area, as well as issues or concerns that were publicly available and reported relative to other projects in the vicinity of the Project.

The desktop analysis included:

- a review of regulatory requirements related to potentially affected Indigenous groups' interests
- description of baseline TLMRU activities within the region
- identification of issues and concerns raised by potentially affected Indigenous groups relative to previous development within the region
- identification of issues and concerns raised by potentially affected Indigenous groups provided in the Project-specific Inuit Knowledge report, compiled from the NTKP database
- a review of harvest and monitoring studies conducted in proximity to the Project
- identification of interests reported by potentially affected Indigenous groups relative to previous development in proximity to the Project
- historical and ethnographic literature
- relevant internet sources (e.g., Indigenous groups' websites)

Inuit, Indigenous, and Community Knowledge relative to baseline conditions is presented in Section 24.2.2. TLMRU information includes knowledge about the activities, practices and places, locations, and areas related to use of traditional resources, including travel to engage in harvesting practices, or places of habitation and settlement, such as cabins or campsites, cultural, spiritual, and community gathering areas, and burial sites.

24.2.1.1 Types of Information

Information to inform the TLMRU assessment was gathered through a variety of project-specific and publicly available sources. Volume 3 provides a detailed overview of the types of information gathered, including engagement feedback and Inuit, Indigenous, and Community Knowledge. The following sources were used to identify Kitikmiut and other potentially affected Indigenous groups' values and perspectives about TLMRU.

Inuit Knowledge: As defined in the NIRB IS guidelines for the Project, Inuit are defined as Indigenous peoples of northern Canada, and in the context of the Project, this refers to individuals receiving benefits under the Nunavut Agreement (NIRB 2026). Inuit Knowledge includes information about traditional practices such as harvesting, land, marine, resource use, and other important activities that allow for the continuity of culture. Inuit Knowledge has been verified through multiple generations and between multiple individuals.

While WKR acknowledges that Inuit Knowledge from other Inuit regions in Nunavut, including the Kivaliiq Region and Qikiqtaaluk Region, may provide knowledge and perspectives with respect to the Project, for the purposes of the IS, focus is placed on Inuit of the Kitikmeot Region, or Kitikmiut. The Kitikmeot Region is the most western administrative region of the Nunavut territory. It consists of the southern and eastern parts of Victoria Island with the adjacent part of the mainland and includes the five communities of Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak. The Project, including the regional and local assessment boundaries for each VC in the IS are located within the Kitikmeot Region.

Inuit Knowledge may also be referred to as *Inuit Qaujimaningit*, which encompasses “Inuit traditional knowledge (and variations thereof or *Inuit Qaujimajatuqangit*), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2018). *Inuit Qaujimajatuqangit* refers to “a set of values and practices, the relevance and importance of these, and ways of being and looking at things that are timeless” (Karetak et al. 2017). For more detail see Volume 3. See also Section 24.2.2.2 for additional context about Inuit cultural laws. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the IS. WKR has adopted this terminology and understands Inuit Knowledge encompasses *Inuit Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on TLMRU.

Verified Inuit Knowledge and perspectives considered and integrated in the TLMRU assessment were shared through one primary Project-specific source:

- ***Naonaiyaotit* Traditional Knowledge Project (NTKP):** To inform the project design, a project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the NTKP database, was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

  The Kitikmeot Inuit Association maintains a repository of Inuit Knowledge for the Kitikmeot Region of Nunavut within a Geographic Information System-based database called the NTKP. The NTKP contains the collective body of documented and verified Inuit Knowledge of the Kitikmeot Region, including knowledge of animals, birds, fish, marine mammals, water quality, travel routes, gathering places, and heritage. When planning the Project, the Kitikmeot Inuit Association and its consultants compiled a Project-specific report called Kitikmiut Knowledge of the Proposed *Kogloktoakyok* (Grays Bay) Port and Road Project (Banci and Spicker 2024), which provides most of the Inuit Knowledge shared and integrated in the TLMRU assessment.

  The NTKP report states that the majority of people (91%) who shared knowledge about wildlife, fish, and travel during interviews were men (Banci and Spicker 2024).

Additional, publicly available sources of Inuit Knowledge were also reviewed to provide additional context about baseline conditions and how conditions are changing. Multiple sources (e.g., Boulanger-Lapointe et al. 2019; Ootoova et al. 2001; Clark 2012; Smith 1973) reviewed were recommended by the Kitikmeot Inuit Association's consultants.

Indigenous Knowledge: As outlined in the NIRB Guidelines (NIRB 2026), WKR is required to assess potential effects on Indigenous groups asserting section 35 rights (of the Canadian *Constitution Act*, 1982) in the TLMRU LAA and RAA. Indigenous Knowledge (also known as Traditional Knowledge) refers to the accumulated body of knowledge, observations, and understandings about the environment, and about the relationship of living beings with one another and with the environment, that is rooted in the traditional way of life of Indigenous people of a designated area (NuPPAA 73(1) 2013 [GOC 2013]).

There is no single definition of Indigenous Knowledge; however, WKR understands Indigenous Knowledge is a term that refers to a set of complex knowledge systems based on the worldviews of Indigenous Peoples. Indigenous Knowledge reflects the unique cultures, languages, values, histories, governance and legal systems of Indigenous Peoples. It is place-based, cumulative, and dynamic. Indigenous Knowledge systems involve living well with and being in relationship with the natural world. They build upon the experiences of earlier generations, inform the practice of current generations, and evolve in the context of contemporary society (GOC 2024a). In the IS, Indigenous Knowledge refers to the knowledge of non-Kitikmiut Indigenous Peoples and Indigenous groups outside of the Kitikmeot Region who exercise their section 35 rights of the *Constitution Act, 1982*, within the Kitikmeot Region, including Inuit, First Nations, and Métis.

Publicly available sources of Indigenous Knowledge were reviewed to provide context about baseline conditions and project and cumulative effects as well as potential mitigations (including those used on previous projects). Results from monitoring studies and other community-based research were also reviewed.

Community Knowledge: In addition to Inuit Knowledge and Indigenous Knowledge that have been taught intergenerationally and verified over time and between multiple individuals, Community Knowledge, which includes Local Knowledge, has also been considered and integrated in the IS, in accordance with the NIRB IS guidelines for the Project (NIRB 2026). Community Knowledge often reflects current observations and changes that can be confirmed through monitoring. Knowledge and perspectives considered and integrated in the IS were shared through three primary Project-specific sources:

- **Inuit Advisory Group (IAG):** Initiated in 2018 by the Project's previous proponent, WKR re-initiated the IAG in 2025 with the purpose of advising WKR on project design, and potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and other aspects of the IS. Through a series of IAG workshops, WKR, its consultants, and Inuit land users, Elders, and Knowledge Holders meet to discuss and document feedback and advice about the Project, including but not limited to dialogue about wildlife, fisheries, land use, archaeology, water, air quality, and access management.

Members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the biophysical and human environment. Through the IAG, multiple perspectives are shared, allowing for the integration of knowledge systems (both Inuit Knowledge and western science), resulting in a more informed and sustainable Project. At the time of filing, four IAG workshops had occurred (GBEEC 2018a, 2018b; IAG 2025a, 2025b). The 2025 workshops were conducted in accordance with a community-based primary research permit (04 012 25R-M) granted by the Nunavut Research Institute (NRI).

Following each workshop, a workshop summary, or 'What We Heard Report', was provided to members of the IAG for review and approval before the feedback was considered and integrated into the IS.

- **Community Meetings and Public Feedback:** WKR and the Project's previous proponent have been engaging since 2016 to discuss the Project. See Volume 3, Section 6 for details about the communities and organizations engaged, engagement methods used, and a summary of key feedback received.
- **Community-based Primary Research:** A total of 61 interviews were conducted with 70 community members in-person and virtually in October and November 2024. This research was also conducted in accordance with NRI research permit 04 012 25R-M. In-person interviews were conducted in the communities of Kugaaruk, Cambridge Bay, Kugluktuk, Gjoa Haven and Taloyoak. Interview participants included regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

  Key person virtual interviews were also undertaken with seven government agencies, stakeholders, and community organizations in Yellowknife virtually in May and June 2025. A research license was obtained from the Government of Northwest Territories Department of Education, Culture and Employment (License Number 5957 and 6135) and ethics approval was obtained from Aurora Research Institute (Approval Number AC-REC 24-09) to conduct research in Yellowknife.

24.2.1.2 Use of Inuit, Indigenous, and Community Knowledge

WKR acknowledges that Inuit, Indigenous, and Community Knowledge are the intellectual property of the Indigenous groups and Knowledge Holders sharing the information. WKR is committed to protecting the confidentiality of the information where requested and respects the terms of use for each of the documents reviewed. Information gathered through WKR's engagement with Kitikmiut and other potentially affected Indigenous groups has been compiled and managed in a manner consistent with the principles of Ownership, Control, Access, and Possession as developed by the First Nations Information Governance Centre (FNIGC 2025). Information received through WKR's engagement with Kitikmiut and other potentially affected Indigenous groups is stored in a restricted access database as is information shared through the Project-specific Inuit Knowledge report, compiled from the NTKP database. In order for WKR to review and integrate the Inuit Knowledge shared through the NTKP report, WKR signed an NTKP Non-Exclusive Licensing Agreement with the Kitikmeot Inuit Association. WKR received permission

to consider and integrate contents of the NTKP into the design and assessment of the Project; however, WKR is not permitted to publicly release the NTKP report in its entirety.

Through the Project-specific engagement program, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations related to the human and natural environment and to project design. Upon receipt of this information, the material was reviewed and consolidated into an internal, restricted-access knowledge tracking database. The database was categorized into VC-specific topics, streamlining integration into the IS where appropriate. This information has been reviewed, considered, and integrated where appropriate into project planning and the IS.

Inuit, Indigenous, and Community Knowledge contributing to the baseline understanding of TLMRU is presented in Sections 24.2.2 to 24.3.6. Information is categorized by Indigenous group and the relevant VCs that are discussed throughout this assessment. TLMRU information includes Inuit, Indigenous, and Community Knowledge about culturally important resources, places, and practices and the values and perspectives held by Kitikmiut and other potentially affected Indigenous groups regarding these themes. Concerns identified through project-specific engagement, NTKP report, IAG workshops, community-based primary research, and publicly available information are carried through the assessment where applicable, as are recommendations to mitigate, manage, or enhance project effects and other relevant considerations.

24.2.1.3 Conservative Approach

This assessment uses a conservative approach that recognizes the absence of information does not necessarily represent an absence of the exercise of TLMRU for that location or activity. This assessment assumes that the exercise of TLMRU may occur anywhere on accessible lands and waters within the Project's assessment areas that overlap with the Kitikmeot Region and the territories, harvesting areas, and areas of interest (e.g., gathering, travelling) of potentially affected Indigenous groups that may intersect portions of the TLMRU RAA. In addition, resources or species identified as being present near the Project could be hunted, trapped, fished, or gathered by Indigenous groups, even if Indigenous groups did not identify specific sites, areas, or resources in relation to the Project. The results of WKR's Project-specific engagement, IAG workshops, community-based primary research, Project-specific Inuit Knowledge report, compiled from the NTKP database, and literature review reflect the best available information regarding the exercise of TLMRU in relation to the Project.

Additional Inuit, Indigenous, and Community Knowledge obtained though the ongoing engagement process for the Project may serve to confirm the information obtained through publicly available sources and provide more specific information about cultural and traditional use sites, area, practices, and activities.

24.2.1.4 Gender-Based Analysis Plus (GBA Plus)

Gender-Based Analysis Plus (GBA Plus) guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the consideration of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including impacts of colonialism.

In addition, Pauktuutit Inuit Women of Canada (Pauktuutit) has produced an Inuit-Specific GBA Plus framework to reflect the unique needs, voice, and social experiences of Inuit women, girls, and gender-diverse populations (Pauktuutit 2025). Pauktuutit suggests that considering the whole person and all of their intersectional identities contributes to equity. Inuit cultural values, lifeways, and worldviews are the foundation of the Inuit Specific GBA Plus framework.

Key subpopulations have been selected based on GBA Plus and Inuit-specific GBA Plus frameworks, feedback from engagement, through literature on socio-community impacts from industrial development projects, and on the professional experience and knowledge of the socio-economic technical team. Sub-populations that have been selected for consideration in the assessment and rationale for their inclusion are provided in the People and Communities baseline report.

24.2.2 Overview

The Project is located within the Kitikmeot Region of Nunavut and located on IOL and Crown land. The following section describes the practice of historical and current TLMRU activities within and beyond the PDA, TLMRU LAA, and TLMRU RAA, by Kitikmiut and other potentially affected Indigenous groups, including Inuvialuit, First Nations, and Métis. The groups included in this assessment are being considered in accordance with the NIRB Guidelines (NIRB 2026). Any assertions of use or exercise of rights in relation to the Project are protected by the *Constitution Act* or under the Nunavut Agreement. This identification was informed by an understanding of potentially affected Indigenous groups' traditional territories and harvesting areas, TLMRU, and practices (e.g., hunting, trapping, and plant gathering). These groups include:

- Inuit
  - Inuit of the Kitikmeot Region (Kitikmiut)
  - Inuvialuit
- First Nations
  - The Tłı̨chǫ Government
  - Yellowknives Dene First Nation
  - Athabasca Denesųłiné Né Né Land Corporation
  - Ghotelnene K'odtineh Dene

- Métis
  - North Slave Métis Alliance
  - Northwest Territory Métis Nation

Figure 24.2 provides an overview of the administrative, residential, and/or service communities affiliated with each potentially affected and assessed Indigenous group.

Section 35 of the *Constitution Act*, *1982* recognizes and affirms existing Aboriginal rights of the Indigenous, Inuit, and Métis peoples of Canada (SCC 2016). Section 35 rights are understood to be those practices, traditions and customs integral to the distinctive culture of the Indigenous group claiming the right (SCC 1996). WKR has assumed that each Indigenous group in the list above may hold asserted or established section 35 rights related to the project area. Therefore, by adopting a recognition based approach informed by the regulatory and policy setting described in Section 24.1.2, the assessment of TLMRU within the TLMRU RAA includes consideration for all effects to interests or matters of importance that may be identified by each potentially affected Indigenous group.

Inuit of the Qikiqtaaluk and Kivalliq regions in Nunavut were not included in the assessment of potential effects on TLMRU given the administrative responsibilities held by the Kitikmeot Region and Kitikmeot Inuit Association, where the Project is located. Additional Indigenous groups were also identified in the NIRB Guidelines as having potential to experience transboundary effects as a result of the Project. These potential effects are discussed in Volume 10, Section 33.





Grays Bay Port
Grays Bay Road
Highway Number
Major Road
Territorial Boundary
Tibbitt to Contwoyto Winter Road
Watercourse
Kitikmeot Region
Inuvialuit Settlement Region
Ocean
Waterbody

0 100 200 Kilometres
(At original document size of 8.5x11)
1:12,000,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Notes
1. Coordinate System: NAD 1983 CSRS Northwest Territories Lambert
2. Data Sources: Governments of Canada and Nunavut, ESRI, Stantec Consulting Ltd.

Project Location
~~West Kitikmeot~~ Region
Nunavut

Prepared by SL on 2026-02-09
TR by DS on 2026-02-09

Client/Project
West Kitikmeot Resources Corp
Grays Bay Road and Port

123514868_184

Figure No.
24.2

Title
Geographic Overview of Kitikmiut and Other Potentially Affected Indigenous Groups Included in the TLMRU Assessment

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24.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the project-specific engagement program delivered between 2016 and 2025, including community meetings, IAG workshops, community-based primary research, and through a review of publicly available TLMRU information, Kitikmiut and other potentially affected Indigenous groups shared information, expressed concerns, and provided recommendations related to potential effects on TLMRU. This feedback has been considered and summarized in Table 24.4 and has been integrated into the assessment of potential effects on TLMRU that follows. This feedback along with information shared through the NTKP report, and findings from the literature review have also been integrated into the supporting VC assessments to contextualize the perspectives and values of Kitikmiut and other potentially affected Indigenous groups as it relates to those VCs.

The table has been sorted by the first or most applicable potential effect on TLMRU; however, WKR recognizes the interconnectedness of TLMRU and acknowledges that some information informs multiple sections of this assessment and that information has been integrated throughout the assessment, where applicable. Information from the Project-specific Inuit Knowledge report, compiled from the NTKP database has not been summarized in Table 24.4 due to the volume of information in the report. However, the information has been integrated throughout the baseline overview and assessment that follows. This feedback has also been integrated into other relevant VCs for consideration in those assessments.

Table 24.4 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Project Effect	Comment	Where Addressed
Change in quality, quantity, or distribution of TLMRU resources	• The Taloyoak HTO commented about the importance of marine mammals for food sovereignty (GBRP 2025). • IAG members commented on the historic and present-day use and importance of caribou as a source of food, and for making clothing, shelter, and tools (IAG 2025a). • IAG members, Elders in Cambridge Bay, the Tłı̨chǫ Government, and Athabasca Denesųłiné Né Né Land Corporation shared knowledge about traditional caribou harvesting practices, the movement and migration of caribou herds, caribou behaviour, and observations regarding a decline in the population of caribou herds (GBRP 2025; IAG 2025a, 2025b; NIRB 2025a, 2025b; Community Elders, Cambridge Bay, November 3, 2024, pers. comm.). • IAG members and Cambridge Bay residents commented about the implementation of, and challenges associated with, a tag system for harvesting caribou (IAG 2025a; Community Member, Cambridge Bay, November 3, 2024, pers. comm.). • IAG members and Cambridge Bay residents shared knowledge about muskox behaviour, migration, and changes to harvesting practices and population due to parasites, disease and climate change (IAG 2025a; Community Member, Cambridge Bay, November 3, 2024, pers. comm.). • Cambridge Bay residents shared knowledge about wildlife species harvested by past and present Kitikmiut and harvesting practices (Community Member, Cambridge Bay, November 3, 2024, pers. comm.). • Kitikmiut observed in a recent study that cod and Arctic char did not migrate up rivers when nearby vessel traffic increased (GBRP 2025). • Kugluktuk residents reported observing the effects of increased algae in rivers on fish harvesting (Community Member, Kugluktuk, November 8, 2024, pers. comm.). • The Kitikmeot Inuit Association in Cambridge Bay commented about the effects of a seal ban on traditional Inuit economies (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.). • Kugaaruk residents have observed an increasing population of beluga whales in recent years (Community Member, Kugaaruk, November 1, 2024, pers. comm.). • Elders in Cambridge Bay made an observation regarding effects of ice thickness on caribou migration and mortality (Community Elders, Cambridge Bay, November 3, 2024, pers. comm.). • IAG members and Kitikmiut expressed concerns regarding airborne dust and effects to wildlife and future generations (GBRP 2025; IAG 2025a).	These comments have been integrated into the baseline conditions discussion (Section 24.2.2) and further integrated into the project and cumulative effects analyses (Sections 24.3 and 24.4, respectively). They have also been integrated into applicable VC assessments. All biophysical and human environment VCs included in the IS are connected to the exercise of TLMRU. Feedback related to caribou and other wildlife has been integrated into Volume 6, Section 16 (Caribou), Volume 6, Section 17 (Birds), and Volume 6, Section 18 (Other Wildlife). Feedback related to eskers and other land features has been integrated into Volume 5, Section 14 (Terrain, Soils, and Permafrost). Feedback related to fish has been integrated into Volume 7, Section 20 (Freshwater Fish and Fish Habitat). Feedback related to surface and groundwater has been integrated in Volume 7, Section 19 (Water Resources). Feedback related to marine environment have been integrated in Volume 8, Section 21 (Marine Water and Sediment), Section 22 (Marine Fish and Fish Habitat), Section 23 (Marine Mammals). Feedback related to sensory disturbances have been integrated in Volume 5, Section 11 (Air Quality) and Volume 5, Section 13 (Noise and Vibration).

Project Effect	Comment	Where Addressed
Change in quality, quantity, or distribution of TLMRU resources (cont'd)	• Community members in Gjoa Haven expressed concern regarding increased wildlife-vehicle collisions (GBRP 2025). • The Gjoa Haven HTO expressed concern that wildlife would be attracted to project infrastructure (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.). • IAG members, Kitikmeot Inuit Association, Hamlets of Kugaaruk and Kugluktuk, Kugluktuk HTO, Kugaaruk HTO, Taloyoak HTO, community members in Taloyoak, Kugluktuk, and Gjoa Haven, the Tłı̨chǫ Government, Yellowknives Dene First Nation, North Slave Métis Alliance, and Athabasca Denesųłiné Né Né Land Corporation expressed concerns and made recommendations regarding effects on caribou, including comments related to a decline in caribou populations, migration and behavioural changes, sensory disturbances, predator control, traffic control, and caribou harvesting areas and habitat, including calving areas (GBRP 2025, 2017; IAG 2025a, 2025b; NIRB 2024c, 2025b; NSMA 2017a; YKDFN 2012, 2016). • The Kugluktuk HTO identified Beverly caribou are present in the PDA (GBRP 2025). • IAG members recommended reclamation and remediation throughout all Project phases (IAG 2025b). • IAG members recommended protection measures to extend to all wildlife and not just to caribou (IAG 2025b). • IAG members and North Slave Métis Alliance recommended wildlife monitoring (IAG 2025b; NSMA 2017a). • The Kitikmeot Inuit Association expressed concern regarding how the construction of the road would modify the landscape and alter important habitats and landforms such as eskers and permafrost (NIRB 2024c). • The Tłı̨chǫ Government expressed concern the road would intersect Bathurst caribou calving grounds (GBRP 2017; NIRB 2025b). • , the Tłı̨chǫ Government, Yellowknives Dene First Nation, North Slave Métis Alliance, Northwest Territory Métis Nation, , , and Athabasca Denesųłiné NeNe Land Corporation commented that increased wildfires in recent years have resulted in caribou habitat loss; recommended wildfire management should be a high priority (Compass Resource Management Ltd. 2025). • IAG members expressed concern regarding effects to muskox from sensory disturbances and changes in air quality, vegetation, and terrain (IAG 2025a). • Kitikmeot Inuit Association and Kitikmiut expressed concerns regarding effects on vegetation from clearing activities and airborne dust (GBRP 2025; NIRB 2024c).	

Project Effect	Comment	Where Addressed
Change in quality, quantity, or distribution of TLMRU resources (cont'd)	• IAG members expressed concern regarding elevated levels of acidity in blasting materials (IAG 2025a). • Kitikmeot Inuit Association and community members in Taloyoak expressed concerns regarding effects on marine fish and marine mammals, emphasizing the importance of marine mammals as a traditional food source (NIRB 2024c; GBRP 2025). • Community members in Taloyoak identified bowhead whales as a species of concern and commented that bowhead whales have been hit by passing ships in the past (GBRP 2025). • During a public scoping meeting for the NIRB, Taloyoak community members expressed concern that youth in the community would not be able to participate in hunting activities (NIRB 2025b). • During a public scoping meeting for the NIRB, Taloyoak community members shared that they use the fur of animals to make clothing (NIRB 2025b). • During a public scoping meeting for the NIRB, Gjoa Haven community members expressed concern regarding their ability to harvest wildlife and vegetation. Members emphasized the need for on land and ocean monitoring (NIRB 2025b). • Kitikmeot Inuit Association, IAG members and Kitikmiut shared concerns regarding changes to water quality and quantity due to blasting, river crossing, culverts, flooding, and potential spills (GBRP 2025; IAG 2025a; NIRB 2024c). • IAG members expressed concerns about sediment resulting from the Project (IAG 2025a). • IAG members recommend installation of infrastructure for early spill response at the port to limit effects on water. • IAG members recommended the implementation of search and rescue efforts (IAG 2025b). • IAG members expressed concerns regarding effects on TLMRU activities from sensory disturbances (IAG 2025a). • Community members in Kuugaruk expressed concern regarding effects of climate change on caribou and the thickness of sea ice (GBRP 2017). • Kitikmeot Inuit Association expressed concern for significant impacts to caribou, muskox, grizzly bears, wolverines, birds, and other wildlife species and their habitats (NIRB 2024c). • Athabasca Denesųłiné Né Né Land Corporation expressed concerns regarding cumulative effects and recommended a cumulative effects assessment (NIRB 2025a).	

Project Effect	Comment	Where Addressed
Change in quality, quantity, or distribution of TLMRU resources (cont'd)	• During a public scoping meeting for the NIRB, community members in Yellowknife commented that harvesting caribou is an important part of continuing their cultural traditions and identity and recovering from the trauma of the residential school system (NIRB 2025b). • During a public scoping meeting for the NIRB, community members in Yellowknife commented that it is a tradition to make caribou hide slippers when someone is sick and passes. The tradition is still practiced today. Caribou hides have also been used to make ropes, strings, bags for food, coats, moccasins, and bunting bags for babies (NIRB 2025b). • During a public scoping meeting for the NIRB, community members in Yellowknife commented that they harvest in the Project area, especially around Contwoyto Lake (NIRB 2025b). • Athabasca Denesųłiné Né Né Land Corporation expressed concerns regarding the continued use and practice of Indigenous Knowledge and TLMRU activities, including section 35 rights (NIRB 2025a).	
Change to specific areas of cultural importance where TLMRU occurs	• IAG members made observations about new species and changes to the treeline north of Contwoyto Lake (IAG 2025a). • IAG members and community members in Cambridge Bay shared knowledge about specific areas of cultural importance, such as Contwoyto Lake and Frayed Knots (GBRP 2017; IAG 2025a). • Gjoa Haven residents and the Kitikmeot Inuit Association in Kugluktuk identified a fishing camp on the Back River to the east of the proposed road (Community member, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Inuit Association, Kugluktuk, November 7, 2024, pers. comm.). • The Gjoa Haven HTO made an observation regarding the effects of marine traffic on seal harvesting areas and identified that Sherman Inlet used to be ideal for seal hunting before marine traffic increased (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.). • Cambridge Bay residents expressed concern that shared areas important for family and cultural history may be impacted by the Project (GBRP 2025). • During a public scoping meeting for the NIRB, Gjoa Haven community members inquired about the procedure when sites and artifacts are uncovered (NIRB 2025b).	These comments have been integrated into the baseline conditions discussion (Section 24.2.2) and further integrated into the project and cumulative effects analyses (Sections 24.3 and 24.4, respectively). They have also been integrated into applicable VC assessments. All biophysical and human environment VCs included in the IS are connected to the exercise of TLMRU. Feedback related to caribou and other wildlife has been integrated into Volume 6, Section 16 (Caribou), Volume 6, Section 17 (Birds), and Volume 6, Section 18 (Other Wildlife). Feedback related to eskers and other land features has been integrated into Volume 5, Section 14 (Terrain, Soils, and Permafrost). Feedback related to fish has been integrated into Volume 7, Section 20 (Freshwater Fish and Fish Habitat).

Project Effect	Comment	Where Addressed
Change to specific areas of cultural importance where TLMRU occurs (cont'd)	• During a public scoping meeting for the NIRB, Kugluktuk community members shared that there were burial sites close to Grays Bay. Members commented that there were camping patterns and artifacts in the area and emphasized the need for protection of the sites and artifacts (NIRB 2025b). • During a public scoping meeting for the NIRB, community members in Yellowknife identified that there was a burial site in the Jericho area (NIRB 2025b).	Feedback related to surface and groundwater has been integrated in Volume 7, Section 19 (Water Resources). Feedback related to the marine environment has been integrated in Volume 8, Section 21 (Marine Water and Sediment), Section 22 (Marine Fish and Fish Habitat), Section 23 (Marine Mammals). Feedback related to access to historical and archaeological or other cultural sites has been integrated into Volume 9, Section 30 (Heritage Resources). Feedback related to sensory disturbances has been integrated in Volume 5, Section 11 (Air Quality) and Volume 5, Section 13 (Noise and Vibration).
Change in access to resources, sites, or areas where TLMRU occurs	• Kugluktuk residents commented about the increased difficulty accessing camps and cabins due to the rising cost of fuel for snowmobiles (Community Member, Kugluktuk, November 8, 2024, pers. comm.). • Cambridge Bay residents commented about the difficulty of accessing traditional foods due to changes to wildlife populations (Community Member, Cambridge Bay, November 3, 2024, pers. comm.). • The Taloyoak HTO and Kugluktuk HTO, IAG members, and Cambridge Bay residents expressed concerns regarding risk of increased predation, presence of hunters, competition, illegal harvesting and overharvesting, due to increased access (GBRP 2017, 2025; Community Member, Cambridge Bay, November 3, 2024, pers. comm.; IAG 2025a, 2025b). • Taloyoak HTO expressed concern regarding overharvesting of freshwater fish (GBRP 2025). • Kugluktuk residents commented the Project would help hunters access TLMRU areas, as well as with wayfinding (Community member, Kugluktuk, November 9, 2024, pers. comm.). • During a public scoping meeting for the NIRB, community members from Kugluktuk shared that travel over land and sea is a fundamental part of their traditions. Many traditional routes have already been lost, and there is concern about further impacts (NIRB 2025b).	These comments have been integrated into the baseline conditions discussion (Section 24.2.2) and further integrated into the project and cumulative effects analyses (Sections 24.3 and 24.4, respectively). They have also been integrated into applicable VC assessments. All biophysical and human environment VCs included in the IS are connected to the exercise of TLMRU. Feedback related to caribou and other wildlife has been integrated into Volume 6, Section 16 (Caribou), Volume 6, Section 17 (Birds), and Volume 6, Section 18 (Other Wildlife). Feedback related to fish has been integrated into Volume 7, Section 20 (Freshwater Fish and Fish Habitat).

Project Effect	Comment	Where Addressed
Change in access to resources, sites, or areas where TLMRU occurs (cont'd)	• During a public scoping meeting for the NIRB, community members from Kugluktuk shared that their family has a cabin between Jericho and Lupin mines (NIRB 2025b). • During a public scoping meeting for the NIRB, Cambridge Bay community members shared that there are cemeteries marked by rocks in the area near the proposed port. Community members emphasized that the burials are to not be impacted (NIRB 2025b). • Hamlet of Gjoa Haven expressed concern regarding increased boat traffic and the safety of people travelling between communities and camps (GBRP 2017). • IAG members, Kitikmiut, community members in Taloyoak, and the Municipality of Cambridge Bay commented the Project may improve community re-supply and lower the cost of living (GBRP 2017, 2025; IAG 2025a). • IAG members recommended improving navigation for community members through aids and communication systems (IAG 2025b). • IAG members recommended education and training courses for employment (IAG 2025b). • Community members in Taloyoak and Gjoa Haven commented about potential positive effects on employment and economy from the Project, including increased business, employment, tourism, and economic opportunities (GBRP 2017, 2025; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.). • IAG members and community members in Gjoa Haven expressed concerns regarding unequal job opportunities and difficulty travelling to work locations (GBRP 2025; IAG 2025a). • Community members in Gjoa Haven and Qiqirtaq Ilihakvik High School commented about the need for training opportunities and improved school attendance rates (GBRP 2017, 2025). • Community members in Gjoa Haven and Taloyoak expressed concerns regarding the risk of increased drug, alcohol and human trafficking (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; GBRP 2025). • Kitikmeot Inuit Association commented the Project would increase access to harvesting areas, however, cumulative effects from other projects may affect Inuit way of life and the exercise of section 35 rights under the Nunavut Agreement (NIRB 2024c).	Feedback regarding employment and education has been integrated into Volume 9, Section 27 (Employment and Economy).

Project Effect	Comment	Where Addressed
Change to cultural practices, laws, and governance systems that inform how TLMRU occurs	• Kugaaruk residents commented about current practices for transferring knowledge about fish harvesting to youth (Community Elder, Kugaaruk, October 31, 2024, pers. comm.). • The Kugluktuk HTO and Athabasca Denesųłiné Né Né Land Corporation expressed concerns regarding the continued use and practice of Indigenous Knowledge and TLMRU activities, including section 35 rights (GBRP 2017; NIRB 2025a). • Community members in Gjoa Haven emphasized the importance of protecting wildlife for cultural transmission and food security (GBRP 2025). • During a public scoping meeting for the NIRB, Cambridge Bay community members shared that there are historical sites of the Asiarmiut. Asiarmiut are a distinct group of Inuit communities in western Canada. Cambridge Bay community members emphasized that any archaeological resources should be returned to Inuit communities (NIRB 2025b). • IAG members commented that teachings regarding caribou migration are passed down through generations (IAG 2025a). • IAG members expressed concerns regarding effects on future generations (IAG 2025a). • The Tłı̨chǫ Government expressed concern regarding the effects of a change in the quality, quantity, or distribution of traditional resources on exercise of rights (GBRP 2025). • Tłı̨chǫ Government and Athabasca Denesųłiné Né Né Land Corporation recommended the involvement of Indigenous groups in Project-related decision making and engagement (GBRP 2025; NIRB 2025a). • Athabasca Denesųłiné Né Né Land Corporation commented about the impacts of development, residential schools, and language and culture loss on intergenerational knowledge transfer (NIRB 2025a). • Athabasca Denesųłiné Né Né Land Corporation expressed concerns about reduced Indigenous Knowledge about caribou due to declining caribou populations (NIRB 2025a). • Athabasca Denesųłiné Né Né Land Corporation commented about effects to intergenerational knowledge transfer from the impacts of development, residential schools, and language and cultural loss (NIRB 2025a). • Athabasca Denesųłiné Né Né Land Corporation commented the Project would largely benefit industry, while communities would bear the environmental and cultural costs (NIRB 2025a).	These comments have been integrated into the baseline conditions discussion (Section 24.2.2) and further integrated into the project and cumulative effects analyses (Sections 24.3 and 24.4, respectively). They have also been integrated into applicable VC assessments. All biophysical and human environment VCs included in the IS are connected to the exercise of TLMRU. Feedback related to caribou and other wildlife has been integrated into Volume 6, Section 16 (Caribou), Volume 6, Section 17 (Birds), and Volume 6, Section 18 (Other Wildlife). Feedback related to fish has been integrated into Volume 7, Section 20 (Freshwater Fish and Fish Habitat). Feedback related to surface and groundwater has been integrated into Volume 7, Section 19 (Water Resources). Feedback related to marine environment has been integrated into Volume 8, Section 21 (Marine Water and Sediment), Section 22 (Marine Fish and Fish Habitat), Section 23 (Marine Mammals). Feedback related to food security has been integrated into Volume 9, Section 25 (Food Security and Food Sovereignty). Feedback related to historical and archaeological or other cultural sites has been integrated into Volume 9, Section 30 (Heritage Resources). Feedback related to sensory disturbances has been integrated into Volume 5, Section 11 (Air Quality) and Volume 5, Section 13 (Noise and Vibration).

24.2.2.2 Inuit of the Kitikmeot Region

Governance, Demographics, and Language

The Kitikmeot Region consists of the southern and eastern parts of Victoria Island (*Killinik)* with the adjacent part of the mainland and includes the five communities of Cambridge Bay (*Ekaluktiak*), Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak (see Figure 24.2). Based on 2021 Census data, the regional communities have the following Inuit populations: approximately 1,450 in Cambridge Bay, 1,275 in Gjoa Haven, 940 in Kugaaruk, 1,230 in Kugluktuk, and 900 in Taloyoak (Statistics Canada 2025a).

Inuit of the Kitikmeot Region call themselves Kitikmiut, with the suffix “miut” meaning “people of”. As shared in the Project-specific Inuit Knowledge report, compiled from the NTKP database, Kitikmiut also identify themselves by three regional Inuit groups: Ocean Inuit (or the “People of the Sea”), Nunamiut (meaning “Inlanders” or “People of the Land”), and Kiligiktokmiut (or “People of the Small Stitches”) (Banci and Spicker 2024). Ocean Inuit lived on Victoria Island, Coronation Gulf (*Oalik Tagiuga*), and on the sea ice in the winter, primarily depending on seals and caribou pelts for trading with inlanders. The Inlanders (Nunamiut), lived primarily near Contwoyto Lake (*Tahikyoak*), Rockinghorse Lake (*Kaomaogaktok*), and Mapaktolik. Inlanders travelled to the coast to trade with Ocean Inuit for furs or marine products. Kiligiktokmiut lived adjacent to Bathurst Inlet (*Kiligiktokmik* when referencing the inlet*)* and the Perry River (*Kugyoak*) and Ellice River (*Kunayok*) drainages. They were known for their fine sewing skills and often traveled inland to hunt; their hunting areas overlapped with Ocean Inuit who travelled to the Perry River and Ellice River areas to hunt caribou and to trap (Banci and Spicker 2024). These three groups are referred to within this assessment as Kitikmiut as a whole, with regionally specific Inuit Knowledge specified, where available.

Once known as Copper Inuit, Kitikmiut used to live in settlements, including Kugluktuk (previously called Coppermine), Cambridge Bay, Holman Island (*Ulukhatok*), Bathurst Inlet (*Kingaok*, when referencing the community), Omingmaktok (Bay Chimo), and Perry Island (*Innaghavik*) in the 1950s and 1960s (Banci and Spicker 2024). Smaller groups also used to live in camps from Berkeley Point in the north to Pellatt Lake (*Nonatoklik*) in the south (Banci and Spicker 2024). Prior to the 1950s, these communities served as important seasonal harvesting sites, where people gathered and lived temporarily during events such as caribou migrations, large seal gatherings, and fish spawning runs, rather than as permanent settlements (Banci and Spicker 2024).

The Kitikmeot Inuit Association is a not-for-profit designated Inuit organization that represents Inuit of the Kitikmeot Region in Nunavut. It manages lands in trust for Kitikmiut, supporting traditional and cultural values while promoting economic and social benefits for the region’s communities. The Kitikmeot Inuit Association was established in 1976 when the Nunavut Agreement was entering final steps in the legislative process (Kitikmeot Inuit Association 2025).

Many Inuit in the Kitikmeot Region have been reported to benefit from the employment generated from mines in the area. Inuit have received training at the mines that has helped access employment elsewhere (Jay Project, MVRB 2016; Jason Prno Consulting Services Ltd. 2025).

Inuinnaqtun is the Inuktut dialect spoken in the Kitikmeot Region (Banci and Spicker 2024) along with Inuktitut. Through the literature review, it was reported that in Kugluktuk, Elders have been asked to teach Inuit Knowledge lessons as the Government of Nunavut appointed Inuit languages as the primary language to be taught in the junior grades (Prno et al. 2011). Within the Kitikmeot Region, approximately 90% of households speak English most often at home, while 1% of households speak Inuinnaqtun as their primary language, and 8% of households speak Inuktut (Fernandes et al. 2024).[3] During Project-related engagement, the Hamlet of Gjoa Haven commented that the Netsilik Inuktitut dialect is only spoken in their community (GBRP 2025). Inuinnaqtun and Inuktitut are spoken more often by older individuals compared to youth in the Kitikmeot Region.

Although Nunavut is recognized as one of the most bilingual regions in Canada, Inuktut language use continues to decline throughout the territory (Fernandes et al. 2024; Martin 2017). According to research prepared for Nunavut Tunngavik Incorporated:

> *Due to "recursion", a negative feedback loop tends to accompany language loss. That is, the wheel of language loss accelerates as the number of speakers declines and the arenas of Inuit language use inside and outside the home dwindle. For example, as the Inuit language becomes less used in government, schools, and most types of employment, the incentive to sustain Inuktut is eroded.* (Martin 2017)

Inuit languages are also "a foundation necessary to a sustainable future of the Inuit of Nunavut as a people of distinct cultural and linguistic identity within Canada" (GN 2022). To protect and promote the use of Inuit languages, the *Inuit Language Protection Act* aims for Inuit languages to be used daily in services and communication with the public throughout all sectors of Nunavut society (GN 2022).

Land Management, Claims, and Agreements

In 1993, the Nunavut Agreement was signed. It is a modern treaty between Inuit of Nunavut and the Government of Canada and resulted in the creation of the Government of Nunavut and the territory of Nunavut in 1999 (GOC 2025c). The Nunavut Settlement Area encompasses over 20% of Canada's land mass and over 80% of Nunavut's residents are Inuit (NPC 2025). The settlement area is divided into three administrative regions, including the Qikiqtaaluk Region (also referred to as Qikiqtani or Baffin Region), Kivalliq Region, and Kitikmeot Region (NPC 2025).

The Project is located within the Kitikmeot Region, which is the westernmost region of Nunavut. In the Kitikmeot Region, the Kitikmeot Inuit Association oversees the management of IOL (Kitikmeot Inuit Association 2025).

[3] Inuinnaqtun is not reported as being commonly spoken in Gjoa Haven or Taloyoak (see Fernandes et al. 2024).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by Kitikmiut or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Kitikmiut through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Inuit Knowledge about Kitikmiut customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to Kitikmiut sharing the information. Values and perspectives shared by Kitikmiut are unique and, where available, have been integrated into the IS. WKR recognizes that Inuvialuit hold rights in Nunavut, which, along with Kitikmiut customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by Kitikmiut.

Inuit are guided by *Inuit Qaujimajatuqangit* or Inuit principles and cultural laws. Described as a holistic way of thinking, Karetak et al. (2017) describe it as follows:

> *[Inuit Qaujimajatuqangit] is more than a philosophy. It is an ethical framework and detailed plan for having a good life. It is a way of thinking, connecting all aspects of life in a coherent way. Western European culture and science, by contrast, tends to divide aspects of life into pieces that can be dissected, isolated, and studied.*

Inuit cultural laws or *maligarjuat* (“big things that must be followed”) are ethical commitments or principles, considered as important to Inuit as Western laws, which are how Elders view the world (Karetak et al. 2017). There are four *maligarjuat,* including:

- Working for the common good and not being motivated by personal interest or gain
- Living in respectful relationships with every person and thing that one encounters
- Maintaining harmony and balance
- Planning and preparing for the future (Karetak et al. 2017)

Inuit Societal Values have been described by the NIRB (NIRB 2025c) and Government of Nunavut (GN 2026). They include:

- ***Inuuqatigiitsiarniq***: Respecting others, relationships and caring for people
- ***Tunnganarniq:*** Fostering a good spirit by being open, welcoming and inclusive
- ***Pijitsirniq:*** Serving and providing for family and/or community

- ***Aajiiqatigiinniq:*** Decision making through discussion and consensus
- ***Pilimmaksarniq:*** Development of skills through observation, mentoring, practice, and effort
- ***Ikajuqtigiinniq:*** Working together for a common cause
- ***Qanuqtuurniq:*** Being innovative and resourceful
- ***Avatittinnik Kamatsiarniq:*** Respect and care for the land, animals, and the environment

Inuit group the land and environment into four main categories (Clark 2012): on the land, high places, fresh water, and ocean. Knowledge of the environment and local biodiversity is crucial to the participation in traditional activities by Inuit. For generations, Inuit have travelled extensive distances following the seasonal migration and behaviour of several wildlife, marine, and fish species for hunting, trapping, fishing, and other harvesting. This long history of TLMRU has led to a detailed and intimate knowledge about plants and animals used for traditional activities (Banci and Spicker 2024).

> *Nunamiut depended on terrestrial wildlife species, particularly caribou. Ocean People depended on marine species, particularly seals, and Kiligiktokmiut had access to both.* (Banci and Spicker 2024)

Harvested resources, either collected from hunting, trapping, fishing, or gathering, can be used for a wide variety of purposes. Plants, animals, fish, marine mammals, and other resources have long been used to make clothing, art, tools, and food (RHA 2003). Significant effort has also historically been placed in drying and caching meat and fish for the winter season, when resources were less abundant (Banci and Spicker 2024). Traditional activities such as these are community-based, anchored in cultural practices, and provide food security and income from the land (RHA 2003).

Hunting and Trapping

Caribou

Kitikmiut shared that caribou is the lifeblood for people and predators. Without caribou, survival on the land is not possible (Banci and Spicker 2024). Caribou have sustained Inuit for thousands of years as a source of food, clothing, shelter, and tools and are still heavily relied on (Banci and Spicker 2024; IAG 2025a). Inuit categorize caribou herds by three groups: island caribou, mainland caribou, and Peary caribou (Banci and Spicker 2024):

- Island caribou are physically distinct from mainland caribou and have historically calved on Victoria Island instead of the mainland. Island caribou are likely in reference to the Dolphin and Union herd assessed in the caribou assessment (Volume 6, Section 16).
- Mainland caribou herds include the Bathurst caribou herd and barren-ground caribou herds that reside on the mainland. Other mainland caribou herds include the Bluenose East and Beverly/Ahiak herds. Both of these herds interact with the project area infrequently. If or when these herds interact with the Project, their space is similar to that of the Bathurst caribou herd.
- Due to the high Arctic distribution of Peary caribou, they are typically beyond the normal harvesting range for Kitikmiut.

Although herds from different regions have varying physical appearances and behaviours, these herds were not given unique names. However, Kitikmiut have commented that the taste of caribou meat can differ depending on the area or regional herd it is harvested from (Banci and Spicker 2024). IAG members shared that caribou herds are fluid, and island and mainland caribou intermix (IAG 2025a).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut reported harvesting barren-ground caribou and some island caribou and Peary caribou in Gjoa Haven. In Cambridge Bay, Kugluktuk, and Taloyoak, both barren-ground caribou and island caribou were harvested. Caribou were also harvested by Kitikmiut in Bathurst Inlet, Omingmaktok (Bay Chimo), and Kugaaruk, though the species were unspecified (Priest and Usher 2004).

Spring and fall migration of caribou were known as times of wildlife abundance for Kitikmiut (Banci and Spicker 2024). In the summer months, Kitikmiut families traditionally traveled to seasonal camps to engage in harvesting activities. At this time, caribou were scarce and, if encountered, were typically harvested for immediate use rather than long-term storage. The hides were thinner during the summer and primarily used for parka trim. In periods of low caribou availability, Kitikmiut relied on alternative subsistence resources like fish and ground squirrels, and focused on drying available meat for later use (Banci and Spicker 2024). The month of August would be marked by the change in caribou fur. Caribou fur was reported to be the best during that time of year (Banci and Spicker 2024). During fall, caribou were hunted at traditional caribou crossings and Kitikmiut stayed in places where caribou would remain for an extended period. Some fall hunting occurred in treeline areas where caribou were abundant. As the fur became thicker, skins were used for clothing, kayaks (*kayait)*, and tents. Bull caribou (*pungnik*) were hunted for their fat to be used for heat and light (Banci and Spicker 2024).

In the winter, caribou herds overlap and share habitat together. The Dease Straight is an important crossing along the coast to the mainland where island caribou cross in the fall to overwinter on the mainland with mainland caribou. As a result, mainland and island caribou share habitat throughout the fall, winter, and spring, before the island caribou cross the Dease Straight once again to spend the summer on the island (Banci and Spicker 2024).

Kitikmiut Knowledge Holders have reported there was no evidence of caribou population declines prior to the arrival of fur traders in the early 20th century (Banci and Spicker 2024). However, Elders identified three periods of significant caribou population decline in the 1920s, 1950s, and 2000s. These declines are attributed to a combination of stressors, including mineral exploration and development activities, increased predation by wolves, and severe winter conditions (Banci and Spicker 2024). In the 1930s, the introduction of firearms contributed to a notable shift in caribou behavior, particularly among island caribou, which ceased their traditional migrations across the Dolphin and Union Strait to winter on the mainland (Banci and Spicker 2024). This behavioral change is understood to have led to increased harvesting pressure on mainland herds. Kitikmiut Knowledge Holders also shared that caribou now have less fat on their bodies than previously. In some cases, the fat under their skin has appeared to be yellow or green in colour, which Knowledge Holders attribute to contaminants and pollution (GBEEC 2018a). However, while other Kitikmiut have not observed diseases in caribou in their hunting areas, they have expressed concern that this could change (Banci and Spicker 2024).

IAG members shared that the leader of the caribou herd is never to be hunted. The leader is responsible for guiding the herd to calving grounds (IAG 2025a, 2025b).

During community-based primary research, a community member from Cambridge Bay stated that changes in caribou populations have led to the implementation of government measures to regulate the number of caribou that a person can harvest for the year. The tags are shared between Cambridge Bay and Kugluktuk, with only 75-150 tags available between the two communities (Community Member, Cambridge Bay, November 3, 2024, pers. comm.). HTOs have been affected by the tag system. It was reported that one person from Bathurst Inlet and Omingmaktok (Bay Chimo) holds 130 tags for the Bathurst caribou (IAG 2025a). One community member also reported the population of island caribou has significantly declined because herds have moved to the mainland in search of food (Community Elders, Cambridge Bay, November 3, 2024, pers. comm.).

Kitikmiut TLMRU is largely associated with the seasonal movement and availability of wildlife. The migratory cycle of caribou has influenced where Kitikmiut have travelled and set up seasonal camps (Banci and Spicker 2024). For example, some Inuit have travelled south and east to hunt caribou around Garry Lakes, Back River (*Hannigayok*), and Baker Lake (*Qamani'tuaq*) (Banci and Spicker 2024). Back River is outside the TLMRU LAA but upstream portions of it lie within the TLMRU RAA, while Garry lakes and Baker Lake are outside the TLMRU RAA.

While following the herds, Kitikmiut have also observed the patterns and behaviours of caribou. For example, Knowledge Holders have shared that instead of swimming across large lakes, caribou travel along *nadlok* (the lakes and narrow water crossings which funnel caribou across the landscape) (Banci and Spicker 2024). Caribou also frequently use eskers as travel corridors, drawn by grazing opportunities and relief from biting insects. The eskers, which typically have permafrost beneath, provide a cooler place for caribou to rest during warmer weather and support caribou denning, movement, and hunting activities (Banci and Spicker 2024). Inuit Knowledge about seasonal caribou migrations is important to understand to successfully participate in TLMRU activities (Banci and Spicker 2024).

During the spring migration, Kitikmiut have commented that caribou cross from Arctic Sound (*Katimanak*) and Rideout Island towards Elu Inlet then across Cambridge Bay, heading to Victoria Island (Banci and Spicker 2024). In the winter, areas such as Contwoyto Lake, Perry River, Ellice River and Kent Peninsula (*Kilingoyak*) have a greater probability of encountering caribou (Banci and Spicker 2024). IAG members shared that Contwoyto Lake is pristine caribou environment. They expressed interest in protecting and preserving the area to maintain the caribou (IAG 2025a). Only Contwoyto Lake is within the TLMRU LAA, and Arctic Sound is within the TLMRU RAA. The other locations are outside the TLMRU RAA.

Elders have also reported that caribou migrate towards Ellice River to reach calving grounds. In the past, caribou crossed the Project area during springtime when they migrated across Tree River (*Kugluktoalok*), following the coast and river corridors (Banci and Spicker 2024). Other important calving areas for caribou include Bathurst Inlet (*Kiligiktokmik,* the inlet), Queen Maud Gulf Coast, Contwoyto Lake, Kent Peninsula isthmus (*Etibliakyok*), Ellice River, Tingmeak River (*Kolgayok*), Whitebear Point (*Aoulativikyoak*), Kuugaarjuk River (*Kugakyoak*), Victoria Island, and *Haloakhiokvik* (Banci and Spicker 2024). Only Contwoyto Lake is within the TLMRU LAA, while the Tree River, Bathurst Inlet and *Haloakhiokvik* are within the TLMRU RAA. The other locations are outside the TLMRU RAA.

During Project-related engagement, the Taloyoak HTO commented that calving grounds could be found all over the Project area, adding that it would be difficult to determine where the caribou were calving (GBRP 2025). Kitikmiut Elders have observed that mainland caribou historically calved on the east side of Bathurst Inlet, where they left immediately after having calves. However, by the 1990s, calving had shifted to the west side of the inlet. This change in calving and migratory behavior meant that caribou no longer passed through the community of *Kingaok* (community of Bathurst Inlet) during the spring migration. This resulted in significant hardship, as the community lost access to an important seasonal source of country food and cultural practice (Banci and Spicker 2024). NTKP consultants shared that caribou calving occurs throughout the entirety of the Bathurst Inlet corridor.

> *The statement that I can make, which is true, this whole area is a calving ground, the whole of Bathurst Inlet corridor. It doesn't matter what years they are, they are going to be calving somewhere in here. It doesn't matter which part of this area. The whole area is the calving ground. I'm not too sure how far south they go, but the whole Inlet area is a calving ground.* (Banci and Spicker 2024)

Both the community of *Kingaok* and Bathurst Inlet are outside of the TLMRU LAA but within the TLMRU RAA.

In the spring of 2021, caribou and muskox were seen traveling near the ice near Gjoa Haven rather than on the west side of King William Island due to the abundance and thickness of ice in the region that year (McLennan et al. 2022). During the community-based primary research, a community member from Cambridge Bay shared that many caribou cross the ocean as soon as it freezes, even if the ice is not thick enough. The community member shared that in the recent past, hundreds of caribou had gone through the ice as a result (Community Elders, Cambridge Bay, November 3, 2024, pers. comm.). Gjoa Haven and King William Island are outside of the TLMRU RAA. The TLMRU RAA does not extend to the community of Cambridge Bay; however, it does include the bay south of the community.

Birds

Inuit are keen observers of their environment and possess detailed knowledge of local bird (*kopanoak*) species and their seasonal patterns. They are familiar with the order in which birds arrive in the spring, their nesting locations during the summer, and their departure in the fall. This seasonal movement of birds also serves as a natural calendar, helping Inuit track the progression of the year. Snow buntings and Lapland longspurs are some of the first bird species to arrive each year, marking the start of spring (GBEEC 2018a). Young birds would be grown and flying in August, making it easier to identify which time of year it was for Kitikmiut. Eggs were collected in the spring and summer (Banci and Spicker 2024).

The large concentration of nesting waterfowl on the ocean coast during spring migration brought an abundance of food for Ocean Inuit and those harvesting along the coast. Some species observed along the coast, including those harvested by Inuit include brants, Canada geese, cliff swallows, eider ducks, gulls, greater white-fronted goose, gyrfalcon, loon, peregrine falcon, ptarmigan, rough-legged hawk, Ross’s goose, sandhill crane, short-eared owl, snow goose, and swan (Banci and Spicker 2024). Inuit do not typically hunt raptors, but if they happen to kill an eagle, hawk, or owl, they will use their feathers, meat, and eggs (Banci and Spicker 2024).

Inuit reported there has been a decline of the abundance of bird species in the Kitikmeot Region (Banci and Spicker 2024). However, some Inuit have reported there are new species of birds that were not seen in the past, such as robin, redpoll, yellow warbler, mountain bluebird, house finch, and tree swallow (Banci and Spicker 2024). Kitikmiut shared that Canada geese are beginning to mix with the snow geese, and some snow geese have taken over nesting areas of smaller birds (GBEEC 2018a). Kitikmiut have also observed a general decrease in shorebirds (*higyagiak*); however, they reported that a new species of shorebird, long-billed curlews[4], are now present (Banci and Spicker 2024).

> *Many years ago we used to have so many birds here. They come up here every year, Arctic birds. It seems like their numbers are slowly going down. Everyone has noticed. You would hear birds in the morning, birds all over the place. But now it's hard to hear that anymore. We are still seeing all the birds, but we are seeing less of them, it seems like. Pretty well all of them that come up here in the springtime.* (Banci and Spicker 2024)

Ravens have been referred to as 'drones' who assist Kitikmiut with finding caribou, wolves, fox, and other food sources (GBEEC 2018a). However, Knowledge Holders have shared that the habits of ravens have changed because of a lack of vegetation and other food sources. More frequently than before, ravens are now seen eating garbage (GBEEC 2018a).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Canada goose, Brant goose, eider ducks (king and common), goose eggs, ptarmigan, and snow goose were reported to be harvested in Cambridge Bay. In Kugaaruk, Kitikmiut harvested between 15-20 Canada geese and 15-20 snow geese annually, along with black guillemot, eider duck, seagull eggs, and goose and duck eggs. In Kugluktuk, Kitikmiut harvested Arctic loon, Brant goose, Canada goose, common loon, common merganser, eider duck (both king and common), geese (unspecified), goose eggs, lesser scaup, long-tailed duck (oldsquaw), pintail, ptarmigan, red breasted merganser, Ross's goose, sandhill crane, seagull eggs, snow goose, thick-billed murre, tundra swan, tundra swan eggs, white-fronted goose, white-winged scoter, and yellow-billed loon. Kitikmiut in Taloyoak harvested Brant goose, Canada goose, eider duck (king and common), long-tailed duck (oldsquaw), ptarmigan, snow goose, tundra swan, white-fronted goose, and bird eggs. In Gjoa Haven, Kitikmiut harvested Canada goose, eider duck (king and common), geese (unspecified), ptarmigan, and snow goose. In Omingmaktok (Bay Chimo), Canada goose, duck eggs, eider duck, goose eggs, pintail, ptarmigan, seagull eggs, tundra swan and white-fronted goose were harvested. In Bathurst Inlet, Kitikmiut reported harvesting Arctic loon, Canada goose, duck eggs, ptarmigan, red-throated loon, Ross's goose, seagull eggs, snow goose, tundra swan, and white-fronted goose (Priest and Usher 2004).

Areas where waterfowl were found include Perry River, Ellice River, Parry Bay (*Naoyak*), Omingmaktok (Bay Chimo), Arctic Sound, and Kent Peninsula isthmus (Banci and Spicker 2024). Kitikmiut reported that *Kingaok* (community of Bathurst Inlet) and the Queen Maud Gulf area were best known for large abundances of birds. Geese and eider ducks were reported to be best for consuming and were found in the Cambridge Bay, Omingmaktok (Bay Chimo), and *Kingaok* (community of Bathurst Inlet) areas

[4] WKR assumes that long-billed curlew (*Numenius americanus)* have been misidentified and instead the species being observed may be the Hudsonian whimbrel (*Numenius hudsonicus)*. The long-billed curlew is found further south on the prairies and does not migrate into the North; however, the Arctic species of Hudsonian whimbrel looks very similar.

(Banci and Spicker 2024). Greater white-fronted goose, snow goose, Ross's goose, brants, and swans have been hunted along Hepburn Island (*Eglohokyok*), Victoria Island, Grays Bay, and the mouth of the Kennarctic River (*Kogloktoakyok*) (Banci and Spicker 2024). Kitikmiut in Taloyoak reported harvesting snow geese near the community and in the Marcheson River (Murchison River) area (Priest and Usher 2004). Grays Bay and the Kennarctic River are within the TLMRU LAA, while *Kingaok* (community of Bathurst Inlet), Arctic Sound, and Hepburn Island are within the TLMRU RAA. The other locations are outside of the TLMRU RAA.

Cliffs are important nesting habitats for the rough-legged hawk, gyrfalcon, and peregrine falcon. Other cliff nesting species include gulls, cliff swallows, ravens, geese, and some ducks (Banci and Spicker 2024). Major coastal raptor nesting areas were identified along the south coast of Kent Peninsula including the islands in Elu Inlet, near the mouths of Tingmeak River, Perry River, Ellice River, Omingmaktok (Bay Chimo), and a large area on the eastern side of Bathurst Inlet (Kokiviayok or *east Kiligiktokmik,* the inlet). Short-eared owls were mapped in the Project area on Hood River (*Higogakhik*) by NTKP consultants. Many raptor species were reported to stay all winter long in the Project area (Banci and Spicker 2024). The Hood River is within the TLMRU LAA, while Bathurst Inlet is within the TLMRU RAA. The other locations are outside the TLMRU RAA.

Other Terrestrial Wildlife

In addition to the wildlife species listed above, past and present Kitikmiut have harvested Arctic hare, Arctic ground squirrel, grizzly bear, muskox, muskrat, moose, white and red fox, wolves, and wolverine (Banci and Spicker 2024; Community Member, Cambridge Bay, November 3, 2024, pers. comm.). Many of these species were valued by trappers and traders for their pelts. For example, during the height of trapping in the north, Arctic fox were a primary species whose pelts were exchanged for items that were not available from the land, such as tea, sugar, tobacco, guns, ammunition, and steel traps (Banci and Spicker). Wolves, foxes, and wolverines were also trapped along ocean shorelines and riverbanks that provided gentler terrain for easier travel (Banci and Spicker 2024). While trapping occurs all year round, it is an especially important harvesting activity in the winter (Banci and Spicker 2024).

Kitikmiut reported that the Grays Bay area is used for hunting. Kitikmiut hunt primarily in the *Kingaok* (community of Bathurst Inlet) area near the Queen Maud Gulf Bird Sanctuary (Banci and Spicker 2024). Grays Bay is within the TLMRU LAA, while *Kingaok* (community of Bathurst Inlet) is within the TLMRU RAA. The Queen Maud Gulf Bird Sanctuary is outside of the TLMRU RAA.

Muskox: Prior to arrival of the Europeans, muskox (*omingmak*) was a staple in Kitikmiut diet. Muskox provided food security when caribou were wintering in the boreal forest, or when seals were not available (Banci and Spicker 2024). Additionally, muskox hides, bones, and other parts of the animal have been used to make bedding, utensils, fish spears, and ulu handles (Banci and Spicker 2024). According to Kitikmiut consultants, muskox populations experienced a significant decline in the early 1900s due to increased harvesting by both Europeans and Inuit, driven largely by demand from the whaling and fur trade industries. In response, a regulation was enacted in 1917 prohibiting the hunting of muskox by both groups. Despite this regulation, subsistence harvesting by Inuit continued, leading to tensions between Inuit and regulatory authorities (Banci and Spicker 2024).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, between 14 to 20 muskox were reported to be harvested annually by Kitikmiut for subsistence purposes in Cambridge Bay, compared to 30 to 34 in Gjoa Haven, five in Kugaaruk, 40 in Kugluktuk, and 25 in Taloyoak (Priest and Usher 2004).

IAG members reported that muskox slowly travel, migrating on the ocean from island to island. The ice on the ocean is thick enough to hold their weight, so muskox move until they reach land (IAG 2025a). A member from the IAG shared that due to a decline in vegetation, 10-12 muskox on Nicholson Island had to be culled in recent years. Members found this upsetting as it is not a natural way to hunt and the people should not have interfered (IAG 2025a).

During community-based primary research, a community member from Cambridge Bay shared that muskox that live on the islands became affected by parasites resulting in a significant population loss in 2015 (Community Member, Cambridge Bay, November 3, 2024, pers. comm.; IAG 2025a). IAG members shared that on Victoria Island, Lyme worm disease affected numerous muskox and the population experienced a decline. The warmer weather was a contributing factor to muskox contracting Lyme worm disease, anthrax, and brucellosis as they travelled inland. Kitikmiut were unable to harvest the muskox that contracted the disease (IAG 2025a). IAG members shared that during periods of caribou shortages, they harvested muskox although members preferred to eat caribou. Muskox are reported to generally move away from noise and smells and are afraid of vehicles (IAG 2025a). In recent years, Kitikmiut have witnessed an increase in muskox populations on the mainland. They have observed that when muskox occupy areas previously used by caribou, returning caribou herds will move elsewhere (Banci and Spicker 2024).

In recent years, muskox populations have reportedly recovered and begun to reoccupy areas such as *Kingaok* (community of Bathurst Inlet), Kennarctic River, and Contwoyto Lake from which they had previously disappeared (Banci and Spicker 2024). Frayed Knots was reported to be a calving area for muskox (IAG 2025a). Similar to caribou, muskox often frequent eskers as they provide a cooler place to rest during warmer weather due to the typical presence of permafrost beneath them (Banci and Spicker 2024). The Kennarctic River, Contowyto Lake, and Frayed Knots are within the TLMRU LAA, while *Kingaok* (community of Bathurst Inlet) is within the TLMRU RAA.

Moose: During community based primary research, a community member from Cambridge Bay shared that moose (*tuktukvak*) are rarely harvested by Kitikmiut on the mainland, but when it is, it is used in a variety of recipes and shared amongst community members (Community Member, Cambridge Bay, November 3, 2024, pers. comm.).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugluktuk reported harvesting between 5 to 7 animals per hunter annually. Kitikmiut in Bathurst Inlet also reported harvesting moose, though the annual harvest was unspecified (Priest and Usher 2004).

Moose were primarily hunted by Inuit living near the treeline. However, Kitikmiut have observed that moose have begun to increase and distribute across the land. Moose are reported to live along the Western River, Banks Peninsula, Arctic Sound, *Kingaok* (community of Bathurst Inlet), and Contwoyto Lake, and areas that have tall bushes near rivers. Moose have also been spotted in Wentzel River (*Otkohikhalik*), Kennarctic River, Tree River, and Dogfish Lake (Banci and Spicker 2024; NIRB 2024b).

Contwoyto Lake and the Kennarctic River are within the TLMRU LAA and RAA, while the Western River, Banks Peninsula, Arctic Sound, *Kingaok* (community of Bathurst Inlet), Wentzel River, Tree River are within the TLMRU RAA. It is unknown whether Dogfish Lake is within the TLMRU LAA or RAA.

Grizzly Bear: Grizzly bears (*akhak*) are traditionally valued by Inuit as a seasonal food source in both spring and fall. The fat was considered a nutritious food and was used as fuel for oil lamps (Banci and Spicker 2024). Inuit communities made full use of the animal, utilizing all parts, including the meat, grease, and fur (Banci and Spicker 2024). Grizzly bears are often seen during spring and fall, following fish spawning runs and caribou migration. This is the most common time they are hunted, as they emerge from their dens and just prior to hibernation (Banci and Spicker 2024). Grizzly bear dens are found on river slopes and around the coast, or where land is high on a sandy ground or in rock caves (GBEEC 2018a). Kitikmiut have also observed grizzly bears feeding on dogs and wolves in the communities because there is a lack of caribou (GBEEC 2018a). In addition, the rise in the grizzly bear population has led to a decline in the ground squirrel population (Banci and Spicker 2024).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugaaruk recorded harvesting one grizzly bear annually, while three grizzly bears were harvested over a five-year period in Kugluktuk (Priest and Usher 2004).

Historically, grizzly bears were considered rare in the Kitikmeot Region; however, recent observations suggest an increase in their population (Banci and Spicker 2024). Grizzly bears are reported to be in areas such as Victoria Island, Kent Peninsula isthmus, Labyrinth Bay (*Eloelgoyak*), and Ellice River (Banci and Spicker 2024). NTKP consultants also shared that grizzly bears are in locations they were not previously found in such as Perry River and Kent Peninsula. These locations are outside the TLMRU RAA.

> *I never used to see grizzly bears before but now there are grizzly bears over there (Kugyoak [Perry River]). Some have been seen feeding, around Kilingoyak (Kent Peninsula). Long ago there were no grizzly bears around but now they seem to be arriving here…*(Banci and Spicker 2024).

During Project-related engagement, the Hamlet of Kugaaruk shared that grizzly bears started arriving from the south five to 10 years ago; participants commented that grizzly bears have been observed in the vicinity of the Project (GBRP 2025).

Wolves: Wolves (*amagok*) are often found where caribou are present, as caribou are an important food source and wolves tend to den near caribou calving grounds or eskers in dry areas close to water sources (Banci and Spicker 2024). In general, wolves and caribou are often hunted at the same time (Banci and Spicker 2024). Wolf fur is used to make traditional Kitikmiut clothing and traditionally, Kitikmiut have bred wolf pups with their sled dogs (Banci and Spicker 2024). Wolf meat is also eaten, especially if other food sources are low (Banci and Spicker 2024). Wolves are still a sought-after resource to Kitikmiut (Banci and Spicker 2024). However, Kitikmiut have reported that increased development in the Kitikmeot Region has attracted more wolves due to poorly managed landfills and inadequate food management practices (Banci and Spicker 2024).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, less than 15 wolf pelts were reported to be sold annually by Kitikmiut in Gjoa Haven and Cambridge Bay, compared to 67 between 1999 and 2001 by Kitikmiut in Kugaaruk, and 125 in Kugluktuk. Kitikmiut in Kugluktuk also commented that wolves are more abundant when there are more caribou present in the area. Kitikmiut in Omingmaktok (Bay Chimo), Bathurst Inlet, and Taloyoak also reported harvesting wolves, though the annual harvest was not specified (Priest and Usher 2004).

During the fur trade in the first half of the 20th century, Inuit travelled extensive distances in search for wolves, as high bounties and pelt prices became an incentive. Areas such as Great Bear Lake (Northwest Territories (NT)), *Kingaok* (community of Bathurst Inlet), east to Perry River, Elu Inlet, Back River, the northwest coast, and extensive inland areas, especially around Contwoyto Lake, were well known wolf hunting areas (Banci and Spicker 2024). Community members from Cambridge Bay stated that wolf hunting and other harvesting activities occurred at Contwoyto Lake (GBRP 2017). Contwoyto Lake is within the TLMRU LAA and RAA, while *Kingaok* (community of Bathurst Inlet) and upstream portions of Back River are within the TLMRU RAA. The other locations are outside the TLMRU RAA.

Wolverine: Wolverine (*kalvik*) are difficult to trap and, prior to the fur trade, Kitikmiut generally regarded them as pests that caused damage to property and stole food from meat caches. However, when there was an increased market for wolverine, their pelts became high in value and they were trapped more frequently (Banci and Spicker 2024). Wolverine fur is used for trim on parkas and fur mats (Banci and Spicker 2024). NTKP consultants shared that wolverine are found in Bathurst Inlet due to the rugged landscape.

> *There are many, many areas like that (boulders and rugged) in here. All this area (Bathurst Inlet) is so rugged. Everywhere is potential wolverine habitat, denning areas… The areas that (are important for wolverine) have a lot of rabbits.* (Banci and Spicker 2024)

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugluktuk recorded harvesting about 100 wolverines annually. Kitikmiut in Omingmaktok (Bay Chimo), Bathurst Inlet, Cambridge Bay and Gjoa Haven also reported harvesting wolverines, though the annual harvest was not specified (Priest and Usher 2004).

Kitikmiut reported that wolverines and wolves are often found in the same area because they both rely on caribou as a food source. Areas that wolverines frequent include *Kingaok* (community of Bathurst Inlet), south of Kongokyoak on Kent Peninsula, Hepburn Island and Grays Bay (Banci and Spicker 2024). Wolverines rely on rocky areas, crevices, and cliffs, as they provide security and hiding to escape from predators. Rocky areas are also used as dens (Banci and Spicker 2024). Grays Bay is within the TLMRU LAA and RAA, while *Kingaok* (community of Bathurst Inlet) and Hepburn Island are within the TLMRU RAA. The other locations are outside the TLMRU RAA.

Arctic and Red Fox: Kitikmiut have observed that the health and abundance of Arctic fox (*tigiganiak*) is linked to the availability of prey species such as lemmings, voles, and mice. When prey is abundant, fox populations increase. Conversely, when prey populations have declined, the abundance of foxes decrease as well. These fluctuations have affected Inuit trappers in the past, limiting their ability to harvest and sell their fur, especially during the fur trade when Arctic foxes were considered one of the

most important species to trade. Although Arctic fox and red fox (*kayuktok*) overlap ranges, red fox is more dominant in the south end of the range. NTKP consultants reported that red fox are semi-migratory. They travel to the coast during springtime for subsistence, with their diet primarily being newborn seals (Banci and Spicker 2024).

In the past, many Inuit trappers have experienced economic hardship when fox populations were not abundant (Banci and Spicker 2024). Inuit shared that trapping has declined in recent decades due to low pelt prices, increasing employment opportunities with mining companies, access to social assistance, and a lack of interest in learning traditional trapping skills. Anti-fur activists from southern regions have also contributed to a reduced demand for fur and a drop in market prices (Banci and Spicker 2024). NTKP consultants shared that the northern interior of Kilingoyak has an abundance of white fox due to its grassy areas. Inuit primarily trap for white fox along the shoreline and coast of Kilingoyak.

> *All this area along the coast, this area down there, way down there to the ocean (north shore and northern interior of Kilingoyak) has many grassy areas so it is full of white fox. This has been a trapping area for a long time, around Kilingoyak and around the coast. That is where Inuit mostly trap, all along the coast and shorelines, all around there. There is quite a big area that has mostly foxes. I trapped it for a very long time.* (Banci and Spicker 2024)

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, an estimated 749 Arctic fox pelts were sold between 1999 and 2001 in Cambridge Bay, compared to 60 in Gjoa Haven, 76 in Kugaaruk, 26 in Taloyoak, and 414 in Kugluktuk. In addition, another 324 coloured fox (red fox) pelts were sold by Kitikmiut in Kugluktuk during the same period. Arctic fox and red fox were also harvested by Kitikmiut in Omingmaktok (Bay Chimo), Bathurst Inlet, Cambridge Bay, and Taloyoak, though the annual harvest was not specified (Priest and Usher 2004).

During the fur trade, Inuit would travel long distances to acquire their fox pelts because the reward was high. Some Inuit would use dog teams and travel from north of Baker Lake to the western Kitikmeot Region to trap foxes. Arctic foxes were found more north and red foxes were found in the south, closer to the boreal forest, but their distribution was reported to be all over the Kitikmeot Region. Their dens were found in small or large eskers where the ground was sandy. In the Project area, foxes are mainly found along the coast, and south near Contwoyto Lake (Banci and Spicker 2024). Contwoyto Lake is within the TLMRU LAA and RAA, while Baker Lake is outside of the TLMRU RAA.

Arctic Hare and Ground Squirrel: Arctic hares (*okalik*) and ground squirrels (*hikhik*) have been important for Inuit harvesters during times of food shortages and when caribou and seal were not available, especially during the winter or following the caribou spring migration when waiting for spawning fish to arrive in the creeks (Banci and Spicker 2024). Both animals are eaten, and their fur is used to make parkas (*atigi*), boots, mitts, sealskin boots (*kamiit*), boot and mitt liners, under-garments, and children's clothing (Banci and Spicker 2024). Ceremonial *atigi* are also made from ground squirrel, while Arctic hare skin has been used for chin guards, bibs, duffels for carrying children, sanitary pads, sled blankets, and to provide soundproofing and comfortable pads during seal hunting. Arctic hare can be found throughout inland regions, the coast, and ocean islands (Banci and Spicker 2024).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Omingmaktok (Bay Chimo), Bathurst Inlet, Kugluktuk, Kugaaruk, Cambridge Bay, Gjoa Haven, and Taloyoak reported harvesting Arctic ground squirrel and Arctic hare (Priest and Usher 2004).

Small Mammals: Other small mammals such as brown lemmings, voles, shrews, and mice are all referred to collectively as mice or *avingak.* Inuit do not consume these small mammals but have occasionally sold their fur to traders or used their dried pelts as kindling. Small mammals are widely distributed across the land, and their numbers fluctuate with the rise and fall of fox and snowy owl populations (Banci and Spicker 2024). During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugluktuk reported harvesting muskrat (Priest and Usher 2004).

Others: Atypical mammals that have been observed by Kitikmiut include bats, river otters, coyotes, and cougars (Banci and Spicker 2024). Kitikmiut Knowledge Holders observed a cougar near Port Epworth (*Kugluktoalok*) (Banci and Spicker 2024). Port Epworth is within the TLMRU RAA.

Insects: In recent years, Kitikmiut have observed a change in insects. For example, butterflies, which were once abundant in the Kitikmeot Region, have declined. However, increased sightings of hornets, horseflies, and red ants have been reported in the Kitikmeot Region. Some Kitikmiut have attributed this change to dust carrying bugs into the area while some others attribute it to climate change (Banci and Spicker 2024).

Marine Harvesting

During Project-related engagement, community members in Taloyoak commented that marine mammals do not stay in one area; seals migrate from east to west and polar bears come from other parts of the Kitikmeot Region to Taloyoak (GBRP 2025).

Seals: Seals play a central role in the subsistence practices, culture, and livelihoods of Ocean Inuit and those living along the coast. Historically, trade between Nunamiut (Inland Inuit) and Ocean Inuit facilitated the exchange of key resources, with seal products and caribou being traded to address regional needs and resource availability (Banci and Spicker 2024).

Ringed seal (*nattik*) is one of the most important marine mammals to Kitikmiut. While bearded seals (*ugyuk*) are occasionally captured, they are less common and behave differently; they prefer deep water and feed in shallow areas near the coast (Banci and Spicker 2024). Bearded seals are not as palatable as ringed seals, but their pelts make for good footwear, meat bags, *kayait* (kayak), and rope. Summer tents made from bearded seal skins were more waterproof and durable compared to caribou skin tents. Bearded seal skin bags have also been used as containers to store seal fat and were buried under rocks. The fat was used as fuel for oil lamps since it generated more heat than coal (Banci and Spicker 2024).

> *They [bearded seals] behave very differently from ringed seals. The one me and my father-in-law caught in Bernard Harbour, was totally different, different reactions. The difference in how they come towards you when they see you. They are totally different from the ringed seal.* (Banci and Spicker 2024)

Seals have their young in the springtime in dens situated offshore in rough ice for protection from predators. Spring and fall are the main hunting periods when seals are resting on top of the sea ice near ice cracks. Seals are commonly harvested during these seasons by shooting from shore (Banci and Spicker 2024). Conversely, in late summer, seals are hunted by boat. Hunting areas in the summer are widespread as seals are widely distributed at this time (Banci and Spicker 2024). Another method of hunting seals involves using sled dogs to sniff out seal holes. Once their breathing holes are identified, harvesters obstruct the holes to limit the seals' options for where they can come up for air (Banci and Spicker 2024).

> *There are lots of seals on top of the ice where there are ice cracks. During the spring, people hunt seals. The people would shoot seals from the shoreline. They waited because the seals always came close to the shore. That is when the seals sink easily, when they are shot.* (Banci and Spicker 2024)

Inuit utilized all parts of the seal, with the meat and fat serving as an important source of nutrition. Seal meat was also a good source of dog food. Kitikmiut shared that seals travel together and gather in areas where there is an abundant supply of food (Banci and Spicker 2024). Changes in seal health have been reported by Kitikmiut, who have observed spots and parasites in seal fat. These changes have been attributed to contaminants that come from the south (Banci and Spicker 2024).

> *I do see some change in the seal fat. The last seal I skinned had some little round dots in the seal fat that I have not seen before ever. Something is getting into our water system. It could be coming in from the south, because contaminants travel a long way in the water system, with the tides, water is always flowing.* (Banci and Spicker 2024)

During the community-based primary research, a community member from Gjoa Haven shared that many members have been affected by a ban on seal product imports from the European Union as the seal pelts were once used for trading and selling (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.).

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugaaruk and Kugluktuk reported predominately harvesting ringed seals. Ringed seals were also harvested in Omingmaktok (Bay Chimo), Bathurst Inlet, Cambridge Bay, Gjoa Haven, and Taloyoak. In addition, Kitikmiut in Bathurst Inlet, Kugaaruk, Taloyoak, and Kugluktuk reported harvesting bearded seal, and only Kugluktuk reported harvesting hooded seal (Priest and Usher 2004).

During the spring, ringed seals are hunted in areas between the mainland and Hepburn Island and at the mouth of Kennarctic River. Large groups of seals would congregate north of Lawford Islands (*Ekalioligayok*). In late summer, seals were hunted by boat. Hunting areas were widespread as seals were widely distributed at this time. Inuit would travel from Tree River east into Bathurst Inlet to hunt seals (Banci and Spicker 2024). Winter hunting areas were located on the sea ice adjacent to the coast and ocean island (Banci and Spicker 2024). The Kennarctic River is within the TLMRU LAA, while Hepburn Island, the Tree River, and Bathurst Inlet are within the TLMRU RAA.

Bearded seals are observed in Coronation Gulf, Grays Bay, and King William Island (Banci and Spicker 2024). During the community-based primary research, a community member from Gjoa Haven shared that Sherman Inlet was ideal for seal hunting. However, it was reported that seals have been difficult to spot as marine traffic has increased (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.). The Coronation Gulf and Grays Bay are within the TLMRU LAA and RAA. King William Island and Sherman Inlet are outside of the TLMRU RAA.

Whales: Whales are an important resource to Inuit, and beluga, bowhead, and narwhal whales all hold significant ecological and cultural importance (NPC 2021). Some Kitikmiut Knowledge Holders reported that bowhead whales (*arvik*) were not traditionally hunted due to the absence of appropriate equipment or cultural practices. However, Elders from other regions recall bowhead hunting in the islands north of Bathurst Inlet (*Kiligiktokmik,* the inlet) (Banci and Spicker 2024).

During the community-based primary research, a community member from Kugaaruk shared that beluga whales (*kilalugak*) have increased in numbers compared to recent years (Community Member, Kugaaruk, November 1, 2024, pers. comm.). This observation has also been made in the past by other Kitikmiut Knowledge Holders, who have noted the reappearance of whales and polar bears in the Kitikmeot Region which had been absent for several years (Banci and Spicker 2024).

The Taloyoak HTO stated that marine mammals are integral to their food sovereignty and shared that narwhals (*togaalik*) and beluga whales, in addition to polar bear (*nanok*), are all important for their diet (GBRP 2025). NTKP consultants shared that beluga and narwhals used to frequent Bathurst Inlet.

> *Once in a while, long ago, before we were born, the whales used to come around there (Bathurst Inlet). Belugas. And narwhals. I remember all those stories they told us, when the whales would come around.* (Banci and Spicker 2024)

> *We never used to have narwhal tags, but you get them now. We have six narwhal tags for our community (Kugluktuk) now (2018). So that is something new, something different. I don't have the equipment to hunt whales. I do have the boat, but I don't have the proper gear*. (Banci and Spicker 2024)

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugaaruk reported harvesting between 7 and 30 narwhals annually, while Kitikmiut in Taloyoak reported harvesting a maximum of 3 narwhals annually, and 15 to 22 beluga whales each year (Priest and Usher 2004).

In the 1970s, beluga whales and bowhead whales were abundant in Amundsen Gulf, and the Dolphin and Union Strait areas. They were difficult to hunt as they had to be coerced into shallow water. Kitikmiut reported there are bowhead whale bones all along the shore of Bernard Harbour. Several Inuit camps also had accumulations of bowhead whale bones, indicating that the species was once important to Inuit subsistence. The bones would be used for sled runners. Inuit recall stories when narwhal, beluga whales, and other whale species would frequent the Grays Bay area (Banci and Spicker 2024). Calving area requirements for narwhal, bowhead, and beluga whales are seasonal, and they often return to the same calving location each year (NPC 2021). During Project-related engagement, the Kugluktuk HTO commented that beluga whales were previously seen in the community (GBRP 2025). The Grays Bay

area is within the TLMRU LAA and RAA, and Kugluktuk is outside of the TLMRU LAA but within the TLMRU RAA, while all other locations are outside of the TLMRU RAA.

Whales have been observed near Cambridge Bay, Bathurst Inlet (*Kiligiktokmik,* the inlet) and areas where the water is deep. Bowhead whales have been reported to be slowly coming back to the Grays Bay area (Banci and Spicker 2024). Beluga whales and narwhal have also been observed in Bathurst Inlet (*Kiligiktokmik,* the inlet) and Grays Bay. Narwhals were seen east of Kent Peninsula, north of Ekoktok in 2013 (Banci and Spicker 2024). Grays Bay is within the TLMRU LAA, while Bathurst Inlet (the inlet) and Ehoktok are within the TLMRU RAA. The Kent Peninsula is outside of the TLMRU RAA. The TLMRU RAA does not extend to the community of Cambridge Bay; however, it does include the bay south of the community.

Some Inuit Elders from other regions outside of the Kitikmeot Region recall bowhead hunting in the islands north of Bathurst Inlet (*Kiligiktokmik,* the inlet) (Banci and Spicker 2024). These islands are outside of the TLMRU LAA, but within the TLMRU RAA.

Atlantic Walrus: The Atlantic walrus (*aivik*) is an ecologically significant species within the Arctic marine ecosystem and holds cultural and subsistence importance for some Inuit communities. Walrus habitat requirements include sea ice and shallow water in the winter. They require low, rocky shores to congregate and haul out in the summer and fall (NPC 2021). Haul outs are small but heavily used areas by walrus (Banci and Spicker 2024). Walruses are not common in the Grays Bay area and are rarely seen in the region (Banci and Spicker 2024).

Polar Bear: Although rare in the project area, polar bears are culturally important to Kitikmiut. They are important to the marine ecosystem as they are the top predator (NPC 2021; Banci and Spicker 2024). During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, Kitikmiut in Kugluktuk, Kugaaruk, Cambridge Bay, Gjoa Haven, and Taloyoak reported harvesting polar bears (Priest and Usher 2004).

Polar bears are not common in Coronation Gulf, but in the past, polar bears would be sighted occasionally (Banci and Spicker 2024). The Coronation Gulf is within the TLMRU LAA and RAA.

Plant Harvesting

Indigenous ecological classification systems have taken regional topography, soil characteristics, and distribution of vegetation communities into account, and these have been applied when participating in traditional activities (Clark 2012). From a previous study, Inuit shared that mountains or high places were not crucial for resources. On the land and flat areas (bedrock) identified by Inuit were mainly for traditional activities, aiding navigation, and for resource finding (Clark 2012). Inuit named certain plant communities in association with landscape features such as plants that grow by the beach, plants that grow at the pond, or plants that grow on land and soil (Clark 2012).

Plant harvesting has held particular importance to Kitikmiut during times of food scarcity. During hunts, edible plants are gathered opportunistically while traveling on the land, providing sustenance and alleviating hunger (Banci and Spicker 2024). Berries have also been harvested by Kitikmiut for generations and preserved in permafrost to maintain the longevity of the fruit (Banci and Spicker 2024).

Some edible plants harvested by Kitikmiut include beach peas, blackberries, blueberries, cloudberries, crowberries, Eskimo potato, Labrador tea, licorice root (*mahok*), mountain sorrel, puffball mushroom, and seaweed (Banci and Spicker 2024). Licorice root is harvested near shorelines and has a sweet taste; it's known for being beneficial for blood health (Banci and Spicker 2024). Arctic heather, willow, and bearberry plants are used to make fires for cooking, while the twigs are used for smoking meat (Banci and Spicker 2024). Heather is especially good for smoking and glazing meat due to its high oil content; it's also used as a mosquito repellent and the smoke from burning heather has been reported to help heal eyes (Banci and Spicker 2024). In addition, moss is sometimes used for smoking meat (Banci and Spicker 2024).

> *Even from what I remember, from what my grandmother used to tell us, some of the mahok was good for blood, it keeps the blood healthy. I can't remember which type, but there is a couple of different types you could eat that keep your blood healthy.* (Banci and Spicker 2024)

> *Berries are very, very old fruit. For many, many generations, for elders that's what they used. They go pick berries. They also stored them, especially if they were in a cool area. Just like our meat. We preserve our meat underground in the permafrost. Some people put berries in the permafrost and keep them there. It will stay cool for however long.* (Banci and Spicker 2024)

Inuit may expend a lot of effort to collect and harvest wood, such as spruce and willow. Willow can be found in productive riparian habitat, while driftwood is collected from rivers and along the coast (Banci and Spicker 2024). IAG members shared that the treeline has moved north at Contwoyto Lake and they are seeing pines and red squirrels that were not previously present in the area (IAG 2025a).

Kitikmiut Knowledge Holders shared information about medicinal plants they continue to use. Crowberries have been used to treat infected skin and clean wounds. Puffball mushrooms have been used as an ointment for sores and eye infections; they are also sometimes used with oil from a seal, caribou, or bear prior to applying it to the eyes. Labrador tea has been used to alleviate headaches as a form of aromatherapy (Banci and Spicker 2024).

Mountain sorrel and the leaves of beach peas were traditionally consumed by Kitikmiut. While beach peas were once more common, they are now less abundant and increasingly difficult to locate, though they remain a highly valued food source (Banci and Spicker 2024). Seaweed was eaten by people when it was necessary to survive. When there was a storm, the seaweed would come to shore (Banci and Spicker 2024).

Through a previous study, informants identified blueberries, crowberries or blackberries, cranberry, lingonberry, partridgeberry or redberry, and cloudberries or bake apple (Rubus chamaemorus L.) as the most commonly harvested berries. Bearberries were also often harvested by Inuit from Kugluktuk (Boulanger-Lapointe et al. 2019).

Informants also reported eating crowberry leaves, blueberry leaves, and blueberry root tips. They stated that berries and other plants are used for their medicinal properties. Crowberries were also used as bedding insulation or as a fuel with the smoke repelling insects and helping to smoke meat (Boulanger-Lapointe et. al. 2019). Inuit informants in another study identified plant species that were used for medicinal purposes. Species included wild sweet potato, wild celery, white spruce, fungus, yarrow,

cow parsnip, highbush cranberries, devil club, salmon berries, water lily, monkey flower, wild rhubarb, and nettle roots (Smith 1973).

Informants shared six social and cultural values of berries (Boulanger-Lapointe et al. 2019):

1. taste and nutrition
2. opportunity to spend time on the land
3. opportunity to spend time with family and friends
4. part of Inuit culture
5. contributes to sharing practices
6. it helps maintain a spiritual relationship to the land

Informants also reported that climate change, development (including habitat loss and pollution), and competition from wildlife, including an increased population of Canada geese, are affecting vegetation (Boulanger-Lapointe et al. 2019).

Through the literature review, Inuit informants identified mosses, lichens, grasses, shrubs, trees, berries, flowering plants, and algae as important vegetation resources. Their uses include (Ootoova et al. 2001):

- Mosses, lichens, and plants that grow on the ground were reported to be beneficial for sicknesses and non-medicinal purposes including acting as a light source.
- Mushrooms and algae were also used as treatments for wounds.
- Grasses were used for clothing purposes. Shrubs and trees were also used for healing and insulation properties.
- Berries were used for sustenance purposes.
- Flowering plants were used for teas and healing purposes.

As explained in the Project-specific Inuit Knowledge report, compiled from the NTKP database, all available wood resources have been utilized for various traditional purposes. Straight wood pieces were shaped into arrow shafts; longer driftwood was repurposed for sled construction; and willow branches were tied with seal skin rope to create frames for drying meat (Banci and Spicker 2024). Elders and children were responsible for collecting wood prior to the snowfall. If firewood was not available, fat was used for cooking and in stone lamps (Banci and Spicker 2024).

Vegetation is also important for caribou, who consume a variety of species including lichen, graminoid, horsetail, moss, forbs, mushrooms, and deciduous and evergreen shrubs (Banci and Spicker 2024).

Blueberries and blackberries have been reported at the mouth of Kennarctic River. Blueberries are typically found in drier habitats, including eskers, while blackberries grow more widely across the landscape and can be harvested into the fall. Cloudberries are commonly found in riparian zones, wetlands, and swampy areas, with harvesting generally occurring in August (Banci and Spicker 2024). The Kennarctic River is within the TLMRU LAA and RAA.

Primary locations to gather wood are found along Coppermine River, Itchen Lake, and the tree line (Banci and Spicker 2024). Coppermine River and Itchen Lake are outside of the TLMRU LAA, but within the TLMRU RAA.

Other important vegetation habitats include eskers, which support the denning, movement, and hunting activities of a variety of wildlife species, including caribou and muskox (Banci and Spicker 2024).

Fishing

Freshwater Fishing

Traditionally, fish have been a staple in the Kitikmiut diet, most notably in times while waiting for caribou to arrive. People fished where they camped and travelled throughout the Kitikmeot Region (Banci and Spicker 2024). Harvested species include Arctic cod, Arctic char (*iqalukpiit*), Arctic cisco (*kapihillik)*, burbot (*tiktalik)*, jackfish (*hiulik)*, eels (*akuhaauk)*, whitefish, Arctic grayling (*ihulukpaukkait)*, saffron cod, broad whitefish (*anakheek)*, lake trout (*ihuuqit)*, and sucker. Inuit primarily fish during the spring and fall, timed with spawning runs. In the past, fishing was also integral for feeding dog teams (Banci and Spicker 2024).

Arctic char are the primary fish species harvested by Inuit. Traditionally, Arctic char were mainly fished for in fresh water, but if needed, Inuit would place nets in the ocean (Banci and Spicker 2024). Kitikmiut shared that Arctic char rivers have two runs - the females, which are spotted, go first and then are followed by the males, which are red-bellied. Red-bellied char go up the river until they mature. They use the river to hide in the shallow parts from other predators like lake trout, seagulls, hawks, falcons, and eagles (Banci and Spicker 2024). NTKP consultants stated that Arctic char do not go to the same river for spawning but rather there are many rivers that they will use. They spawn in lakes where there is small gravel, away from the ocean and stay there all winter until the spring. Only some will make it back down to the ocean (Banci and Spicker 2024). During Project engagement activities, the Taloyoak HTO commented that the Arctic char they harvest are pristine and they want to keep it that way (GBRP 2025). Kitikmiut reported there are always fish during the winter, especially in the areas where the water is deeper. In the spring, some Arctic char that have been in the lakes during the winter return to the ocean, while others are stay in the lakes. Kitikmiut expressed preference for Arctic char that migrate to the lakes, rather than those that migrate to the ocean (Banci and Spicker 2024).

> *I didn't build fish weirs; I always set nets in the river (Kogloktoakyok). It took maybe half an hour and I caught too many fish. In the summer, we only fished right by the cabin, you know, where I put my boat up all the time. Sometimes we get too much, but we just keep what we need right now and then I threw the rest of the fish back in the water. I must say I caught about 70 fish at the same time. I had a 100 foot net, full of fish, Arctic char, in summer, half were red (when they are spawning they turn red), all summer until fall.* (Banci and Spicker 2024)

As stated in the Project-specific Inuit Knowledge report, compiled from the NTKP database, broad whitefish and Arctic cisco exhibit variation in size and physical characteristics. Broad whitefish were reported to have a higher fat content whereas Arctic cisco were smaller and leaner (Banci and Spicker 2024).

Kitikmiut reported there are many fish that appear to have diseases. Cysts, lumps, spots, and parasites have been observed on fish. Some Kitikmiut Elders recall in their youth that sick fish were not a concern (Banci and Spicker 2024). Additionally, during a study for Arctic cod and Arctic char, Kitikmiut noticed there was no migration of fish up rivers when nearby traffic increased (GBRP 2025). During the community-based primary research, a community member from Kugluktuk shared that people who set nets are not catching as much as they used to because there is an increase in algae in the rivers. They added that fish often avoid areas with algae (Community Member, Kugluktuk, November 8, 2024, pers. comm.). Kitikmiut also commented on diseases in fish in the Project-specific Inuit Knowledge report, compiled from the NTKP database:

> *I would say that here are so many sick fish nowadays. You can see, around their tails, there is a big lump or there is a cyst, or a parasite. You can see that it is a sick fish because it's red on the face and the tail. You can notice right away. You know right away if it's healthy or not. Any red spots on the fish, they are sick. There are more (of these sick fish today). We never used to see that before anywhere.* (Banci and Spicker 2024)

During the Nunavut Wildlife Management Board's 1996-2001 Nunavut Wildlife Harvest Study, commercial fishing of whitefish was reported by Kitikmiut at five lakes near Cambridge Bay, while lake trout and least cisco were reported to be commercially fished in Gjoa Haven. In Kugaaruk, an estimate of between 600 to 700 lake trout were commercially fished annually. Lake trout were also fished in Kugluktuk for fishing derbies (Priest and Usher 2004). Arctic char was also reported to be commercially fished and is sold to customers across Nunavut (Nunavut Development Corporation n.d.). Outside of commercial fishing, Arctic char was also harvested across all Kitikmeot communities in high numbers. In addition, sculpin, lake trout, and whitefish were harvested in Omingmaktok (Bay Chimo). In Bathurst Inlet, Kitikmiut harvested sculpin, Arctic cisco, Arctic grayling, lake trout, least cisco, and whitefish. In Kuglukluk, Kitikmiut harvested Arctic cisco, Arctic grayling, burbot, lake trout, least cisco, northern pike, and whitefish. In Cambridge Bay, Kitikmiut harvested Arctic grayling, lake trout and whitefish. In Gjoa Haven, lake trout and whitefish were harvested. In Taloyoak, Kitikmiut reported harvesting whitefish (Priest and Usher 2004).

The Grays Bay area has been used by Inuit for fishing since time immemorial (Banci and Spicker 2024). During the spring, Inuit would fish at the mouth and along the coast of Grays Bay (Banci and Spicker 2024). All river mouths were important for fishing and fish camps. Other locations mentioned that were good for fishing included the mouth of Anialik River (*Anialik*), Wentzel River, Kennarctic River, James River (*Hanigayok*), Hood River, Burnside River, Fishing Creek near Kingaok (community of Bathurst Inlet), Back River, Coppermine River, Tree River, Omingmaktok (Bay Chimo), and Contwoyto Lake. A fishing camp was mapped on Back River to east of the proposed road (Banci and Spicker 2024; Community member, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Inuit Association, Kugluktuk, November 7, 2024, pers. comm.). Grays Bay, Kennarctic River, Hood River, and Contwoyto Lake are within the TLMRU LAA and RAA, while Anialik River, Wentzel River, James River, Burnside River, Tree River, Fishing Creek, upstream portions of the Back River, Coppermine River and Tree River are within the TLMRU RAA. Omingmaktok (Bay Chimo) is outside the TLMRU RAA.

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, Kitikmiut also commented on fishing practices:

> *Inuit mostly fish inlets and bays. Sometimes we go out on the open ocean, deep water, too.* (Banci and Spicker 2024)

Arctic char and tomcod were the main fish species for Ocean Inuit and Kiligiktokmiut and were common in Burnside River. In the northern section of the Project area, Wentzel River was a well-known place for Arctic char. Arctic char are in many of the rivers that flow into the ocean (Banci and Spicker 2024). During the winter, some Arctic char and lake trout will remain in the deep river mouths, like Perry River and Ellice River (Banci and Spicker 2024). The Burnside River and Wentzel River are outside of the TLMRU LAA, but within the TLMRU RAA. The Perry River and Ellice River are outside of the TLMRU RAA.

Kennarctic River and James River were major gathering places for many Kitikmiut because they were important fishing locations. Kitikmiut used nets in the river to catch fish. Wentzel River and Anialik River were important Arctic char fishing places as well. Red-bellied Arctic char would gather at the falls, making it a prime fishing location in the fall. In the spring, Arctic char was fished at the Anialik River, as the fish were skinny at that time and good for drying (Banci and Spicker 2024). The Kennarctic River is within the TLMRU LAA, while the James River, Wentzel River and Anialik River are within the TLMRU RAA.

Kitikmiut shared Arctic char can be found in lakes that do not have rivers running into them but have been flooded. These land-locked Arctic char are born in the lake and are different from Arctic char born in the ocean. Land-locked Arctic char are smaller in size and were identified in two unnamed lakes east of Kennarctic River (Banci and Spicker 2024). The Kennarctic River is within the TLMRU LAA and RAA.

Within the Project area, trout fishing locations include small lakes in the northern region near Kennarctic River and Wentzel River. Trout are also fished for in the ocean, near the mouths of major rivers. Broad whitefish and Arctic cisco were identified as common species in all lakes (Banci and Spicker 2024). Arctic cisco that are harvested near Kugluktuk before fall are favoured for their taste. Areas around Concession Lake were reported to have an abundance of Arctic cisco. Broad whitefish are in areas where there are rapids such as Wentzel River (Banci and Spicker 2024). The Kennarctic River is within the TLMRU LAA and RAA, while the Wentzel River, Kugluktuk, and Concession Lake are within the TLMRU RAA.

Arctic grayling were reported to be found throughout streams, rivers, and in some lakes. Within the Project area, grayling were mapped in Burnside River, Fishing Creek, Contwoyto Lake, Anialik River, and James River. Grayling were reported to spawn in rivers in shallow boulders. The Kennarctic River does not have any grayling (Banci and Spicker 2024). Contwoyto Lake is within the TLMRU LAA and RAA, while the Burnside River, Fishing Creek, Anialik River, and James River are within the TLMRU RAA.

Other Marine Harvesting

Marine species that Kitikmiut reported to harvest include sculpins (*kanayuk*), capelin (*angmagiak*), smelt (*eetooknuit*), flounder (turbot), wolf eel, crabs, oysters, sand lance, clams, mollusks (*oviluk)*, mussels (*uviluvaleot)*, shrimp, sea urchins, wolffish, and starfish. However, crabs and oysters are not commonly harvested as a food source because of the effort required to collect them (Banci and Spicker 2024).

When they are abundant in the summer months, Kitikmiut harvest capelin, which were reported to primarily stay in the ocean, only coming to shallow waters to lay their eggs. Pacific salmon and sharks have been reported to be new species in the area (Banci and Spicker 2024).

During the Nunavut Wildlife Management Board's 1996-2001 Inuit Nunavut Wildlife Harvest Study, cod was commercially fished by Kitikmiut in Cambridge Bay. Cod was also fished in Kugluktuk for fishing derbies and is abundant around Taloyoak where some cod is harvested each year. In addition, turbot was harvested by Kitikmiut in Bathurst Inlet, sculpin in Omingmaktok (Bay Chimo) and Bathurst Inlet, and Arctic char was fished throughout all Kitikmeot communities (Priest and Usher 2004).

Arctic cod and saffron cod were reported to be found in Grays Bay. Saffron cod live in the inlets and bays in more shallow waters, whereas Arctic cod are found in deeper waters (Banci and Spicker 2024). There are physical differences between Arctic cod and saffron cod, with Arctic cod being the larger species. Both species of cod have been reported by Kitikmiut as a good food source (Banci and Spicker 2024).

Kitikmiut also identified fishing for Arctic char at the mouth of the Kennarctic River (Banci and Spicker 2024). Other harvesting occurs in Anialik and Wentzel rivers from August to October during high stream flow conditions. In addition, wolffish habitat was identified along the coast near Bathurst Inlet, Arctic Sound, and Cambridge Bay (Banci and Spicker 2024). Grays Bay and the Kennarctic River are within the TLMRU LAA and RAA, while Anialik River, Arctic Sound, Bathurst Inlet (the inlet), Cambridge Bay, and Wentzel River are outside of the TLMRU LAA but within the TLMRU RAA.

Access to Land and Water

Travel

Prior to contact, the main modes of transportation were by foot and dog team. Kitikmiut used travel routes for harvesting caribou, fishing, trapping, accessing camps, and other TLMRU activities (Banci and Spicker 2024). Well travelled routes included camping places and harvesting areas. Snowmobiles became the main mode of transportation and transformed Inuit hunting practices following their introduction in the 1960s. With the use of snowmobiles, Kitikmiut could continue harvesting in their traditional areas while living in permanent communities, reducing the need to reside in seasonal hunting camps. However, some Kitikmiut continued to use dog teams for hunting caribou, seals, and packing and transporting supplies on sea and river ice (Banci and Spicker 2024). When this practice stopped was not specified.

Ocean Inuit used water and sea ice for their travel as the entire Arctic Ocean coastline was a major travel corridor. Ocean Inuit travelled to *Kingaok* (community of Bathurst Inlet) region to hunt caribou, wolves, wolverine, and to trade and socialize with other Inuit (Banci and Spicker 2024). Inuit used a *kayait* (kayak) and *omiak*, which are flat-bottomed boats made of skins stretched over a willow frame, to hunt caribou during the summer and fall (Banci and Spicker 2024). Kitikmiut reported that open waters were dangerous for travel but were important places for fishing and access to fresh water during the winter. Ocean travel was the primary mode to access the Grays Bay area.

> *I've been to Omingmaktok [Bay Chimo] lots, through this channel (Kongoayok in Melville Sound). When I was a kid, we used to always go to Ekalolialok ([Lawford] Island) and fish. I used to go across from Omingmaktok [Bay Chimo] by dogteam. Lots of travelling, mostly through this area in*

> *the spring and summer. Right down to Bathurst [Inlet, the community] (Kingaok). I have always gone through in the winter time; I have gone through here a couple of times in the winter (From Kongoayok in the north, through Buchan Bay down Bathurst Inlet to [Quadyuk Island] Kaogyok).* (Banci and Spicker 2024)

Major travel routes and gathering places are along the three major rivers, James River, Hood River, and Burnside River (Banci and Spicker 2024). The Hood River and Grays Bay are within the TLMRU LAA, while *Kingaok* (community of Bathurst Inlet), James River, and Burnside River are within the TLMRU RAA. The Lawford Islands and Bathurst Inlet (the community) are outside of the TLMRU LAA, but within the TLMRU RAA. Omingmaktok (Bay Chimo), Kongoayok, Quadyuk Island and Buchan Bay are outside of the TLMRU RAA.

During the fur trade, Kiligiktokmiut and Nunamiut typically made two trips to the trading posts annually: once before the trapping season in the fall to obtain supplies, and again in the spring to sell the furs (Banci and Spicker 2024).

Kitikmiut report that travel during the winter is becoming increasingly difficult as there is less snow, and dust and other contaminants have affected the quality of the snow. Areas where flowing water does not freeze are dangerous areas to travel (Banci and Spicker 2024). In the Inuvialuit region and Gjoa Haven, community members expressed concern about travelling to cabins due to less predictable weather. In the past, there would be a predictable time of year that members could travel. Water run off, melting permafrost, and rising sea levels have contributed to unsafe travel (McLennan et al. 2022). Some Inuit have been reported to take advantage of technology, utilizing GPS for travelling and very high frequency radios to keep travellers in contact with the community. However, concern has been raised that continuous reliance on GPS could impact traditional wayfinding skills. Some youth have limited knowledge about safe travel conditions and are reported to not have the necessary skills to survive on the land (Prno et al. 2011).

An Elder from Kugluktuk shared that there is a primary trail from Kugluktuk to Contwoyto Lake on Rockinghorse Lake (OZ Minerals 2008). Contwoyto Lake is within the TLMRU LAA and RAA, while Rockinghorse Lake is within the TLMRU RAA. The RAA does not extend to the community of Kugluktuk; however, it does include the waterbody north of the community.

During the community-based primary research, a community member from Kugluktuk stated that it has become increasingly difficult to access camps and cabins due to the rising cost of fuel for snowmobiles (Community Member, Kugluktuk, November 8, 2024, pers. comm.).

Also during the community-based primary research, a community member from Cambridge Bay highlighted the difficulties of accessing traditional food due to changes in wildlife populations (Community Member, Cambridge Bay, November 3, 2024, pers. comm.).

Access to Water

Kitikmiut emphasized that water is essential for all life and must be used with care to protect its availability for future generations.

> *Everyone needs water and it should be used carefully so it can be used by all people in the future All the lakes and rivers are very important in our area because the lakes and rivers flow into our river (Coppermine River). Water is very important for all life forms.* (Banci and Spicker 2024)

Potable water has not always been readily accessible on the land and often requires effort to locate. High-quality water was described by Inuit as clear, free of mud and insects, suitable for fish habitat, ideal for making tea, non-saline, and uncontaminated (Banci and Spicker 2024).

Water sources are widespread throughout the Kitikmeot Region, where there are lakes, rivers, creeks, pools under cliffs, pools of water among deep rock crevasses from rain or melting snow, underground streams and cold-water springs, wetlands, snow and ice, icebergs, and pools of water on the ice surface (Banci and Spicker 2024). Running water is always preferred over still water. Main sources of freshwater on the land are cold water springs (*aniloakhinik*), which is water that was forced to surface due to the pressure of the surrounding permafrost. Permanent ice (*neelak*) is also preferred by Inuit (Banci and Spicker 2024).

Inuit rely on traditional water sources at established camp sites, with most rivers and lakes used for drinking water. However, for those living along the coast, freshwater availability is limited due to saline intrusion from ocean seepage, making the water unsuitable for consumption. In the absence of reliable freshwater sources, water is treated through filtering or boiling. During the winter, when at lakes or rivers, Inuit access water by chiselling a hole through the ice (Banci and Spicker 2024).

Inuit have observed changes in surface water quality over recent decades, with one of the earliest indicators being changes in the water affecting the taste and appearance of tea. These changes have been attributed to the effects of climate change, due to reduced rain and snowfall, melting of permafrost, and changes in the weather. Additionally, increased contaminants such as dust, mineral exploration, and mine development, airborne pollutants, tourism, and litter have been reported to affect the water (Banci and Spicker 2024). Kitikmiut reported that there is high copper content in the waterbodies surrounding High Lake (GBEEC 2018a).

Kitikmiut expressed concerns regarding the tailings ponds at the Lupin Gold Mine at Contwoyto Lake and how exploration companies manage their waste. Kitikmiut emphasized the need for companies to preserve the quality of the water. The construction of roads has also been a concern for Inuit as gravel can accelerate the ice melt (Banci and Spicker 2024).

Kitikmiut have also observed changes in water quantity, noting a reduction in freshwater springs. Lakes, rock crevices, and areas where water collects have been increasingly reported as drying up. NTKP consultants reported that they used to get their water from rocky areas. However, the water no longer tastes good because these areas have dried up. Concerns around the water levels in lakes and the impacts to the fish species were expressed (Banci and Spicker 2024). Fairy Lake River, Burnside River (*Ayapakpaktovik*), and Bathurst Inlet are areas mentioned that Inuit have noticed a decline in water

quantity (Banci and Spicker 2024). During the community-based primary research, a community member from Kugluktuk shared that algae has been increasing over the years and has been affecting the fish that live in the waters (Community Member, Kugluktuk, November 8, 2024, pers. comm.). During previous engagement on the Izok project, a Kugluktuk Elder shared that a layer of ice that is present under water (*nilak*) has melted at Kalaktok and Kogoaiyak rivers (OZ Minerals 2008).

Water is also harvested from permanent ice in areas between Anialik River and Kennarctic River, the west side of Grays Bay, Bathurst Inlet, Kugluktuk, and Kalaktok (Banci and Spicker 2024). Grays Bay and the Kennarctic River are within the TLMRU LAA, while the Anialik River, Bathurst Inlet, and Kalaktok are within the TLMRU RAA. The TLMRU RAA does not extend to the community of Kugluktuk; however, it does include the waterbody north of the community.

Changes in water quality have been noticed more along the coast, but inland regions have also seen some effects. For example, Coppermine River was identified as a water source where changes have become more noticeable (Banci and Spicker 2024).

> *[…] The Coppermine River is starting to change too. Inuit have begun to talk about the changes now. Even to drink out of the river is not very good because the water is changing.* (Banci and Spicker 2024)

The Coppermine River is outside of the TLMRU LAA, but within the TLMRU RAA.

Cultural Practices and Places

Hunting and sharing food are considered core aspects of Inuit culture. Kitikmiut have reported that store-bought foods do not replace country foods; and country foods provide a better source of nutrients such as iron, magnesium, and calcium (RHA 2003). Both traditional knowledge and scientific research highlight the strong link between individual and community health and well-being and consistent access to reliable sources of country food (RHA 2003). While trapping occurs all year round, Kitikmiut shared it is an especially important harvesting activity in the winter (Banci and Spicker 2024).

Knowledge Transmission

Kitikmiut Elders were sent away to residential schools during the 20th century. During this period, there was a lost opportunity to learn from Elders for intergenerational knowledge transfer. Kitikmiut reported that data gaps in Inuit Knowledge exist because of these events (Banci and Spicker 2024).

> *You have to keep in mind that our generation were taken away during that time when our people were still living up there. That time we lost most of our knowledge about this area (the Bathurst Inlet area) because we were we were going to school in wintertime. We didn't live up there anymore in wintertime. We lived mostly on the coast in summertime. Wintertime we could not travel back. We had no machines. We had dogteams. We couldn't go back there in wintertime because we were gone for long periods, like 12 years or so. So it's kind of hard to recall what was up there.* (Banci and Spicker 2024)

It has been reported that because some youth are less interested in traditional activities now, some have lost their taste for country foods. The lack of interest in hunting by some youth has led to a decline in associated knowledge transfer and skills (Prno et al. 2011). Some youth were reported to not have as much knowledge about safe travel conditions or necessary skills to survive on the land (Prno et al. 2011).

During the community-based primary research, a community member from Kugaaruk shared they are teaching the youth how to fish and prepare the fish (Community Elder, Kugaaruk, October 31, 2024, pers. comm.). Teachings regarding caribou migration are also passed down through generations (IAG 2025a).

> *I need to follow what my parents and grandparents taught me so caribou will always be there […]. My Dad taught stories that as I become older and older, I'll be teaching others. I always keep my knowledge and teach about the caribou migration and keep the land totally clean. Since [I was] a young girl and what was taught to me, I try to teach others with knowledge passed down. Keep all the knowledge to share with the children and others coming to the community. Caribou and their migration are very important to us.* (IAG 2025a)

Habitation

More common in the past, Kitikmiut groups lived in igloos during the winter and in skin tents during the summer. Large winter camps were not common, unless an abundance of caribou or seals were in the area. Camps were generally seasonal, spread across the landscape, and only used for a short period of time because the resources that Inuit depended on were widely distributed (Banci and Spicker 2024). The Kent Peninsula, south coast of Melville Sound, and both coasts of Kingaok (community of Bathurst Inlet), were important gathering places for Inuit. Younger land users have now built permanent cabins at these locations (Banci and Spicker 2024). Cabins were also identified around Izok Lake and Itchen Lake (OZ Minerals 2008). Kingaok (community of Bathurst Inlet), Itchen Lake and Izok Lake are outside of the TLMRU LAA, but within the TLMRU RAA. The other locations are outside of the TLMRU RAA.

> *That's the island (Ongivik [Wilmot Islands]) that Kellogok (an elder born in the 1800s) talks about. When people gather at that island there would be lots of people from all over the area. It was a gathering place because there used to be lots of bowhead and beluga whales.* (Banci and Spicker 2024)

In the winter, Inuit lived on the sea ice in large igloo camps where seal was hunted through their breathing holes. Inuit had sealing camps all over the mouth of *Kingaok* (community of Bathurst Inlet) (Banci and Spicker 2024).

> *The really big sealing camps in wintertime are way over here (north of Hinikyoak [Banks Peninsula] and between Ekalolialok (Ekalulia Island) and Omingmaktok [Bay Chimo]).* (Banci and Spicker 2024)

Kingaok (community of Bathurst Inlet) and its coastal river systems was an important area for Inuit because it was abundant in wildlife such as seals, whales, caribou, large mammals, furbearers, and fish. Camps were also situated near Bathurst Inlet (Banci and Spicker 2024). *Kingaok* (community of

Bathurst Inlet), Bathurst Inlet (the inlet), and the Banks Peninsula are outside of the TLMRU LAA but within the TLMRU RAA. Ekalulia Island and Omingmaktok (Bay Chimo) are outside the TLMRU RAA.

Eskers serve as important landmarks for Inuit travel and traditional camping sites. Historic camp areas may also be identified from the accumulations of bowhead whale bones, which used to be used for sled runners. Chapman Islands, Wilmont Islands (*Ongivik*) and Lewes Islands were reported to be historic whaling camps (Banci and Spicker 2024). These locations are outside the TLMRU RAA.

Burial Sites

Inuit reported that when visiting burial sites, people will often bring something in remembrance to that person and leave it at the site. Bones that are found on the land are left and never moved. The bones are sacred to Inuit. As the ground is permanently frozen, remains were often wrapped in caribou skins, which was considered a form of burial (Banci and Spicker 2024). Major camping areas have the potential to also contain grave sites; the mouth of Kennarctic River is also reported to be a burial ground. Graves were often marked by a pile of rocks and a cup. Kitikmiut shared that there may be graves near the Grays Bay area and Tree River, which should be approached with care (Banci and Spicker 2024).

> *When they visit these graves, they tend to give a little something in remembrance for that person. The way he enjoyed his pipe tobacco, or his cigarette, or what have you. Being similar to pipe tobacco, I guess they would roll up a cigarette, light it and leave it. That's what he was remembering about his grandpa.* (Banci and Spicker 2024)

The Kennarctic River and Grays Bay are within the TLMRU LAA and RAA, while the Tree River is outside of the TLMRU LAA, but within the TLMRU RAA.

Other Harvested Resources

Other resources that are important to Kitikmiut include soil, black soapstone, copper, and silver. In the past, soil was considered a special resource used to mud sled runners. Black soapstone was used to carve stone stoves (*kudlik)* and cooking pots. Nails, ulu blades, arrowheads, harpoon heads, and snow knife blades were made from copper and silver (Banci and Spicker 2024).

Historically within what is now called the Kitikmeot Region, the Inuinnait (Copper Inuit) extensively made use of artifacts made from the native copper deposits of the region (McGhee 2015). Most Inuinnait now live in the villages of Sachs Harbour, Ulukhaktok (also known as Uluqsaqtuua), which means "where there is copper" in Inuktut, including areas within the Kitikmeot Region such as Kugluktuk; Bathurst Inlet; and Cambridge Bay (McGhee 2015). Soapstone was also an important material utilized by Inuinnait and as part of trade across the Bering Strait (Morrison 1991).

Carving stone can be found in the Grays Bay area, along the coast, inland, and on the northwest coast of Bathurst Inlet (Banci and Spicker 2024). Copper is also present near Kanuyak Island, Cockburn Islands (*Egloyoalik*), Lewes Islands (*Kanoyak*), Wilmot Islands, islands west of Kent Peninsula, and Chapman Islands (Banci and Spicker 2024). In addition, Inuit of Kugluktuk are descendants of an ancient Thule people who harvested Copper along the shores of the Coppermine River and made it into arrowheads, spearheads, ulu blades, chisels, harpoons, and knives (Hamlet of Kugluktuk 2025).

Grays Bay is within the TLMRU LAA, while Bathurst Inlet and the Coppermine River are within the TLMRU RAA. The other locations are outside the TLMRU RAA.

24.2.2.3 Inuvialuit

Governance, Demographics, and Language

Inuvialuit translates to “the real people” who are descendants of Thule people that migrated from the Bering Sea region and settled on the edge of the Beaufort Sea, at the mouth of the Mackenzie River over eight centuries ago (IRC 2025). Their 5,000 descendants are part of three Inuvialuktun language groups (Siglit, Uummarmiut, and Kangiryuarmiut) and reside across the six communities of Aktlarvik (Aklavik), Inuuvik (Inuvik), Paulatuuq (Paulatuk), Ikaahuk (Sachs Harbour), Tuktuuyaqtuuq (Tuktoyaktuk) and Ulukhaktuuq (Ulukhaktok) (IRC 2025; Nagy 2022) (see Figure 24.2). Ulukhaktuuq is the closest of the six communities to the Project and is located on Victoria Island (IRC 2025). The Kangiryuarmiut or “people of the large bay” (referring to Prince Albert Sound) reside on the western coast of Victoria Island and today primarily live in the village of Ulukhaktuuq (formerly Holman) (Nagy 2022). Both culturally and linguistically, the Kangiryuarmiut are closely connected to the Inuinnait (Copper Inuit) of the Kitikmeot Region (Nagy 2022). The language dialect of Kangiryuarmiut is most often called Inuinnaqtun (Nagy 2022).

Inuvialuktun and its regional dialects have been declining since the 1930s and this was accelerated by the presence of residential schools in Arctic communities (Nagy 2022). By the 1950s, many Inuvialuit parents only taught English to their children, resulting in widespread concerns for language loss (Nagy 2022). As a result, the Inuvialuktun Language Commission formed in 1980 to protect Inuvialuktun from becoming endangered, and produced dictionaries and grammar sets for the three dialects of Siglit, Uummarmiut, and Kangiryuarmiut (Nagy 2022). Despite these efforts, English continues to be the dominant language in the Inuvialuit Settlement Region, where Inuvialuktun is spoken mainly by Elders and typically is understood only passively by Inuvialuit youth. Language revitalization continues through school programming, cultural activities, and educational material produced by the Inuvialuit Cultural Centre Pitquhiit-Pitqusiit (Nagy 2022).

The Inuvialuit Regional Corporation has expressed interest in revitalizing Inuvialuktun as the working language across the Inuvialuit Settlement Region by increasing the availability of Inuvialuktun educational materials (IRC 2022).

The Inuvialuit Regional Corporation is currently seeking to develop education and training opportunities across the Inuvialuit Settlement Region to increase capacity for and create sustainable local jobs (IRC 2022). In the past, the Inuvialuit Regional Corporation has commented that clean infrastructure development projects will help insert more capital into the local economy and benefit Inuvialuit communities in the short- and long-term (IRC 2022). In particular, the Inuvialuit Regional Corporation is interested in projects that will create less dependency on importing fuel from the south and lead to greater independence, energy security, and reduced environmental effects (IRC 2022).

The Inuvialuit Regional Corporation is also interested in fostering energy education in schools to inspire, engage, and inform Inuvialuit of consumption habitats, cleaner solutions, and other forward-thinking innovations to reduce energy costs and stress associated with high seasonal energy bills (IRC 2022).

Land Management, Claims, and Agreements

The Inuvialuit Regional Corporation was established in 1984 to manage Inuvialuit affairs (GNWT 2025b; IRC 2025). Their goal is to "continually improve the economic, social, and cultural well-being of the Inuvialuit" through the settlement outlined in the Inuvialuit Final Agreement (IRC 2025). The Inuvialuit Final Agreement, which was signed in 1984 between the Government of Canada and the Inuvialuit Regional Corporation, was the first comprehensive land claim agreement signed north of the 60th parallel to protect the rights of Inuvialuit in relation to land and wildlife management (IRC 2025). In addition, the Inuvialuit Regional Corporation, the Government of the Northwest Territories, and the Government of Canada signed an Agreement-in-Principle in 2015 that set out the basic structure of an Inuvialuit Government, its law-making powers, intergovernmental arrangements, financial principles, and other authorities. It is not considered a treaty under section 35 of the *Constitution Act* (GNWT 2025b). Currently, Inuvialuit beneficiaries control the Inuvialuit Regional Corporation through a democratic process of elected directors from each of the six communities (IRC 2025).

Negotiations of the Agreement-in-Principle are ongoing as parties work towards implementing Inuvialuit right to self-government (GNWT 2025b). Once completed, the agreement will also support the environmental assessment process in the Inuvialuit Settlement Region. Under the agreement, Inuit Knowledge is given equal weight and standing to western scientific-based knowledge through a co-management process (IGC 2019).

In proximity to the Project, Inuvialuit have reported harvesting wildlife on Victoria Island and Banks Island, and the waters that span between them. In the winter, Inuvialuit built snow houses on the ice and hunted seals. In the spring, summer, and fall, they harvested muskox, caribou, and migrating geese (Nagy 1999).

Traditional Land, Marine, and Resource Use

This section presents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to knowledge, values, and perspectives shared through engagement for the Project by Inuvialuit or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Inuit Knowledge about Inuvialuit customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to Inuvialuit sharing the information. Values and perspectives shared by Inuvialuit are unique and, where available, have been integrated into the IS. WKR recognizes that Inuvialuit hold section 35 rights under the Constitution, which, along with Inuvialuit customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by Inuvialuit.

Hunting and Trapping

Caribou

Through the literature review, Inuvialuit have commented on the correlation between caribou and muskox populations. On Banks Island, Inuvialuit hunters have observed that when muskox populations are low, caribou return to the island (Nagy 1999). Traditionally, caribou were harvested communally with the help of women who led hunters to surround a herd. While women usually did not participate in the kill itself, some women who had their own weapons did (Nagy 1999).

When Inuvialuit harvested caribou, they used every part of the animal, including any edible stomach contents and the head. If there was enough meat, it was aged and dried or frozen, and the bones were boiled to extract marrow and grease. Caribou hides were used to make summer parkas and other clothing material (Nagy 1999). Since the 1950s, Inuvialuit have observed a decline in the number of Peary caribou on Banks Island. At that time, the average hunter harvested 14 caribou annually. However, by 1994, the population had declined to less than 10% of the over 12,000 caribou recorded on the island in 1972 (Nagy 1999).

Inuvialuit have previously reported harvesting caribou on Victoria Island and Banks Island (Nagy 1999). Victoria Island and Banks Island are outside the TLMRU RAA.

Birds

During engagement on a previous project, Inuvialuit identified harvesting ducks, geese, brant geese, Canada geese, and ptarmigan. Goose fat and skins were used to make oil skin bags; the oil was used to flavour food (Nagy 1999).

Other Terrestrial Wildlife

Muskox is a major resource to Inuvialuit, especially on Banks Island (Nagy 1999). Muskox was eaten throughout the winter and summer, and in the spring following the birth of young calves (Nagy 1999). Muskox was noted as easier to harvest compared to other animals and were the primary game animal on Banks Island (Nagy 1999). Inuvialuit hunted muskox by surrounding the herds with dogs until a hunter could make their kill using a bow and arrow or spear (Nagy 1999). All of the animal was used, the hides were turned into parkas, the meat was dried, and horns were used to make arrows (Nagy 1999).

Inuvialuit have previously reported harvesting muskox on Banks Island (Nagy 1999). Banks Island is outside of the TLMRU RAA.

Marine Harvesting

Inuvialuit have reported harvesting seals between Victoria Island and Banks Island. In the winter, Inuvialuit moved from place to place, building snow houses on the ice to hunt seals. However, seals were also hunted in open waters in warmer weather. Historically, Inuvialuit entrusted shamans to help entice seals to come to them and used dogs in the winter to find seal holes (Nagy 1999). At the beginning of the trapping economy in the early 20th century, approximately 80 bearded seals or 90 ringed seals were

needed to feed an average team of nine dogs every year. The meat was often mixed and cooked with cornmeal or oats (Nagy 1999).

Until the 1920s, seals were considered a major food source for the Inuvialuit and an important resource to make traditional clothing. In the past, their blubber was used to make oil for stone lamps used by women and for other heat sources. As soon as a seal was harvested, hunters rushed back to their igloos to share the meat with the people. Women were often responsible for cutting up the seal meat and blubber, though some participated in hunting as well. Blubber was stored in in the ground until it was needed (Nagy 1999).

Inuvialuit have also reported hunting polar bears at Prince Albert Sound on Victoria Island and the southeast part of Banks Island in the winter (Nagy 1999). The liver of polar bears was never eaten and considered poison for human consumption due to its high concentration of vitamin A (Nagy 1999). Before a polar bear hunt, men were advised they were not allowed to eat, they could only drink (Nagy 1999). In general, Inuvialuit preferred to harvest young male bears (Nagy 1999).

Plant Harvesting

Inuvialuit previously reported that Arctic cotton was once important to survival in the winter. It was picked in the fall when the days became shorter, to make wicks for lamps (Nagy 1999).

Access to Land and Water

Inuvialuit reported travelling with sled dogs on Victoria Island (Nagy 1999). Victoria Island is outside of the TLMRU RAA.

Cultural Practices and Places

Inuvialuit previously reported that before the 1960s, most Inuvialuit lived in frame tents that were covered with ice in the winter (Nagy 1999).

24.2.2.4 Tłı̨chǫ Government

Governance, Demographics, and Language

The Tłı̨chǫ (formerly known as the Dogrib) are comprised of four communities including Behchokǫ̀, Gamèti, Wekweèti, and Whatì, that together form the Tłı̨chǫ Government (GKP 2010a; TG 2017d) (see Figure 24.2). Behchokǫ̀ has a population of 1,950 people, making it the largest Tłı̨chǫ community (TG 2017d). Traditionally, the Tłı̨chǫ followed a subsistence lifestyle of hunting, trapping, and fishing throughout their territory (GKP 2010a). Trapping especially became an important activity after 1900 with the arrival of the Hudson's Bay Company in the north. During the 1960s, the Tłı̨chǫ travelled throughout their territory to harvest furbearing animals in the spring and fall, while larger animals and fish were harvested throughout the year (GKP 2010a).

In 2005, the Tłı̨chǫ Agreement came into effect in the Northwest Territories establishing the Tłı̨chǫ Government with the power to preserve, protect, and promote Indigenous and treaty rights throughout 39,000 km^2 of Tłı̨chǫ lands and resources (TG 2014, 2017a). The Tłı̨chǫ Government has the right to their own lawmaking power over Tłı̨chǫ citizens, including aspects of education, child and family services, income support, social housing, and other services (TG 2014).

For past projects, the Tłı̨chǫ Government has reported the Tłı̨chǫ language is “currently in a state of crisis” due to disconnection from traditional activities, impacts from residential schools, and the loss of community traditions (TG 2017c). According to the Tłı̨chǫ Government, language survival is intimately linked to maintaining traditional activities, by living on the land and learning the Tłı̨chǫ way of life (TG 2017c). During past engagement for the Tłı̨chǫ All-Season Road project, the Tłı̨chǫ Government expressed concern about further language loss due to the construction and operation of the road (TG 2017c).

The Tłı̨chǫ Government has also said the health, traditional activities, and well-being of Tłı̨chǫ people and Tłı̨chǫ lands are “inextricably intertwined” with the health and future of their traditional territory (TG 2017c). During past engagement for the Tłı̨chǫ All Season Road project, the Tłı̨chǫ Government expressed concern the road would exacerbate existing social issues for Tłı̨chǫ citizens related to substance abuse, family violence, sexually transmitted diseases and school absenteeism (TG 2017c).

Land Management, Claims, and Agreements

The Tłı̨chǫ Government territory extends north to south from Great Bear Lake (*Emakyoak*) to Great Slave Lake, and east to west from Contowoyto, Alymer and Artillery lakes to the east side of the Mackenzie River (GKP 2010a). Other sources have reported that Tłı̨chǫ TLMRU extends north into Nunavut as far as the Coppermine River (TG 2014; Dedats’eetsaa 2024).

During Project-related engagement, the Tłı̨chǫ Government informed WKR that the Project did not cross the Monwhi Boundary of their main traditional land use area, *Mowhi Gogha De Niitlee*. However, they commented the Project may still affect Tłı̨chǫ rights and interests related to caribou and migration, as might future phases of the Project or the potential development of a road from the coast of Coronation Gulf to the Nunavut border and beyond (GBRP 2025; TG 2025).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by the Tłı̨chǫ Government or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about Tłı̨chǫ customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to the Tłı̨chǫ Government sharing the information. Values and perspectives shared by Tłı̨chǫ are unique and, where available, have been integrated into the IS. WKR recognizes that Tłı̨chǫ hold section 35 rights under the Constitution, which, along with Tłı̨chǫ customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by Tłı̨chǫ.

Hunting and Trapping

Caribou

Caribou have been and continue to be an important food source for Tłı̨chǫ, who report they harvest more Bathurst caribou than any other Indigenous group in the Northwest Territories. In the past, caribou were a staple of the Tłı̨chǫ diet, as Tłı̨chǫ TLMRU was tied to the migration and patterns of caribou herds (GKP 2010a, 2010b).

During engagement on past projects, Tłı̨chǫ Elders have described the close and respectful relationship between Tłı̨chǫ and caribou. They explained that caribou demonstrate respect by travelling to the western Kitikmeot and Slave Lake area from their calving grounds. When Tłı̨chǫ harvest caribou from this area, the animal's spirit is reborn so that the caribou population remains strong. The Tłı̨chǫ also show respect to caribou by only taking what is needed, using all parts of the animal, and sharing knowledge about caribou and their behaviours. By showing this respect, caribou continue to survive and return to the places they have migrated before. However, the Tłı̨chǫ Elders stressed that caribou have unpredictable migration patterns; only a few people have a spiritual connection to caribou that allows them to know how to locate caribou at any given time, but they cannot predict where caribou will be in the future. Tłı̨chǫ also understand that caribou are more likely to use certain trails and water crossings than others, and migrate to where vegetation is lush and accessible. Caribou have a strong sense of smell, they follow the same annual cycles, and return to the same calving grounds each year. In a herd of caribou, there are leaders (called *k'aawo*) who are usually middle-aged and have good memory (WKSSS 2001). While caribou can adapt to changing environments, they can also become accustomed to contaminated or hazardous areas (WKSSS 2001; GKP 2010a).

Through the literature review that was conducted, the Tłı̨chǫ Government also expressed concern for potential effects to caribou and changes to their migration patterns (TG 2012, 2017d; GKP 2010a). This was also echoed by the Tłı̨chǫ Government during a public comment period for the NIRB Guidelines development (NIRB 2024c). Tłı̨chǫ Elders have identified that mining activity around Yellowknife has disrupted the migration patterns of caribou due to tailings ponds, sensory disturbances, smoke, and human activity (GKP 2010a). The Tłı̨chǫ Government has also previously stated that 19 years of mining in the Jay project area has turned the region into a place where Elders believe caribou no longer want to travel due to decreased quality and availability of food sources (MVRB 2016). Protection of the Bathurst caribou herd is a priority for the Tłı̨chǫ Government, who have said any new stressors for caribou must be avoided (MVRB 2016).

In particular, the Tłı̨chǫ Government has commented that the construction of a road on the calving and post-calving grounds of the Bathurst caribou herd raises serious concerns that it could disrupt their natural migration to their summer ranges, an area of rich habitat that the herd depends on each summer. Obstructions to this migration corridor could impact the herd's health, which is already vulnerable, and the ability for the caribou to migrate further south into Tłı̨chǫ traditional lands where Tłı̨chǫ exercise their harvesting rights and practice traditional activities that reinforces their language, culture, and way of life (NIRB 2024c).

The Boots on the Ground Program is a monitoring research program at Contwoyto Lake completed by the Tłı̨chǫ Research and Training Institute. The data has shown that in the last four decades, there has been a significant decline in the population of both Bathurst caribou and barren-ground caribou herds who migrate south of Bathurst Inlet. Calving ground surveys in June 2021 demonstrated a 99% reduction in the caribou herds from their peak recorded population in the 1980s. Meanwhile, the Bluenose East herd had a modest increase in the Tłı̨chǫ Research and Training Institute's 2023 survey, compared to a previous survey in 2018 (Dedats'eetsaa 2024). The Tłı̨chǫ Government attributes caribou population declines to low survival rates for adult cows and poor herd reproduction rates (Dedats'eetsaa 2024).

The Tłı̨chǫ Research and Training Institute's monitoring program is guided by Indigenous Knowledge shared by Tłı̨chǫ Elders and harvesters. It aims to assess changes to caribou health and habitat, the presence of predators, and the effects of industrial development (Dedats'eetsaa 2024). In 2023, Tłı̨chǫ monitors observed the highest sightings of caribou at Contwoyto Lake compared to their other field location further west at Point Lake (Dedats'eetsaa 2024). Despite a shorter growing season that year due to hot and dry weather, most caribou at Contwoyto Lake showed signs of good health and body condition in 2023 (Dedats'eetsaa 2024). Only two caribou at Contwoyto Lake were observed to be "skinny" and no caribou suggested evidence of lameness, injuries, or health abnormalities (Dedats'eetsaa 2024). This measurement of health has been consistent with the Tłı̨chǫ Research and Training Institute's past studies since 2018 (Dedats'eetsaa 2024).

A total of 253 caribou were seen in 72 groups at Contwoyto Lake by the Tłı̨chǫ Research and Training Institute's monitors throughout July and August of 2023, the majority (45.8%) being bulls. In August, cows and calves were represented by a 1:1 ratio. A cow with two calves was also observed, suggesting the birth of twins, which Elders indicated was a positive indicator for the overall health of the herd (Dedats'eetsaa 2024). The 2023 data suggested calf abundance was "very good" compared to previous "low" to "normal" years from 2018 to 2021 (Dedats'eetsaa 2024).

During early Project engagement, the Tłı̨chǫ Government expressed concern for the effects of the Project on caribou, specifically if the road would intersect with Bathurst caribou calving grounds and if there would be a land use plan to protect caribou (GBRP 2017). During more recent engagement, the Tłı̨chǫ Government stated the Project may affect their rights relating to caribou and migration and asked whether seasonal road closures were being considered to enable caribou migration (GBRP 2025). During the NIRB's public comment period, the Tłı̨chǫ Government also expressed concern for potential illegal harvesting of the Bathurst caribou herd and other risks associated with overharvesting. They reported that in the past, wasted meat and illegal harvesting has contributed to the decline of the Bathurst caribou herd (NIRB 2024c).

The Tłı̨chǫ Research and Training Institute reported that Contwotyo Lake, in the northernmost region of Tłı̨chǫ traditional territory, is within the summer range of the Bathurst caribou herd and where barren-ground caribou migrated with their newborn calves to spend the summer (Dedats'eetsaa 2024). Contwotyo Lake is within the TLMRU LAA and RAA.

The Tłı̨chǫ Research and Training Institute also stated that Inuit and Tłı̨chǫ have a long history of meeting at caribou hunting locations, and the areas surrounding Contwoyto Lake "play a pivotal role" in both the post-calving and summer ranges of caribou herds. In July, cows lead their newborn calves to Contwoyto Lake to feed before joining the bulls and amalgamating into larger herds for the fall migration (Dedats'eetsaa 2024:10). Contwoyto Lake is an ideal habitat for calving caribou because of its low rolling landscape and fewer biting insects due to the winds from the lake. The lake's islands and eskers support caribou crossing (Dedats'eetsaa 2024).

Birds

During engagement for a previous project, the Tłı̨chǫ Government shared that they participated in duck hunts. Rivers were known locations for duck and geese hunting (TG 2014).

Other Terrestrial Wildlife

For previous projects, the Tłı̨chǫ Government has advised that bears are harvested for medicinal purposes, such as the treatment of blood poisoning (TG 2012). Tłı̨chǫ also harvest fox, wolves, marten, wolverine, lynx, moose, muskrat, and beaver (TG 2014).

During the Tłı̨chǫ Research and Training Institute's 2024 monitoring program, muskox were the second most observed wildlife species at Contwoyto Lake, after caribou (Dedats'eetsaa 2024). However, during the 56-day program, only two moose, two grizzly bears, one wolverine, one wolf, and 10 bald eagles were seen (Dedats'eetsaa 2024). In previous years, wolf populations have been higher, with 18 reported sightings of wolves in 2017, 16 in 2018, and 31 in 2019 (Dedats'eetsaa 2024). In 2019, there were also 11 moose observed, though this number is inconsistent with other reported observations (no observed moose in 2016-2018 and 2020, seven moose in 2021, and one moose in 2022) (Dedats'eetsaa 2024). For previous projects, the Tłı̨chǫ Government has noted that moose prefer shallow lakes where they can feed on willows, sedges, and other low-lying plants; rivers were noted as important habitats where moose forage for water plants (TG 2014).

During engagement for previous projects, the Tłı̨chǫ Government raised concerns about a decline in furbearing animals and potential effects to traplines. Mice populations are also a key indicator for marten populations, since they are a major food source for the species. Traplines were identified as a source of income and an important traditional activity for the continuance of the Tłı̨chǫ peoples' traditional way of life. Trapping predominately occurs from November to December (TG 2014).

Plants and Plant Harvesting

The Tłı̨chǫ Research and Training Institute reported that in 2023, there was a noticeable lack of mushrooms at Contwoyto Lake due to hot and dry conditions that year. In addition, grasses and leaves in August were brown and mosquitoes were considerably low throughout the summer due to less rearing habitat for larvae (Dedats'eetsaa 2024).

During previous projects, the Tłı̨chǫ Government has also reported that vegetation such as grasses, sedges, mushrooms, and lichens (white, black, yellow, gray reindeer lichen, northern reindeer lichen, Iceland moss, hair lichen, leave lichen-green kidney), crowberries, and the leaves of birch, blueberry, cranberry, cloudberry, and willow are important for sustaining caribou populations (GKP 2010a). The Tłı̨chǫ Government explained that everything that grows on the land, including trees and berries, is depended on for food and medicine (TG 2012).

Fishing

During previous projects, the Tłı̨chǫ Government reported that fishing is one of the main cultural and economic activities for Tłı̨chǫ people, especially when other food sources are not available (TG 2014). Large groups of Tłı̨chǫ families gather annually on islands to set nets and prepare dry fish for the coming season. In the past, when dog sleds were used to travel, fishing was a daily activity that gave people sustenance, food for their dogs, and meat for their traplines (TG 2014). Some species harvested by Tłı̨chǫ include Arctic grayling and whitefish (TG 2014).

The Tłı̨chǫ Government has expressed concern for past road projects that construction activities could affect the flow of water and influence downstream fish habitats (TG 2017c).

Access to Land and Water

During past engagement for the Tłı̨chǫ All-Season Road, the Tłı̨chǫ Government reported they believed the Tłı̨chǫ All-Season Road would improve access to Tłı̨chǫ lands for Tłı̨chǫ citizens, supporting the practice of Tłı̨chǫ culture and way of life (TG 2017c). This was noted as especially beneficial for an increase in access to fishing areas (TG 2017c). A noticeable decline in the fish population was not anticipated by the Tłı̨chǫ Government at the time, due to the health of the fish populations and relatively low increase in fishing anticipated as a result of the road (TG 2017c).

Cultural Practices and Places

For past projects, Tłı̨chǫ Elders emphasized the importance of listening to those who carry knowledge of their ancestors' narratives (TG 2012).

The Tłı̨chǫ Government has previously said their government has the authority and jurisdiction to manage cabins and access to Tłı̨chǫ lands. Tłı̨chǫ citizens have the right to build a cabin anywhere on Tłı̨chǫ lands, in accordance with the Tłı̨chǫ Agreement (TG 2017c).

During engagement on a previous project, the Tłı̨chǫ Research and Training Institute reported that Tłı̨chǫ have historically camped in the area around Contwoyto Lake. The Tłı̨chǫ name for Contwoyto Lake is “Kokètì,” meaning “empty campsite lake,” and it is situated in an area referred to by the Tłı̨chǫ as “big barrens”, a shared region utilized for harvesting, trapping and trade between the Tłı̨chǫ and Inuit (Dedats’eetsaa 2024). Contwoyto Lake is within the TLMRU LAA and RAA.

24.2.2.5 Yellowknives Dene First Nation

Governance, Demographics, and Language

The Yellowknives Dene First Nation is a Dene nation who primarily reside in the communities of Ndilo, Dettah, and Yellowknife, in the Northwest Territories (see Figure 24.2). From the 2021 census, the Yellowknives Dene First Nation’s population is 1,742 (Statistics Canada 2025b).

The Yellowknives Dene First Nation shared there are fewer opportunities to speak their language, Welledeh, but they are able to do so when participating in community hunts (YKDFN 2016).

Land Management, Claims, and Agreements

The Yellowknives Dene First Nation have historically occupied the lands and waters around Yellowknife River and Bay, north to the Barrenlands (YKDFN 2017b). Prior to the 19th century, the Yellowknives Dene First Nation harvested along the shore of Great Slave Lake, south of the Coppermine and Yellowknife rivers, and east into the barren lands. Their territory is referred to as the Chief Drygeese Territory, which people have harvested, hunted, and fished in since time immemorial (YKDFN 2017b).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by the Yellowknives Dene First Nation or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about Yellowknives Dene First Nation customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to the Yellowknives Dene First Nation sharing the information. Values and perspectives shared by the Yellowknives Dene First Nation are unique and, where available, have been integrated into the IS. WKR recognizes that members of the Yellowknives Dene First Nation hold section 35 rights under the Constitution, which, along with Yellowknives Dene First Nation customs, protocols, and laws, protect the continued exercise of

TLMRU activities using the methods, areas, and resources that are preferred to the Yellowknives Dene First Nation.

Hunting and Trapping

Caribou

The Yellowknives Dene First Nation relies on caribou for food security, language, and the transmission of Indigenous Knowledge. The Bathurst herd is reported to be the most important herd to the First Nation, as it is the primary source of country food for members (YKDFN 2016). Traditionally, their way of life followed the movement of the Bathurst caribou herd. During the fall and spring migration, caribou were harvested in large numbers for food, shelter, and tools (GKP 2010a).

Caribou also provide clothing, drum materials, and traditional medicine, and members also make use of caribou antlers. Yellowknives Dene First Nation members also frequently sell traditionally tanned leather, mitts, hats, and other caribou derived materials for income (YKDFN 2016).

The Bathurst caribou herd has been reported to be on the decline. To manage the herd's decline, hunting restrictions have been put in place, which has affected the amount of country food that Yellowknives Dene First Nation members are eating (YKDFN 2016). The caribou population decline has had an adverse effect on the Yellowknives Dene First Nation as they face increased restrictions to harvesting and traditional activities (MVRB 2016). Elders specifically have been affected by the restrictions and decline of caribou. Many of the Elders are members who are least engaged in the modern economy due to age, language barriers, or lack of skills valued in the wage economy (YKDFN 2016).

Other Terrestrial Wildlife

The Yellowknives Dene First Nation reported that members mostly rely on caribou for their country food diet but other wildlife is supplemented when available. During the fur trade, the Yellowknives Dene First Nation was involved in trapping and preparing furs. They travelled into the barren lands to harvest caribou and furbearing animals such as the white (i.e., Arctic) fox (GKP 2010a).

Plant Harvesting

At the time of filing, no information about vegetation had been shared by the Yellowknives Dene First Nation, Ghotelnene K'odtineh Dene, or Athabasca Denesųłiné Né Né Land Corporation in the context of the Project. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Access to Land and Water

The Yellowknives Dene First Nation shared that water is the most significant resource for them. People who live around mines are experiencing water quality issues (YKDFN 2017b). Members shared that the decline in water quality directly affects fish presence, wildlife, and cultural use (YKDFN 2019).

24.2.2.6 Athabasca Denesųłiné Né Né Land Corporation

Governance, Demographics, and Language

Athabasca Denesųłiné Né Né Land Corporation represents the Athabasca Denesųłiné First Nations of Fond du Lac, Black Lake, and Hatchet Lake in Saskatchewan (ADNLC 2024, 2025) (see Figure 24.2). Athabasca Denesųłiné Né Né Land Corporation reported their members have a strong connection to the land and often refer to themselves as guardians of the land (Ya'thi Nene Land & Resources n.d.). Elders are heavily relied upon for the transmission of stories and cultural practices. Their language is deeply interconnected to the land as there are many terms to describe locations and events that are only in Dene (Ya'thi Nene Land & Resources Office 2020).

Caribou hunting and harvesting is embedded into Athabasca Denesųłiné culture. Athabasca Denesųłiné Né Né Land Corporation shared that caribou provide nutrition and contribute to the maintenance of cultural and spiritual health (Ya' thi Néné Lands and Resources n.d.).

Land Management, Claims, and Agreements

Athabasca Denesųłiné Né Né Land Corporation's Traditional Territory includes northern Saskatchewan, Northwest Territories, and Nunavut (ADNLC 2023).

Athabasca Denesųłiné Né Né Land Corporation, alongside Ghotelnene K'odtineh Dene, have been in negotiations with the Government of Canada for 30 years to affirm their rights north of the 60th parallel, in the North of 60 Final Agreement (also sometimes referred to by Athabasca Denesųłiné Né Né Land Corporation as the Athabasca Denesųłiné Agreement). The agreement speaks to their constitutionally protected rights of their traditional territory in Northwest Territories and Nunavut. The Final Agreement is intended to include rights and access to wildlife harvesting, resource management, settlement area, and hunting and trapping organizations (ADNLC 2025). Athabasca Denesųłiné First Nations are in the process of ratifying the agreement, and if successful, the agreement will protect and address harvesting, land ownership, resource management, and other rights respective to their agreement areas within the Northwest Territories and Nunavut (GN 2024).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by Athabasca Denesųłiné Né Né Land Corporation or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to

respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about Athabasca Denesųłiné customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to the Athabasca Denesųłiné sharing the information. Values and perspectives shared by Athabasca Denesųłiné are unique and, where available, have been integrated into the IS. WKR recognizes that Athabasca Denesųłiné hold section 35 rights under the Constitution, which, along with Athabasca Denesųłiné customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by Athabasca Denesųłiné.

Hunting and Trapping

Athabasca Denesųłiné Né Né Land Corporation shared that caribou is the lifeblood of their people. They have lived with the Bathurst, Beverly and Qamanirjuaq caribou herds for thousands of years, which are important to culture, well-being, food security, and sovereignty (NIRB 2024c, 2025b). Activities that affect caribou through their annual range can directly affect Athabasca Denesųłiné and their asserted and established rights (ADNLC 2024). Athabasca Denesųłiné have noticed a decline in caribou populations and community members who depend on caribou are experiencing hardship because of the decline in caribou populations (ADNLC 2024).

During Project-related engagement activities, Athabasca Denesųłiné Elders spoke of the past abundance of caribou and Indigenous Knowledge about caribou, contrasting it with a present-day scarcity. They emphasized that in the 1980s and 1990s, they witnessed tens of thousands of Bathurst and Porcupine caribou migrating south; however, development, including the TCWR, was believed to have shifted their movement further north, as caribou herds will not cross the road. Similarly, power lines and forest fires have affected the caribou populations. Today, Athabasca Denesųłiné hunters predominately harvest caribou from the Qamanirjuaq herd that migrates from the east. Hides of these caribou are used for making drums (NIRB 2025a).

During Project-specific engagement activities, Athabasca Denesųłiné Né Né Land Corporation identified that their members harvest caribou in the area south of Lutselk’e, NT. They explained that caribou in this area migrate from further north, where the Grays Bay Road is proposed (NIRB 2025a). This location is outside of the TLMRU RAA.

Fishing

At the time of filing, no information about freshwater fishing had been shared by Athabasca Denesųłiné Né Né Land Corporation in the context of the Project. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Access to Land and Water

During Project-specific engagement activities, Athabasca Denesųłiné Né Né Land Corporation expressed concern about disturbance to eskers as they may act as travel routes (NIRB 2025a).

Cultural Practices and Places

During Project-specific engagement activities, Athabasca Denesųłiné Né Né Land Corporation expressed concern about disturbance to eskers as they may contain burial sites (NIRB 2025a).

During Project-related engagement activities, Athabasca Denesųłiné Né Né Land Corporation highlighted the impacts of development, residential schools, and language and culture loss on intergenerational knowledge transfer. They added that they are losing Elders and declining caribou herds have contributed to further threats to their language and culture. Athabasca Denesųłiné Né Né Land Corporation further emphasized that traditional teachings and language about caribou harvesting cannot be passed on to future generations without the presence of caribou to harvest (NIRB 2025a).

24.2.2.7 Ghotelnene K'odtineh Dene

Governance, Demographics, and Language

Ghotelnene K'odtineh Dene are Dene people of Chipewyan ancestry that live in Northern Manitoba communities such as Lac Brochet and Tadoule Lake (Ghotelnene K'odtineh Dene 2017; CIRNAC 2024) (see Figure 24.2). Ghotelnene K'odtineh Dene, which means "barren land people," represent both Sayisi Dene First Nation and Northlands Dene First Nation (GNWT 2025a; CIRNAC 2024).

Ghotelnene K'odtineh Dene shared that their health, economy, culture, and way of life are tied to the barren-ground caribou herd (GN 2024).

Land Management, Claims, and Agreements

Ghotelnene K'odtineh Dene traditional land, known as *Nuh Nene* or "our land", stretches across northern Saskatchewan and Manitoba and north of the 60th parallel into Nunavut and the Northwest Territories (Ghotelnene K'odtineh Dene 2017; CIRNAC 2024).

Ghotelnene K'odtineh Dene, alongside Athabasca Denesųłiné Né Né Land Corporation, have been negotiating with the Government of Canada to complete land claim agreements covering areas in the Northwest Territories and Nunavut (Ghotelnene K'odtineh Dene 2017). Throughout the 1980s and 1990s, Ghotelnene K'odtineh Dene sought treaty land north of the 60th parallel. As Inuit began negotiation of the Nunavut Agreement (signed in 1993), Ghotelnene K'odtineh Dene sought to have their rights included, but were denied by the Government of Canada as Ghotelnene K'odtineh Dene had already signed Treaty 10. Ghotelnene K'odtineh Dene has concerns that the Nunavut Agreement overlaps with their lands and with their harvesting rights (GNWT 2025a). Currently, Ghotelnene K'odtineh Dene is in the process of ratifying the North of 60 Final Agreement (also sometimes referred to by Ghotelnene K'odtineh Dene as the Ghotelnene K'odtineh Dene Agreement), and if successful, the agreement will protect and address harvesting, land ownership, resource management, and other rights respective to their agreement areas within the Northwest Territories and Nunavut (GN 2024).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by Ghotelnene K'odtineh Dene or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about Ghotelnene K'odtineh Dene customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to the Ghotelnene K'odtineh Dene sharing the information. Values and perspectives shared by Ghotelnene K'odtineh Dene are unique and, where available, have been integrated into the IS. WKR recognizes that Ghotelnene K'odtineh Dene hold section 35 rights under the Constitution, which, along with Ghotelnene K'odtineh Dene customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by Ghotelnene K'odtineh Dene.

Hunting and Trapping

Ghotelnene K'odtineh Dene shared that their health, economy, culture, and way of life are tied to the barren-ground caribou herd (GN 2024).

24.2.2.8 North Slave Métis Alliance

Governance, Demographics, and Language

The North Slave Métis Alliance represents Métis from the Northwest Territories that reside in the Great Slave Lake area (see Figure 24.2). They have asserted Indigenous harvesting rights that are recognized and affirmed under section 35 of the *Constitution Act*, 1982 (NSMA 2017a).

The North Slave Métis Alliance were considered valued fur traders due to their language ability, skills of living on the land, and influence with other Indigenous groups (NSMA 2016). The North Slave Métis Alliance relied on being able to hunt and fish year-round, exempting them from hunting restrictions in the 1917 *Northwest Game Act,* which respects game in the Northwest Territories of Canada (NSMA 2016). The North Slave Métis Alliance reported that while members still partake in hunting, trapping, and fishing activities, fewer are out on the land currently than there were in the past (GKP 2010b).

Land Management, Claims, and Agreements

In the early 1800s, ancestors of current North Slave Métis Alliance members contributed to the fur trade while supplying their communities with harvests from the area (NSMA 2016). North Slave Métis Alliance harvested near the Project area between Omingmaktok (Bay Chimo) and Bathurst Inlet, and Contwoyto Lake (NSMA 2001).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by the North Slave Métis Alliance or through a review of publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about North Slave Métis Alliance customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to North Slave Métis Alliance sharing the information. Values and perspectives shared by North Slave Métis Alliance are unique and, where available, have been integrated into the IS. WKR recognizes that Métis hold section 35 rights under the Constitution, which, along with North Slave Métis Alliance customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred by the North Slave Métis Alliance.

Hunting and Trapping

Caribou

Since time immemorial, caribou were integral to North Slave Métis Alliance hunting practices (NSMA 2016). Caribou meat is often judged based on the smell of internal organs and the visual appearance of the meat (NSMA 2001). An Elder recalled when they would hunt for caribou, there would be thousands of caribou between Omingmaktok (Bay Chimo) and *Kingaok* (community of Bathurst Inlet), noting that caribou would move the next day to Contwoyto Lake, and be completely gone within four days. After a successful hunt, it would be shared amongst immediate family and friends for days (NSMA 2001).

During engagement on a previous project, the decline in caribou was reported to adversely affect the North Slave Métis Alliance's connection to the land and cultural values and traditions (NSMA 2016). North Slave Métis Alliance members prefer caribou meat to storebought meat and members shared that harvesting caribou brings joy (NSMA 2001). Hunting caribou is also an important cultural tradition for youth as they partake in their first hunt. It shows that the youth can provide and share with their community (NSMA 2001).

Within their land use area, the North Slave Métis Alliance reported that caribou have moved to locations further away from traditional harvesting areas and now head north to Gordon Lake, NT, because they have sensitivity to noise, smell, and activity from the Ekati mine in the area (NSMA 2001).

The North Slave Métis Alliance stated that caribou travel from Omingmaktok (Bay Chimo) to Contwoyto Lake, in the Coppermine Mountains, and reside in Great Bear Lake year-round (NSMA 2001). Caribou are reported to calve in the Kaminak Lake area, as well as Marrow and Hackett rivers (NSMA 2001). Contwoyto Lake is within the TLMRU LAA and RAA, while the Hacket River is within the TLMRU RAA. The other locations are outside of the TLMRU RAA.

Birds

Through the literature review, the North Slave Métis Alliance reported harvesting bird species such as grouse, goose, and ptarmigan when available. During the spring, the North Slave Métis Alliance reported participating in goose hunts (NSMA 2001).

Other Terrestrial Wildlife

The North Slave Métis Alliance has commented that both men and women are important in the hunting and preparation of wildlife. In the past, women have assisted with carrying and hauling equipment, meat, and pitching tents. They would also dress the hides from harvested moose, deer, and caribou, making clothing and moccasins. Women would also extract sinews from large game to prepare snares, snowshoes, and other equipment used for harvesting (NSMA 2016).

Arctic foxes used to be of considerable economic value to the North Slave Métis Alliance during the fur trade. However, since the decline in fur prices, few people are trapping foxes (NSMA 2001). The North Slave Métis Alliance also shared that the cost of gas and hunting equipment has increased and people are finding it difficult to hunt on a regular basis (NSMA 2001).

The North Slave Métis Alliance shared that Lac De Gras is a prime habitat for wolf, fox, wolverine, and grizzly bear. Foxes, wolverine, and grizzly bears were reported to stay in the area as there was an abundance of food sources there (NSMA 2001). Lac De Gras is outside of the TLMRU RAA.

Plant Harvesting

Through the literature review, the North Slave Métis Alliance identified berries, tree roots, and spruce as culturally important (NSMA 2001).

Fishing

Fish are important to North Slave Métis Alliance members' diet and livelihood (NSMA 2001). Fish are harvested year-round, in the summer using nets and by ice fishing in the winter. Fish were also used to feed dog teams. Shallow waters were reported to be prime habitat for reproduction and shelter from larger fish (NSMA 2001).

Access to Land and Water

During engagement on a previous project, the North Slave Métis Alliance expressed concern about introduced sediment affecting fish and fish habitat, stating that fish are sensitive and require clean water (NSMA 2001).

Cultural Practices and Places

Members have shared their preference for country food over store bought food, describing meat from the store as "tasteless." Harvesting country food is a meaningful activity for the North Slave Métis Alliance. A member shared that when eating country food, it connects them to their ancestors and reminds them of how they were raised as children (NSMA 2001).

During engagement for a previous project, a member from the North Slave Métis Alliance reported that youth do not participate in cultural activities as much as they used to (NSMA 2001).

24.2.2.9 Northwest Territory Métis Nation

Governance, Demographics, and Language

Northwest Territory Métis Nation represents Métis from Northwest Territories that reside in the South Slave region, in the communities of Fort Smith, Hay River, Fort Resolution, and Yellowknife (see Figure 24.2). They have Indigenous rights and governance throughout their territory protected under section 35 of the *Constitution Act*, 1982 (NWTMN 2025). Northwest Territory Métis Nation acted as guides, interpreters, clerks, canoe men, fur packers, and trade negotiators during the fur trade.

Métis followed a traditional lifestyle of hunting, trapping and fishing, and were known to be expert hunters. Métis continue to exercise their rights. Value is placed on intergenerational knowledge transmission from Elders (NWTMN 2025).

Land Management, Claims, and Agreements

Northwest Territory Métis Nation's territory encompasses the entirety of the Northwest Territories and the northern parts of provinces bordering the Northwest Territories (NWTMN 2025). However, Northwest Territory Métis Nation also reported using the TCWR to hunt caribou (NWTMN 2012).

Traditional Land, Marine, and Resource Use

This section represents the information available at the time of filing and is focused on those areas closest to the Project and/or where potential interactions with it could occur. It is limited to the knowledge, values, and perspectives shared through engagement for the Project by Northwest Territory Métis Nation or through publicly available literature applicable to the Project; it is acknowledged that a lack of TLMRU information for a specific area or activity does not necessarily represent an absence of use, occupancy or interest in that location or activity. WKR will continue to respond to questions and concerns from Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

Customs, Protocols, and Laws

WKR acknowledges that Indigenous Knowledge about Northwest Territory Métis Nation customs, protocols, and laws is proprietary to the individual Knowledge Holders and collectively to Northwest Territory Métis Nation sharing the information. Values and perspectives shared by Northwest Territory Métis Nation are unique and, where available, have been integrated into the IS. WKR recognizes that Métis hold section 35 rights under the *Constitution Act*, 1982, which, along with Northwest Territory Métis Nation customs, protocols, and laws, protect the continued exercise of TLMRU activities using the methods, areas, and resources that are preferred to Northwest Territory Métis Nation.

Hunting and Trapping

Northwest Territory Métis Nation reported to use the TCWR, and Gordon and McKay lakes to hunt caribou. They have maintained access to a traditional hunting area through McLeod Bay and Artillery Lake. The herds in this area migrate south across the barrens to the boreal forest during the fall and return north to the barrens in the spring (NWTMN 2012). Northwest Territory Métis Nation shared that Alymer Lake was a traditional caribou migration route (NWTMN 2012). The TCWR is within the TLMRU LAA and RAA. The other locations are outside of the TLMRU RAA.

Access to Land and Water

During engagement on a previous project, Northwest Territory Métis Nation expressed concerns about water quality as a result of mining activities (NWTMN 2012). They also stated that eskers hold both cultural and environmental importance. They were used as travel routes because they provide a hard surface to walk on, good visibility for hunting, and wind which provides some relief from insects in the summer. Northwest Territory Métis Nation expressed concern that if they are disturbed it could cause permafrost melt and slumping because of their high frost content (NWTMN 2012).

Cultural Practices and Places

Eskers have cultural and environmental importance to Northwest Territory Métis Nation. They were used as travel routes through the barrens as they had harder ground. Hunting is favourable on the eskers due to the high visibility (NWTMN 2012). During the summer months, the eskers provide a relief from insects due to the wind exposure. Northwest Territory Métis Nation shared that eskers are good locations for archaeological research (NWTMN 2012).

24.3 Assessment of Project Effects on Traditional Land, Marine, and Resource Use

24.3.1 Analytical Assessment Techniques

The assessment of residual effects resulting from the Project on TLMRU is based on a comparison of existing conditions for the exercise of TLMRU without the Project and how these activities would be practiced with the Project in place. Where specific information about TLMRU was not provided to WKR at the time of submission, conclusions have been based on publicly available information (Section 24.2.1) and a conservative approach, which recognizes that an absence of information regarding TLMRU does not necessarily represent an absence of TLMRU.

This assessment also recognizes that the nature and extent of TLMRU practices may change over time and in location. As such, this assessment conservatively assumes that the exercise of TLMRU may occur anywhere on accessible lands and waters within the Project's assessment areas that overlap with the Kitikmeot Region and the territories, harvesting areas, and areas of interest (e.g., gathering, traveling) of potentially affected Indigenous groups which may intersect portions of the TLMRU RAA. At the same time, it is recognized that TLMRU is grounded in local natural and cultural environments and may not be transferrable to other areas. This assessment reflects the best available information regarding the exercise of TLMRU in relation to the Project at the time of submission. Where made available prior to filing, feedback received from Kitikmiut and other potentially affected Indigenous groups has been incorporated into the assessment. WKR's efforts to validate this assessment with the Kitikmeot Inuit Association are described in Volume 3.

The PDA and TLMRU LAA are situated within the Kitikmeot Region and may be within the territories and harvesting areas of certain other potentially affected Indigenous groups. Of the approximately 230 km all-season road, approximately 116 km are located within IOL. The remainder of the road and the port are

on Crown land. For this assessment, it is assumed that the identified Crown lands and IOL within the TLMRU LAA are currently accessible for TLMRU.

Traditional land, marine, and resource use can be potentially affected when resources, sites, or access to either are changed or when there is a change in the practices or systems that guide and support how TLMRU occurs. These changes may be measurable (e.g., changes to habitat, sensory changes) or instinctive (e.g., changes in the perceived value of sites, resources, or access, experiential changes, altered sense of connection to place). WKR recognizes the interconnectedness of these factors and acknowledges that a change in circumstances for one factor may result in individuals choosing not to participate in TLMRU activities, despite other factors being unchanged.

WKR understands that the practices associated with TLMRU are intricately linked to and influenced by environmental conditions, as well as each potentially affected Indigenous group's respective cultures, history, protocols, and health and well-being values and perspectives. The analysis in this section incorporates and is informed by the findings of the VC assessments found in the IS that are relevant to the exercise and practice of TLMRU; however, potential effects for the supporting VCs may not fully align with effects on TLMRU, nor do the mitigation measures for potential effects on supporting VCs necessarily mitigate the effects on TLMRU. Residual effects on aspects of Kitikmiut or other potentially affected Indigenous groups' TLMRU have been conservatively overestimated with consideration of the interconnectedness of the effects pathways that inform TLMRU. The analysis is informed by the findings of relevant VCs and feedback received from Kitikmiut and other potentially affected Indigenous groups; however, potential effects on those VCs may not fully align (i.e., be clearly associated with) with effects on TLMRU. As a result, the characterizations, including duration and magnitude may be ranked differently than those used to characterize related VCs. These differences were considered when evaluating the need for additional measures or plans to avoid, reduce, or otherwise manage adverse residual effects on TLMRU.

Where possible, the assessment of potential effects on TLMRU considered measurable parameters that are quantifiable (e.g., area of direct habitat loss). However, not all effects pathways can necessarily be quantified (e.g., cultural/experiential/perceived). Therefore, some effects are assessed qualitatively through use of feedback shared by Kitikimiut and other potentially affected Indigenous groups, the results of other assessments for relevant VCs, and professional judgment. The analysis considers and incorporates the findings of VC assessments relevant to TLMRU and the project effects identified, including:

- Air Quality (Volume 5, Section 11)
- Climate (Volume 5, Section 12)
- Noise and Vibration (Volume 5, Section 13)
- Terrain, Soils, and Permafrost (Volume 6, Section 14)
- Vegetation (Volume 6, Section 15)
- Wildlife (Volume 6, Sections 16, 17 and 18)
- Water Resources (Volume 7, Section 19)
- Freshwater Fish and Fish Habitat (Volume 7, Section 20)

- Marine Water and Sediment (Volume 8, Section 21)
- Marine Fish and Fish Habitat (Volume 8, Section 22)
- Marine Mammals (Volume 8, Section 23)
- Food Security and Food Sovereignty (Volume 9, Section 25)
- Community Health and Well-being (Volume 9, Section 26)
- Employment and Economy (Volume 9, Section 27)
- Infrastructure and Services (Volume 9, Section 28)
- Non-traditional Land, Marine, and Resource Use (Volume 9, Section 29)
- Heritage Resources (Volume 9, Section 30)
- Accidents and Malfunctions (Volume 10, Section 32)

Due to demonstrable linkages between the biophysical and human environment VCs, there is overlap among VCs that may fully or partially reflect TLMRU practices. Therefore, a holistic approach (i.e., one that considers the interconnectedness of effect pathways) is taken for the assessments in Sections 24.3 and Section 24.4. Disproportionate effects on key subsets of the population have been assessed through a GBA Plus approach further described in Section 24.2.1.4.

To reduce redundancy across these sections, detailed descriptions of potential effects on the relevant biophysical and human environment VCs are incorporated for the first (or most) applicable potential effect. In following sections, information from relevant VCs is then considered in the context of subsequent applicable project effects; however, it is not repeated in those sections. For example, residual effects predicted for changes to air quality (Volume 6, Section 11) are first described in Section 24.3.3 (Change in Quality, Quantity, or Distribution of TLMRU Resources) and are applicable to, and considered for, the subsequent assessments of change to specific areas of cultural importance where TLMRU occurs, change in access to resources, sites, or areas where TLMRU occurs, and change to cultural practices, laws, and governance systems that inform how TLMRU occurs. Cross references back to relevant VCs have been included to demonstrate where that information has been considered in the IS.

24.3.2 Project Interactions with Traditional Land, Marine, and Resource Use

Table 24.5 identifies, for each potential effect, the project activities that might interact with TLMRU and result in the identified effect. These interactions are indicated by a check mark or a dash (no interaction) and are discussed in detail in the following sections, in the context of effects pathways, standard and project-specific mitigation measures, and residual effects.

The conclusions in this section are derived in part from the conclusions of other relevant VC assessments. The assessments of Air Quality (Volume 5, Section 11), Noise and Vibration (Volume 5, Section 13), Terrain, Soils, and Permafrost (Volume 6, Section 14), Vegetation (Volume 6, Section 15), Wildlife (Volume 7, Sections 16 to 18), freshwater and marine water resources and sediment (Volume 7, Sections 19 and 21), freshwater and marine fish and fish habitat (Volume 7, Section 20 and Volume 8, Section 22, respectively), Marine Mammals (Volume 8, Section 23), and other human environment VCs (Volume 9, Sections 25 to 30) provide information regarding potential changes in the biophysical and human environment conditions that may affect conditions for TLMRU. However, biophysical effects may

not fully align with effects on TLMRU. For example, the proposed mitigation, management, and enhancement measures to reduce biophysical effects such as sensory disturbances may reduce the total noise and vibration in the Project area; however, Kitikmiut and other potentially affected Indigenous groups may still avoid specific areas of cultural importance or sites or areas where TLMRU previously occurred due to ongoing or perceived effects taking place.

Table 24.5 Project Interactions with Traditional Land, Marine, and Resource Use

Project Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Construction				
Mobilization/demobilization of machinery /equipment, vehicles, materials, and fuel (e.g., by barge, sea lift, boat, or road)	✓	✓	✓	✓
Staging and storage of materials, fuel, equipment and pre-fabricated components	✓	✓	✓	✓
Chemical and hazardous material transport, storage and management (including explosives)	✓	✓	✓	✓
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓	✓	✓	✓
Machinery/equipment and vehicle refuelling / fuel storage handling	✓	✓	✓	✓
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	✓	✓	✓	✓
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	✓	✓	✓	✓
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	✓	✓	✓	✓
Water withdrawal to support construction activities (e.g., winter road construction, dust control, material compaction)	✓	✓	✓	✓

Project Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Watercourse crossing construction (e.g., bridge and culvert installation)	✓	✓	✓	✓
Ground based transportation (e.g., workforce, materials, supplies)	✓	✓	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓	✓	✓
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	✓	✓	✓
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refueling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	✓	✓	✓	✓
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	-	-	✓	✓
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	✓	✓	✓	✓
Operations and Maintenance				
Port landside operations (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operations and maintenance).	✓	✓	✓	✓
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	✓	✓	✓	✓

Project Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	✓	✓	✓	✓
Desalination Operation and Wastewater Treatment (e.g., marine water use and effluent discharge)	✓	✓	✓	✓
Water withdrawal / use (e.g., potable water, dust control, maintenance)	✓	✓	✓	✓
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	✓	✓	✓	✓
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	✓	✓	✓	✓
Vessel Fuel Line / Refueling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	✓	✓	✓	✓
Equipment maintenance	✓	✓	✓	✓
Chemical and hazardous material transport, storage and management (including explosives)	✓	✓	✓	✓
Winter road construction and use (e.g., annual winter road construction and maintenance)	✓	✓	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓	✓	✓
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	✓	✓	✓
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	-	-	✓	✓

Notes:

✓ = Potential interaction

– = No interaction

These considerations were taken when cross-referencing sections of the assessment to categorize project interactions (check marks) and non-interactions (dashes). As a result, characterizations from other relevant VCs (e.g., duration, magnitude, likelihood), identified in the project effects pathways of this assessment, may be ranked differently when evaluating effects on TLMRU and the need for additional measures or plans to avoid, reduce, or otherwise manage potential effects on TLMRU (as identified in Section 24.3.7). No effects on availability of resources or specific areas of cultural importance are predicted during the Construction or Operations and Maintenance phases relative to procurement of goods and services or employment as these activities do not create a physical disturbance.

24.3.3 Change in Quality, Quantity, or Distribution of TLMRU Resources

This section assesses potential Project-related changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU. As reported by Kitikmiut and other potentially affected Indigenous groups, the Project is situated in an area where TLMRU activities commonly occur.

This analysis considers and incorporates the findings of VC assessments relevant to TLMRU, as noted in Section 24.3.1. The findings in these VCs were considered and integrated alongside feedback received through Project-specific engagement, the NTKP report, IAG workshops, community-based primary research, and through a public literature review of concerns and recommendations raised by Kitikmiut and other potentially affected Indigenous groups for past projects.

24.3.3.1 Project Effects Pathways

WKR understands that the quality, quantity, and distribution of TLMRU resources are intricately linked to, and also uniquely reflective of, each potentially affected Indigenous group's culture, history, protocols, health, and well-being.

Although TLMRU is unique to each potentially affected Indigenous group (e.g., harvesting methods, timing, and protocols may differ between Indigenous groups), project effects are predicted to occur through similar effect pathways. In addition to the species and resources presented below, Kitikmiut also value soil, black soapstone, copper, and silver as traditional resources (Section 24.2.2.2). All phases of the Project have the potential to affect Kitikmiut and other potentially affected Indigenous groups' exercise of TLMRU. Kitikmiut identified concern regarding the Beverly and Qamanirjuaq caribou herds; however, these herds are not anticipated to interact frequently with the Project. Changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU could result through the pathways identified in Table 24.2 of Section 24.1.3.

The conclusions in this section are informed by the results of engagement with Kitikmiut and other potentially affected Indigenous groups, literature review, and related modelling results and biophysical and socio-economic VC assessments presented in the IS. The measurable parameters outlined in Table 24.2 were used to assess the direction, magnitude, geographic extent, timing, duration, frequency, and reversibility of potential Project-related effects on TLMRU in this context.

Wildlife and Wildlife Habitat

Through the literature review, the Kitikmeot Inuit Association expressed concerns regarding potential effects on birds from infrastructure, sensory disturbances, habitat loss, and the presence of industrial or other waste (NIRB 2024a).

Through the literature review, the Yellowknives Dene First Nation asked questions about increased mortality risks for caribou crossing roads (YKDFN 2003a). The Yellowknives Dene First Nation reported the Bathurst caribou herd has seen a 95% decline in its population since 1980s, which they attributed to development activities (YKDFN 2016). The Yellowknives Dene First Nation commented that previous projects have occupied critical caribou habitat, and they emphasized the need to preserve the herd for the culture and livelihoods of Inuit and Indigenous peoples in Nunavut and the Northwest Territories (YKDFN 2016). The Yellowknives Dene First Nation also commented for a past project that a change in the movement and migration patterns of caribou may cause members to have to travel further distances for harvesting (YKDFN 2003b).

Through the literature review, Indigenous groups including Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, Northwest Territory Métis Nation, the Tłı̨chǫ Government, and Yellowknives Dene First Nation were involved in the Bathurst Caribou Range Plan Working Group. Members commented that caribou migration routes can be impacted by physical infrastructure and vehicle traffic. In some instances, members observed that caribou are unwilling to cross a road, resulting in delayed migration and potential for overgrazing. Members also expressed concern about further habitat loss and fragmentation of migration routes for the Bathurst caribou herd (Compass Resource Management Ltd. 2025). Participants also shared that wildfire management should be a high priority due to the increased wildfires in recent years, resulting in caribou habitat loss (Compass Resource Management Ltd. 2025).

Through the literature review, Northwest Territory Métis Nation identified concerns that increased traffic may alter caribou movement patterns. It was noted that caribou are often reluctant to cross areas with elevated traffic volumes, which may lead to displacement and shifts in over-wintering habitat use (NWTMN 2012). During engagement for a previous winter road project, the North Slave Métis Alliance also commented on potential changes to predator-prey dynamics and mentioned that caribou may become attracted to road salt which may increase wildlife-vehicle mortality (NSMA 2017a, 2017b). The North Slave Métis Alliance also expressed concerns about potential effects from airborne dust (NSMA 2001).

Through the literature review, concerns about potential effects to caribou migration patterns were previously raised by the Tłı̨chǫ Government (TG 2012, 2017d; GKP 2010a). Protection of the Bathurst caribou herd is a priority for the Tłı̨chǫ Government, who have said any new stressors for caribou must be avoided (MVRB 2016). The Tłı̨chǫ Government also stated they were concerned mitigation measures for caribou would not be effective, and suggested roads contribute to increased risk of poaching and overharvesting (NIRB 2024b). The Tłı̨chǫ Government also raised concerns about a decline in furbearing animals and potential effects on traplines. Traplines were identified as a source of income and an important traditional activity for the continuance of the Tłı̨chǫ peoples' traditional way of life (TG 2014).

Through the literature review, Indigenous groups including Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, Northwest Territory Métis Nation, the Tłı̨chǫ Government, and Yellowknives Dene First Nation were involved in the Bathurst Caribou Range Plan Working Group. Participants expressed concerns regarding an increase in illegal harvesting of caribou caused by road developments, and added that in recent years, poaching and wastage has been observed alongside roads in the Bathurst caribou range (Compass Resource Management Ltd. 2025).

During a public comment period for the NIRB, the Kitikmeot Inuit Association commented that the Project could attract more hunters to the area, which could negatively impact caribou and other ungulates in the area, including muskox and moose. Though, the Kitikmeot Inuit Association added it was unclear if restrictions to access for the purpose of hunting would be effective for this Project (NIRB 2024c).

During a public comment period for the NIRB, the Kitikmeot Inuit Association expressed concern for substantial impacts on a variety of wildlife species, including caribou, muskox, grizzly bears, wolverines, birds, and their habitats. In particular, the Kitikmeot Inuit Association expressed concern about wildlife avoiding human development areas, resulting in long-term shifts in their migration patterns, calving areas, and increased energy expenditures, as well as population-level effects. In addition, they noted construction of the Project could affect migrating caribou during sensitive life phases, such as calving and post-calving. The Kitikmeot Inuit Association added that the Project would interact with the Bathurst, Dolphin and Union, Bluenose-East, Ahiak and Beverly caribou herds; however, it would most directly affect the Bathurst and Dolphin and Union caribou herds, both of which are currently at historically low population levels. The Kitikmeot Inuit Association warned that further stress on the two herds or significant adverse effects could hinder recovery efforts (NIRB 2024c).

During a public comment period for the NIRB, representatives of the Tłı̨chǫ Government, Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, and Northwest Territory Métis Nation submitted comments as part of the Caribou Guardians Coalition. They identified that the Bathurst caribou herd was present in the Project area from April to October and added that the herd's traditional calving grounds were located nearby Bathurst Inlet and throughout portions of western mainland Nunavut (NIRB 2024c). The Caribou Guardians Coalition also highlighted the relationship between caribou and Indigenous peoples, emphasizing that the health of caribou directly correlated with the health of the people (NIRB 2024c). They expressed concern regarding the potential for significant adverse impacts to caribou from the Project due to disturbance caused by noise, traffic, and increased human access, disruption to seasonal migration and calving areas, increased predation, and habitat fragmentation (NIRB 2024c).

Through project engagement, Kitikmiut and other Indigenous groups have also expressed concerns about contaminants, pollution, and project activities affecting marine and terrestrial country foods, food security, and water (GBEEC 2018a; Banci and Spicker 2024; NIRB 2025a). This concern was also heard through community based primary research.

> *I hope that there is minimal interruption and contamination of wildlife and water. A main concern for me is pollution because we are very connected to the land* (Qiqirtaq Ilihakvik High School, Gjoa Haven, November 14, 2024, pers. comm.).

Through project engagement, concerns about potential effects on the quality, quantity, and distribution of caribou were consistently raised. The Kitikmeot Inuit Association, Hamlet of Kugluktuk, and Kugluktuk HTO emphasized the importance of addressing these concerns because they were such an important topic for Kitikmiut (GBRP 2025).

Through project engagement, IAG members reported that while caribou undergo population cycles, where their numbers fluctuate over time, caribou populations have slowly declined due to industrial development in the area (IAG 2025b). Members stated that caribou are sensitive to noise, sound, and smells, so they avoid areas where sensory disturbances occur (IAG 2025a). Caribou rely on hoof gland scent trails and roads may disrupt their ability to rely on the scent trails. Additionally, members shared that caribou may prefer to travel on the smoother surface of the road compared to the adjacent land (IAG 2025b).

IAG members recommended monitoring caribou for indicators of stress, such as looking tense with their heads and tails up. They added that helicopters and construction activities, such as blasting, may deter caribou from the project area (IAG 2025b). Community members in Cambridge Bay also expressed concern about potential effects on caribou migration and habitat (GBRP 2025). In Gjoa Haven, community members stressed the need for mitigation strategies to preserve traditional harvesting practices and ensure the long-term health of caribou herds (GBRP 2025). In Kugluktuk, the hamlet expressed concern for caribou crossing sea ice in the fall and spring and asked if ships would travel through Coronation Gulf in the winter (GBRP 2017). High school students in Kugaaruk expressed concern for how caribou would cross the road, and community members in Gjoa Haven identified that caribou migrate where the route is proposed (GBRP 2025). Community members in Kugaaruk also said the vibration of caribou migrating can be felt three days before they arrive, and recommended building culverts in areas where the caribou could cross to avoid interference with their migration (GBRP 2025). WKR will consider this as an option when determining the most effective mitigation measures to reduce effects on wildlife movement.

Through project engagement, IAG members commented that although caribou would eventually adapt to the Project, they emphasized the importance of controlling predators (e.g., wolves) when caribou are most vulnerable, such as during sensitive calving periods (IAG 2025b). Community members in Gjoa Haven echoed this concern and added that no surveys should be conducted during caribou calving periods in mid-June because it could disrupt the calving process (GBRP 2025). Spring and calving periods are critical times of year for caribou (IAG 2025a).

IAG members also recommended that the proposed route for the road bypass caribou trails and avoid caribou calving grounds since any disturbance to those areas could directly affect how often caribou frequent the area (IAG 2025a, 2025b). They also identified that caribou are sensitive during calving periods and disturbances to their calving areas would be a major threat to herd survival and Inuit food sovereignty (IAG 2025b). In addition, during engagement, the Kugluktuk HTO identified that the project area intersects with habitat used by the Beverly caribou herd. Community members in Kugluktuk noted there are caribou at Grays Bay, but their calving grounds are further south (GBRP 2025). These concerns were addressed through a review of potential direct and indirect (e.g., sensory disturbances) effects to Bathurst caribou habitat and calving areas identified by Kitikmiut in the Project area, which predicted the Project's effects to the herd's calving and post-calving range are expected to be negligible to low (see Volume 6, Section 16).

During a NIRB public comment period, the Kugluktuk HTO emphasized the need to keep the land healthy, noting that restorative work is still being done to clean old exploration sites and address other environmental concerns. The Kugluktuk HTO commented that other infrastructure in Nunavut shows that caribou do not like crossing roads. They added the Dolphin and Union caribou herds are already at a critically low level and expressed concern about further impact to key habitat areas where the road was proposed, such as caribou calving grounds (NIRB 2024c).

Through project engagement, concerns about potential Project-related effects on air quality, and subsequent effects on traditional resources were frequently raised. Community members from Gjoa Haven, for example, expressed concern about how the proposed road and increased vehicle presence could result in dust and disrupt local wildlife populations. Community members also expressed concern about how these effects could impact future generations (GBRP 2025). Concerns about dust and its effects on wildlife were also raised by members of the IAG, community members in Kugluktuk, the Hamlet of Kugaaruk, and Athabasca Denesųłiné Né Né Land Corporation (IAG 2025a; GBRP 2025; NIRB 2024c, 2025b). In particular, the Kugaaruk HTO commented that airborne dust would most likely occur during the dry season, with potholes becoming an issue in the wet season (GBRP 2025).

Through engagement, students at the Kugaaruk High School expressed concern about effects on wildlife and related harvesting (GBRP 2025). Effects on wildlife from blasting were also raised as a concern by the Hamlet of Kugaaruk (GBRP 2025). Community members in Gjoa Haven asked about what mitigation measures were proposed to reduce harm to wildlife and commented that wildlife-vehicle collisions may increase once wildlife become more familiar with the road and less likely to slow down when approaching it (GBRP 2025). The Hamlet of Kugaaruk also expressed concern regarding rocks from passing trucks injuring nearby wildlife (GBRP 2025).

During community-based primary research in Gjoa Haven, a community member expressed concern that wildlife would be attracted to areas where project infrastructure was built. They further commented that in the past, animals have been attracted to abandoned infrastructure where vegetation grows quickly; but community members are cautious about harvesting animals near these sites due to fear of possible contamination (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.).

During a NIRB public comment period, the Kitikmeot Inuit Association identified that construction camps and human use areas can attract grizzly bears and other carnivores and scavengers such as wolverines, if waste is not carefully managed. The Kitikmeot Inuit Association recommended mitigation measures to discourage bears from approaching camps and reducing human-wildlife conflicts (NIRB 2024c).

IAG members expressed concern regarding the effects of noise and air pollution on muskox. Changes to vegetation and terrain were reported to affect muskox behaviour and members emphasized the need to monitor their habitat (IAG 2025a). The Hamlet of Taloyoak also emphasized the need for wildlife to be protected (GBRP 2025).

During project engagement, the Tłı̨chǫ Government expressed concern about effects of the Project on caribou, specifically if the road would intersect with Bathurst caribou calving grounds and if there would be a land use plan to protect caribou (GBRP 2017). Concern for potential effects on calving areas was also raised as a concern by the Yellowknives Dene First Nation during engagement for a previous project (YKDFN 2012). During Project-related engagement, Kugluktuk residents suggested the road be rerouted

through Bathurst Inlet where the caribou herd was already disturbed (GBRP 2025). Alternatives have been evaluated using criteria informed by and/or based on the consideration of Inuit, Indigenous, and Community Knowledge, potential effects on the biophysical and socio-economic environment, practicality and technical feasibility, and cost-effectiveness. Some design-related alternatives within the Project will continue to be analyzed throughout the design process to ensure the preferred selection remains feasible and that potential effects on the environment are avoided or limited.

During a NIRB public comment period, Athabasca Denesųłiné Né Né Land Corporation commented that the relationship between the Athabasca Denesųłiné and the Bathurst, Beverly, and Qamanirjuaq caribou herds over thousands of years has formed the foundation of their culture, well-being, food security and sovereignty, and ongoing traditions. Athabasca Denesųłiné Né Né Land Corporation added they have already experienced the loss of the Bathurst caribou herd from their traditional wintering range due to population declines. Athabasca Denesųłiné Né Né Land Corporation noted they are deeply concerned for the long-term survival of all barren-ground caribou herds, though especially the Bathurst caribou herd and adjacent herds, such as the Beverly/Ahiak caribou herd. In particular, they noted the Bathurst caribou herd has already lost 98% of its population, and that the road intersected with sacred and critical habitat that was identified as especially vulnerable for the herd. Athabasca Denesųłiné Né Né Land Corporation commented they had serious concerns the Bathurst caribou herd would not survive if the Project were to move forward (NIRB 2024c).

Through project engagement, Athabasca Denesųłiné Né Né Land Corporation emphasized the central role of caribou for food, clothing, culture, and spiritual connection, and expressed concern about potentially drastic declines of caribou herds (especially the Beverly and Bathurst herds) compared to past decades. They added that caribou migration routes must be protected and should be central in the assessment of effects to TLMRU due to their effects on culture, well-being, and food security and sovereignty (NIRB 2025a).

During a NIRB public comment period, the Inuvialuit Game Council commented they were especially concerned about disturbances to wildlife and wildlife habitat. The Kitikmeot Inuit Association also expressed concern for direct and indirect habitat loss for birds due to the construction and use of Project infrastructure (NIRB 2024c).

Wildlife and bird species of interest used for a variety of culturally important purposes have been identified by Kitikmiut and other potentially affected Indigenous groups through Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, and community-based primary research, and are listed in Table 24.6 and Table 24.7, respectively. Where an Indigenous group has expressed interest in a species, the table indicates the interest based on the above sources. However, the list is limited by the Inuit, Indigenous, and Community Knowledge shared for the Project or through publicly available literature and the lack of information does not necessarily imply a lack of interest. Table 24.6 and Table 24.7 include those Indigenous groups who identified species; Indigenous groups for which no information about species of interest has been obtained have not been included.

Table 24.6 Wildlife Species of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨cho Government	Yellowknives Dene First Nation	Athabasca Denesųłiné Né Né Land Corporation	Ghotelnene K'odtineh Dene	North Slave Métis Alliance	Northwest Territory Métis Nation
Arctic fox	*tigiganiak*	*Vulpes lagopus*	✓	-	-	✓	-	-	✓	-
Arctic hare	*okalik*	*Lepus arcticus*	✓	-	-	-	-	-	✓	-
Arctic/collared lemming	*kilakmuitan*	*Dicrostonyx torquatus*	✓	-	-	-	-	-		-
bat		Species not specified	✓	-	-	-	-	-	-	-
bear		Species not specified	✓	-	✓	-	-	-	-	-
beaver	*kigiak*	*Castor canadensis*	✓	-	✓	-	-	-	-	-
bison (wood)	*omingmakyuk*	*Bison bison*	✓	-	✓	✓	-	-	-	-
black bear	*kinagiktok aghak*	*Ursus americanus*	✓	-	✓	-	-	-	-	-
brown lemming	*ulamikak*	*Lemmus trimucronatus*	✓	-	-	-	-	-	-	-
caribou	*tuktuit*	*Rangifer tarandus*	✓	✓	✓	✓	✓	✓	✓	✓
caribou (Ahiak herd)		*Rangifer tarandus*	✓	-	-	-	✓	-	-	-
caribou (barren-ground)		*Rangifer tarandus*	✓	-	✓	✓	✓	✓	-	-
caribou (Bathurst herd)		*Rangifer tarandus*	✓	-	✓	✓	✓	-	-	-

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨cho Government	Yellowknives Dene First Nation	Athabasca Denesųłiné Né Né Land Corporation	Ghotelnene K'odtineh Dene	North Slave Métis Alliance	Northwest Territory Métis Nation
caribou (Beverly herd)		*Rangifer tarandus*	✓	-	-	-	✓	-	-	-
caribou (Bluenose East herd)		*Rangifer tarandus*	✓	-	-	-	-	-	-	-
caribou (Bluenose West herd)		*Rangifer tarandus*	✓	-	-	-	-	-	-	-
caribou (boreal, wood)		*Rangifer tarandus*	✓	-	-	✓	-	-	✓	-
caribou (Dolphin and Union herd)		*Rangifer tarandus*	✓	-	-	-	-	-	-	-
caribou (Killinik herd)		*Rangifer tarandus*	✓	-	-	-	-	-	-	-
caribou (Peary herd)		*Rangifer tarandus*	✓	-	-	-	-	-	-	-
caribou (woodland)		*Rangifer tarandus*		-	✓	-	-	-	-	-
cougar		*Puma concolor*	✓	-	-	-	-	-	-	-
coyote		*Canis latrans*	✓	-	-	-	-	-	-	-
fox (red)		*Vulpes vulpes*	✓	-	-	-	-	-	-	-
furbearers		Multiple species	✓	-	✓	-	-	-	-	-
grizzly bear	*akhak (singular) akhaat (plural)*	*Ursus arctos horribilis*	✓	-	-	✓	-	-	✓	-

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨cho Government	Yellowknives Dene First Nation	Athabasca Denesųłiné Né Né Land Corporation	Ghotelnene K'odtineh Dene	North Slave Métis Alliance	Northwest Territory Métis Nation
ground squirrel	*hikhik*	*Spermophilus parryii*	✓	-	-	-	-	-	✓	-
lemming	*avingak*	Species not specified	✓	-	-	-	-	-	-	-
lynx	*piktohigak*	*Felis lynx canadensis*	✓	-	✓	-	-	-	-	-
marten	*kalvisiak*	*Martes sp.*	✓	-	✓	-	-	-	-	-
moose	*tuktukvak*	*Alces alces*	✓	-	✓	✓	-	-	✓	-
"mouse"		Species not specified	✓	-	✓	-	-	-	-	-
muskox	*omingmak*	*Ovibos moschatus*	✓	✓	-	-	-	-	✓	-
muskrat		*Ondatra zibethicus*	✓	-	✓	-	-	-	-	-
polar bear	*nanok*	*Ursus maritimus*	✓	-	-	-	-	-	-	-
rabbit		Species not specified	✓	-	✓	-	-	-	-	-
red fox	*kayuktok*	*Vulpes vulpes*	✓	-	✓	-	-	-	-	-
river otter	*pamiok*	*Lontra canadensis*	✓	-	-	-	-	-	-	-
shrew	*avingak*	Species not specified	✓	-	-	-	-	-	-	-
small mammal (avingak, "mice")	-	*Multiple species*	✓	-	-	-	-	-	-	-
tundra vole	*avingak*	*Alexandomys oeconomus*	✓	-	-	-	-	-	-	-

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨cho Government	Yellowknives Dene First Nation	Athabasca Denesųłiné Né Né Land Corporation	Ghotelnene K'odtineh Dene	North Slave Métis Alliance	Northwest Territory Métis Nation
vole	*avingak*	Species not specified	✓	-	-	-	-	-	-	-
white fox (likely same as Arctic fox)	*tigiganiak*	*Vulpes lagopus*	✓	-	-	✓	-	-	✓	-
wolverine	*kalvik*	*Gulo gulo*	✓	-	✓	✓	-	-	✓	-
wolves	*amagok*	*Canis lupus arctos*	✓	-	-	-	-	-	✓	-

Sources: Banci and Spicker (2024); GKP (2010a, 2010b); GNWT (2017); Nagy (1999); NSMA (2001); NIRB (2024c); NWTMN (2012); TG (2014, 2017c); YKDFN (2012, 2016, 2017a, 2017b, 2018); Priest and Usher (2004)

Table 24.7 Bird Species of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	*Inuinnaqtun Name*	*Scientific Name*	Kitikmiut	Inuvialuit	Tłı̨cho Government	North Slave Métis Alliance
Arctic tern	*ikilagiak* (female) *imitkotailak* (male)	*Sterna paradisaea*	✓	-	-	-
barn owl		*Tyto alba*	✓	-	-	-
black guillemot		*Cepphus grylle*	✓	-	-	-
black jaeger (parasitic jaeger)	*ihungahut*	*Stercorarius parasiticus*	✓	-	-	-
cliff swallow		*Petrochelidon pyrrhonota*	✓	-	-	-
common eider	*mittik* (female) *amaolik* (male)	*Somateria mollissima*	✓	-	-	-
common loon	*kaglulik*	*Gavia immer*	✓	-	-	-
ducks	*Tingmiak*	Species not specified	✓	✓	✓	-
eagle		Species not specified	✓	-	-	-
gyrfalcon	*kiligavikpak*	*Falco rusticolus*	✓	-	-	-
goose		Species not specified	✓	✓	✓	✓
goose (brant)	*niglinek*	*Branta bernicla*	✓	✓	-	-
goose (Canada)	*oloagolik*	*Branta canadensis*	✓	✓	-	-
goose (greater white-fronted)	*niglinak*	*Anser albifrons*	✓	-	-	-
goose (Ross's)	*kikat*	*Chen rossi*	✓	-	-	-
goose (snow)	*kanguk*	*Chen caerulescens*	✓	-	-	-
gray jay	*mikihikunak*	*Perisoreus canadensis*	✓	-	-	-
greater sandpiper		*Calidris alba*	✓	-	-	-
grouse		Species not specified	✓	-	-	✓
gulls		Species not specified	✓	-	-	-
hawk		Species not specified	✓	-	-	-

Common Name	*Inuinnaqtun Name*	*Scientific Name*	Kitikmiut	Inuvialuit	Tłı̨cho Government	North Slave Métis Alliance
house finch		*Haemorhous mexicanus*	✓	-	-	-
Hudsonian whimbrel		*Numenius hudsonicus*		-		
jaegers		Species not specified	✓	-	-	-
king eider	*mittik* (female) *kingalik* (male)	*Somateria spectabilis*	✓	-	-	-
larks		Species not specified	✓	-	-	-
lesser scaup		*Aythya affinis*	✓	-	-	-
lesser yellowleg sandpiper		*Tringa flavipes*	✓	-	-	-
longspur	*nahaolik* (plural) *nahaoliit* (singular)	*Calcarius lapponicus*	✓	-	-	-
long-tailed duck ("Oldsquaw")	*ahangik*	*Clangula hyemalis*	✓	-	-	-
loon		Species not specified	✓	-	-	-
mergansers		Species not specified	✓	-	-	-
mountain bluebird		*Sialia currucoides*	✓	-	-	-
owl		Species not specified	✓	-	-	-
passerines		Species not specified	✓	-	-	-
peregrine falcon	*kilgaviit*	*Falco peregrinus*	✓	-	-	-
pintail		*Anas acuta*	✓	-	-	-
plover		Species not specified	✓	-	-	-
ptarmigan		Species not specified	✓	✓	-	✓
raven	*tulugakyoak*	*Corvus corax*	✓	-	-	-
red-breasted merganser		*Mergus serrator*	✓	-	-	-
red throated loon		*Gavia stellata*	✓	-	-	-
redpoll	*haghagiak*	Species not specified	✓	-	-	-

Common Name	*Inuinnaqtun Name*	*Scientific Name*	Kitikmiut	Inuvialuit	Tłı̨cho Government	North Slave Métis Alliance
robin	*nagajiit* (plural) *nagakiik* (singular)	*Turdus migratorius*	✓	-	-	-
rough-legged hawk	*kalaak*	*Buteo lagopus*	✓	-	-	-
sandhill crane	*tatilgak*	*Grus canadensis*	✓	-	-	-
scoter (white winged scoter)		*Melanitta deglandi*	✓	-	-	-
seagull		Species not specified	✓	-	-	-
shorebirds	*higyagiak*	Species not specified	✓	-	-	-
short-eared owl	*nipaingaktak*	*Asio flammeus*	✓	-	-	-
shoveler (northern shoveler)		*Spatula slypeata*	✓	-	-	-
snow birds			✓	-	-	-
snow bunting	*amaolikak*	*Plectrophenax nivalis*	✓	-	-	-
snowy owl	*okpik*	*Nyctea scandiaca*	✓	-	-	-
songbirds		Species not specified	✓	-	-	-
speckled eider		Species not specified	✓	-	-	-
swan		Species not specified	✓	-	-	-
terns			✓	-	-	-
thick-billed murre		*Uria lomvia*	✓	-	-	-
tree swallow		*Tachycineta bicolor*	✓	-	-	-
white hawk		*Pseudastur albicollis*	✓	-	-	-
white rumped sandpiper	*higyagiak*	*Calidris fuscicollis*	✓	-	-	-
white-winged scoter		*Melanitta deglandi*	✓	-	-	-
yellow-billed loon		*Gavia adamsii*	✓	-	-	-
yellow warbler		*Setophaga petechia*	✓	-	-	-

Sources: Banci and Spicker (2024); NSMA (2001); TG (2014); Priest and Usher (2004); Nagy (1999)

Vegetation

Through the literature review that was conducted, the Kitikmeot Inuit Association previously commented that effects on vegetation would directly affect TLMRU activities and representatives identified several potential effect pathways that would result in a change in vegetation quality and quantity. This included concerns about the introduction of invasive species, and that dust created from vehicles would impact the ability of plants to photosynthesize. The Kitikmeot Inuit Association added that dust may be observed from 50 m to several hundred metres away from roads, depending on wind conditions (NIRB 2024b). In addition, the Kitikmeot Inuit Association previously expressed concern that the construction of culverts would lead to flooding, increased erosion, pollution, and sedimentation, which would in turn affect vegetation (NIRB 2024b). They also commented that soil disturbances could affect plant growth and nutrient availability and stated that roads in the Arctic change drainage patterns, leading to altered moisture in the area, which could affect vegetation health (NIRB 2024b; Kitikmeot Inuit Association 2003).

During a NIRB public comment period, the Kitikmeot Inuit Association expressed concerns about effects to vegetation from the construction of Project infrastructure, including changes to soil disturbance and compaction, plant growth and nutrient availability, drainage patterns, and moisture availability. In addition, the Kitikmeot Inuit Association raised concerns about effects to vegetation during operations due the introduction of invasive species and airborne dust due to travelling vehicles. The Kitikmeot Inuit Association added that dust from vehicle traffic could affect vegetation from 50 to several hundred meters from the road, depending on wind and other factors, and may affect berries and other plant species harvested by Inuit, as well as vegetation that is consumed by wildlife (NIRB 2024c). During project engagement, concerns were raised regarding the effects resulting from removal of plant species and the effects of airborne dust on plants. Gjoa Haven community members commented they rely heavily on the availability of plants and berries as a source of sustenance and expressed concern that plant species such as berries and other vegetation would be destroyed by project activities (GBRP 2025). IAG members expressed concern about the changes that sediment and dust from the Project would have on vegetation; they emphasized the need to control the deposition (IAG 2025a, 2025b).

During a NIRB public comment period, the Kitikmeot Inuit Association commented the construction of the road would modify the landscape and alter important habitats such as eskers, which provide essential mammal denning habitat due to the rooted vegetation that holds sandy soils in place. The Kitikmeot Inuit Association added that eskers form over thousands of years and will not return once destroyed (NIRB 2024c). The Kitikmeot Inuit Association also commented that construction and operation of the road would alter permafrost, snow accumulation and distribution, and surface drainage and water flow. In particular, the Kitikmeot Inuit Association noted that culverts could alter local hydrology, microclimate, and soil moisture, which may lead to localized flooding that could affect vegetation and the availability of permafrost (NIRB 2024c).

Vegetation species of interest used for a variety of traditional purposes have been identified by Kitikmiut and other potentially affected Indigenous groups through Project-specific engagement, literature review, and the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, and community-based primary research, and are listed in Table 24.8. Where an Indigenous group has expressed interest in a species, the table indicates the interest based on the above sources. However, the list is limited by the Inuit, Indigenous, and Community Knowledge shared for the Project or through publicly available literature and the lack of information does not necessarily imply a lack of interest. Table 24.8 includes those Indigenous groups who identified species; Indigenous groups for which no information about species of interest has been obtained have not been included.

Table 24.8 Vegetation Species of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	North Slave Métis Alliance
Arctic cotton			-	✓	-	-
bearberry		*Arctostaphylos uva-ursi*	✓	-	-	-
berries		Species not specified	✓	-	-	✓
birch		Species not specified	✓	-	✓	-
birch (bog)		*Betula pumila*	✓	-	-	-
birch (dwarf)		*Betula pumila*	✓	-	-	-
blueberry	*kigotaginak*	Species not specified	✓	-	✓	-
cloudberry	*aaukpik*	*Rubus chamaemorus*	✓	-	-	-
cranberry		*Vaccinum oxycoccus*	✓	-	✓	-
crowberry/blackberry	*paongak*	*Rubus fruticosus*	✓	-	✓	-
deciduous shrubs		Species not specified	✓	-	-	-
Eskimo potato	*mahok*	*Claytonia tuberosa; Hedysarum alpinum*	✓	-	-	-
licorice root	*mahok*	*Glycyrrhiza glabra*	✓	-	-	-
evergreen shrubs		Species not specified	✓	-	-	-
forbs		Species unspecified	✓	-	-	-
graminoids		Species not specified	✓	-	-	-
grass		Species not specified	✓	-	✓	-
green alder	*avalakiak*	*Alnus alnobetula*	✓	-	-	-
horsetail		*Equisetum spp.*	✓	-	-	-
Labrador tea		*Rhododendron groenlandicum*	✓	-	-	-

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	North Slave Métis Alliance
lichen (white, black, yellow, gray reindeer, northern reindeer, hair, "leaf lichen-green kidney")		Multiple species	✓	-	✓	-
moss (Iceland)		*Cetraria islandica*	✓	-	✓	-
moss (yellow, peat)		Species not specified	✓	-	-	-
mountain sorrel		*Osyria dygna*	✓	-	-	-
mushroom		Species not specified	✓	-	✓	-
mushroom (puffball)		*Lycoperdon perlatum*	✓	-	-	-
northern bog laurel		*Kalmia polifolia*	✓	-	-	-
peas (beach/wild)		*Lathyrus japonicus/Pisum sativum*	✓	-	-	-
raspberry		*Rubus idaeus*	✓	-	-	-
roots (tree)		Species not specified	✓	-	-	✓
seaweed, kelp	*akayat*	Species not specified	✓	-	-	-
sedge		Species not specified	✓	-	✓	-
small bog cranberry		*Vaccinium microcarpum*	✓	-	-	-
spruce		Species not specified	✓	-	-	✓
white Arctic heather		*Cassiope tetragona*	✓	-	-	-
willow	*avalakiak*	Species not specified	✓	-	-	-

Sources: Banci and Spicker (2024); GKP (2010a); NSMA (2001)

Freshwater Fish and Fish Habitat

Through the literature review that was conducted, concerns about effects on fish spawning were previously raised by community members in Kugluktuk (OZ Minerals 2008). Additionally, an Elder from Kugluktuk commented that in the past, blasting had led to elevated levels of acidity in High Lake, to the point where fish were no longer present (OZ Minerals 2008).

Through the literature review, the North Slave Métis Alliance previously expressed concern that pollution and dust in the water would affect fish populations and their ability to harvest fish (NSMA 2001). The North Slave Métis Alliance was especially concerned about the vulnerability of certain fish species, including trout, to changes in sediment and water quality. They explained that trout require clear water and would be the first species to be adversely affected by a change to their habitat (NSMA 2001). The North Slave Métis Alliance also added that fish begin to show signs they are unhealthy when water quality deteriorates (NSMA 2001). Concerns regarding changes to water quality that would adversely affect the quality of fish and their habitats were also previously raised by Northwest Territory Métis Nation (NWTMN 2012). During engagement for the Tłı̨chǫ All-Season Road, the Tłı̨chǫ Government also expressed concern that construction activities would affect the flow of water and influence downstream fish habitats (TG 2017c).

Through the literature review, the North Slave Métis Alliance expressed concern that increased access could contribute to a strain on local fisheries (NSMA 2012). During engagement for the Inuvik-Tuktoyaktuk Highway, the Inuvialuit Regional Corporation expressed concern about increased access to fishing areas, resulting in adverse effects on fish stocks, habitats, and related cultural activities (IRC 2024).

Through project engagement, concerns about activities such as blasting were raised during IAG workshops (IAG 2025a). Additionally, the Hamlet of Taloyoak emphasized the need for fish to be protected, stating that increased access could result in the overharvesting of fish (GBRP 2025).

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants reported there are many fish that appear to have diseases. Cysts, lumps, spots, and parasites have been observed on fish. Some Kitikmiut Elders recalled that in their youth, sick fish were not a concern (Banci and Spicker 2024). Additionally, during a study on Arctic cod and Arctic char, Kitikmiut noticed there was no migration of fish up rivers when nearby vessel traffic increased (GBRP 2025).

Freshwater fish species of interest used for a variety of traditional purposes have been identified by Inuit and other potentially affected Indigenous groups through project-specific engagement, literature review, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, and community-based primary research, and are listed in Table 24.9. Where an Indigenous group has expressed interest in a species, the table indicates the interest based on the above sources. However, the list is limited by the Inuit, Indigenous, and Community Knowledge shared for the Project or through publicly available literature and the lack of information does not necessarily imply a lack of interest. Table 24.9 includes those Indigenous groups who identified species; Indigenous groups for which no information about species of interest has been obtained have not been included.

Table 24.9 Freshwater Fish Species of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	*Inuinnaqtun Name*	*Scientific Name*	Kitikmiut	Tłı̨chǫ Government	Yellowknives Dene First Nation	North Slave Métis Alliance
Arctic char (red-bellied male; spotted female; overwintering; landlocked; sea run)*	*iqalukpiit*	*Salvelinus alpinus*	✓	-	-	-
Arctic cisco*	*kapihillik*	*Coregonus autumnalis*	✓	-	-	-
Arctic grayling	*ihulukpaukkait*	*Thymallus arcticus*	✓	✓	-	✓
Burbot	*tiktalik*	*Lota lota*	✓	-	-	-
broad whitefish*	*anakheek*	*Coregonus clupeaformis*	✓	-	-	-
eels and eelpout	*akuhaauk*	Species not specified	✓	-	-	-
herring (lake)	*etok*	*Coregonus artedi*	✓	-	-	✓
inconnu*		*Stenodus leucichthys*	✓	-	-	✓
lake trout	*ihuuqit*	*Salvelinus namaycush*	✓	-	✓	✓
Loach		Species not specified	✓	-	-	-
longnose sucker	*milugiak*	*Catostomus catostomus*	✓	-	-	-
northern pike (jackfish)	*hiulik*	*Esox lucius*	✓	-	-	✓
Pacific salmon*		*Oncorhynchus tshawytscha*	✓	-	-	-
Saffron cod		Species not specified	✓	-	-	-
Stickleback	*kakilongnak*	Species not specified	✓	-	-	-
Sucker		Species not specified	✓	-	-	-
Walleye		*Sander vitreus*	✓	-	-	-
Whitefish		Species not specified	✓	✓	-	✓

Note:

*Species that migrate between freshwater and saltwater

Sources: Banci and Spicker (2024); NSMA (2001); TG (2014); YKDFN (2017b); Priest and Usher (2004)

Water Resources

Through the literature review that was conducted, community members in Cambridge Bay and Kugluktuk previously expressed concern about changes to surface water and groundwater quantity and quality as a result of development projects. Elders from Kugluktuk, for example, were concerned that water levels in the Coppermine River would decrease due to industrial activity. They also expressed concern about effects on drinking water from possible pollution (OZ Minerals 2008). In addition, Northwest Territory Métis Nation has previously expressed concern about changes to water quality from industrial development (NWTMN 2012).

Through project engagement, community members in Gjoa Haven expressed concern for changes to water quality due to the potential for spills as vehicles transporting heavy loads travel the roads (GBRP 2025). Community members in Taloyoak also expressed concern regarding potential spills. Both communities asked questions about WKR's proposed clean-up process and how spills would be reported (GBRP 2025). Meanwhile, members of the IAG commented they were concerned about effects on water quality and quantity from blasting, river crossings, culverts, and potential flooding. They shared that the effects of the Project needed to be monitored from its beginning phases and moving forward (IAG 2025a).

During a NIRB public comment period, the Kitikmeot Inuit Association commented that the construction and operation of the port could disturb sediment and generate total suspended solids that degrade the aquatic environment of the ocean. In addition, the Kitikmeot Inuit Association raised concerns about harmful substances entering watercourses, as well as changes to local hydrology, microclimates, soil moisture, water quality, and localized flooding (NIRB 2024c).

Marine Environment

Through project engagement, community members emphasized the importance of harvesting marine mammals for sustenance. For example, the Taloyoak HTO commented that polar bear, narwhals, and belugas are important species, as is plankton for the broader marine environment (GBRP 2025). Community members in Taloyoak, including representatives of the Hamlet and the HTO, expressed concern for potential effects on marine mammals from increased shipping. The Taloyoak HTO commented there is already too much vessel traffic in the Northwest Passage and added they want the traffic from the Project to be limited (GBRP 2025). IAG members were also concerned that increased shipping in the area could directly affect seals and other marine mammals (IAG 2025b). Community members in Gjoa Haven expressed concern for changes to water quality during the transportation of toxic materials in marine environments (GBRP 2025).

During project engagement, community members in Kugluktuk shared that when they were young, they travelled to Grays Bay from Kugluktuk and would see large schools of Arctic char. They expressed concern about project effects on fish (GBRP 2025). Since Arctic char often migrate between ocean and freshwater environments, the species was assessed within both the Freshwater Fish and Fish Habitat (Volume 7, Section 20) and Marine Fish and Fish Habitat (Volume 8, Section 22) assessments. During community-based primary research in Kugluktuk, the Kugluktuk HTO shared that during a previous study on Arctic cod and Arctic char, they observed that fish did not migrate upriver when nearby vessel traffic increased (Kugluktuk HTO, Kugluktuk, April 16, 2024, pers. comm.).

During a NIRB public comment period, the Kitikmeot Inuit Association expressed concern for significant impacts on marine fish and marine mammals such as ringed seal, bearded seal, beluga whale, bowhead whale, narwhal, and polar bear. In particular, the Kitikmeot Inuit Association commented that dredging and blasting to construct the port may have impacts on marine ecosystems, since marine fish and marine mammals rely on nearshore areas for spawning and foraging, and disruption or loss of these habitats could reduce the availability of suitable nursing areas, reducing reproductive success and food availability. In addition, the Kitikmeot Inuit Association expressed concern for vessel traffic in high-use marine mammal areas, which could strike wildlife and impede communication between whales (NIRB 2024c). The Kitikmeot Inuit Association also expressed concern regarding long-lasting and long-distance effects to benthic organisms from blasting and dredging, which could increase sedimentation and reduce light penetration for photosynthetic organisms, affecting various levels of the food web (NIRB 2024c).

During a NIRB public comment period, the Inuvialuit Game Council expressed concern about increased marine traffic and potential disturbances to marine mammals in the Inuvialuit Settlement Region, such as ocean noise pollution from increased shipping traffic (NIRB 2024c).

Marine fish species and mammals of interest used for a variety of traditional purposes have been identified by Kitikmiut through Project-specific engagement, literature review, the Project-specific Inuit Knowledge report, compiled from the NTKP database, and IAG workshops, and are listed in Table 24.10 and Table 24.11. Where an Indigenous group has expressed interest in a species, the table indicates the interest based on the above sources. However, the list is limited by the Inuit, Indigenous, and Community Knowledge shared for the Project or through publicly available literature and the lack of information does not necessarily imply a lack of interest. Table 24.10 and Table 24.11 include those Indigenous groups who identified species; Indigenous groups for which no information about species of interest has been obtained have not been included.

Table 24.10 Marine Fish Species of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut
Arctic char*	*iqalukpiit*	*Salvelinus alpinus*	✓
Arctic cisco*		*Coregonus autumnalis*	✓
Arctic cod	*hiugyuktok*	*Arctogadus glacialis*	✓
Arctic flounder/turbot	*natangnak*	Species not specified	✓
blue shark		*Prionace glauca*	✓
broad whitefish*	*anakheek*	*Coregonus clupeaformis*	✓
capelin	*angmagiak*	*Mallotus villosus*	✓
clams	*uviluk*	Species not specified	✓
crabs	*pugugiak*	Species not specified	✓
eels and eelpout	*akuhaauk*	Species not specified	✓
flounder (turbot)		Species not specified	✓
inconnu*		*Stenodus leucichthys*	✓
mollusks	*oviluk*	Species not specified	✓
mussels	*uviluvaleot*	Species not specified	✓
oyster		Species not specified	✓
Pacific salmon*		*Oncorhynchus tshawytscha*	✓
saffron cod	*hiugyuktok*	*Eleginus gracilis*	✓
sand lance		Species not specified	✓
sculpin	*kanayuk*	Species not specified	✓
sea urchin		Species not specified	✓
shellfish	*Akayat*	Species not specified	✓
shrimp		Species not specified	✓
smelt	*eetooknuit*	Species not specified	✓
starfish		Species not specified	✓
stickleback	*kakilongnak*	Species not specified	✓
trout		Species not specified	✓
wolf eel		*Anarrhichthys ocellatus*	✓
wolffish		Species not specified	✓

Note:

* Species that migrate between freshwater and saltwater

Sources: Banci and Spicker (2024); Priest and Usher (2004)

Table 24.11 Marine Mammals of Interest to Kitikmiut and Other Potentially Affected Indigenous Groups

Common Name	Inuinnaqtun Name	Scientific Name	Kitikmiut	Inuvialuit
bearded seal	*ugyuk*	*Erignathus barbatus*	✓	✓
beluga whale	*kilalugak*	*Delphinapterus leucas*	✓	-
bowhead whale	*akvik*	*Balaena mysticetus*	✓	-
harp seal		*Pagophilus groenlandica*	✓	-
hooded seal		*Cystophora cristata*	✓	-
narwhal	*togaalik*	*Monodon monoceros*	✓	-
polar bear	*nanok (singular)* *nanuit (plural)*	*Ursus maritimis*	✓	✓
ringed seal	*nattik*	*Pusa hispida*	✓	✓
walrus	*aivik*	*Odobenus rosmarus*	✓	-

Sources: Banci and Spicker (2024); Priest and Usher (2004); NPC (2021)

Other Culturally Important and Harvested Resources

Other resources that are important to Kitikmiut include soil, black soapstone, copper, and silver. In the past, soil was considered a special resource used to mud sled runners. Black soapstone was used to carve stone stoves/lamps (*kudlik)* and cooking pots. Nails, ulu blades, arrowheads, harpoon heads, and snow knife blades were made from copper and silver (Banci and Spicker 2024).

Carving stone can be found in the Grays Bay area, along the coast, inland, and on the northwest coast of Bathurst Inlet (Banci and Spicker 2024). In addition, Inuit of Kugluktuk are descendants of an ancient Thule people who harvested Copper along the shores of the Coppermine River and made it into arrowheads, spearheads, ulu blades, chisels, harpoons, and knives (Hamlet of Kugluktuk 2025). Grays Bay is within the TLMRU LAA, while Bathurst Inlet and the Coppermine River are within the TLMRU RAA.

24.3.3.2 Mitigation, Management, and Enhancement Measures

Adherence to standards, best management practices, and mitigation measures are expected to prevent or reduce a change in the quality, quantity, or distribution of traditional resources resulting from the Project. Potential effects will be mitigated through management practices applied during design, Construction, Operations and Maintenance, and reclamation of temporary workspaces, while specific mitigation may be required in certain circumstances. The mitigation strategy for TLMRU will overlap several interrelated VCs for which the effect pathways are similar. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

Key mitigation, management, and enhancement measures that are anticipated to avoid or reduce potential negative effects on the quality, quantity, or distribution of traditional resources are summarized in Table 24.12. Where applicable and feasible, WKR has sought to align selected measures with recommendations identified through engagement with Kitikmiut and other potentially affected Indigenous groups. During IAG workshops, participants stated that WKR should implement mitigation measures that

have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Recommendations to reduce effects on wildlife and other resources were shared by Kitikmiut and other potentially affected Indigenous groups during engagement or through the literature review (GBEEC 2018a; GBRP 2025; IAG 2025a, 2025b; NSMA 2017a):

- Involve community members in knowledge sharing about the land.
- Avoid lush green areas, which are critical for caribou habitat.
- Crossings should be appropriately sized so that caribou can cross without issues.
- Snowbanks will be maintained so they are not an obstruction to movement for caribou and other wildlife. Creation of snowbanks will generally be avoided (for operational reasons to avoid snow drifts on the road on the lee side of the bank), except where not feasible; the height of snowbanks will maintained at less than 1 m and snow plowing will be conducted in such a way as to limit the angle and vertical height of the snowbank edge.
- Install wildlife cameras and in-person monitoring for wildlife, specifically during migration and calving periods. Use data from monitoring or cameras to inform drivers of the presence of caribou.
- Implement ground-based wildlife surveys before construction activities, during calving, and during post-calving rutting periods.
- Integrate appropriate slow/shut down distances when caribou are reported to be near the project area.
- Make heated shelters, food, and water available for hunters and monitors.
- Make monitoring data available to communities.
- Shut down the road when caribou are crossing.
- Implement increased traffic restrictions during migration and calving periods.
- Implement seasonal road closures to enable caribou migration and protect Indigenous rights related to caribou harvesting.
- Invest in caribou habitat remediation.
- Implement Inuit-led predator control measures.
- Build roads to quarry sites along rock to not damage vegetation, where practical.
- Encourage truck convoys to increase the amount of time between disturbances, potentially lowering impacts on caribou.
- Implement a speed limit of 60 kilometres per hour (km/h), with further reductions when caribou are nearby.
- Limit blasting and equipment use to non-sensitive wildlife periods.
- Implement protection measures that extend to other wildlife and not just caribou.
- Avoid icebreaking during the Dolphin-Union caribou herd migration.
- Monitor caribou behaviour during all project phases.
- Rely on learnings from previous projects and apply those learnings to this Project.
- Equip wildlife monitors with high-powered rifles in case of human-wildlife conflicts with grizzly bears.
- Provide a full spill response setup at the port.

Table 24.12 Mitigation, Management, and Enhancement Measures for Change in Quality, Quantity, or Distribution of TLMRU Resources

Potential Effect	Effect Pathway	Mitigation, Management, and Enhancement Measures
Change in quality, quantity, or distribution of TLMRU resources	Alteration to the current and future quality, quantity, or distribution of country foods and other harvested resources and species of cultural importance (e.g., wildlife, fish, plants, marine resources). Loss or alteration of habitat supporting harvested resources. Alteration to harvesting methods, timing, or seasonality. Sensory disturbances (e.g., change in noise levels, air quality, traffic) that influence availability of habitat or distribution of species of importance, quality of experience, or other required conditions for use.	Measures to reduce direct loss of habitat through vegetation removal are presented in Volume 6, Section 15 (Vegetation). Measures will be applied to reduce ground disturbance and avoid or limit effects on sensitive environment features such as wetlands, waterbodies, permafrost, eskers, and habitat, including for species as risk and culturally important species. Mitigation measures proposed for biophysical VCs may also serve to avoid or reduce potential effects to the quality, quantity, or distribution of TLMRU resources. See also: Volume 6, Sections 14 (Terrain, Soils, and Permafrost), 16-18 (Caribou, Birds, and Other Wildlife); Volume 7, Sections 19 (Water Resources) and 20 (Freshwater Fish and Fish Habitat); and Volume 8, Sections 21-23 (Marine Water and Sediment, Marine Fish and Fish Habitat, and Marine Mammals). These VCs also include measures to reduce effects on the distribution, diversity, and abundance of culturally important species. Measures to reduce sensory disturbance to wildlife and Indigenous land users, including noise, lighting, dust management, and traffic are presented in air quality (Volume 5, Section 11) and noise and vibration (Volume 5, Section 13), and infrastructure and services (Volume 9, Section 28). Additional mitigation and management measures to reduce effects on, or enhance conditions for, the resources relied on for TLMRU and on socio-economic conditions are presented in Volume 9, Sections 25 (Food Security and Food Sovereignty), 26 (Community Health and Well-Being), Employment and Economy (Volume 9, Section 27), Infrastructure and Services (Volume 9, Section 28), and 29 (Non-traditional Land, Marine, and Resource Use [for commercial harvesting and recreational hunting]); Volume 10, Section 32 (Accidents and Malfunctions); and Volume 11 (management plans), which include plans to manage and monitor resources and environments (e.g., wildlife, aquatic environments, air quality, spill contingency) and socio-economic conditions. Measures specific to reducing effects on the availability of TLMRU resources and habitats identified as important by Kitikmiut and other potentially affected Indigenous groups and measures involving collaboration with Kitikmiut and other potentially affected Indigenous groups include: • The road alignment will reflect community engagement input to the extent practicable. • WKR has engaged and will continue to engage with the primary Inuit organization with rights and responsibilities in the Project area, the Kitikmeot Inuit Association. • WKR is committed to ongoing engagement with the Government of Nunavut and/or Inuit Organizations, and other potentially affected parties regarding perceived effects. • WKR will notify communities of project activities and schedules, including provision of Project maps and design components, and discuss key traditional harvesting periods. • The Project will use previously disturbed areas for project activities, project infrastructure and workspaces, to the extent practical (e.g., Jericho Station). • WKR is committed to working closely with Kitikmeot residents, communities and other stakeholders to help ensure the Project is built in a manner consistent with regional needs and aspirations. Communities will be consulted throughout the lifetime of the Project. WKR will ensure the provision of timely Project updates, responses to feedback provided, and information on upcoming employment and training opportunities. Inuinnaqtun and Inuktitut interpretation / translation will be provided throughout the consultation process to enable participation of all community members. • Engagement will be conducted with land users to determine location and usage information for areas such that avoidance of noise generating activities (i.e., pile driving, drilling) may be considered. • **Road Management Plan:** As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, reduce the potential for illegal harvesting or overharvesting, and support safe and respectful use of project infrastructure. The Grays Bay Road will be a private road, with limited or controlled access to the public. Harvesting is managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Regional Inuit Associations (i.e., Kitikmeot Inuit Association) and Inuit Wildlife Organizations (HTOs). WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited. • Blasting will be scheduled during less sensitive time periods (i.e., shift change, period with no traditional land use activities). • As much as possible, the road alignment as well as roads to quarries will avoid unique landforms. • Known areas of collection of plants of interest to Inuit Organizations and other potentially affected parties will be avoided where possible. • No icebreaking will occur during normal port operations during the Construction or Operations and Maintenance phases of the Project. The port will only receive vessels during the open-water season, which is typically from late June through October, and as such, is not expected to alter Dolphin and Union caribou herd (DUH) caribou migration paths. A **Wildlife Mitigation and Monitoring Plan** will be developed and implemented. It will contain detailed monitoring and mitigation measures to be implemented for the duration of Construction and Operations and Maintenance of the Project. • Wildlife will have the right of way on all Project infrastructure areas during construction, operations and maintenance as detailed in the Wildlife Mitigation and Monitoring Plan. • The Project Development Area (PDA) will be confined to a specific design layout to reduce the Project's potential effect on habitat loss and effectiveness. • Project vehicles will travel on designated winter roads, existing infrastructure roads, or constructed embankments, to the extent possible, to avoid disturbing vegetated areas. • Speed limits shall be posted along the completed portions of the road during construction activities. Traffic speed will be limited to 60 km/h on project road surfaces, which may be decreased in certain areas depending on terrain conditions and geometric constraints, and in areas of high potential for caribou or other wildlife occurrence (i.e., identified wildlife road crossing locations). In instances where terrain conditions and geometric constraints allow, and in areas of low potential for caribou or other wildlife occurrence, speeds may be increased to 80 km/h. • Project updates will be provided to communities based on timely and transparent communication regarding the status of the Project and related topics.

Potential Effect	Effect Pathway	Mitigation, Management, and Enhancement Measures
Change in quality, quantity, or distribution of TLMRU resources (cont'd)		• WKR is committed to regularly communicating the results of pertinent management and monitoring programs to local communities. This will include annual visits to communities and with stakeholder groups, the preparation of annual reports, and other forms of outreach. • WKR will provide cultural awareness and sensitivity training to all long-term personnel and contractors. • WKR will develop and implement a Culture Program at the Project's main camps. The Culture Program will include provision of occasional country food to personnel at camps and is intended to create a more inclusive work environment while supporting local food traditions and aiding to build cultural respect among non-Inuit personnel. Additionally, the Socio-Economic Monitoring Program will track Project impacts, including food-related indicators. Annual reporting will support early identification of trends and help inform responsive measures if harvesting conditions change. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. In collaboration with the Kitikmeot Inuit Association, WKR developed an IAG. The purpose of the IAG is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge. WKR will include relevant HTOs, Inuit land users, Elders, and Knowledge Holders in the membership of the group and will demonstrate its consideration for community input and Inuit and Community Knowledge as part of the group's function.

24.3.3.3 Project Residual Effects

Residual effects on wildlife, fish, vegetation, marine resources, and water have the potential to affect the traditional activities that are supported by these resources, including hunting, trapping, fishing, plant harvesting, and cultural use of water or other important resources. Various biophysical and socio-economic conditions may also affect harvesting. For example, the construction of roads has been a concern for Inuit as gravel can accelerate ice melt (Banci and Spicker 2024). Additionally, a change in air or water quality, noise, or altered visual aesthetics may deter individuals from harvesting traditional resources. Refer to air quality (see Volume 5, Section 11), and non-traditional land and resource use (see Volume 9, Section 29) for further details on effects of air emissions on land users in the assessment areas.

As described below (Section 24.3.3.3) the Project is anticipated to result in changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU (e.g., wildlife, fish, plants, water, marine resources) due to the following project activities:

- Construction of project infrastructure within the PDA that may disrupt the growth of vegetation and habitat, resulting in loss or alteration of harvested resources.
- Potential changes to wildlife movement during both the Construction and Operations and Maintenance phases as a result of visual and auditory changes from project activities and increased human presence within the LAA.
- Potential changes to wildlife and marine mammal behaviour during both the Construction and Operations and Maintenance phases may result in alteration to harvesting timing and seasonality.
- Potential changes to marine fish as a result of vessel activity during sensitive timing windows (e.g., spawning) and through sensitive areas (e.g., nursery areas), which may result in an alteration to harvesting timing.
- Potential for spills into terrestrial or aquatic environments could affect traditionally harvested resources and land user perceptions of land, marine, and resource health, including wildlife, freshwater and marine fish, marine/coastal birds, marine mammals, and vegetation used for TLMRU activities.
- Potential changes to water, as project activities may require withdrawal from waterbodies. Although the identified water intake lakes have not been specified as drinking water sources through Inuit, Indigenous, and Community Knowledge, large lakes and streams were identified to be general sources for drinking water.

WKR recognizes that Kitikmiut and other potentially affected Indigenous groups may choose not to undertake TLMRU activities within the VC RAAs that overlap their respective preferred land use areas for a variety of cultural, spiritual, aesthetic, or personal reasons.

Overall, during both the Construction and Operations and Maintenance phases, and following the implementation of mitigation, enhancement, and management measures, the residual effects of the Project on changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU are predicted to be adverse in nature. As a result,

effects are predicted to range in magnitude from low to moderate in magnitude within the PDA, LAA, and RAA, and occur short-term (i.e., Construction phase only) to long-term (i.e., extend throughout Operations and Maintenance). Some species and ecological components may be affected by project activities more than others. While effects on some harvested resources such as birds, other terrestrial wildlife are expected to be low in magnitude, effects on caribou are expected to be moderate. Within the PDA, there will be a direct loss of native vegetation, resulting in loss of plants and habitat. Within the LAA and RAA, potential effects on terrestrial wildlife, fish, and marine mammals involved in or required for TLMRU activities are expected largely due to sensory disturbances from vessel and vehicle traffic and Project activities, as well as subsequent changes to migration patterns. During the Operations and Maintenance phase, there will be an increase in dust as a result of vehicle traffic; however, a dust control program will be implemented to limit these effects. Similarly, the timing of residual effects may range from moderate to high sensitivity (i.e., considering activities occurring both occasionally and year-round), with a continuous frequency range, due to differences in the Project's interactions with certain species (e.g., caribou, certain vegetation communities). Residual effects are anticipated to range from reversible (e.g., temporary workspaces or short-term individual behavioural changes) to irreversible (e.g., permanent project components or individual mortality).

The following sub-sections provide summaries of project residual effects and the VC assessments relied upon, as applicable, when establishing this analysis of residual effects on quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU.

Change to Wildlife

Harvesting provides a key source of food, and wildlife species remain important to Kitikmiut and other potentially affected Indigenous groups for subsistence and other reasons. Hunting and sharing food are considered one of the core aspects of Inuit culture. Key resources supporting the traditional diet of Kitikmiut and other Indigenous groups (Inuvialuit, First Nations, and Métis) may include caribou, muskox, bears, whales, seals, birds, Arctic char, and shellfish (NIRB 2026).

Change to Caribou

The Project may result in changes to caribou movement, range, habitat, and mortality risk, which in turn will result in changes to the quality, quantity, or distribution of caribou for Kitikmiut and other potentially affected Indigenous groups. Caribou, as discussed in Section 24.2.2, is an important species and is important for Kitikmiut sustenance (Banci and Spicker 2024).

The Project may result in changes to caribou movement within the LAA due to physical infrastructure (such as steep road berms and facilities), and sensory disturbances (such as visual and auditory changes from project activities and increased human presence) (see Volume 6, Section 16). Changes to the movement of caribou (including the Bathurst and Dolphin and Union caribou herds) can delay their local- and broad-scale movements, ranging from minutes to hours for local movements, and several days for broader migrations, which could result in changes to Kitikmiut and other potentially affected Indigenous groups' harvesting timing. No icebreaking will occur during normal port operations in any of the Construction or Operations and Maintenance phases of the Project. The port will only receive vessels during the open-water season, which is typically from late June through October, and as such, is not

expected to alter Dolphin and Union caribou herd (DUH) caribou migration paths. Additionally, direct and indirect habitat loss can result in changes to caribou reproduction, calf recruitment, and adult survival, which may result in changes to the quality and quantity of caribou for Kitikmiut and other potentially affected Indigenous groups' use. During the Project's Construction phase, direct habitat loss caused by vegetation clearing and topsoil stripping is assumed to occur throughout the PDA, resulting in a loss of 4,971.7 ha (9.6% of the LAA) of natural landcover within the LAA (see Volume 6, Section 15.3.2.4, Table 15.9) and sensory disturbance and altered forage quality can reduce habitat effectiveness during project Construction and Operations and Maintenance (See Volume 6, Section 16.4.2.2)

Caribou mortality, as a result of potential vehicle collisions or increased potential for predation, is anticipated to be unlikely as use of the road by caribou would be very limited in an open landscape, and direct mortality events, such as vehicle collisions, only occur in rare instances and sporadically across the Arctic, including at mining operations and along all-season roadways. The Project will post speed limits and will administer random speed audits to encourage driver compliance. The Project's Environmental Monitor will also document compliance with the lower speed (i.e., 30 km/h) proposed when caribou are near the road; this information can inform education programs and public notices to promote compliance with speed limits (see Volume 6, Section 16). The project design is expected to limit areas that predators, like wolves, may use for concealment, especially near frequent caribou crossing locations. In the case of grizzly bears, where attractants may cause individuals to remain near the road and increase interactions with caribou, project mitigation, management, and enhancement measures are expected to reduce the occurrence. Therefore, it is unlikely that Project-facilitated predation will contribute to caribou mortality (see Volume 6, Section 16).

Changes in caribou health and therefore changes to the quality of caribou required for TLMRU, are possible through changes in contaminant exposure. However, changes in caribou health from the Project are expected to be negligible since there are no Project-related chemicals of potential concern identified in soil, water, or sediment that may have the potential to accumulate in caribou tissue through direct contact and uptake (see Volume 6, Section 16).

Change to Birds

The Project may result in changes to the quality, quantity, or distribution of birds, including species of importance for Kitikmiut and other potentially affected Indigenous groups such as passerines, waterbirds/shorebirds, and cliff-nesting raptors.

The Project may result in direct habitat loss from the project footprint, or indirect loss or alteration of habitat from sensory disturbances (i.e., noise, dust, light, human activity) throughout the Construction and Operations and Maintenance phases. In addition, project activities during construction, such as vegetation clearing, grading, or blasting, have the potential to interact with birds in ways that increase their mortality risk (e.g., inadvertent destruction or disturbance of nests and eggs). The Project also has the potential to increase bird mortality risk through collisions with marine vessels, vehicles, and construction equipment, aircraft, and structures. Bird mortality risk will be higher during the Construction phase compared to the Operations and Maintenance phase due to the amount of vehicle and air traffic anticipated. However, the overall number of birds the Project interacts with is likely low, given the low bird

density identified for the project area. Overall, the amount of bird habitat influenced by the Project ranges between 2 to 12% of the Birds RAA depending on the bird guild (see Volume 6, Section 17).

To avoid or reduce habitat loss or alteration, wildlife sweeps will be completed prior to the start of construction activities to identify wildlife sensitivities (i.e., active nests, dens, or other wildlife features) and appropriate no-disturbance buffers will be established around any identified sensitivity. Bird deterrents will be deployed to reduce potential for birds to initiate nests in front of the construction alignment area, and construction and quarry development activities will adhere to the mitigation, management, and enhancement measures outlined above and in Volume 6, Section 17.

Change to Other Wildlife Species

The Project has the potential to interact with other important wildlife species such as muskox (*omingmak*), moose (*tuktukvak*), grizzly bear (*akhak*), and wolverine (*kalvik*), which may affect the quality, quantity, and distribution of those wildlife species.

Sensory disturbances may also influence the quality of experience for harvesters as a result of changes in noise levels and changes in visual aesthetic during the Construction and Operations and Maintenance phases. Physical activities during the Construction phase and sensory disturbance during Construction and Operations and Maintenance phases may influence Kitikmiut and other potentially affected Indigenous groups' ability and/or willingness to utilize other wildlife species within the region.

The Project is anticipated to result in a loss of 2.4% and 2.7% of suitable summer and winter muskox habitat from the RAA, respectively. Additionally, the Project is anticipated to result in a loss of 0.8% in suitable habitat within the RAA for moose, a 0.6% loss in suitable habitat within the RAA for grizzly bear, and a 0.3% habitat loss for wolverine. This change in habitat throughout the RAA has the potential to affect the quantity and distribution of other wildlife species utilized by Kitikmiut and other potentially affected Indigenous groups.

To avoid or reduce habitat loss, clearing will be limited to areas required for construction and safe operations and maintenance (i.e., to the width of the Road PDA). Quarries will not be situated on sensitive habitat features where possible. Additionally, wildlife sweeps will be completed to identify wildlife sensitivities (i.e., active nests, dens, other wildlife features) ahead of construction activities. No-disturbance buffers will be established around any sensitives identified. If disturbance within a no-disturbance buffer is unavoidable, site-specific protection measures will be developed by a Qualified Professional.

Change to Vegetation

Changes to vegetation and wetlands have the potential to reduce the number and availability of plants and plant harvesting locations available to Kitikmiut and other potentially affected Indigenous groups. Project activities could result in changes to the abundance and diversity of native vegetation communities and wetlands directly through clearing for site development, or indirectly from dust deposition, changes to soil conditions, changes to water quantity, and the potential introduction and proliferation of non-native and invasive plant species. During the Project's Construction phase, direct habitat loss caused by vegetation clearing and topsoil stripping is assumed to occur throughout the PDA, resulting in a loss of

4,971.7 ha (9.6% of the LAA) of natural landcover within the LAA (see Volume 6, Section 15.3.2.4, Table 15.9).

Although progressive reclamation of areas not required for operations and maintenance will be undertaken at the end of the Construction phase, the resources may remain unavailable for cultural use activities during the time required for traditionally harvested plants to become re-established. The Project has also been designed to minimize its footprint within the PDA to reduce the loss of habitat and habitat effectiveness. Other mitigation, management, and enhancement measures will also prevent or reduce further effects on vegetation, including protocols to clean equipment before its arrival at the PDA to reduce the risk of introducing invasive species. During the Operations and Maintenance phase, management of non-native and invasive species will be undertaken, as needed. Additionally, during the Operations and Maintenance phase, indirect effects on wetlands in the LAA may occur due to dust deposition, potential establishment of non-native and invasive plant species, and changes to permafrost and drainage.

Change to Freshwater Fish

The fish and fish habitat assessment (see Volume 7, Section 20) considers potential effects on fish habitat and fish health. Change in fish habitat is expected to be driven by the alteration, disruption, or destruction of fish habitat and the alteration of water quantity. Changes in fish health, growth, or survival are expected to be driven by the potential effects of changes in water quality due to total suspended sediments and water quality chemistry, death of fish from injury or stranding, production of underwater noise, and increased fishing pressure.

Most of the watercourses crossed by the Project are small or have intermittent flow, and fish species found in these watercourses are predominately forage fish (e.g., slimy sculpin, ninespine stickleback). Some larger rivers are also crossed by the road (e.g. James River, Hood River). While increased fishing pressure is expected to occur during the open water season (June-September) of the Construction and Operations and Maintenance phases, effects are expected to be limited to larger watercourses and waterbodies. To reduce potential effects, the Project will implement a no-harvesting policy to project personnel while housed at work camps for the Project. Fishing pressure may further be reduced by avoiding constructing pullouts or laydown areas near watercourses containing large-bodied fish and educating users of the road on the importance of maintaining healthy fish stocks. Additionally, the Project will implement a Road Management Plan that will only allow access to the project area to Inuit and other authorized users. It is expected that this will limit public access to most of the watercourses and waterbodies that contain large-bodied fish, avoiding or reducing increased fishing pressure in the Fish and Fish Habitat LAA (see Volume 7, Section 20).

To avoid or reduce effects on fish during sensitive spawning periods, in-water construction activities will avoid the spring spawning period from May 1 to July 15 for Arctic grayling, and the fall spawning period for Arctic char, lake trout, whitefish, and other species from August 15 to June 30, unless otherwise approved by the Department of Fisheries and Oceans Canada (see Volume 7, Section 20).

In addition to the best management practices and mitigation measures mentioned above, the Project will implement erosion and sediment control measures for various earthwork and construction activities to reduce potential effects to water quality (see Volume 7, Section 20). Further information on potential changes to water resources is summarized in Section 24.3.3.3.

Change to Marine Fish

The Project may result in changes to the quality, quantity, or distribution of marine fish, including species of importance for Kitikmiut and other potentially affected Indigenous groups (see Volume 8, Section 22). Vessel activity during the Construction and Operations and Maintenance phases includes support vessels such as sealifts, barges, and tugs that will be used to deliver equipment and materials for the Project to lay-down areas at the terminal location. Effects on marine fish as a result of vessel activity considered factors such as sensitive timing windows (e.g., spawning) and areas (e.g., nursery areas), which could result in a change in when marine fish can be harvested or harvesting windows. However, while a temporary increase in total suspended solids may occur as a result of vessel wake or propellor wash, it is not expected to measurably alter fish habitat from baseline conditions in either the scour zone or settlement areas. As a result, no permanent alteration or destruction of fish habitat from construction vessel wakes or propeller wash are predicted (see Volume 8, Section 22).

Project activities may also result in changes in the behaviour of marine fish due to sensory disturbances such as underwater noise, artificial lighting, and changes to water quality during the Construction and Operations and Maintenance phases. During Construction, noise-related effects may extend to the Marine Fish and Fish Habitat RAA; however, the majority of underwater noise-related residual effects are anticipated to be confined to the Marine Fish and Fish Habitat LAA and effects to fish behaviour from artificial lighting are anticipated to be constrained to the PDA.

A change in marine fish mortality may also occur due to artificial lighting used during Construction and due to the accidental crushing and/or burial of organisms from vessel activity, the construction of infrastructure, or dredging and disposal at sea. To limit these effects, infrastructure will be designed to limit the PDA in the marine environment and, where possible, the Project will avoid encroaching on marine fish habitat. An Aquatic Effects Management Plan will also be developed for monitoring the Project's short- and long-term effects on the aquatic environment.

Change to Marine Mammals

Residual effects related to change to marine mammals considers potential effects on marine mammal behaviour, habitat, and mortality (see Volume 8, Section 23), which may result in changes to the quality, quantity, or distribution of marine mammals of importance for Kitikmiut and other potentially affected Indigenous groups. Changes to marine mammal habitat may be affected by vessel activity, refueling and fuel storage, in-water blasting, and the construction of project components associated with the port. No icebreaking will occur during normal port operations in any of the Construction or Operations and Maintenance phases of the Project. The port will only receive vessels during the open-water season, which is typically from late June through October. In addition, in-water work will only be done during the open-water season.

Project activities may result in increased risk of mortality and/or injury to marine mammals. This was raised as a specific concern by community members in Taloyoak who reported that bowhead whales have been hit by ships in the Boothia Peninsula in the past (GBRP 2025). Changes to marine mammal behaviour (due to sensory disturbances from underwater noises and artificial lighting, and changes to water quality), or risk of mortality or injury (due to increased frequency of vessel strikes) are anticipated to occur throughout the Construction and Operations and Maintenance phases. To reduce these potential effects, a Wildlife Mitigation and Monitoring Plan will be developed so that all Project vessels follow established navigational routes, speeds, and protocols to reduce marine mammal mortality risk (see Volume 8, Section 23).

A change in the risk of mortality or injury for marine mammals may also occur from potential changes to water quality from desalination operations and vessel refueling (see Volume 8, Section 23). During engagement for previous projects, community members in Kugluktuk expressed concern for potential effects on marine mammals from spills (see Volume 8, Section 23). To reduce the chance of accidental spills, Port staff handling fuel transfers from resupply barges or regular fueling operations on site will receive training and management plans such as the Hazardous Materials Management Plan, Spill Contingency Plan, and the Fuel Management Plan. Additional mitigation measures to prevent or avoid potential spills are further described in Volume 8, Section 23.

Change to Water

The Project has the potential to result in changes to water, as project activities may require withdrawal from waterbodies during construction activities for waste management and sewage facility operations, Port landside operations, road maintenance and use, and other purposes. Although the identified water intake lakes have not been specified as drinking water sources through Inuit, Indigenous, and Community Knowledge, large lakes and streams were identified to be general sources for drinking water.

Water withdrawal and discharge will be regulated under Nunavut Water Board licensing requirements. Licenses will be required for both construction activities (temporary licenses), and for the permanent potable water supply. Culverts will be installed according to the Road Construction Management Plan and Best Management Practices (BMP) for construction works at watercourses and waterbodies. BMPs include isolating the work area from the waterbody, diverting streamflow around the work area, maintaining the streamflow rate, and returning the flow immediately downstream of the work area.

Change to Other Culturally Important Resources

In addition to the resources and species described above, WKR understands that other materials such as soil, black soapstone, copper, and silver are culturally important resources.

Project infrastructure may adversely affect the physical and chemical properties of local soil during excavation and disturbance associated with the Project's Construction phase and the operation of quarry sites. There may also be a loss of soil due to embankment construction, changes to soil compaction from Construction-related activities, and a change in soil properties due to water and wind erosion.

It is unknown the degree to which the Project could affect the availability of black soapstone, copper, silver, and other culturally important resources. While no specific harvesting locations have been identified through Inuit, Indigenous, and Community Knowledge, WKR understands these resources may be collected when encountered on or near the surface when found in appropriate quantities/with desirable qualities.

24.3.3.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Adverse changes to the quality, quantity, or distribution of reserves involved in or required for TLMRU are not anticipated to disproportionately affect certain sub-populations identified through GBA Plus. However, the Project is expected to affect Kitikmiut more prominently than other potentially affected Indigenous groups because of certain localized effects on TLMRU resources within the Kitikmeot Region.

24.3.4 Change to Specific Areas of Cultural Importance Where TLMRU Occurs

This section assesses potential Project-related changes to specific areas of cultural importance where traditional activities or knowledge transfer occur. As reported by Kitikmiut and other potentially affected Indigenous groups, there are important habitat and harvesting areas, habitation areas, and cultural sites and areas in the vicinity of the Project.

This analysis considers and incorporates the findings of VC assessments relevant to TLMRU, as noted in Section 24.3.1. These assessments were considered and integrated alongside feedback received through Project-specific engagement, the NTKP report, IAG workshops, community-based primary research, and through a public literature review of past concerns and recommendations raised by Kitikmiut and other potentially affected Indigenous groups for past projects.

24.3.4.1 Project Effects Pathways

Kitikmiut and other potentially affected Indigenous groups have identified specific areas of cultural importance where TLMRU occurs within the LAA and RAA, including Grays Bay (*Kogloktoakyok)*, Coronation Gulf (*Oalik Tagiuga*), Bathurst Inlet (*Kiligiktokmik*), Contwoyto Lake (*Tahikyoak)*. WKR understands that the sites and areas where TLMRU activities occur are intricately linked to and also uniquely reflective of each potentially affected Indigenous groups' culture, history, protocols, health, and well-being. As TLMRU is unique to each potentially affected Indigenous group (i.e. the use of an area may be unique to each Indigenous group), the Project effects are predicted to occur through similar effect pathways, such as noise, dust, and earthworks.Several of these specific sites or areas of cultural importance where TLMRU occurs were identified by Kitikmiut and other Indigenous groups through Project-specific engagement and a review of public literature from past projects. However, Kitikmiut and other potentially affected Indigenous groups have also commented generally on what changes to habitat and harvesting areas could mean for effects on TLMRU activities within or beyond the PDA, LAA, or RAA and changes identified through review of secondary sources related to alteration or loss of harvesting or cultural sites and areas or sensory disturbance have been considered as they are reasonably understood to reflect the potential effects of the Project on TLMRU. As a result, the effects of the Project on specific

areas of cultural importance and other potential harvesting locations within the PDA, LAA, and RAA have been considered as potential effects pathways.

All phases of the Project have the potential to affect Kitikmiut and other potentially affected Indigenous groups' exercise of TLMRU. Aspects of this assessment may be disaggregated by TLMRU activity and/or Indigenous group, as appropriate, based on anticipated physical interactions of the Project, the nature of TLMRU within the project area and the perspectives and values of Kitikmiut or other potentially affected Indigenous groups shared with WKR. Changes to the specific sites or areas where TLMRU activities occur could result through the pathways identified in Table 24.2 of Section 24.1.3.

Project activities may permanently remove sites or areas for cultural use that may be within the PDA and experience direct physical disturbance. It is anticipated that sites or areas for TLMRU outside areas of direct physical disturbance (i.e., PDA) would remain largely physically unchanged; however, sensory disturbance resulting from project activities may result in changes to experience or sense of place for Kitikmiut and other potentially affected Indigenous groups.

Any potential decrease in sites and areas may lead to a reduction in TLMRU activities such as harvesting opportunities, communal gathering, as well as opportunities to obtain and transmit Inuit, Indigenous, and Community Knowledge through use of culturally important areas (e.g., camp sites, teaching sites, burial and/or spiritual sites). A decrease in the ability to foster reciprocal relationships with plants and animals, including their surrounding habitat may also occur. Changes to sites and areas also have the potential to adversely affect personal mental health and well-being through a potential reduction in cultural activities involving being on the land, relationships of reciprocity, and cultural transmission.

The conclusions in this section are informed by the results of engagement with Kitikmiut and other potentially affected Indigenous groups, literature review, and related modelling results and biophysical and socio-economic VC assessments presented in the IS. The measurable parameters outlined in Table 24.2 were used to assess the direction, magnitude, geographic extent, timing, duration, frequency, and reversibility of potential Project-related effects on TLMRU in this context.

Harvesting Areas

During project engagement, concerns about potential effects on specific and general habitat and harvesting areas were raised by community members of varying ages and backgrounds. For instance, high school students in Kugluktuk raised concerns about the Project intersecting with caribou harvesting areas (GBRP 2025). IAG members also expressed concern that future generations would not see caribou in the area due to the Project (IAG 2025a).

A change to harvesting areas may also occur due to potential changes in sensory disturbances. For example, IAG members expressed concern regarding an increase in noise from the Project (IAG 2025a).

Traditional harvesting areas, in addition to habitation areas, travel routes, and other cultural sites relative to the TLMRU spatial boundaries identified by Inuit and other potentially affected Indigenous groups through Project-specific engagement, literature review, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, and community-based primary research, are listed in Table 24.13. Where an Indigenous group has identified a location, the table indicates the location. However, the list is limited by the Inuit, Indigenous, and Community Knowledge shared for the Project through the above sources or through publicly available literature, and the lack of information does not necessarily imply a lack of use. Table 24.13 includes those Indigenous groups who identified resource harvesting locations, habitat, and cultural sites. Indigenous groups for which no information about locations has been obtained have not been included.

Table 24.13 Resource Harvesting Locations, Habitat, and Cultural Sites Identified by Kitikmiut and other Potentially Affected Indigenous Groups Relative to the TLMRU Spatial Boundaries

Location	Inuinnaqtun Name	Site Use	Within TLMRU LAA	Within TLMRU RAA	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	Athabasca Denesųłiné Né Né Land Corporation	North Slave Métis Alliance	Northwest Territory Métis Nation
Aylmer Lake		Caribou migration	-	-	-	-	-	-	-	✓
Anialik River	*Anialik*	Fishing area; Arctic char and Arctic grayling habitat; water harvesting from permanent ice	-	✓	✓	-	-	-	-	-
Amundsen Gulf		Beluga and bowhead whale habitat	-	-	✓	-	-	-	-	-
Arctic Sound	*Katimanak*	Spring caribou migration; moose habitat; wolffish habitat; waterfowl habitat	-	✓	✓	-	-	-	-	-
Artillery Lake		Caribou harvesting	-	-	-	-	-	-	-	✓
Back River	*Hannigayok*	Wolf hunting; caribou hunting; fishing area; fishing camp	-	✓	✓	-	-	-	-	-
Baker Lake	*Qamani'tuaq*	Caribou harvesting; Arctic fox harvesting	-	-	✓	-	-	-	-	-
Banks Island		Caribou harvesting; muskox harvesting; seal harvesting	-	-	-	✓	-	-	-	-
Banks Peninsula		Moose habitat	-	✓	✓	-	-	-	-	-
Bathurst Inlet (the inlet)	*Kiligiktokmik*	Caribou calving; ringed seal harvesting; whale habitat; bowhead hunting; water harvesting from permanent ice; carving stone harvesting; coastal raptor nesting; wolffish habitat	-	✓	✓	-	-	-	-	-
Bathurst Inlet (community)	*Kingaok*	Historical caribou migration; caribou calving; large abundance of birds; geese and eider duck habitat; hunting area; muskox, moose and wolverine habitat; wolf hunting; Arctic and red fox harvesting; gathering area; permanent cabins; igloo camps	-	✓	✓	-	-	-	-	-
Bay Chimo	*Omingmaktok*	Caribou migration; waterfowl habitat; geese and eider duck habitat; arctic and red fox harvesting; ringed seal harvesting; coastal raptor nesting; fishing area; permanent cabins	-	-	✓	-	-	-	✓	-
Bear Lake		Caribou habitat	-	-	-	-	-	-	✓	-
Bernard Harbour		Bowhead whale observation; Arctic char harvesting; HTO cabin	-	-	✓	-	-	-	-	-
Buchan Bay		Travel Route	-	-	✓	-	-	-	-	-
Burnside River	*Ayapakpaktovik*	Fishing area; Arctic char, tomcod and Arctic grayling habitat; travel route	-	✓	✓	-	-	-	-	-
Cambridge Bay		Spring caribou migration; geese and eider duck habitat; Arctic and red fox harvesting; ringed seal harvesting; whale habitat; wolffish habitat; fishing area; established community	-	✓[1]	✓	-	-	-	-	-
Chapman Islands		Whaling camp; carving stone harvesting	-	-	✓	-	-	-	-	-
Cockburn Islands	*Egloyoalik*	Carving stone harvesting; copper harvesting	-	-	✓	-	-	-	-	-
Coppermine Mountains		Caribou migration	-	-	-	-	-	-	✓	-
Coppermine River		Wood gathering; fishing area	-	✓	✓	-	-	-	-	-

Location	Inuinnaqtun Name	Site Use	Within TLMRU LAA	Within TLMRU RAA	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	Athabasca Denesųłiné Né Né Land Corporation	North Slave Métis Alliance	Northwest Territory Métis Nation
Concession Lake		Arctic cisco habitat	-	✓	✓	-	-	-	-	-
Contwoyto Lake	*Tahikyoak*	Winter caribou habitat; caribou calving; caribou harvesting; muskox habitat; moose habitat; wolf hunting; fishing area; Arctic grayling habitat; camping area; Arctic fox habitat; grizzly bear habitat	✓	✓	✓	-	✓	-	✓	-
Coronation Gulf	*Oalik Tagiuga*	Bearded seal habitat; polar bear observation; grizzly bear observation	✓	✓	✓	-	-	-	-	-
Dease Strait		Caribou migration	-	✓	✓	-	-	-	-	-
Dolphin Strait		Beluga and bowhead whale habitat	-	-	✓	-	-	-	-	-
Eastern Bathurst Inlet (the inlet)	*Kokiviayok (east Kiligiktokmik)*	Coastal raptor nesting	-	✓	✓	-	-	-	-	-
Ekalulia Island	*Ekalolialok*	Sealing camps	-	-	✓	-	-	-	-	-
Ehoktok	*Ehoktok*	Narwhal observation north of Ehoktok	-	✓	✓	-	-	-	-	-
Ellice River	*Kunayok*	Winter caribou habitat; caribou calving; waterfowl habitat; grizzly bear habitat; Arctic char habitat; coastal raptor nesting	-	-	✓	-	-	-	-	-
Elu Inlet		Spring caribou migration; coastal raptor nesting; wolf hunting	-	-	✓	-	-	-	-	-
Fishing Creek		Fishing area; Arctic grayling habitat	-	✓	✓	-	-	-	-	-
Frayed Knots		Muskox calving area	✓	✓	✓	-	-	-	-	-
Garry Lakes		Caribou harvesting	-	-	✓	-	-	-	-	-
Gordon Lake		Caribou harvesting	-	-	-	-	-	-	✓	✓
Gjoa Haven		Caribou and muskox observed in 2021; geese and duck harvesting; ringed seal harvesting; fishing area; established community	-	-	✓	-	-	-	-	-
Grays Bay	*Kogloktoakyok*	White-fronted goose, snow goose, Ross's goose, brant, and swan harvesting; hunting area; moose river; wolverine habitat; fishing area; Arctic grayling, Arctic cod and saffron cod habitat; bearded seal habitat; whale habitat; grizzly bear observations water harvesting from permanent ice; blueberry, blackberry/crowberry presence; potential burial ground	✓	✓	✓	-	-	-	-	-
Great Bear Lake	*Emakyoak*	Wolf hunting	-	-	✓	-	-	-	-	-
Hackett River (Marrow River)		Caribou calving	-	✓	-	-	-	-	✓	-
Haloakhiokvik	*Haloakhiokvik*	Caribou calving	-	✓	✓	-	-	-	-	-
Hepburn Island	*Eglohokyok*	White-fronted goose, snow goose, Ross's goose, brant, and swan harvesting; wolverine habitat; ringed seal harvesting	-	✓	✓	-	-	-	-	-
High Lake		Grizzly bear observation	✓	✓	✓	-	-	-	-	-

Location	Inuinnaqtun Name	Site Use	Within TLMRU LAA	Within TLMRU RAA	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	Athabasca Denesųłiné Né Né Land Corporation	North Slave Métis Alliance	Northwest Territory Métis Nation
Hood River	*Hivogakhik*	Short-earned owl habitat; fishing area; moose presence; travel route	✓	✓	✓	-	-	-	-	-
Itchen Lake		Wood gathering; cabin area	-	✓	✓	-	-	-	-	-
Izok Lake		Cabin area	-	✓	✓	-	-	-	-	-
James River	*Hanigayok*	Fishing area; Arctic grayling habitat; moose presence; wolverine presence; gathering area; travel route	-	✓	✓	-	-	-	-	-
Kalaktok	*Kalaktok*	Water harvesting from permanent ice	-	✓	✓	-	-	-	-	-
Kathawachaga Lake	*Aimaokatalok*	Berry harvesting area	-	✓	✓	-	-	-	-	-
Kongoayok	*Kongoayok*	Travel route	-	-	✓	-	-	-	-	-
Kanuyak Island		Copper harvesting	-	-	✓	-	-	-	-	-
Kaminak Lake		Caribou calving	-	-	-	-	-	-	✓	-
Kennarctic River	*Kogloktoakyok*	White-fronted goose, snow goose, Ross's goose, brant, and swan harvesting; muskox habitat; wolverine habitat; moose habitat; blueberry and blackberry harvesting; fishing area; trout and Arctic grayling habitat; Arctic char fishing; ringed seal harvesting; water harvesting from permanent ice; potential burial ground; gathering area	✓	✓	✓	-	-	-	-	-
Kent Peninsula	*Kilingoyak*	Narwhal observation; caribou habitat; caribou calving; waterfowl harvesting; coastal raptor nesting; grizzly bear habitat; wolverine habitat; narwhal habitat; carving stone harvesting; gathering area; permanent cabins	-	-[2]	✓	-	-	-	-	-
Kent Peninsula isthmus	*Etibliakyok*	Caribou calving; waterfowl habitat; grizzly bear habitat	-	-	✓	-	-	-	-	-
King William Island		Caribou and muskox habitat; bearded seal habitat	-	-	✓	-	-	-	-	-
Kugluktuk		Water harvesting from permanent ice; increased grizzly bear presence; fishing area; established community	-	✓[3]	✓	-	-	-	-	-
Kugaaruk		Geese and eider duck harvesting; established community	✓	✓	✓	-	-	-	-	-
Kuugaarjuk River	*Kugakyoak*	Caribou calving	-	-	✓	-	-	-	-	-
Lewes Island	*Kanuyak*	Carving stone harvesting; whaling camp	-	-	✓	-	-	-	-	-
Lutselk'e		Caribou harvesting; established community	-	-	-	-	-	✓	-	-
Labyrinth Bay	*Eloelgoyak*	Grizzly bear habitat	-	-	✓	-	-	-	-	-
Lac De Gras		Wolf, fox, wolverine, and grizzly bear habitat	-	-	-	-	-	-	✓	-
Lawford Islands	*Ekalioligayok*	Seal habitat and harvesting; fishing area	-	✓	✓	-	-	-	-	-
Marcheson River		Snow goose harvesting	-	-	✓	-	-	-	-	-
McKay Lakes		Caribou harvesting	-	-	-	-	-	-	-	✓
McLeod Bay		Caribou harvesting	-	-	-	-	-	-	-	✓

Location	Inuinnaqtun Name	Site Use	Within TLMRU LAA	Within TLMRU RAA	Kitikmiut	Inuvialuit	Tłı̨chǫ Government	Athabasca Denesųłiné Né Né Land Corporation	North Slave Métis Alliance	Northwest Territory Métis Nation
Melville Sound (south coast)		Gathering area; permanent cabins	-	-	✓	-	-	-	-	-
Napaktulik Lake		Grizzly bear habitat	-	✓	✓	-	-	-	-	-
Parry Bay	*Naoyak*	Waterfowl habitat	-	-	✓	-	-	-	-	-
Perry Island	*Innaghavik*	Historic settlement	-	-	✓	-	-	-	-	-
Perry River	*Kugyoak*	Winter caribou habitat; waterfowl habitat; grizzly bear habitat; wolf hunting; Arctic char habitat; coastal raptor nesting	-	-	✓	-	-	-	-	-
Port Epworth	*Kugluktoalok*	Cougar observation	-	✓	✓	-	-	-	-	-
Quadyuk Island	*Kaogyok*	Travel route	-	-	✓	-	-	-	-	-
Queen Maud Gulf Coast		Caribou calving; waterfowl habitat; large abundance of birds	-	-	✓	-	-	-	-	-
Queen Maud Gulf Coast Bird Sanctuary		Hunting area	-	-	✓	-	-	-	-	-
Rideout Island		Spring caribou migration	-	-	✓	-	-	-	-	-
Rockinghorse Lake		Travel route	-	✓	✓	-	-	-	-	-
Sherman Inlet		Seal hunting	-	-	✓	-	-	-	-	-
Taloyoak		Goose and duck harvesting; Arctic and red fox harvesting; ringed seal harvesting; fishing area; established community	-	-	✓	-	-	-	-	-
Tibbitt to Contwoyto Winter Road		Caribou harvesting	✓	✓	-	-	-	-	-	✓
Tingmeak River	*Kolgayok*	Caribou calving; coastal raptor nesting	-	-	✓	-	-	-	-	-
Tree River	*Kugluktoalok*	Caribou migration; moose habitat; fishing area; potential burial ground	-	✓	✓	-	-	-	-	-
Union Straight		Beluga and bowhead whale habitat	-	-	✓	-	-	-	-	-
Victoria Island	*Killinik*	Spring caribou migration; caribou calving; white-fronted goose, snow goose, Ross's goose, brant, and swan harvesting; grizzly bear habitat; seal harvesting; polar bear harvesting	-	-	✓	✓	-	-	-	-
Wentzel River	*Otkohikhalik*	Moose habitat; fishing area; Arctic char and broad whitefish habitat; berry harvesting	-	✓	✓	-	-	-	-	-
Western River		Moose habitat	-	✓	✓	-	-	-	-	-
Whitebear Point	*Aoulativikyoak*	Caribou calving	-	-	✓	-	-	-	-	-
Wilmot Islands	*Ongivik*	Whaling camp; carving stone harvesting	-	-	✓	-	-	-	-	-

Notes:

[1] The TLMRU RAA does not extend to the community of Cambridge Bay; however, it does include the bay south of the community.

[2] The TLMRU RAA includes the water north of the Kent Peninsula; however, it does not contain the landmass that makes up the Kent Peninsula.

[3] The TLMRU RAA does not extend to the community of Kugluktuk; however, it does include the waterbody north of the community.

Sources: Banci and Spicker (2024); McLennan et al. (2022); IAG (2025a); Dedats'eetsaa (2024); NSMA (2001); NWTMN (2012); NIRB (2024b); GBRP (2017); NTKP (2018); Gjoa Haven, November 16, 2024, pers. comm.

Habitation Sites and Areas

In the Project-specific Inuit Knowledge report, compiled from the NTKP database and through the literature review, Kitikmiut identified camps and cabins in numerous locations, including around Izok Lake and Itchen Lake, and along the coast of the Banks Peninsula, Bathurst Inlet (the inlet) and Kingaok (community of Bathurst Inlet) (Banci and Spicker 2024; OZ Minerals 2008). Similarly, through the literature review, the Tłı̨chǫ Research and Training Institute reported that Tłı̨chǫ have historically camped in the area around Contwoyto Lake (Dedats'eetsaa 2024). Kingaok (community of Bathurst Inlet), Bathurst Inlet (the inlet), the Banks Peninsula, Itchen Lake, and Izok Lake, are outside of the TLMRU LAA but within the TLMRU RAA.

Cultural Sites and Areas

During project engagement, Cambridge Bay residents expressed concern that shared areas important for family and cultural history may be potentially affected by the Project (GBRP 2025). IAG members shared that Inuit have been using the Project area historically and there may be archaeological sites encountered (IAG 2025b).

Through the literature review, Northwest Territory Métis Nation expressed concern for disturbance to eskers, and identified eskers as holding both cultural and environmental importance (NWTMN 2012).

During project engagement, Athabasca Denesųłiné Né Né Land Corporation also expressed concern about disturbance to eskers as they may contain burial sites or act as travel routes (NIRB 2025a). NTKP consultants emphasized the importance of eskers for TLMRU activities, and it was reported that "[e]skers were important as landmarks, for Inuit travel and camping locations, for caribou travel, grazing and relief from biting insects; and for a variety of wildlife habitat requirements (carnivore dens, travel, hunting habitat)" (Banci and Spicker 2024). During project engagement, community members in Kugluktuk raised concerns about potential effects on the land as a result of Project-related ground disturbance (GBRP 2025).

24.3.4.2 Mitigation, Management, and Enhancement Measures

Adherence to standards, best management practices, and mitigation measures are expected to prevent or reduce a change to specific areas of cultural importance resulting from the Project. Potential effects will be mitigated through management practices applied during design, Construction, Operations and Maintenance, and temporary workspace reclamation, while specific mitigation may be required in certain circumstances. The mitigation strategy will overlap across several interrelated VCs for which the effect pathways are similar (e.g., wildlife, water resources, freshwater fish and fish habitat). The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

Key mitigation, management, and enhancement measures that are anticipated to avoid or reduce negative effects on specific areas of cultural importance where TLMRU occurs are summarized in Table 24.14. Where applicable and feasible, WKR has sought to align selected measures with recommendations identified through engagement with Kitikmiut and other potentially affected Indigenous groups.

Table 24.14 Mitigation, Management, and Enhancement Measures for Change to Specific Areas of Cultural Importance where TLMRU Occurs

Potential Effect	Effect Pathway	Mitigation, Management, and Enhancement Measures
Change to specific areas of cultural importance where TLMRU occurs	Loss or alteration of sites or areas accessed for TLMRU, including harvesting areas, habitation areas, and cultural areas. Sensory disturbances (e.g., visual aesthetics, dust, noise levels), which influence the conditions for use of a site or area.	Information and concerns provided during engagement that are relevant to heritage resources, including locations of gathering sites and graves and the importance of eskers, will be considered to determine the nature and scope of archaeological field programs. A **Heritage Resources Management Plan** will be developed and implemented. If previously unknown heritage resources sites of value are identified during construction activities, discovery protocols will be implemented, and appropriate mitigation measures will be applied in consultation through engagement with Kitikmiut and the Government of Nunavut. Mitigation of archaeological sites will be determined through consultation with the Inuit Heritage Trust and Nunavut Department of Culture and Heritage; Inuit Knowledge will be considered to help determine the mitigation requirement on a site-by-site basis. As much as possible, the road alignment as well as roads to quarries will avoid unique landforms. WKR will investigate and/or mitigate 'known and suspected sites' as identified by potentially affected parties during engagement. To the extent possible, WKR will avoid known archaeological sites and prioritize avoidance of important (unique and/or old) sites. In addition, a **Heritage Resources Management Plan** will be developed and implemented. See Volume 9, Section 30 (Heritage Resources) for additional details. WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited. See also Table 24.12 for additional measures to reduce effects on the availability of TLMRU resources and habitats and on socio-economic conditions, including community health and well-being. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project.

24.3.4.3 Project Residual Effects

A change to sites or areas has the potential to affect the ability of Kitikmiut or other potentially affected Indigenous groups to participate in TLMRU activities. Loss or alteration of sites or areas used to practice TLMRU may require Kitikmiut or other Indigenous land users to travel further distances or use more effort to find comparable sites and areas or re-establish campsites at new locations. Kitikmiut or other potentially affected Indigenous groups may also perceive changes in sites and areas due to sensory disturbances, which may result in avoidance behaviour.

Project activities, such as land clearing and construction earthworks during the Construction phase may result in changes to specific areas of cultural importance where TLMRU occurs, including changes to harvesting areas, changes to habitation sites and areas, and changes to other cultural sites and areas within the PDA including Grays Bay (*Kogloktoakyok)* and Contwoyto Lake (*Tahikyoak)* as well resource habitat that is overlapped by the Project. WKR is committed to ongoing engagement with Kitikmiut and other potentially affected Indigenous groups, including during the Construction phase, and will apply adaptive management strategies that will be informed through monitoring and ongoing engagement. WKR will investigate and/or mitigate ‘known and suspected sites’ as identified by community members during engagement. To the extent possible, WKR will avoid known archaeological sites and prioritize avoidance of important (unique and/or old) sites.

Potential effects on cultural sites and areas may include the loss or disturbance of a site from surficial activities (e.g., access, vegetation removal), grading, excavating, vehicle traffic, and use of workspaces during construction activities. Secondary effects may result from unauthorized impacts or collection of artifacts, fossils, or cultural resources during construction, or as a result of the creation of new access opportunities. In collaboration with the Kitikmeot Inuit Association, WKR has developed an Inuit Advisory Group. The purpose of the Inuit Advisory Group is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge. Where possible, WKR will include relevant HTOs, Inuit land users, Elders, and Knowledge Holders in the membership of the committee and will demonstrate its consideration for community input and Inuit and Community Knowledge as part of the group’s function.

To limit the loss of heritage resources and sites, areas of the PDA that have not been assessed for archaeological potential will be subject to studies to identify potential sites. Mitigation of archaeological sites will be determined through consultation with the Inuit Heritage Trust and Nunavut Department of Culture and Heritage; Inuit Knowledge will be considered to help determine the mitigation requirement on a site-by-site basis and a Heritage Resources Management Plan will be developed and implemented.

Eskers, as previously noted in Sections 24.2.2 and 24.3.4.1, can be important cultural and environmental areas, and may contain burial sites, trails, camping areas, or archaeological sites. WKR notes that as much as possible, the road alignment as well as roads to quarries will avoid unique landforms; however, project activities could result in changes to certain landforms and terrain conditions during the Construction and Operations and Maintenance phases of the Project. During the Construction phase,

all equipment, materials, fuel, camps, and other supplies will need to be mobilized to their start locations. Project-related ground disturbance may occur through the construction of workspaces, borrow sources, road cuts, embankments, culverts, and quarries, therefore changing terrain conditions, landforms and topographic diversity to some degree. Indirect effects may also occur from permafrost thaw, and changes to the flow of surface water. Once unique landforms have been altered, they cannot be recreated or restored (see Volume 6, Section 14).

Information and concerns provided during engagement that are relevant to cultural sites and areas, including locations of heritage resources, gathering sites, and graves, will be considered to determine the nature and scope of archaeological field programs. If previously unknown heritage resources sites of value are identified during construction activities, discovery protocols will be implemented, and appropriate mitigation measures will be applied through engagement with Kitikmiut and in consultation with the Government of Nunavut (see Volume 9, Section 30).

Additionally, use of sites and areas within the PDA and LAA could be indirectly affected due to sensory disturbances (e.g., blasting, traffic noise, air quality changes, and visual aesthetic changes) during the Construction and Operations and Maintenance phases. WKR will engage with Kitikmiut, other Indigenous groups, and other potentially affected communities to inform them of activities that may cause noise and vibration disturbances prior to construction. It is possible that TLMRU activities may occur in areas that intersect the Grays Bay Road, quarries, Jericho Station, or water crossing bridge construction activities, where short-term, localized noise effects are anticipated to occur. These activities were considered in the noise and vibration assessment (Volume 5, Section 13) that predicted noise- and vibration-related effects would meet regulatory thresholds during the Construction and Operations and Maintenance phases.

WKR recognizes that Kitikmiut and other potentially affected Indigenous groups may choose not to undertake TLMRU activities within the VC RAAs that overlap their respective preferred land use areas for a variety of cultural, spiritual, aesthetic, or personal reasons.

Following the implementation of mitigation, management, and enhancement measures, the residual effects on change to specific areas of cultural importance will predominately occur during the Construction phase when project activities related to the construction of the road and port alter habitat and harvesting areas through both direct (land disturbance) and indirect (sensory disturbance) activities. Direct land disturbance during this phase will be adverse and irreversible, with the exception of reclaimed areas (e.g., temporary workspaces, laydown areas) following construction within the LAA. While short-term, irregular events associated with project activities during the Construction phase (e.g., blasting) will cease during the Operations and Maintenance phase, vessel and vehicle traffic and maintenance of project infrastructure may result in adverse, long-term, continuous effects to harvesting areas within the LAA due to sensory disturbances and increased human activity. Effects are predicted to range in magnitude from low to moderate. The Project may reduce the suitability of the PDA or LAA for cultural use due to sensory disturbances during Construction, and Operations and Maintenance (i.e., low) or through physical disturbance to areas of cultural importance (i.e., moderate). Effects on harvesting areas within the PDA are possible due to potential habitat alteration for caribou, other wildlife, birds, fish, and plants and migration changes for caribou during both the Construction and Operations and Maintenance phases (see additional details in Section 24.3.3.3).

24.3.4.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Adverse changes to specific areas of cultural importance where TLMRU activities occur are not anticipated to disproportionately affect certain sub-populations identified through GBA Plus. However, the Project is expected to affect Kitikmiut more prominently than other potentially affected Indigenous groups due to the number of specific areas of cultural importance identified by Kitikmiut within the Project LAA and RAA compared to other groups.

24.3.5 Change in Access to Resources, Sites, or Areas Where TLMRU Occurs

This section assesses potential Project-related changes in access to resources or the sites or areas where traditional activities and knowledge transfer occur. These changes may result directly through the creation of a road, airport, and port, and the access they may enable; they may also result indirectly through job creation and increased financial resources to participate in TLMRU activities or, alternatively, decreased time available to participate in these activities.

This analysis considers and incorporates the findings of VC assessments relevant to TLMRU, as noted in Section 24.3.1. The findings in these VC assessments were considered and integrated alongside feedback received through Project-specific engagement, the NTKP report, IAG workshops, community-based primary research, and through a public literature review of past concerns and recommendations raised by Kitikmiut and other potentially affected Indigenous groups for past projects.

24.3.5.1 Project Effects Pathways

WKR understands that access to resources or sites and areas of cultural importance and required for TLMRU is intricately connected, and also uniquely reflective of, each potentially affected Indigenous group's culture, history, protocols, health, and well-being. As TLMRU is unique to each potentially affected Indigenous group (i.e. ways in which Indigenous groups may access areas of cultural importance may differ), the Project effects are predicted to occur through similar effect pathways. All phases of the Project have the potential to affect Kitikmiut and other potentially affected Indigenous groups' exercise of TLMRU. Changes in access to resources or the sites or areas where TLMRU occurs could result through the pathways identified in Table 24.2 of Section 24.1.3.

A decrease in access to resources may lead to Kitikmiut and other Indigenous groups travelling longer distances and spending more money on fuel and equipment, including repairs and maintenance. Kitikmiut and other Indigenous groups may avoid trails and travelways that are potentially affected by the Project due to sensory disturbances (e.g., dust, light and noise), changes in the topography of the trail or travelway (e.g., slope, aspect), and increased traffic from the Project, including non-Indigenous harvesters. A decrease in access has the potential to adversely affect personal mental and well-being and may lead to a reduction in cultural activities, country food consumption, food sharing opportunities, relationships of reciprocity, and opportunities for cultural transmission. Changes to the traditional economy may also be reduced (see additional discussion in Section 24.3.6).

Known trails and travelways within the PDA, LAA, and RAA have been and continue to be used by potentially affected Kitikmiut and other Indigenous groups to access harvesting, habitation, and cultural or spiritual sites and areas. This assessment assumes that additional trails and travelways may occur within the PDA, LAA, and RAA that intersect with potentially affected Kitikmiut and other Indigenous groups' respective land use areas.

The conclusions in this section are informed by the results of engagement with Kitikmiut and other potentially affected Indigenous groups, literature review, and related modelling results and biophysical and socio-economic VC assessments presented in the IS. The measurable parameters outlined in Table 24.2 were used to assess the direction, magnitude, geographic extent, timing, duration, frequency, and reversibility of potential Project-related effects on TLMRU in this context.

Through the literature review that was conducted, the Yellowknives Dene First Nation expressed concern that increased access to traditional areas by tourists, resident hunters, and squatters as a result of previous projects would result in a reduced use of those areas (YKDFN 2017a).

During engagement for the Tłı̨chǫ All-Season Road, the Tłı̨chǫ Government reported that they believed the Tłı̨chǫ All-Season Road would improve access to Tłı̨chǫ lands for Tłı̨chǫ citizens, supporting the practice of Tłı̨chǫ culture and way of life (TG 2017c).

Through the community-based primary research, a community member from Kugluktuk stated the Project would help hunters access TLMRU areas, as well as with wayfinding, since the road and port could be used as landmarks for lost hunters to navigate their way back home (Community member, Kugluktuk, November 9, 2024, pers. comm.).

Through project engagement, community members, hamlet authorities, and HTOs in Kugaaruk, Kugluktuk, and Taloyoak raised general concerns about potential effects on caribou, including a decline in caribou populations due to project activities or overharvesting (GBRP 2017; 2025). These concerns were echoed by community members in Cambridge Bay who shared that overhunting is already an issue (Community Member, Cambridge Bay, November 3, 2024, pers. comm.; GBRP 2025). IAG members said the proposed road could increase the presence of hunters and added there may be increased wolf predation on caribou as well (IAG 2025b). The Taloyoak and Kugluktuk HTOs expressed concerns that increased access to harvesting areas would affect land users by creating competition for resources (GBRP 2017, 2025; IAG 2025a). Athabasca Denesųłiné Né Né Land Corporation voiced concerns that the Project would increase access for hunters, tourists, and industry (NIRB 2025a).

During community-based primary research and Project-related engagement, community members in Gjoa Haven and Taloyoak commented that increased access to the Kitikmeot Region would bring more tourism into the community (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; GBRP 2025).

Through project engagement, Kitikmiut shared that the Project may enable more cost-effective solutions for procuring food, materials, and other goods in the community (GBRP 2025). This benefit was echoed during engagement with the Hamlet of Gjoa Haven (GBRP 2025). Members of the IAG shared that if the route was connected to the Northwest Territories, the Project could allow for supplies to be transported year-round by vehicle, which may in turn lower the cost of goods (IAG 2025a).

24.3.5.2 Mitigation, Management, and Enhancement Measures

Adherence to standards, best management practices, and mitigation measures are expected to prevent or reduce changes in access to traditional resources, sites, or areas resulting from the Project. Potential effects will be mitigated through management practices applied during design, Construction, Operations and Maintenance, and temporary workspace reclamation, while specific mitigation may be required in certain circumstances. The mitigation strategy will overlap across several interrelated VCs for which the effect pathways are similar (e.g., employment and economy). The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

Key mitigation measures to prevent or reduce changes in access to traditional resources, sites, or areas, are summarized in Table 24.15. Where applicable and feasible, WKR has sought to align selected measures with recommendations identified through engagement with Kitikmiut and other potentially affected Indigenous groups. Kitikmiut shared recommendations to reduce negative effects and enhance positive effects on access during engagement with WKR (GBEEC 2018a; GBRP 2017, 2025; IAG 2025a, 2025b):

- Ramp access to rivers and eskers for hunting with all-terrain vehicles.
- Develop navigation aids and communication systems.
- Build emergency shelters as part of the Project for people who are lost or in need of shelter on the land and to support search and rescue efforts.
- Consider providing support for Kitikmeot residents to facilitate access to the port.
- Mark trails for safe winter travel to the port.
- Facilitate access to Grays Bay for recreation and harvesting.
- Implement enforcement measures on the road to limit outside access.
- Provide education and training courses such as equipment training and environmental monitoring for Project work.
- Involve Kitikmiut in putting up monitoring cameras and other infrastructure.
- Avoid using mine rock for the construction of the road, if possible.
- Prioritize Inuit hiring and develop an employee assistance program for members working on the Project.
- Explore employment pathways for youth in the Kitikmeot communities.

Table 24.15 Mitigation, Management, and Enhancement Measures for Change in Access to Resources, Sites, or Areas Where TLMRU Occurs

Potential Effect	Effect Pathway	Mitigation, Management, and Enhancement Measures
Change in access to resources, sites, or areas where TLMRU occurs	Alteration, loss, or creation of access routes or ability to travel to or through preferred use areas/sites of interest (e.g., roadways, travel ways, navigable waterways and waterbodies). Alteration of ability to travel to or through preferred use areas. Increased access by non-Indigenous harvesters or land users. Temporary disruptions associated with Project activities. Sensory disturbance (e.g., change in noise levels, air quality, traffic) that affects the conditions for use or access.	• WKR will develop and implement a **Road Management Plan** through engagement with the Kitikmeot Inuit Association, Hunters and Trappers Associations, and Government of Nunavut. As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure. The Grays Bay Road will be a private road, with limited or controlled access to the public. Harvesting is managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Regional Inuit Associations (i.e., Kitikmeot Inuit Association) and Inuit Wildlife Organizations (HTOs). WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited. Community users include those using the road for non-industrial and non-security reasons, including harvesters. Community users will require a permit from the HTO and the Kitikmeot Inuit Association and will need to sign an access agreement adhering with established road use protocols. • WKR will facilitate access to the land for travel and transportation purposes, and will provide safe travel facilities at the port and at Jericho Station. • WKR will provide emergency services and shelters along the road. Permanent and Temporary Camps will also serve as emergency shelters. • A small craft harbour is planned at the port and will provide safe moorage for approximately 24 small vessels (up to 7 m length). These vessels are anticipated to be primarily from local communities as well as other travellers in the Coronation Gulf. • WKR will develop and implement a **Port Management Plan** in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port, excluding vessels using the small craft harbour. See also Table 24.12 for additional measures to reduce effects on the availability of TLMRU resources and habitats and on socio-economic conditions, including community health and well-being. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project.

24.3.5.3 Project Residual Effects

As noted in Section 24.2.2 and 24.3.5.1, known trails and travelways within the PDA, LAA, and RAA have been and continue to be used by potentially affected Kitikmiut and other Indigenous groups to access harvesting, habitation, and culturally important sites and areas (both terrestrial access and marine access).

During the Construction and Operations and Maintenance phases, project infrastructure will result in increased access to the Kitikmeot Region (see Volume 9, Section 28). The introduction of a road, port, and new air transportation infrastructure is expected to result in increased access to traditional resources, sites, or areas by Kitikmiut, other potentially affected Indigenous groups, and non-Indigenous people. These changes may result in both positive and adverse residual effects for Kitikmiut and other potentially affected Indigenous groups. Positive effects include the increased accessibility to areas that were otherwise previously challenging to access or required additional resources to access. Additionally, direct or indirect employment from the Project has the potential to both increase and decrease opportunities to participate in traditional economies due to increased income and reduced time from potential rotational shiftwork, resulting in both positive and adverse effects (see Volume 9, Section 27). Positive effects associated with employment and increased income, while notable, are not categorized further here.

Conversely, the Project may result in certain adverse changes in access to resources, sites, or areas during the Construction and Operations and Maintenance phases due to Project activities that may prohibit, restrict or discourage access in the PDA due to safety concerns or sensory disturbances. Though, these are expected to be short-term in duration. Conversely, the Project may result in a positive change in access to cultural sites through increased access to harvesting areas, which may result in an increase of communal gathering places within the LAA.

Vehicles transiting along the road will continue following construction, although the frequency of vehicle traffic during the Operations and Maintenance phase will be reduced compared to the Construction phase. Restrictions implemented during the Construction phase for access at the port will continue during Operations and Maintenance. Traffic and access control measures will be implemented for the road at the port and Jericho Station to restrict public access. During the Operations and Maintenance Phase, the Road Management Plan will also reduce the potential for increased access to the project area through agreements with various user groups. Access will be managed through the Project's public access rules and established harvesting and wildlife regulations will continue to apply.

The Grays Bay Road will be a private road with controlled access to the public. Harvesting is managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Regional Inuit Associations (i.e., Kitikmeot Inuit Association) and Inuit Wildlife Organizations (HTOs). As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for community users. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of project infrastructure and reduce the potential for overharvesting or illegal harvesting. WKR will control access to the road through

user agreements with organizations and individuals across Crown land and IOL per the Road Management Plan.

Considering these effects and mitigation measures, adverse changes in access to traditional resources, sites, or areas is anticipated to be low to moderate in magnitude, short-term in duration, and confined to the PDA and LAA. Effects are anticipated to range from low to moderate in magnitude. During the Construction phase, effects are anticipated to be moderate in magnitude due to restricted access caused by Project activities. While these limitations in access are expected to cease at the end of Construction, effects during the Operations and Maintenance phase are still anticipated due to increased competition caused by the Project, and other temporary limitations in access due to Operations and Maintenance activities, though they will be low in magnitude and confined to the PDA and LAA. Project effects during Operations and Maintenance will also be long-term in duration since the potential for increased access to the Project area by harvesters is anticipated to be continuous for the life of the Project.

WKR recognizes that Kitikmiut and other potentially affected Indigenous groups may choose not to undertake TLMRU activities within the VC RAAs that overlap their respective preferred land use areas for a variety of cultural, spiritual, aesthetic, or personal reasons.

24.3.5.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Changes in access to resources, sites, or areas where TLMRU occurs may disproportionately affect certain sub-populations identified through GBA Plus. In particular, those who are employed by the Project may have increased potential to participate in TLMRU activities due to increased income. Conversely, they may also have reduced time to engage in TLMRU activities due to rotational shiftwork. Given that project employment opportunities are expected to target industries dominated by Inuit and men+ workers, these sub-populations are most likely to be affected by direct and indirect changes caused by project employment. In addition, the Project is expected to affect Kitikmiut more prominently than other potentially affected Indigenous groups due to the number of specific areas of cultural importance identified by Kitikmiut within the Project LAA and RAA compared to other groups that the Project would create greater access to. These effects are expected to be mitigated and managed in partnership with the Kitikmeot Inuit Association and HTO through access control measures.

24.3.6 Change to Cultural Practices, Laws, and Governance Systems that Inform How TLMRU Occurs

This section assesses potential Project-related changes to cultural practices, laws, and governance systems that inform how Kitikmiut and other potentially affected Indigenous groups' TLMRU occurs.

This analysis considers and incorporates the findings of VC assessments relevant to TLMRU, as noted in Section 24.3.1. The findings in these VCs were considered and integrated alongside feedback received through Project-specific engagement, the NTKP report, IAG workshops, community-based primary research, and through a public literature review of past concerns and recommendations raised by Kitikmiut and other potentially affected Indigenous groups for past projects.

24.3.6.1 Project Effects Pathways

WKR understands that the continued ability of Kitikmiut and other Indigenous groups to practice TLMRU, exercise their Indigenous rights, transmit knowledge, and communicate in their preferred language(s) is connected to their ability to manage resources and the environment in ways that adhere to their laws, protocols, and governance systems. All phases of the Project have the potential to affect Kitikmiut and other potentially affected Indigenous groups' exercise of TLMRU. Changes in the cultural practices, laws, and governance systems that inform how Kitikmiut and other potentially affected Indigenous groups exercise TLMRU could result through the pathways identified in Table 24.2 of Section 24.1.3.

Effects on cultural practices, laws, and governance systems may lead to a reduction in country food consumption, food sharing opportunities, and changes to the traditional economy. Opportunities for cultural transmission may also be reduced. Changes in this area also have the potential to adversely affect personal mental health and well-being through a potential reduction in cultural activities related to a decrease in country food harvesting, relationships of reciprocity and cultural transmission.

The conclusions in this section are informed by the results of engagement with Kitikmiut and other potentially affected Indigenous groups, literature review, and related modelling results and biophysical and socio-economic VC assessments presented in the IS. The measurable parameters outlined in Table 24.2 were used to assess the direction, magnitude, geographic extent, timing, duration, frequency, and reversibility of potential Project-related effects on TLMRU in this context.

Kitikmiut and other potentially affected Indigenous groups have shared knowledge about the value cultural practices have in their lives, recognizing the importance of TLMRU in cultural well-being. Indigenous groups have expressed concerns about the Project's potential effects on the exercise of Indigenous rights (NIRB 2025a). As well, Kitikmiut and other potentially affected Indigenous groups are interested in the project's benefits, including training, employment, and other economic opportunities; however, they caution this needs to be balanced with continued opportunity to participate in TLMRU in their places and ways of preference.

During a NIRB public comment period, representatives of the Tłı̨chǫ Government, Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, and Northwest Territory Métis Nation submitted comments as part of the Caribou Guardians Coalition. The Caribou Guardians Coalition expressed concern regarding the Project's potential impacts on human health (NIRB 2024c).

Through the literature review that was conducted, the Tłı̨chǫ Government previously reported that the health, traditional activities, and well-being of Tłı̨chǫ people and Tłı̨chǫ lands are "inextricably intertwined" with the health and future of their traditional territory (TG 2017c). The Tłı̨chǫ Government also previously expressed concern for further language loss when past road development was proposed through Tłı̨chǫ lands (TG 2017c).

Through the literature review, the Tłı̨chǫ Government reported the Tłı̨chǫ All Season Road would support their Regional Economic Development Plan that aimed to maximise eco-tourism opportunities (TG 2017c). In addition, the Tłı̨chǫ Government commented that they expected positive economic impacts from that road development due to an increase in local business opportunities and greater mobility for Tłı̨chǫ citizens to access educational, employment, and business opportunities (TG 2017c).

Through the literature review, the Tłı̨chǫ Government expressed concern for an increase in social issues for Tłı̨chǫ citizens, such as substance abuse, family violence, sexually transmitted diseases, and school absenteeism (TG 2017c). Concern that the construction of the Project would bring in an increase in drugs and alcohol into the community was also raised by Taloyoak community members during Project-related engagement and by the North Slave Métis Alliance through the literature review (GBRP 2025; NSMA 2001).

Through the literature review, the North Slave Métis Alliance has expressed concerns about shift work and the difficulty for members to maintain a traditional connection to the land. Harvesting opportunities rely on seasonal shifts and members who are working may not be able to participate in certain harvesting opportunities (NSMA 2001).

Through project engagement, community members from Gjoa Haven emphasized the importance of protecting wildlife for cultural transmission and food security (GBRP 2025). The Taloyoak HTO also stated that access to country foods is integral for community members. In Kugluktuk, community members expressed concerns regarding potential effects to personal mental health from a change in food security (GBRP 2025). The Kugluktuk HTO also added they were concerned that younger generations would have to cope with a decline in food sources if the Project's mitigation measures are poor (GBRP 2025).

Through project engagement, the Kugluktuk HTO expressed concern the Project will conflict with TLMRU activities (GBRP 2017). Athabasca Denesųłiné Né Né Land Corporation commented they felt project benefits were largely for industry, while communities would bear the environmental and cultural costs (NIRB 2025a). Athabasca Denesųłiné Né Né Land Corporation emphasized the importance of section 35 rights, commenting that they are unbreakable but are being undermined. While Athabasca Denesųłiné Né Né Land Corporation added they are not opposed to all development, members want to see development happen responsibly. Athabasca Denesųłiné Né Né Land Corporation expressed concern for long-term cultural loss, food insecurity, and infringement on Indigenous rights, and commented that survival on the land and the long-term presence of traditional resources like caribou were more important than industrial benefits (NIRB 2025a).

During project engagement, Athabasca Denesųłiné Né Né Land Corporation recommended more frequent meetings and direct engagement with Athabasca Denesųłiné leadership and communities and stressed the need for transparency, respect, and long-term planning for future generations (NIRB 2025a).

Through community-based primary research for the Project, an informant reported the rotational shiftwork of the Project may also result in a strain on the strong connections that Inuit have to their families and communities (Community Member, Kugaaruk, November 1, 2024, pers. comm.). During project engagement, community members in Kugluktuk asked questions about whether there would be check points along the road to screen for contraband and other illegal substances (GBRP 2025).

During project engagement, IAG members shared the importance of job creation within the community. Ensuring appropriate training and opportunities for members who seek employment with the Project was highlighted (IAG 2025b). Additionally, members would like to see a lower cost of living in the Kitikmeot Region (IAG 2025b). However, concerns about potential effects from changes in employment and the economy were also raised during engagement for all phases of the Project. For example, community members in Gjoa Haven expressed concern about unequal job opportunities between Kitikmiut and out-of-region workers and advised that Kitikmiut should be given priority for Project employment due to the rising cost of living and the need for economic benefits (GBRP 2025). Community members in Taloyoak also emphasized the need for equal training and employment opportunities between western and eastern Kitikmeot communities (GBRP 2025). Though, some members of the IAG questioned the benefits of employment because the proposed road would be located far from Kitikmeot communities, making it difficult to travel to work (IAG 2025a).

During project engagement, the Tłı̨chǫ Government commented that jobs should be made available for local communities and businesses with ties to the Tłı̨chǫ Investment Corporation (GBRP 2017). Cambridge Bay residents shared that increased business opportunities may be brought in through the Project (GBRP 2025). Community members in Gjoa Haven commented the Project may improve the regional economy by providing increased access to critical minerals in the Kitikmeot Region. They also inquired about the use of Inuit-owned businesses for the Project and said the Project would create jobs for youth, a comment that was echoed in Kugluktuk and Kugaaruk (GBRP 2025). The Kugaaruk HTO also commented that the road would make shipping fuel and dry goods to communities cheaper (GBRP 2025). In Taloyoak, community members stated the Project would help improve the cost of living in the community once a road was built from Yellowknife to the Nunavut border, specifically with groceries (GBRP 2017, 2025). However, community members in Cambridge Bay were concerned these benefits would primarily apply to those who did not receive government subsidies (GBRP 2025).

Through project engagement, community members in Gjoa Haven commented on the need for improved school attendance as a precursor to successful employment, noting that the current generation who would be employed on the Project had only a 20% attendance rate at a grade 7 level (GBRP 2025). The Hamlet of Kugluktuk commented that training opportunities were the key to getting youth into the workforce (GBRP 2025). The Qiqirtaq Ilihakvik High School inquired about funding opportunities to receive training to work on the Project (GBRP 2017).

During a NIRB public comment period, the Kugluktuk HTO commented that due to the many mines and exploration sites in the Kitikmeot Region, there was no capacity to fill jobs for the Grays Bay Road and Port. The Kugluktuk HTO also added the Project would not directly benefit communities since it would be a road to “nowhere” (NIRB 2024c).

During project engagement, community members in Kugluktuk expressed concern about Arctic sovereignty and whether other countries would be able to travel freely through the Arctic (GBRP 2025). The Taloyoak HTO reiterated that Arctic sovereignty was a priority for their community (GBRP 2025).

24.3.6.2 Mitigation, Management, and Enhancement Measures

Adherence to standards, best management practices, and mitigation measures are expected to prevent or reduce changes to cultural practices, laws, and governance systems, resulting from the Project. Potential effects will be mitigated through management practices applied during design, Construction, Operations and Maintenance, and temporary workspace reclamation, while specific mitigation may be required in certain circumstances. The mitigation strategy will overlap across several interrelated VCs for which the effect pathways are similar (e.g., community health and well-being). The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

Key mitigation measures to prevent or reduce changes in cultural practices, laws, and governance systems that inform how TLMRU occurs are summarized in Table 24.16. Where applicable and feasible, WKR has sought to align selected measures with recommendations identified through engagement with Kitikmiut and other potentially affected Indigenous groups.

Table 24.16 Mitigation, Management, and Enhancement Measures for Change to the Cultural Practices, Laws, and Governance Systems that Inform how TLMRU Occurs

Potential Effect	Effect Pathway	Mitigation, Management, and Enhancement Measures
Change to cultural practices, laws, and governance systems that inform how TLMRU occurs	Alteration of conditions of use, including access to land, water, resources, and culturally important places. Alteration to cultural transference opportunities, including use of preferred language(s) and transmitting histories, stories, and cultural practices to future generations. Alteration to decision-making abilities regarding land and water, and ability to uphold cultural traditions, laws, and governance systems that inform TLMRU. Alterations to community conditions associated with project workforce.	• WKR will develop and implement a **Road Management Plan** through engagement with the Kitikmeot Inuit Association and Government of Nunavut. As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure. The Grays Bay Road will be a private road, with limited or controlled access to the public. The Project will implement a no-harvesting policy to project personnel while housed at work camps for the Project. Harvesting is managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Regional Inuit Associations (i.e., Kitikmeot Inuit Association) and Inuit Wildlife Organizations (HTOs). WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited. • WKR will develop and implement policies for on-site workers for the engagement in traditional land use activities, as these have been linked to overall community wellness. • WKR will facilitate access to the land for travel and transportation purposes, and will provide safe travel facilities at the port and at Jericho Station. • WKR will provide emergency services and shelters along the road. Permanent and Temporary Camps will also serve as emergency shelters. • WKR will identify opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling. • WKR will provide access to on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness. To enhance project benefits through employment and economic opportunities, WKR will implement the following management plans and strategies: • Information related to employment and contracting opportunities will be made accessible to local Inuit. • A **Labour Relations Strategy** will be developed and implemented to enhance and retain local Inuit employment, with a focus on preferential Inuit hiring. The Labour Relations Strategy details skills and entrance requirements, employee benefits, employee communication, work rotation schedules, employee orientation programs and ongoing support for Project workers during employment. • A **Training Strategy** will be developed and implemented to identify specific skill requirements for employment on the Project and to work in collaboration with local and regional training and educational facilities to increase opportunities for local Inuit and youth employment (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs. For unskilled positions, practical experience will be accepted in lieu of educational attainment. • A **Procurement Strategy**, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment. • WKR will develop and implement gender equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations. • WKR will consider hiring a community engagement liaison to support engagement with the Kitikmeot Region. • A community feedback tool or process will be established to receive and address community suggestions, concerns and complaints. • A **Socio-economic Monitoring Program** will track a range of socio-economic indicators to monitor outcomes of the Project. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on employment and economy are identified. • WKR will develop and implement a **Culture Program** at the Project's main camps. The Culture Program will include provision of occasional country food to personnel at camps and is intended to create a more inclusive work environment while supporting local food traditions and aiding to build cultural respect among non-Inuit personnel. Discussion of Inuit cultural practices, laws, and governance systems may occur through this program. • WKR will develop and implement cultural awareness and sensitivity training, an Employee Code of Conduct, and anti-harassment and violence in the workplace policies, procedures and training for all personnel and contractors. • WKR will consider flexibility in employee schedules, to help accommodate important cultural activities. • WKR will abide by the *Inuit Language Protection Act* and develop measures that support use of Inuktut. See also Table 24.12 for additional measures to reduce effects on the availability of TLMRU resources and habitats and on socio-economic conditions, including community health and well-being. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project.

24.3.6.3 Project Residual Effects

The Project has the potential to affect cultural practices, laws, and governance systems that inform how Kitikmiut or other potentially affected Indigenous groups' TLMRU occurs. These potential changes include alterations to conditions of use of resources, land, and water, alterations to cultural transference, alterations to decision-making abilities, as well as alterations to community conditions associated with the project workforce (both positive and negative). When combined, the residual effects for each VC discussed in Sections 24.3.3.3, 24.3.4.3, and 24.3.5.3 have the potential to affect TLMRU conditions of use and this analysis takes those discussions into consideration as well.

Change to Cultural Transference

Opportunities for cultural transference are understood to emerge through access to traditionally harvested resources and traditional land use sites, ability to engage in cultural practices, and ability to transmit knowledge and language to current and future generations within preferred areas and under the conditions preferred and valued by Kitikmiut and other potentially affected Indigenous groups.

Both negative and positive residual effects on cultural transference are predicted to result from the Project. Project activities such as vegetation clearing and building project infrastructure during the Construction phase will result in loss of plants and habitat. This will directly remove or alter locations that may be used to practice cultural transference (e.g., harvesting locations, teaching sites) that are within the PDA. The Project also has the potential to affect cultural transference through reduced opportunities and alteration of the conditions required (e.g., sense of place and peaceful enjoyment) within the PDA and adjacent areas relied upon for cultural practices as a result of sensory disturbances from vessel and vehicle traffic, blasting, and other project activities. Opportunities for cultural transmission may also be reduced with increased competition in harvesting and land use by non-Indigenous people. If opportunities for Kitikmiut and other potentially affected Indigenous groups to engage in cultural expression at culturally important sites within or near the PDA are altered or reduced due to the Project, there may be an alteration or loss of cultural transference activities such as teaching and transmission of skills, language, and the ability to pass on cultural beliefs and values, including resource sharing and relationships of reciprocity, during both the Construction and Operations and Maintenance phases. Alterations of cultural transference opportunities may also occur as a result of a change to perceptions of land health and quality, or an increase in travel time, costs, and distances required to engage in cultural transference opportunities.

A change in the ability to communicate in Inuinnaqtun and other Indigenous languages may be disproportionately felt by Kitikmiut and other Indigenous Peoples who are employed by the Project and their families due to a disruption in their ability to be out on the land or in their home communities, where the same languages and regional dialects are spoken. Due to the rotational nature of shift work, Project employees may be absent from community events, gatherings, ceremonies, and harvesting opportunities, where Inuktut dialects (e.g. Inuinnaqtun and Inuktitut) and other Indigenous languages are used and knowledge about language is passed down intergenerationally.

Positive residual effects may be experienced as a result of increased access to areas and resources, and improved financial resources due to participation in the project workforce – both of which would increase opportunity for TLMRU activities. The road alignment reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to IOL. As a result, during the Operations and Maintenance phase, the road may provide Inuit with access to areas and resources that have previously been difficult or dangerous to access, thereby increasing opportunities for cultural transference.

Change to Decision-making Abilities

The Nunavut Agreement established the NIRB to facilitate Inuit participation in decision-making during the early stages of project planning and development. Through this process, Inuit perspectives and concerns related to land and resource use are identified, considered, and incorporated into project review and future project planning, including this Project.

The Project has the potential to alter decision-making abilities for Kitikmiut and other potentially affected Indigenous groups regarding preferred lands and resources. For example, if access to harvesting and cultural sites or the quality and quantity of resources available to Kitikmiut and other potentially affected Indigenous groups are diminished, then their decision-making abilities regarding preferred lands and resources that inform how TLMRU is exercised may be adversely affected. This may occur through reductions in opportunities to be on the land, and some individuals may be deterred by either real or perceived effects of the Construction and Operations and Maintenance phases. If the quality, quantity, or distribution of available resources and access to the resources and harvesting and cultural areas are diminished, and the quality of experience at harvesting areas and cultural areas are predicted to be adversely altered, the decision-making abilities regarding use of the preferred lands and resources that inform how TLMRU is exercised for Kitikmiut and other potentially affected Indigenous groups may be adversely affected.

However, Inuit decision making is anticipated to also experience positive effects as a result of the Project due to the Kitikmeot Inuit Association's involvement in the Project as a major shareholder and decision-maker for the Project's design and Construction activities. For example, the road alignment was chosen based on the Kitikmeot Inuit Association's preferred route. This is discussed further in Volume 9, Section 29 (Non-traditional Land, Marine, and Resource Use).

As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure. During the Construction and Operations and Maintenance phases, the road will be private, with limited or controlled access to the public. Harvesting will continue to be managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Kitikmeot Inuit Association and relevant HTOs. WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be

established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited.

Change to Community Conditions

The project workforce will bring alterations to community conditions that will be both positive and negative for Kitikmiut and other potentially affected Indigenous groups. The Project will bring numerous opportunities and benefits, including employment, training, and contracting. As noted in Volume 9, Section 27 (Employment and Economy), WKR believes the Project will provide new opportunities and long-term benefits for the people, communities, and economy of the Kitikmeot Region, as well as for Nunavut and Canada more broadly.

Kitikmiut and other potentially affected Indigenous groups have an existing workforce and own businesses that provide various supplies and services required for the Project. It is possible for the Project to have a positive effect on the employment rate for Indigenous people during all Project phases. Where possible the Project will prioritize hiring unemployed and under-employed residents from Kitikmeot communities and Nunavut through targeted training, and given current high regional unemployment rates, these measures should help limit adverse effects. WKR will consider hiring a Kitikmeot liaison officer to be based in each community in a full or part-time capacity to communicate and coordinate project-related matters. A Labour Relations Strategy will be implemented to hire and retain local Inuit employees. The Labour Relations Strategy will detail skills and entrance requirements, employee benefits, employee communication, work rotation schedules, and employee orientation programs.

Project-related employment could limit time to engage in TLMRU, while Project-related employment income will provide meaningful financial resources that could support participation in TLMRU (including fuel, gear, and equipment). Limited financial resources are known to be a key barrier to harvesting and employed Inuit are more likely to participate in harvesting than unemployed Inuit because finances are less of a barrier (Kumar et al. 2019). While paid employment can improve access to the equipment needed for harvesting and other TLMRU activities, work schedules can interfere with TLMRU in some instances. WKR will provide flexibility in work schedules to enable continued participation of Inuit workers in traditional and cultural activities. This potential interference can extend beyond the physical activity of harvesting and extend to cultural practices such as the composition of harvesting parties or how country foods are shared within the community.

Project working conditions (e.g., fly-in fly-out rotational shift work and living at camp, potential for racism and intercultural tensions in the workplace) during the Construction and Operations and Maintenance phases may affect community conditions, including cultural, mental, and spiritual well-being. Working in a remote camp setting may not be conducive to TLMRU because of various factors such as time away from family, home communities, and missing cultural events while on work rotations. Out-of-region workers at camp may be inclined to pursue land activities like hunting and fishing during time off work, which could

increase competition for resources with Kitikmiut and other potentially affected Indigenous groups and decrease the availability of country foods. However, a no-harvesting policy will be implemented for project personnel, prohibiting harvesting while working on the Project. This pathway may also occur during the Operations and Maintenance phase, although to a lesser extent due to a smaller workforce. Lastly, racism or harassment could be perpetrated by project workers of any background, against project workers of any background, adversely affecting their well-being. WKR will provide mandatory cultural awareness and sensitivity training and harassment and discrimination policies to all project personnel and contractors.

Kitikmiut and other potentially affected Indigenous groups have also expressed concern that increased incomes could lead to alcohol and drug use by some residents and other social issues. Consideration of the potential social effects associated with changes to community conditions are considered in Volume 9, Section 26 (Community Health and Well-being). The Project may also affect the capacity of local accommodations, health care and social services, community services, and other amenities and services. The Project is not anticipated to increase demand on health infrastructure and services in the five main Kitikmeot communities of Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven, since the Project will rely on work camps to house the Project workforce, where some health services will be available. Inuit, women, Elders, people with disabilities, and those with chronic health conditions may be disproportionally affected by a reduction in the availability or timeliness of health services. In turn, delayed access to health infrastructure and services may interfere with intergenerational knowledge transfer and the ability to engage in cultural practices. However, once Construction of the Project is complete, access to health services is anticipated to return to baseline conditions.

Summary

This assessment recognizes that the cultural practices, laws, and governance systems that inform how TLMRU occurs may occur year-round within the LAA on the preferred lands and waters to which Kitikmiut and other potentially affected Indigenous groups have access. If harvesting and cultural areas are altered, the quality, quantity, or distribution of TLMRU resources available within the LAA is diminished, or access to these resources or areas are altered, an Indigenous group's cultural practices, laws, and governance systems that inform how TLMRU occurs may be adversely affected through reductions in opportunities to be on the land, and may be deterred by either real or perceived effects associated with the project. They may also be positively affected if the Project provides access to resources or areas that have previously been difficult or unsafe to reach.

WKR recognizes that Kitikmiut and other potentially affected Indigenous groups may choose not to undertake TLMRU activities within the VC RAAs that overlap their respective preferred land use areas for a variety of cultural, spiritual, aesthetic, or personal reasons.

Overall, during both the Construction and Operations and Maintenance phases, residual effects of the Project on cultural practices, laws, and governance systems that inform how Kitikmiut and other potentially affected Indigenous groups' TLMRU occurs are likely to occur. Residual effects are predicted to be both positive and adverse. Positive residual effects may be experienced through increased access for Kitikmiut and other potentially affected Indigenous groups to areas previously inaccessible, training, employment, and economic opportunities providing funds needed to participate in TLMRU activities, and

Inuit oversight in land and resource management decisions. Adverse residual effects may be experienced through temporary disruptions to access for areas required for cultural practices during the Construction and Operations and Maintenance phases, increased harvesting competition, reduced time to participate in TLMRU activities, and potential effects on mental, cultural, and spiritual health through exposure to the project workforce. Positive residual effects are not characterized further.

Adverse residual effects are predicted to be low to moderate in magnitude and extend to the RAA. The Project is anticipated to have low magnitude effects on decision-making as the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL and involvement in the Project as a major shareholder of WKR. However, project activities have the potential to disrupt cultural transference to the extent that there may be a decline in the quality of experience for teaching and transmission of skills, language, and the ability to pass on cultural beliefs and values are affected by sensory disturbance from the Project or an increased level of effort is required (i.e., moderate magnitude). Residual effects will be short-term to long-term in duration depending on the effect mechanism; for example, the ability to engage in cultural practices may be impacted from a change in family and community dynamics and cohesion, which are predicted to be short- to long-term in duration, depending on the project activity (see Volume 9, Section 26.3.6 [Community Health and Well-being]). Similarly, some project activities will result in effects that are continuous, while others are irregular. In addition, effects will be both reversible and irreversible, since some reclamation efforts will support a return to baseline conditions following Construction, while other changes will be impacted by permanent project components.

Potential alterations to community conditions associated with the project workforce (both positive and negative) will be mitigated through mitigation, management, and enhancement measures related to recruitment, training and employment (Volume 9, Section 27 [Employment and Economy]). Project-related employment may reduce opportunities to participate in traditional activities. However, while employment has the potential to reduce harvesting time for country foods, mitigation, management, and enhancement measures are anticipated to reduce the effect by providing harvesters time away from work during harvesting periods (Section 17 [Employment and Economy]). Priority consideration will be given to Inuit workers who request time off for cultural or harvesting purposes. Mitigation, management, and enhancement measures for the social effects associated with changes to community conditions are provided in Volume 9, Section 26 (Community Health and Well-being).

WKR is committed to regularly communicating the results of pertinent management and monitoring programs to local communities. This will include annual visits to communities and with stakeholder groups, the preparation of annual reports and other forms of outreach. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected parties during the advancement of Project design, planning, and monitoring, throughout the life of the Project.

24.3.6.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Adverse changes to cultural practices, laws, and governance systems that inform how TLMRU occurs may disproportionately affect certain sub-populations identified through GBA Plus. For example, Elders and youth may experience more pronounced impacts from a change in cultural practices since Elders pay

a vital role in intergenerational knowledge transfer to youth. Barriers to participate in these opportunities can contribute to feelings of loss or exclusion. Youth and emerging harvesters may also face diminished exposure to cultural practices and other TLMRU activities if local harvesting opportunities decline.

While the Project is expected to affect Kitikmiut more prominently than other potentially affected Indigenous groups because of certain localized effects to TLMRU resources within the Kitikmeot Region, transboundary effects are considered in Volume 10, Section 33.

24.3.7 Summary of Project Residual Effects

Table 24.17 summarizes Project residual effects on TLMRU.

Table 24.17 Project Interactions with TLMRU

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in quality, quantity, or distribution of TLMRU resources	C/O	A	L-M	PDA to RAA	MS - HS	ST-LT	C	R, I
Change to specific areas of cultural importance	C/O	A	L-M	LAA	N/A	ST-LT	C	I
Change in access to resources, sites, or areas where TLMRU occurs	C/O	P*, A	L-M	LAA	N/A	ST-LT	C	R, I
Change to cultural practices, laws, and governance systems that inform how TLMRU occurs	C/O	P*, A	L-M	RAA	N/A	ST-LT	MIR, C	R, I

Key:
See Table 24.3 for detailed definitions

Project Phase:
C: Construction
O: Operation

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not applicable
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
MIR: Multiple irregular event
MR: Multiple regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:
P* - Positive effects are not characterized further

24.3.8 Transboundary Effects

An assessment of the potential for transboundary effects on TLMRU is provided in Volume 10, Section 33 – Transboundary Effects Assessment.

24.3.9 Effects of Climate Change on Traditional Land, Marine, and Resource Use

Effects from climate change will continue to affect TLMRU. As discussed in Volume 5, Section 12.3.2, the annual mean temperatures and maximum temperatures are projected to increase over time in the western Kitikmeot Region, as is the annual precipitation. Kitikmiut and other potentially affected Indigenous groups shared details about changes they have observed or are experiencing related to climate.

General Climate

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants shared that the weather and climate are changing and temperatures are increasing.

> *It used to get really cold. Now it's getting warmer. The ocean doesn't freeze anymore; it's like slush.* (Banci and Spicker 2024)

> *The weather is really different…The wind, even the snow has changed. I teach my son, the winds come from the west, the snow drifts show this. But now some are not right from the west, the snowdrifts are really changing. You used to travel by the snowdrifts. I showed my son like my dad showed me, how to use the snow drifts. You have to notice the sun, wind, sun. It used to be calm out, and now it's different.* (Banci and Spicker 2024)

> *The weather was no longer predictable and sometimes it would rain during the winter.* (Banci and Spicker 2024)

> *A lot of times, there are drastic changes in weather. Just like in wintertime, January, sometimes you get rain showers. The oddest one that happened was a thunderstorm with snow in the spring, while there was still snow on the ground. It's what we witnessed at Pellatt Lake. In springtime, late April, we always see clouds and everything, and now all of a sudden we start seeing lightning over there. There still was snow on the ground. That's what we have witnessed over the last little while, the last 20, 25 years.* (Banci and Spicker 2024)

> *Long ago there used to be a lot of rain so the rivers were always raging with fast water... Today it isn't like that anymore… The land is so different from long ago. The land seems to be so dry and hardly any water due to very little rain nowadays.* (Banci and Spicker 2024)

NTKP consultants reported there is less snowfall than there used to be, which makes travel in winter more difficult. In addition, dust and contaminants are affecting the quality of the snow they do get. Hunters have reported there is not much snow in their hunting areas. Winter activities such as dog sledding and snowmobiling have been affected in the past by a lack of snowfall and changing freeze and thaw cycles. NTKP consultants shared that water quantity is decreasing as there is less snow (Banci and Spicker 2024).

> *Over the winter, even here sometimes, you see this really, really fine snow, more like a flour coming down. It's not snow; it's like flour coming down. They're not like snowflakes, it's like dust coming down* (Banci and Spicker 2024).

NTKP consultants have noted changes in snow quality, particularly during igloo construction. Snow is now often described as wetter, resulting in reduced structural integrity and shorter durability of igloos compared to the past (Banci and Spicker 2024). Some NTKP consultants have attributed this change to dust carrying bugs into the area while some others attributed it to climate change (Banci and Spicker 2024).

During project engagement, IAG members noted changes to weather and wildlife due to climate warming and expressed concerns regarding future impacts of climate change (IAG 2025b). During project engagement, the Kugaaruk HTO commented that climate change was affecting the western Kitikmeot Region more than the east (GBRP 2025). The Kitikmeot Inuit Association also added the Arctic is becoming more accessible due to the effects of climate change (GBRP 2025). Concerns about a warming climate and disease affecting caribou were also raised by the Kugluktuk HTO (GBRP 2017).

During project engagement, participants from Gjoa Haven expressed concerns about wildfires (GBRP 2025).

Through the literature review that was conducted, Kitikmiut expressed concern about recent climate and weather changes, such as the delayed freezing of sea ice and its effect on island caribou herds crossing to the mainland. In recent years, Kitikmiut have observed caribou falling through thin ice during migrations when the ice freezes late, which has led to caribou mortalities (Prno et al. 2011). In addition, freezing rain has prevented caribou from feeding on vegetation in some instances (Prno et al. 2011).

Through the literature review, residents in Gjoa Haven reporting experiencing an increase in clouds, changes to precipitation, and differences in the length of the snowmelt.

Through the literature review, the Tłı̨chǫ Research and Training Institute described the summer of 2023 as “hot and too dry” (Dedats’eetsaa 2024:15). In July that year, there were tundra fires at Contwoyto Lake. Dry weather and reduced water levels in lakes, muskeg, and ponds led to a shorter growing season (Dedats’eetsaa 2024). These conditions were not consistent with the summer weather reported for previous years, which since 2016, has been a mix of wet and windy, cool and windy, and warm and dry summers (Dedats’eetsaa 2024).

Through the literature review, the Inuvialuit Regional Corporation expressed concern regarding greenhouse gas emissions, pollution, and other environmental effects (IRC 2022). The Yellowknives Dene First Nation also reported that climate change and other projects have put increased pressure on caribou (YKDFN 2016).

Water

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants stated that sea levels are changing, with some stating levels are going down. Consultants have also observed freshwater levels going down, including in the Bathurst Inlet area. They expressed concern about the ability of Arctic char to travel up the rivers (Banci and Spicker 2024).

NTKP consultants noted that water quality and quantity are declining, including in lakes, rivers, and freshwater springs. They attributed these changes to less precipitation, climate change, increased contaminants from development, melting permafrost, airborne pollutants, increased tourism and waste, and an increasing goose population. These effects are being experienced more in coastal areas, although there are changes inland as well.

> *The lakes start to get dry, even the rock basins where water collects, when the land is very dry. When it rains those places get full of water. These changes are happening around Cambridge Bay. Those places start to dry out because the sun is too hot and it doesn't rain. If I can't find good water it's going to be difficult.* (Banci and Spicker 2024)

> *The climate is changing and the weather is different now. Even the lakes have changed. Long ago when you made tea using water from the river or lakes it used to be good. Now the water doesn't make very good tea anymore. The Coppermine River is starting to change too. Inuit have begun to talk about the changes now. Even to drink out of the river is not very good because the water is changing.* (Banci and Spicker 2024)

> *When we used to walk around south of here (Kugluktuk), there used to be lots of natural spring water everywhere. These are not as visible anymore as the land seems to be getting dry every year. We used to drink out of these natural springs and they were really cold. They are drying up and are not seen around anymore. A lot of this permafrost is receding very fast, that's what we've been noticing.* (Banci and Spicker 2024)

Ice

Through project engagement, participants fromthe Kugaaruk HTO expressed concern about the thickness of ice as a result of climate change (GBRP 2017). NTKP consultants also reported changes in lake and sea ice, including that the ice is thinner, slushy, arriving later, and melting earlier. These changes are affecting TLMRU. They stated the decreased ice quality poses a safety concern to people. These changes have been observed in several locations in the vicinity of the Project, including Omingmaktok (Bay Chimo), Cambridge Bay, and Bathurst Inlet.

> *The ice is thinner for both lakes and ocean, but especially the ocean. It used to take maybe a month for the ice to go away from the area, and now it only takes two days sometimes.* (Banci and Spicker 2024)

> *[W]e stop our snowmachines going out hunting about one month earlier, because the ice is really rotten, too dangerous to go out there. So, we stop our spring hunt in early April or middle of May. We used to go hunting until June with snowmobiles and now we can't even go past May.*
> (Banci and Spicker 2024)

Earlier melting and decreased ice quality have been changes observed in sea and lake ice, making boat and foot travel unsafe in some instances. Flood-like conditions were reported to occur during the spring-breakup due to the rate of ice melting (Banci and Spicker 2024).

During the community-based primary research, members of Kitikmeot communities expressed concern about ice roads from the Northwest Territories becoming dangerous due to climate change and asked whether the Project's road design will take into account climate change (Kurtairujuark Hunters & Trappers focus group, Kugaaruk, October 29, 2024, pers. comm.).

Wind

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants reported they are seeing new insects, such as hornets, horseflies, and red ants; however, butterflies, which were once common, are decreasing. They attribute this change to the changing winds and dust carrying the insects as well as to climate change.

Wind (*kakiaktok*) was a major factor affecting travel on the water in the Grays Bay area. Travel in the summer was more pleasurable as winter brought difficult conditions. NTKP consultants reported that winds are increasing and while the amount of precipitation from rain is declining, they sometimes experience rain at unpredictable times, such as during winter (Banci and Spicker 2024).

Climate-driven Species Movement

Through the literature review, the Yellowknives Dene First Nation reported that climate change and other project developments have put increased pressure on caribou (YKDFN 2016).

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants reported there are more moose present in the Kitikmeot Region than there were in the past, attributed to climate change (Banci and Spicker). Grizzly bears have also been reported to be on the rise for the past two decades due to warmer temperatures (Banci and Spicker 2024).

The seasonal movements of animals, particularly the onset of caribou migration, served as key indicators of spring. The lunar cycle was traditionally used to mark seasonal changes and to interpret wildlife behavior throughout the year (Banci and Spicker 2024).

Through project engagement, the Kugluktuk HTO reported that the warming climate is affecting caribou (GBRP 2017). IAG members shared that bald eagles and golden eagles are coming up north, attributing the raptors' presence to climate change (IAG 2025a).

Summary

The conclusions of the TLMRU assessment are not likely to alter when considering changes to environmental conditions as a result of climate change, as environmental conditions are anticipated to continue changing regardless of the establishment of the Project. Some degree of adaptation to ongoing environmental changes is also very likely to continue, consistent with historical and contemporary responses by Inuit.

Analysis of climate change projections indicated that mean, maximum, and minimum temperatures, extreme heat events, and the number of thawing and growing degree days are projected to increase. Precipitation, permafrost thaw, and wildfire activity are also projected to increase under continued climate change (see Volume 5, Section 12 [Climate Change] Appendix 12B [Climate Risk Assessment]). These changes are likely to affect the availability, distribution, and stability of marine and terrestrial country foods. The warming trend in the Arctic will also likely facilitate changes to vegetation and the food sources relied on by caribou and other wildlife.

Changes in marine fish and mammal habitat may result from reductions in sea ice, changes in precipitation, and water temperature increases. Climate change may also result in changes in freshwater fish, marine fish, and marine mammal behaviour, including the alteration or disruption of life history timings (e.g., spawning and foraging periods), changes in distribution patterns, and alterations in predator-prey interactions resulting in changes in anti-predator behaviour (Volume 7, Section 20 [Freshwater Fish and Fish Habitat] and Volume 8, Sections 22 and 23 [Marine Fish and Fish Habitat and Marine Mammals, respectively]). Kitikmiut and other potentially affected Indigenous groups rely upon the seasonality of fish and marine mammals. The effects of climate change could impact their harvesting ability. Through changes to Inuit cultural practices that are interconnected to the environment, climate change may have adverse effects on family dynamics and community cohesion (Volume 9, Section 26). Climate change could impact residual effects on employment and economy through physical changes to the environment (e.g., alteration in temperature, extreme precipitation) that potentially affect Project infrastructure and disrupt Project construction and/or operations and maintenance. Climate change could also result in a longer open water season, which could allow sea-lifts to deliver goods to the Kitikmeot Region more frequently. This could improve the timing, reliability, and frequency of community resupply to the region. Changes to community resupply could lead to changes in cost of living by building supply chain resiliency to reduce service disruption. (Volume 9, Section 27). Winter resource use activities (e.g., snowmobiling) have been affected from the lack of snowfall and changing waterbody freeze-up conditions. Alternatively, warmer weather may increase opportunities for some commercial and subsistence activities (i.e., fishing, hiking, hunting). Drier conditions could increase wildfire risk and potentially lead to increased pressure on the availability of some wildlife resources for hunting (Volume 9, Section 29).

To address climate change, resilience, mitigation, management, and enhancement measures will be factored into the project design and planning to avoid or lessen potential effects of the Project on the environment (and vice-versa, of the environment on the Project), including on climate-sensitive landforms such as permafrost, while working to address site drainage or erosion of roadbeds to reduce impacts of changing storm patterns influenced by climate change (see the Climate Change Risk Assessment in Appendix 12B).

24.4 Assessment of Cumulative Effects

As described in Volume 4, Section 9.4.3, the assessment of cumulative effects is initiated with a determination of whether two conditions exist:

- The Project is assessed as having potential adverse residual effects on a VC.
- The adverse residual effects from the Project overlap spatially and temporally with potential residual effects of other projects or physical activities on a VC.

Where these two conditions are met, then the assessment of cumulative effects continues. If these two conditions are not met, there is no expectation the Project will contribute cumulatively to residual effects, and further assessment is not warranted. The Project's residual effects on TLMRU that are likely to interact cumulatively with residual effects of past, present, reasonably foreseeable, or reasonably foreseeable induced (RFI) projects and physical activities are identified and characterized in this section.

24.4.1 Project Residual Effects Likely to Interact Cumulatively

Appendix 9A in Section 4, Assessment Methods, presents the project inclusion list (PIL) which identifies other projects and physical activities that might act cumulatively with the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 24.19), a cumulative effects assessment is carried out.

Effects identified in Table 24.19 as not likely to interact cumulatively with residual effects of other projects and physical activities (no check mark) are briefly discussed below. The assessment of the cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

Table 24.18 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Past				
Bathurst Inlet	✓	✓	✓	✓
Snap Lake Mine	-	-	-	-
Omingmaktok	-	-	-	-
Present				
Arcadia Bay Project	✓	✓	✓	✓
B2Gold George Property	✓	✓	✓	✓
B2Gold Marine Laydown Area	✓	✓	✓	✓

Physical Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	Change to specific areas of cultural importance where TLMRU occurs	Change in access to resources, sites, or areas where TLMRU occurs	Change to cultural practices, laws, and governance systems that inform how TLMRU occurs
Bulk Carriers	✓	✓	✓	✓
Cambridge Bay	✓	✓	✓	✓
Chuk and Fire Shear Blocks	✓	✓	✓	✓
Commercial Cargo	✓	✓	✓	✓
Commercial and Domestic Harvesting	✓	✓	✓	✓
Coppermine Project	-	-	-	-
Coppermine River Project	-	-	-	-
Diavik Diamond Mine	-	-	-	-
Ekati Diamond Mine	-	-	-	-
Epworth Project	-	-	-	-
Fishing Vessels	✓	✓	✓	✓
Gahcho Kué Diamond Mine	-	-	-	-
Goose Mine	✓	✓	✓	✓
Hackett River Project	✓	✓	✓	✓
High Lake (Izok Corridor Project)	✓	✓	✓	✓
High Lake East	✓	✓	✓	✓
Hood River Gold Project	✓	✓	✓	✓
Hope Bay Project	✓	✓	✓	✓
Hydroelectric	-	-	-	-
Icebreakers	-	-	-	-
Itchen Lake Property	✓	✓	✓	✓
Izok Lake (Izok Corridor Project)	✓	✓	✓	✓
Jericho Mine	✓	✓	✓	✓
Kennady North - Exploration	-	-	-	-
Kugluktuk	✓	✓	✓	✓
Lupin Mine	✓	✓	✓	✓
Muskox Nickel Property	-	-	-	-
Nunavut Community Infrastructure	✓	✓	✓	✓
NWT Community Infrastructure	-	-	-	-
Overflights	✓	✓	✓	✓
Passenger Ships and Pleasure Craft	✓	✓	✓	✓
Pistol Lake Project	✓	✓	✓	✓

Physical Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Rae Copper Exploration Project	-	-	-	-
Rockinghorse (Koamaogaktok) Project	✓	✓	✓	✓
Roma Project	✓	✓	✓	✓
Scientific Research	✓	✓	✓	✓
South Kitikmeot Gold Project	✓	✓	✓	✓
Tanker Ships	✓	✓	✓	✓
Tibbitt to Contwoyto Winter Road	✓	✓	✓	✓
Tourism	✓	✓	✓	✓
Tree River Lodge	✓	✓	✓	✓
TTMG Project	✓	✓	✓	✓
Tugs/Barges	✓	✓	✓	✓
Ulu Gold Project	✓	✓	✓	✓
Wolf/Mistake Lake Property	✓	✓	✓	✓
Yellowknife City Gold Project	-	-	-	-
Past and Reasonably Foreseeable				
Indin Lake Gold Project	-	-	-	-
Mon Mine	-	-	-	-
Yellowknife Gold Project	-	-	-	-
Project-Related Physical Activities				
Reasonably Foreseeable				
Arctic Economic & Security Corridor	✓	✓	✓	✓
Courageous Lake Mine	-	-	-	-
NICO	-	-	-	-
Reasonably Foreseeable Induced				
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	✓	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion: Jericho	✓	✓	✓	✓
Grays Bay Road and Port: Airstrip Expansion	✓	✓	✓	✓
Grays Bay Road and Port: Road Traffic	✓	✓	✓	✓
Grays Bay Road and Port: Port Traffic	✓	✓	✓	✓
Grays Bay Road and Port: Air Traffic	✓	✓	✓	✓

Physical Activities	Effects			
	Change in quality, quantity, or distribution of TLMRU resources	**Change to specific areas of cultural importance where TLMRU occurs**	**Change in access to resources, sites, or areas where TLMRU occurs**	**Change to cultural practices, laws, and governance systems that inform how TLMRU occurs**
Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border	✓	✓	✓	✓
Hackett River Project	✓	✓	✓	✓
Hackett and Back River Access Road	✓	✓	✓	✓
High Lake Mine (Izok Corridor Project)	✓	✓	✓	✓
Izok Lake Mine (Izok Corridor Project)	✓	✓	✓	✓
Izok Lake Access Road	✓	✓	✓	✓

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

The projects and activities with no interaction (no check mark) are not anticipated to overlap spatially with the TLMRU RAA. TLMRU effects are not expected to interact cumulatively with projects where there is not an anticipated cumulative interaction with the resources, sites, or areas required for or involved in TLMRU (including access) nor when there are not anticipated sensory disturbances.

Specific to the potential physical activity of icebreakers, all currently proposed reasonably foreseeable and RFI projects and activities do not propose ice-breaking as an activity, therefore no interaction is noted.

24.4.2 Change in Quality, Quantity, or Distribution of TLMRU Resources

This section assesses potential cumulative changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU.

24.4.2.1 Cumulative Effect Pathways

Potential residual cumulative effects on the quality, quantity, and distribution of traditional resources arising from past, present, reasonably foreseeable, and RFI projects and activities have similar pathways as those arising from the Project (Section 24.3.3). This analysis takes into consideration the Project's anticipated contribution to cumulative effects on wildlife (including caribou, birds, and other wildlife), marine mammals, vegetation, freshwater and marine fish, and fresh and marine water and how these effects may change quality, quantity, and distribution of the resources relied upon for TLMRU activities. The conclusions in this section are informed by WKR's Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, community-

based primary research, and the related biophysical and human environment VC assessments presented in this IS.

Through the literature review, the Inuvialuit Regional Corporation has expressed concern regarding greenhouse gas emissions, pollution, and other environmental effects (IRC 2022). They also reported the Peary caribou population on Banks Island has substantially declined since the 1950s (Nagy 1999). The Yellowknives Dene First Nation reported that other projects and climate change have put increased pressure on caribou (YKDFN 2016). Athabasca Denesųłiné Né Né Land Corporation have noticed a decline in caribou populations and community members who depend on caribou are recognizing the hardship of the decline in caribou populations (ADNLC 2024).

Through the literature review, the Tłı̨chǫ Government has also expressed concern for potential effects to caribou and changes to their migration patterns (TG 2012, 2017d; GKP 2010a). Tłı̨chǫ Elders have identified that mining activity around Yellowknife has disrupted the migration patterns of caribou due to tailings ponds, sensory disturbances, smoke, and human activity (GKP 2010a). The Tłı̨chǫ Government has also previously stated that 19 years of mining in the Jay project area turned the region into a place where Elders believe caribou no longer want to travel due to decreased quality and availability of food sources (MVRB 2016). The Tłı̨chǫ Government has similarly reported a significant decline in the population of both Bathurst and barren-ground caribou herds that migrate south of Bathurst Inlet; they added that as of 2023, Bluenose East herd numbers had experienced a modest increase (Dedats'eetsaa 2024). Protection of the Bathurst caribou herd is a priority for the Tłı̨chǫ Government, who have said any new stressors for caribou must be avoided (MVRB 2016).

Through the literature review, the North Slave Métis Alliance reported that caribou have moved to locations further away from traditional harvesting areas within their land use area and now head north to Gordon Lake, Northwest Territories, because they have sensitivity to noise, smell, and activity from the Ekati mine in the area (NSMA 2001).

Through the literature review, the Yellowknives Dene First Nation reported that people who live around mines are experiencing water quality issues (YKDFN 2017b). Members shared that declines in water quality directly affects fish presence, wildlife, and cultural use (YKDFN 2019). Northwest Territory Métis Nation expressed concerns about water quality as a result of mining activities (NWTMN 2012). The North Slave Métis Alliance expressed concern about introduced sediment affecting fish and fish habitat, stating that fish are sensitive and require clean water (NSMA 2001).

In the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants identified three periods of significant caribou population decline in the 1920s, 1950s, and 2000s. These declines were attributed to a combination of stressors, including mineral exploration and development activities, increased predation by wolves, and severe winter conditions (Banci and Spicker 2024).

In the Project-specific Inuit Knowledge report, compiled from the NTKP database, consultants reported that increased development in the Kitikmeot Region has attracted more wolves due to poorly managed landfills and inadequate food management practices (Banci and Spicker 2024).

During a NIRB public comment period, Athabasca Denesųłiné Né Né Land Corporation expressed concern for cumulative effects to caribou herds throughout both Nunavut and the Northwest Territories (NIRB 2024c).

Through project engagement, Athabasca Denesųłiné Né Né Land Corporation expressed concern that cumulative impacts from roads, mines, power lines, noise, dust, and climate change can threaten caribou migration and survival (NIRB 2025a). Athabasca Denesųłiné Né Né Land Corporation recommended the inclusion of induced development in the cumulative effects assessment (NIRB 2025a).

Through project engagement, the Hamlet of Taloyoak expressed concerns regarding cumulative effects to wildlife due to exploration activity along the road, commenting that wildlife interactions with exploration sites could result in the spread of disease. They recommended annual wildlife monitoring to address these potential issues (GBRP 2025). The Taloyoak HTO also expressed concern the Northwest Passage would bring in traffic that may affect wildlife (GBRP 2025). IAG members were also concerned that increased shipping in the area could directly affect seals and other marine mammals (IAG 2025b). The Kugluktuk HTO expressed concern about effects from icebreaking as a result of increased vessel traffic (GBRP 2017).

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, Inuit have observed changes in surface water quality over recent decades, with one of the earliest indicators being how changes in the water affected the taste and appearance of tea. These changes have been attributed to the effects of climate change, due to reduced rain and snowfall, melting of permafrost, and changes in the weather. NTKP consultants reported they used to get their water from rocky areas. However, the water no longer tastes good because these areas have dried up (Banci and Spicker 2024). Additionally, increased introduction of contaminants due to mineral exploration, mine development, dust and airborne pollutants, tourism, and litter have been reported to affect the water (Banci and Spicker 2024). Kitikmiut reported there is high copper content in the waterbodies surrounding High Lake (GBEEC 2018a). Kitikmiut also expressed concerns regarding the tailings ponds at the Lupin Gold Mine at Contwoyto Lake and how exploration companies manage their waste. Kitikmiut emphasized the need for companies to preserve the quality of the water.

24.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Implementation of mitigation, management, and enhancement measures described in Section 24.3.3.2 are anticipated to reduce the Project's contribution to cumulative effects on quality, quantity, and distribution of traditional resources.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

24.4.2.3 Cumulative Effects

The residual effects of the Project are anticipated to act cumulatively with the effects of past, present, reasonably foreseeable, and RFI projects and physical activities on the quality, quantity, or distribution of TLMRU resources. During the Construction and Operations and Maintenance phases, the Project will contribute to the alteration of habitat for resources harvested by Kitikmiut and other potentially affected Indigenous groups, as well as contribute to potential changes in diversity and distribution of resources. Sensory disturbance arising from road construction and ongoing traffic use is likely to have an effect on wildlife movement (such as caribou and muskox), as they avoid visual and auditory stimuli.

The quality, quantity, and distribution of TLMRU resources have been affected by past and current projects within the RAA that overlap Kitikmiut and other potentially affected Indigenous groups' TLMRU areas. Mining is the primary existing activity in the RAA, along with marine traffic, flights, tourism, and other activities (see Table 24.19). These activities may have contributed to a reduction in quality, quantity, or distribution of TLMRU resources by reducing habitat availability and suitability, increasing mortality risk for wildlife and fish species, and reducing or altering vegetation communities relied upon for TLMRU. It is assumed these activities will persist across the RAA. Vegetation clearing, harvesting pressure, climate change, and sensory disturbances (e.g., noise from blasting, air quality from dust) have already influenced the current conditions for TLMRU, such as the availability of wildlife, fish, plants, and water. Kitikmiut and other potentially affected Indigenous groups have expressed concerns regarding potential cumulative effects within their preferred TLMRU areas, including on the populations and diversity of harvested species. A change in the availability of resources has the potential to result in reduced use of country foods and other cultural practices connected to TLMRU, such as cultural transference, and participation in the traditional economy.

The Project could result in an increase in mineral resource development and activity due to increased access to mineral resources and mining tenured lands. In the Kitikmeot Region, the Kitikmeot Inuit Association oversees the management of IOL (Kitikmeot Inuit Association 2025) while subsurface exploration agreements and production leases for IOL are managed by Nunavut Tunngavik Incorporated (GOC 2024b). The Project's PDA overlaps with 2,297 ha of mining, exploration, and mineral tenures, representing 4.0% of the total area tenured for mining activity within a 2 km buffer around the PDA. Of the approximately 230 km all-season road, approximately 116 km are located within IOL. The remainder of the road and the port are on Crown land. Mineral resource development may be impacted during the Construction phase; however, WKR will engage with mining claim holders potentially affected by the Project to develop approaches to access their claims (see Volume 9, Section 29). In addition, as described further in Section 24.3.6, it is expected that the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL and involvement in the Project as a major shareholder of WKR.

As described in applicable biophysical VC assessments, past, present, reasonably foreseeable, and RFI projects and physical activities that are indicative of changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut or other potentially affected Indigenous groups' TLMRU (e.g., wildlife, fish, plants, water, marine resources) in combination with the Project include:

- RFI physical activities associated with the Operations and Maintenance phase of the Project (e.g., road, air, and port traffic, fuel storage expansions) and development of Phase 2 of the Project (Jericho Mine to NT Border), the Izok Lake and High Lake mines, Hackett River Project, and Hackett and Back River Access Road would each alter habitat and create sensory effects for wildlife and for Kitikmiut and other potentially affected Indigenous groups.
  - The Project in combination with RFI projects and activities will result in a reduction in the abundance of natural upland and wetland landcover classes, although all landcover classes will remain present within the Vegetation LAA and RAA; these combined projects and activities will result in a direct loss of 5,672 ha of natural landcover classes, representing 0.4% of the Vegetation RAA (Volume 6, Section 15).
  - Indirect Project effects from dust deposition (up to 40 m from the PDA) could affect an additional 3,073.6 ha (0.2%) of the Vegetation RAA and an additional 404.7 ha with the inclusion of RFI projects. This will result in further loss or alteration of habitat in the RAA that supports wildlife, vegetation, and aquatic resources for TLMRU (Volume 6, Section 15).
- Cumulative indirect effects from changes to hydrology, permafrost, and the introduction or spread of non-native and invasive plant species cannot be quantified with available information; however, changes are expected to occur near development footprints of RFI projects and activities (Volume 6, Section 15).
- The Project is anticipated to result in a maximum of 0.8% selected habitat loss for the Bathurst caribou herd (BCH), whereas RFI physical activities contribute to a maximum of 2.4%. Project-related effects to DUH selected habitat loss is higher at 1.5%; however, RFI physical activities are anticipated to contribute to a lower maximum amount of 0.3% (see Volume 6, Section 16).
- Bird habitat loss within the RAA will range between 42.6 and 333.2 km^2, depending on the bird guild. The Project is anticipated to account for 2.6% to 7.9% of bird habitat loss within the RAA while the RFI activities will attribute an additional 0.7% to 2.2% of bird habitat loss, depending on the bird guild (Volume 6, Section 17).
- The Project will affect the suitability of 2.4% and 2.7% of muskox summer and late winter habitat, respectively, in the Other Wildlife RAA, through direct and indirect habitat loss; RFI activities will expand the road network and increase traffic on the road and there is potential for the harvest rate to increase as a result of the Project and RFI activities. For moose, future physical activities are predicted to result in the direct and indirect loss or alteration of 92.9 km^2 of suitable habitat, for a total loss of 110.8 km^2. The Project is the primary contributor to these losses, accounting for approximately half of the total. However, the predicted loss of grizzly bear and wolverine habitat as a result of the Project and RFI projects and activities is anticipated to be 1.2% and 0.5% of baseline suitable habitat identified within the Other Wildlife RAA, respectively (see Volume 6, Section 18).

- During Operations and Maintenance, the Project is anticipated to add five vessels yearly, and RFI projects and activities are expected to add 40 additional vessels during the peak of RFI activities. The probability of vessel strikes for marine mammals is expected to remain low (see Volume 8, Section 23).
- The Project will act cumulatively with other present, reasonably foreseeable, and RFI projects and activities to increase the potential for shoreline/seabed disturbance as a result of vessel wake and propellor wash as well as underwater noise levels in the marine environment, which could affect marine fishing (see Volume 8, Section 22).
- During the Construction phase, cumulative effects on marine water and sediment quality may occur due to interactions between project vessels and existing activities and RFI projects and activities in the Marine Water and Sediment RAA such as domestic harvesting and tourism-related boating (e.g., Tree River Lodge). Available information on traffic frequency and routes is limited, but vessels involved are expected to be small, producing limited wake and propeller wash, compared to commercial cargo ships, (Volume 8, Section 21).
- If all reasonably foreseeable, and RFI projects proceed, in combination with the Project and past and present activities, this could result in change in freshwater fish habitat or change in fish health, growth, or survival. With the implementation of mitigation measures and habitat offsetting, where authorized, to maintain the sustainability of fisheries, cumulative residual effects on fish are not anticipated to cause a measurable change in the productivity of relevant fish populations, including those of cultural or traditional importance to Kitikmiut, other Indigenous groups, or other potentially affected communities in the RAA (see Volume 7, Section 20).

Reasonably foreseeable projects and physical activities, including RFI activities identified within the RAA include additional mining, and additional travelways, including access roads, traffic by air and in the port, and the Arctic Economic & Security Corridor. The construction and operation of these projects could further affect TLMRU within the RAA from which these activities can occur, including associated disturbance and nuisance effects from infrastructure and noise.

Changes in the quality, quantity, or distribution of resources involved in or required for Kitikmiut and other potentially affected Indigenous groups' TLMRU have and will arise from residual effects of past, present, reasonably foreseeable, and RFI projects and physical activities combined with the predicted residual effects of the Project. With the application of mitigation, management, and enhancement measures, residual cumulative effects are likely to occur, and are predicted to be adverse and low to moderate in magnitude in the RAA, taking into consideration cumulative residual effects on caribou (moderate effects on BCH range and movement, and DUH movement), marine mammals (moderate mortality and injury risk resulting from vessel strikes), and marine water and sediment quality (predicted to have low to moderate magnitude effects given that effects are limited to the PDA). Project residual effects will be short term (i.e., sensory during Construction Phases only) to long term (i.e., extend throughout Operations and Maintenance in combination with the long operating life of many of the reasonably foreseeable and RFI projects and activities) and will contribute to cumulative effects from RFI projects due to the continued sensory disturbances and removal/alteration of habitat for wildlife, vegetation, marine mammal, and fish species. However, wildlife, vegetation species, marine mammals, and fish species are expected to continue to be available throughout the RAA. The timing of cumulative effects is anticipated to range from

moderate to high sensitivity with a frequency range of multiple regular and irregular events and even continuous events.

Cumulative effects are expected to be reversible to irreversible. The underwater soundscape and surface water and sediment quality are linked to the Construction phase and would be reversible once construction ceases. Underwater noise from RFI vessels will continue through operations and maintenance, but are expected to be low in magnitude. However, WKR understands that residual effects of past, present, reasonably foreseeable, and RFI physical activities combined with the predicted residual cumulative effects of the Project are anticipated to be irreversible for Kitikmiut and other potentially affected Indigenous groups, as they have already experienced changes to quantity, quality, and distribution of TLMRU resources and these experiences are likely to increase in the future rather than decrease and will require regional initiatives and programs to be developed.

In collaboration with the Kitikmeot Inuit Association, and other relevant parties, WKR has developed an IAG. The purpose of the IAG is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge. Where possible, WKR will include relevant HTOs, Inuit land users, Elders, and Knowledge Holders in the membership of the group and will demonstrate its consideration for community input and Inuit and Community Knowledge as part of the group's function.

24.4.3 Change to Specific Areas of Cultural Importance

This section assesses potential cumulative changes to specific areas of cultural importance where traditional activities or knowledge transfer occur.

24.4.3.1 Cumulative Effect Pathways

Potential cumulative effects on specific areas of cultural importance arising from past, present, reasonably foreseeable, and RFI projects and activities have similar pathways as those arising from the Project (Section 24.3.4). The conclusions in this section are informed by WKR's Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, community-based primary research, and the related biophysical and human environment VC assessments presented in this IS.

Kitikmiut and other potentially affected Indigenous groups may avoid certain TLMRU areas and the availability and quality of country foods may change, due to habitat fragmentation, marine traffic noise, or other projects or physical activities. This effect pathway is supported by primary research that suggested the presence of a road will potentially affect the caribou and their migration, marine life, air quality, and TLMRU through increased resource development (Kurtairujuark Hunters & Trappers focus group, Kugaaruk, October 29, 2024, pers. comm.; Qikiqtaq Co-op, Gjoa Haven, November 15, 2024,

pers. comm.). The health of the environment influences Inuit and other Indigenous peoples' health, because it enables the TLMRU activities that support well-being.

> *All Inuit live with wildlife and animal movement, construction would disturb animals moving on land. [I'm] happy about lower cost of living, but main concern is wildlife and movement of animals. Before [the] highway was built from Alberta to Yellowknife, there was a gravel road that created a lot of dust which destroyed close areas of the road, affecting wildlife. Inuit are the consumers of wildlife and want our wildlife to be healthy* (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.).

During project engagement, community members of Taloyoak expressed concern that mining near Pond Inlet would affect wildlife around the Boothia Peninsula and shared that they have seen bowhead whales being struck by vessels (GBRP 2025). Through the literature review, the Yellowknives Dene First Nation commented that previous projects have occupied critical caribou habitat, and they emphasized the need to preserve the herd for the culture and livelihoods of Inuit and Indigenous peoples in Nunavut and the Northwest Territories (YKDFN 2016).

During a NIRB public comment period, representatives of the Tłı̨chǫ Government, Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, and Northwest Territory Métis Nation submitted comments as part of the Caribou Guardians Coalition. The Caribou Guardians Coalition expressed concern for long-term cumulative impacts from other mines and spur roads on caribou habitat (NIRB 2024c).

24.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Implementation of mitigation, management, and enhancement measures described in Section 24.3.4.2 are anticipated to reduce the Project's contribution to cumulative effects on specific areas of cultural importance.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

24.4.3.3 Cumulative Effects

The residual effects of the Project are anticipated to act cumulatively with the effects of past, present, reasonably foreseeable, and RFI projects and physical activities on specific areas of cultural importance. As noted in Sections 24.2.2 and 24.3.4.1, Kitikmiut and other potentially affected Indigenous groups have identified specific areas of cultural importance where TLMRU occurs within the LAA and RAA, including Grays Bay (*Kogloktoakyok)*, Coronation Gulf (*Oalik Tagiuga*), Bathurst Inlet (*Kiligiktokmik*), and Contwoyto Lake (*Tahikyoak)*.

Residual cumulative effects of the Project and RFI projects and activities are anticipated to occur through changes in specific areas of cultural importance, such as Arctic Sound, Burnside River, Coppermine River and others indicated in Table 24.13. RFI physical activities associated with the Operations and Maintenance phase of the Project and development of Phase 2 of the Project (Jericho Mine to NT Border), the Izok Lake and High Lake mines, Hackett River Project, and Hackett and Back River Access Road would each alter habitat and contribute to the loss of native land cover (for a total of 5,672 ha disturbance), and result in sensory effects at specific areas for Kitikmiut and other potentially affected Indigenous groups. In addition to the effects from RFI activities described in Section 24.4.2.3 above and in Section 24.4.4.3, below, related to effects on the access and availability of resources and harvesting and cultural areas, changes to harvesting and cultural sites and areas may occur within the RAA from changing perceptions about their quality and suitability and from sensory disturbances. Effects on cultural sites as a result of habitat loss are discussed in Section 24.4.2.3.

Mineral exploration activities within the RAA (i.e., Ulu Gold, Roma, Chuk and Fire Shear Blocks, Hood River, and High Lake) are likely to generate noise emissions from equipment use such as drilling, excavation, and vehicular traffic. Noise will also be generated from increased equipment usage, marine vessel traffic, and air traffic. Cumulative effects from vibration were not assessed in detail in the Noise and Vibration assessment due to the transient nature of vibration effects, as well as a localized extent and lack of overlap with other activities including reasonably foreseeable mining projects which are not expected to blast simultaneously with the Project) (see Volume 5, Section 13).

The effect on landforms and terrain conditions and soil properties (as related to habitat and eskers) from all projects and physical activities in the Terrain, Soils, and Permafrost RAA is considered low and geographically limited to the immediate area of ground disturbance of each Project, as the total area affected by other projects and activities amounts to 276.3 ha. When combined with the 33.3 ha of eskers impacted by the Project, this represents a total of 309.6 ha, corresponding to only 1.6 % of the total esker surface area within the Terrain, Soils, and Permafrost RAA.

No residual effects from the Project are anticipated for heritage resources after the implementation of mitigation measures required by the Government of Nunavut’s Department of Culture and Heritage (see Volume 9, Section 30).

With the application of mitigation, management, and enhancement measures, the residual cumulative effects on specific areas of cultural importance are likely to occur through both direct (land disturbance) and indirect (sensory disturbance) activities. Cumulative effects are predicted to be adverse, continuous, and will range in duration from short term to long term depending on the nature of the cultural site or area affected during both the Construction and Operations and Maintenance phases (as identified in Table 24.13). The magnitude is anticipated to range from low to moderate. Due to the availability of harvested resources in the RAA, use of specific areas, such as waterbodies, is expected to continue; however, anticipated cumulative effects on Bathurst caribou range and movement are predicted to be moderately affected, which could affect use of harvesting areas. Cumulative effects will be irreversible, as sites within the PDA would result in a loss or alteration to the specific area and sensory disturbances would extend to the RAA. The timing of effects is not applicable as areas of cultural importance may be accessed year-round.

24.4.4 Change in Access to Resources, Sites, or Areas Where TLMRU Occurs

This section assesses potential cumulative changes in access to resources or the sites or areas where traditional activities and knowledge transfer occur.

24.4.4.1 Cumulative Effect Pathways

Potential cumulative effects on access to resources or to sites or areas where TLMRU occurs arising from past, present, reasonably foreseeable, and RFI activities have similar pathways as those arising from the Project (Section 24.3.5). The conclusions in this section are informed by the results of engagement with Kitikmiut and other potentially affected Indigenous groups, literature review, and related modelling results and biophysical and socio-economic VC assessments presented in the IS. The measurable parameters outlined in Table 24.2 were used to assess the direction, magnitude, geographic extent, timing, duration, frequency, and reversibility of potential Project-related effects on TLMRU in this context.

During a NIRB public comment period, the Kitikmeot Inuit Association commented that the Project would provide greater access to wildlife and fish harvesting areas in previously isolated areas and lakes. However, they noted that cumulative effects from other projects may also affect Inuit way of life and the exercise of section 35 rights under the Nunavut Agreement. In particular, the Kitikmeot Inuit Association identified the Project would likely facilitate the development of more mining projects, provide a connecting route for power lines and other infrastructure to accelerate development, and increase vessel traffic, air traffic, and general use of the area (NIRB 2024c).

During Project-related engagement, the Taloyoak and Kugluktuk HTOs expressed concerns that increased access to harvesting areas would affect land users by creating competition for resources (GBRP 2017, 2025). IAG members and Cambridge Bay residents also expressed concerns regarding risks of increased predation, presence of hunters, competition, illegal harvesting and overharvesting, due to increased access (Community Member, Cambridge Bay, November 3, 2024, pers. comm.; IAG 2025a, 2025b).

During Project-related engagement, Athabasca Denesųłiné Né Né Land Corporation voiced concern the Project would increase access for hunters, tourists, and industry, leading to further development and a “spider web” of roads and mines (NIRB 2025a).

NTKP consultants shared that when the Lupin Gold Mine was in operation, approximately 50 Kitikmiut workers were employed at the mine over its lifetime. Kitikmiut shared that when they were employed by the mine, they worked as guides, camp personnel, equipment operators, and assisted with scientific surveys. Many workers moved their families with them and lived in camps adjacent to the mine site (Banci and Spicker 2024).

24.4.4.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Implementation of mitigation, management, and enhancement measures described in Section 24.3.5.2 are anticipated to reduce the Project’s contribution to cumulative effects on access to TLMRU resources, sites, or areas.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

24.4.4.3 Cumulative Effects

The residual effects of the Project are anticipated to act cumulatively with past, present, reasonably foreseeable, and RFI projects and physical activities on access to resources, sites, or areas. Access to resources or to sites or areas where TLMRU occurs has been affected by past and current projects within the RAA that overlap Kitikmiut and other potentially affected Indigenous groups' TLMRU areas.

Mining is the primary existing activity in the RAA, along with marine traffic, flights, tourism, and other activities (see Table 24.19). The introduction of a road, port, and new air transportation infrastructure is expected to result in increased access to TLMRU resources, sites, or areas by Kitikmiut, other potentially affected Indigenous groups, and non-Indigenous people. These changes may result in both positive and adverse residual effects for Kitikmiut and other potentially affected Indigenous groups.

The Project will act cumulatively with past, present, reasonably foreseeable, and RFI projects and physical activities and result in increased accessibility to non-local and non-Indigenous land users. Direct effects on trails or travelways used to access the resources or sites where TLMRU occurs will be restricted to the PDA. However, the Project may facilitate easier access to sites or areas where TLMRU occurs. Land and marine based infrastructure are expected to increase through RFI projects, allowing for easier access to areas and resources that are important to Kitikmiut and other Indigenous groups. Ongoing access using various methods (by barge, sealift, boat, or road) may increase sensory disturbances for harvesters in the Kitikmeot Region, while new access routes within the LAA and RAA for ground-based harvesting will both allow for easier access to harvesting areas and increased opportunities to harvest on the land. Reasonably foreseeable and RFI projects and activities may also increase the access for non-Indigenous and non-local harvesters to the RAA, which may result in increased harvesting pressure for Kitikmiut and other potentially affected Indigenous groups in the RAA. Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, for example, would allow for increased access to the RAA year-round.

Clearing activities required for the Project, reasonably foreseeable, and RFI projects activities may result in a cumulative reduction in access to harvesting areas or the quality of the experience for land users. There is potential for affecting the experience of the natural environment due to the Project and other projects and activities in the RAA (see Volume 9, Section 29). The construction and operation of these projects could further affect TLMRU within the RAA due to nuisance effects from the addition of new infrastructure (e.g., mines) restricting access to some areas and from potential sensory disturbances, including noise and dust.

Construction and Operations and Maintenance of the Project is anticipated to increase marine navigation by third parties within the Non-traditional Land, Marine, and Resource Use RAA and the PDA. Increased marine traffic is likely to occur as mining proponents may seek to use the Project's port facility for loading and unloading of supplies or in support of resource extraction. The port will contribute to safe navigation

as well as a waypoint for marine vessels from Kitikmeot communities, or for other users such as the Canadian Coast Guard and Canadian military.

The Project and RFI projects are expected to increase employment opportunities and income. Per the methodology used in the IS, positive effects associated with employment and increased income as well as opportunity to access previously inaccessible lands, while notable, are not categorized further (e.g. for significance).

Residual cumulative effects are likely to occur and are predicted to be adverse as past, present, and reasonably foreseeable projects may bring in an influx of newcomers for employment. An increase in marine and terrestrial navigation will occur as a result, and subsequently may alter the ability of Kitikmiut and other Indigenous groups to travel to or through preferred use areas due to both perceived and actual effects. Increased employment opportunities may limit the amount of time spent on the land to exercise traditional activities which could lead to a decrease in harvesting for certain individuals. Cumulative effects will be low to moderate in magnitude, taking into consideration cumulative residual effects on caribou, marine mammals, and marine water and sediment quality, which may result in changes to their availability or distribution and the locations in which harvesters can access them (i.e., moderate magnitude). Project residual effects will also contribute to cumulative effects due to continued sensory disturbances and removal/alteration of habitat for wildlife, vegetation, marine mammal, and fish species. However, wildlife, vegetation species, marine mammals, and fish species are expected to continue to be accessible throughout the RAA (i.e., low magnitude). Cumulative residual effects are predicted to be long-term, irreversible, with a frequency range of multiple regular and irregular events and even continuous events. The timing of effects is not applicable as access may occur year-round.

24.4.5 Change to Cultural Practices, Laws, and Governance Systems that Inform How TLMRU Occurs

This section assesses potential cumulative changes to cultural practices, language use, intergenerational knowledge transfer, and governance systems that inform how Kitikmiut and other potentially affected Indigenous groups' TLMRU occurs.

24.4.5.1 Cumulative Effect Pathways

Potential cumulative effects on cultural practices, language use, intergenerational knowledge transfer, and governance systems that inform how Kitikmiut and other potentially affected Indigenous groups' TLMRU occurs arising from past, present, reasonably foreseeable, and RFI activities have similar pathways as those arising from the Project during all phases (see Section 24.3.6). These pathways include potential alterations to cultural transference opportunities (including language), alteration to decision-making abilities regarding land (both positive and negative), and alterations to community conditions associated with Project workforce (both positive and negative).

The conclusions in this section are informed by WKR's Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, community-based primary research, and the related biophysical and human environment VC assessments presented in this IS.

In the NTKP report, consultants shared that trapping has declined in recent decades due to low pelt prices, increasing employment opportunities with mining companies, access to social assistance, and a lack of interest by some in learning traditional trapping skills. Anti-fur activists from southern regions have also contributed to a reduced demand for fur and a drop in market prices (Banci and Spicker 2024).

Through the literature review, the decline in caribou populations was reported to adversely affect North Slave Métis Alliance members' connection to the land and cultural values and traditions (NSMA 2016).

24.4.5.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Implementation of mitigation, management, and enhancement measures described in Section 24.3.6.2 are anticipated to reduce the Project's contribution to cumulative effects on cultural practices, laws, and governance systems that inform how TLMRU occurs.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

24.4.5.3 Cumulative Effects

The residual effects of the Project are anticipated to act cumulatively with past, present, reasonably foreseeable, and RFI projects and physical activities on Kitikmiut and other potentially affected Indigenous groups' cultural practices, laws, and governance systems that inform how TLMRU occurs.

During the Construction and Operations and Maintenance phases, the Project will contribute a small, incremental increase in loss or alteration of opportunities, resources, and locations for the practice of TLMRU by Kitikmiut or other potentially affected Indigenous groups. Other future projects and activities, including additional mining, and additional travelways, such as access roads, traffic by air and in the port, and the Arctic Economic & Security Corridor, are expected to also contribute to some additional loss of opportunities, resources, and locations for the practice of TLMRU, additional degradation of TLMRU conditions adjacent to their respective footprints, and sensory disturbance adjacent to their respective footprints, all of which could further interact with the cultural practices, laws, and governance systems that inform how TLMRU occurs.

Change to Cultural Transference

Cultural transference includes the ability to transmit Inuit, Indigenous, and Community Knowledge and language to current and future generations. Opportunities for cultural transference are understood to emerge through access to TLMRU areas and resources, ability to engage in cultural practices, and ability to transmit knowledge and language to current and future generations within Kitikmiut and other potentially affected Indigenous groups' preferred and asserted TLMRU areas.

The adverse residual effects of the Project are anticipated to act cumulatively with the effects of past, present, reasonably foreseeable, and RFI projects and physical activities on harvesting and cultural sites where cultural transference occurs; potential sensory disturbances (e.g., vessel, vehicle, and air traffic), an increase in competition as a result of increased access, and increased effort (e.g., costs, travel time, distances) to participate in TLMRU activities may alter the use conditions for certain TLMRU activities (e.g., sense of place and peaceful enjoyment). Other Projects, including additional mining, and additional travelways, such as access roads, traffic by air and in the port, and the Arctic Economic & Security Corridor, may also affect opportunities for cultural transference; however, cumulative effects are not predicted to materially limit the ability to transmit Inuit, Indigenous, and Community Knowledge and language to current and future generations.

Change to Decision-making Abilities

The Project may alter decision making abilities for Kitikmiut and other potentially affected Indigenous groups regarding preferred lands and resources. Access to certain harvesting and cultural sites or availability of resources involved in and required for TLMRU activities may be adversely affected. This may occur through reduced opportunities to be on the land as a result of participation in the project workforce, or changes in perception of the quality of experience (e.g., reduced sense of connection or reduced sense of safety due to increased human presence).

However, Inuit decision making is anticipated to also experience positive effects as a result of the Project and reasonably foreseeable and RFI projects and activities. As described further in Section 24.3.6, it is expected that the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL and involvement in the Project as a major shareholder of WKR. Nunavut Tunngavik Incorporated manages subsurface exploration agreements and production leases for IOL. These organizations will continue to play a key role during the Operations and Maintenance phase as the NIRB process requires Inuit involvement in decision-making and will also be used to assess future developments proposed in Nunavut. This is discussed further in Volume 9, Section 29 (Non-traditional Land, Marine, and Resource Use).

Change to Community Conditions

Past, present, reasonably foreseeable, and RFI projects and physical activities in the RAA can act cumulatively to adversely and positively affect personal and community conditions, including through participation in, or interactions with, the project workforce.

As discussed in Section 24.3.6, the Project may have a positive effect on the employment rate for Kitikmiut and other potentially affected Indigenous groups during the Construction and Operations and Maintenance phases. This would occur through training, employment, and other economic opportunities. This may provide the economic means (i.e., for fuel, gear, and equipment) to participate in harvesting activities and other cultural practices, as inadequate financial resources are often known to be a key barrier to participation in these activities.

Participation in, or interactions with, the project workforce may also result in adverse effects on community conditions, as Project-related employment could reduce available time and opportunity for some Kitikmiut and other potentially affected Indigenous groups to participate in TLMRU (i.e., harvesting, cultural events, cultural transference). Kitikmiut and other potentially affected Indigenous groups have also expressed concern that increased incomes could lead to alcohol and drug use by some residents and other social issues, which may also negatively affect available time and opportunity for Kitikmiut and other potentially affected Indigenous groups to participate in TLMRU.

Summary

This assessment recognizes the cultural practices, laws, and governance systems that inform how TLMRU occurs may occur year-round within the LAA on the preferred lands and waters to which Kitikmiut and other potentially affected Indigenous groups have access. The residual effects of the Project (both positive and adverse) are anticipated to act cumulatively with the effects of past, present, and reasonably foreseeable projects and activities on cultural practices, laws, and governance systems that inform how TLMRU occurs.

With the implementation of mitigation, management, and enhancement measures, cumulative effects from past, present, reasonably foreseeable, and RFI projects and physical activities, in combination with the Project, are predicted to adversely affect some conditions pertaining to use of resources, land, and water and cultural transference; however, they may have both adverse and positive effects on decision-making abilities and community conditions associated with the project workforce. Per the methodology used in the IS, positive cumulative effects are not characterized further.

Adverse residual effects are predicted to be low to moderate in magnitude and extend to the RAA. Low magnitude effects are predicted on decision-making as the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL, However, the Project has the potential to contribute to a disruption in cultural transference (i.e., moderate magnitude). Residual effects will be long term in duration, as the Project will last in perpetuity; however, other projects acting cumulatively with the Project will are not expected to last in perpetuity. Some effects will be continuous while others are irregular, and they will be reversible (e.g., changes to vegetation will be reversible where areas are reclaimed) to irreversible (e.g., permanent project components). Timing is not applicable as cultural practices, laws, and governance systems operate year-round. However, WKR understands that residual effects of past, present, reasonably foreseeable, and RFI physical activities combined with the predicted residual cumulative effects of the Project are anticipated to be irreversible for Kitikmiut and other potentially affected Indigenous groups, as they have already experienced changes to cultural practices, laws, and governance systems that inform how TLMRU occurs and these experiences are likely to increase in the future rather than decrease and will require regional initiatives and programs to be developed.

In collaboration with the Kitikmeot Inuit Association, WKR has developed an IAG. The purpose of the IAG is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge.

24.4.6 Summary of Cumulative Effects

Table 24.20 summarizes cumulative effects on TLMRU.

With the implementation of mitigation, management, and enhancement measures, cumulative effects on TLMRU are expected to be adverse and low to moderate in magnitude as changes to TLRMU are anticipated to occur as a result of direct effects and sensory disturbances within the RAA. Adverse cumulative effects on TLMRU will occur continuously. Timing is not applicable, except for quality, quantity, or distribution of TLMRU resources, as species are expected to experience moderate to high sensitivity as a result of physical projects and activities.

In the event that reasonably foreseeable and RFI projects proceed, cumulative effects are anticipated to be long term as they are expected to occur during the Construction and Operations and Maintenance phases of the Project, and the road will be permanent. All effects are anticipated to be irreversible. Positive effects to change in access to resources, sites, or areas where TLMRU occurs and change to cultural practices, laws, and governance systems that inform how TLMRU occurs are anticipated to occur as a result of easier access to resources or areas for TLMRU activities, and as a result of increased employment and income resulting in increased financial resources that may support the gear, fuel, and equipment needed to participate in TLMRU.

Overall, the Project may contribute a low to moderate magnitude adverse effect on TLMRU.

Table 24.19 Residual Cumulative Effects on Traditional Land, Marine, and Resource Use

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in quality, quantity, or distribution of TLMRU resources	A	L-M	RAA	MS-HS	ST-LT	R, IR, C	I
Contribution from the Project to the residual cumulative effect	Cumulative effects on the quality, quantity, or distribution of TLMRU resources arising from past, present, reasonably foreseeable, and RFI projects and physical activities have the same potential effect pathways as those arising from the Project during all phases. These pathways include potential alteration to the quality, quantity, or distribution of resources, alteration or loss of habitat supporting these resources, alteration in harvesting methods, timing, or seasonality, or sensory disturbances influencing conditions of use. These pathways are predicted to result in cumulative effects on TLMRU within the VC RAAs that overlap Kitikmiut and other potentially affected Indigenous groups' preferred and asserted TLMRU areas. With mitigation, management, and enhancement measures applied, the contribution of the Project to residual cumulative effects to the quality, quantity, or distribution of TLMRU resources is expected to be low to moderate.						
Change to specific areas of cultural importance	A	L-M	RAA	N/A	ST-LT	C	I
Contribution from the Project to the residual cumulative effect	Cumulative effects on specific areas of cultural importance arising from past, present, reasonably foreseeable, or RFI projects and physical activities have the same potential effect pathways as those arising from the Project during all phases. The Project may result in changes in specific areas of cultural importance for Kitikmiut and other potentially affected Indigenous groups' TLMRU as a result of vegetation clearing activities and through potential sensory disturbance. With mitigation, management, and enhancement measures, the contribution of the Project to residual cumulative effects on specific areas of cultural importance is low to moderate because the area to be disturbed during Construction represents a small proportion of the overall RAA; however, the road will be permanent.						
Change in access to resources, sites, or areas where TLMRU occurs	P*, A	L-M	RAA	N/A	LT	MIR, IR, C	I
Contribution from the Project to the residual cumulative effect	Cumulative effects on access to resources and specific areas of cultural importance arising from past, present, reasonably foreseeable, or RFI projects and physical activities have the same potential effect pathways as those arising from the Project during all phases. The Project may result in adverse changes in access to resources or to sites or areas where TLMRU occurs through direct loss or alteration of trails and travelways, restrictions on the ability to travel to and through preferred areas, or through potential indirect effects of sensory disturbance. Positive changes may also occur as the road will open access to areas previously difficult or dangerous to access by Kitikmiut or other potentially affected Indigenous groups. With mitigation, management, and enhancement measures, the contribution of the Project to residual cumulative effects on access to the resources used or required for TLMRU is expected to be low to moderate because the area to be disturbed represents a small proportion of the overall RAA; however, the road will be permanent. Further, the Project may facilitate easier access to some sites or areas where TLMRU occurs.						

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change to cultural practices, laws, and governance systems that inform how TLMRU occurs	P*, A	L-M	RAA	N/A	LT	MIR, C	I
Contribution from the Project to the residual cumulative effect	Cumulative effects on cultural practices, laws, and governance systems that inform how TLMRU occurs arising from past, present, reasonably foreseeable, or RFI projects and physical activities have the same potential effect pathways as those arising from the Project during all phases. The Project may result in some altered access and decision-making abilities, which may also affect opportunities for cultural transference. Changes as a result of participation in, and interactions with, the project workforce are also anticipated. Effects may be adverse as participation in the project workforce may limit time and opportunity to participate in TLMRU activities for some, or may introduce negative social issues (e.g., increased access to drugs and alcohol), and therefore limit opportunities to transfer knowledge. However, positive effects may also result as increased financial resources may support the purchase of gear, fuel, and equipment needed to participate in TLMRU. With the application of mitigation, management, and enhancement measures, the Project's contribution to adverse residual cumulative effects on cultural practices, laws, and governance systems that inform how TLMRU occurs is low to moderate as residual Project effects will be short-term to long-term and the road will be permanent.						

Key:
See Table 24.3 for detailed definitions

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not applicable
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
MIR: Multiple irregular event
MR: Multiple regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:
P* - Positive effects are not characterized further

24.5 Significance of Effects

24.5.1 Significance of Project Residual Effects

The definition of a significant adverse effect on TLMRU is provided in Section 24.1.6. The determination of significance of residual effects on Kitikmiut and other potentially affected Indigenous groups TLMRU provided here considers information obtained through Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, and community-based primary research. Significance determinations for related biophysical and human environment VC assessments, the ecological and socio-economic context of the VC RAAs that overlap with the Kitikmeot Region and the territories, harvesting areas, and areas of interest (e.g., gathering, travelling) of potentially affected Indigenous groups, past project experience, and professional judgment are also considered.

The Project is anticipated to result in residual effects on TLMRU. It will affect the quality, quantity, and distribution of TLMRU resources, including perceived quality of harvested species and country foods, by altering habitat for plants, wildlife, freshwater fish, water, and marine resources that are harvested by Kitikmiut and other potentially affected Indigenous groups. Increased dust deposition on plants, mortality and movement risk to wildlife and fish, and sensory disturbance will also affect the quality, quantity, and distribution of harvested resources.

Kitikmiut and other potentially affected Indigenous groups have identified harvesting and cultural sites of importance in the LAA and PDA. Sites or areas outside the PDA will not be physically altered by the Project; however, sites and areas within the Noise and Vibration LAA may be indirectly affected though sensory disturbances.

Access restrictions to resources or areas for cultural transmission and cultural expression may occur through land clearing and construction earthworks during the Construction phase that could restrict access to resources or areas that are within the PDA. Sensory disturbance associated with use of the road (e.g., vehicle traffic), port, and airstrip could indirectly affect the experience or sense of place of Kitikmiut and other potentially affected Indigenous groups while accessing intergenerational knowledge transfer and cultural expression activities in some areas. Alternatively, the Project may result in positive outcomes due to increased access to traditional resources, sites, or areas as there will be increased accessibility to areas that were otherwise previously challenging to access or required additional resources to access. As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure.

The Project may result in effects on the cultural practices, laws, and governance systems that inform how TLMRU occurs through reduced opportunities for cultural transference. This could occur through changes in perceptions of land, marine, and resource health and quality, or reduced time available to participate in TLMRU due to involvement in the project workforce. Project-related employment is expected to have both positive and adverse effects, as Project--related employment will provide meaningful economic support to

participate in TLMRU activities, but may also reduce the available time and opportunities for some Kitikmiut and other potentially affected Indigenous groups to participate in TLMRU activities. Both positive and negative effects could also result on decision-making abilities. If the quality, quantity, or distribution of available resources and access to resources and harvesting and cultural sites are diminished, and perceptions about the quality of experience at harvesting and cultural areas are altered, decision-making abilities regarding use of preferred lands and resources may be adversely affected. However, it is expected that the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL and involvement in the Project as a major shareholder of WKR. Additionally, the road alignment reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to IOL.

With the application of mitigation, management, and enhancement measures described in Sections 24.3.3 to 24.3.6, the Project will not result in a long-term change in TLMRU such that TLMRU would be critically reduced or eliminated within the VC RAAs that overlap Kitikmiut and other potentially affected Indigenous groups' respective preferred and asserted TLMRU areas.

With the implementation of mitigation, management, and enhancement measures, the residual Project effects on TLMRU are predicted to be not significant.

24.5.2 Significance of Cumulative Effects

The Project is expected to result in residual cumulative effects on TLMRU. The Project will contribute a small, incremental increase in loss of habitat for plants, wildlife, and fish harvested by Kitikmiut and other potentially affected Indigenous groups. Harvesting and cultural areas within the PDA will be altered or removed by the Project. Opportunities for cultural transference may be reduced and there may be both positive and adverse effects on access, community conditions associated with the project workforce, and decision-making abilities. However, with the application of mitigation, management, and enhancement measures and in consideration of the small, incremental overall contribution of the Project to cumulative effects, the Project is not predicted to result in a long-term change to TLMRU such that TLMRU would be critically reduced or eliminated within the VC RAAs that overlap Kitikmiut and other potentially affected Indigenous groups' respective preferred and asserted TLMRU areas.

With the implementation of effects management measures, the residual cumulative effects on TLMRU are predicted to be not significant.

24.5.3 Summary of Mitigation, Management, and Enhancement Measures

Key mitigation, management, and enhancement measures that are anticipated to avoid or reduce negative effects on TLMRU are summarized in Table 24.12, Table 24.14. Table 24.15, and Table 24.16. Where applicable and feasible, WKR has sought to align selected mitigation, management, and enhancement measures with recommendations identified through engagement with Kitikmiut and other potentially affected Indigenous groups.

WKR anticipates further discussion with Kitikmiut and other potentially affected Indigenous groups during the IS review process regarding the Project's proposed mitigation, management, and enhancement measures, including those measures that have been (or may be) recommended by Kitikmiut or other potentially affected Indigenous groups to mitigate potential negative effects of the Project on quality, quantity, or distribution of resources, access to resources and areas, change to sites and areas for TLMRU, and change to cultural practices, laws, and governance systems that inform how TLMRU occurs.

Additional details regarding the selected mitigation, management, and enhancement measures can be found in the following sections of the IS:

- Air Quality (Volume 5, Section 11)
- Climate (Volume 5, Section 12)
- Noise and Vibration (Volume 5, Section 13)
- Terrain, Soils, and Permafrost (Volume 6, Section 14)
- Vegetation (Volume 6, Section 15)
- Wildlife (Volume 6, Sections 16, 17 and 18)
- Water Resources (Volume 7, Section 19)
- Freshwater Fish and Fish Habitat (Volume 7, Section 20)
- Marine Water and Sediment (Volume 8, Section 21)
- Marine Fish and Fish Habitat (Volume 8, Section 22)
- Marine Mammals (Volume 8, Section 23)
- Food Security and Food Sovereignty (Volume 9, Section 25)
- Community Health and Well-being (Volume 9, Section 26)
- Employment and Economy (Volume 9, Section 27)
- Infrastructure and Services (Volume 9, Section 28)
- Non-traditional Land, Marine, and Resource Use (Volume 9, Section 29)
- Heritage Resources (Volume 9, Section 30)
- Accidents and Malfunctions (Volume 10, Section 32)

It is expected that the Kitikmeot Inuit Association will continue to play a key role in the future development of mineral resource development and activity due to their management of IOL and involvement in the Project as a major shareholder of WKR. Additionally, Nunavut Tunngavik Incorporated manages subsurface exploration agreements and production leases for IOL. These organizations will continue to play a key role during the Operations and Maintenance phase.

Mitigation, management, and enhancement measures prioritize avoidance of sensitive environments through careful project design and the establishment of no-activity buffers to prevent potential adverse effects on sensitive features or species. Measures focus on limiting disturbance during project activities. The PDA will be confined to a specific design layout to reduce the Project's potential effect on habitat loss and effectiveness. Dust, noise, and vibration will be controlled to limit sensory effects.

Caribou and other resource protection measures include access and traffic controls, worker conduct policies, pre-clearing surveys, and activity restrictions during sensitive periods. A no-harvesting policy will be implemented for project personnel, prohibiting them from harvesting while working on the Project and WKR will provide mandatory cultural awareness and sensitivity training to all project personnel and contractors. The Grays Bay Road will be a private road, with limited or controlled access to the public. As part of the Road Management Plan, access mitigation measures will be included to ensure consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit populations. This plan will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure.

Management and monitoring plans will be developed and implemented and include details on methods, equipment, procedures, policies and training, as well as who will be responsible for implementing the mitigation measures (see Volume 11). Measures to enhance Project benefits for local communities are also included. Information will also include how Inuit, Indigenous, and Community Knowledge or engagement has informed the development of mitigation measures for the Project, and rationale for why some proposed measures may not have been selected.

Harvesting is managed through government policies and based on the promises made under the Nunavut Agreement, as carried out by Nunavut Tunngavik Incorporated and the Regional Inuit Associations (i.e., Kitikmeot Inuit Association) and Inuit Wildlife Organizations (HTOs).

WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected parties during the advancement of Project design, planning, and monitoring, throughout the life of the Project.

In collaboration with the Kitikmeot Inuit Association, WKR has developed an IAG. The purpose of the IAG is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge. Where possible, WKR will include relevant HTOs, Inuit land users, Elders, and Knowledge Holders in the membership of the committee and will demonstrate its consideration for community input and Inuit and Community Knowledge as part of the group’s function. The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement.

24.6 Prediction Confidence and Uncertainty

Prediction confidence in the assessment of effects on TLMRU is moderate. This conclusion is based on the following:

- The level of current information available about TLMRU by Kitikmiut and other potentially affected Indigenous groups, including information shared during the Project-specific engagement program, a review of publicly available literature, and information collected through the NTKP report, IAG workshops, and community-based primary research to date,
- the suite of mitigation, management, and enhancement measures proposed, and the success of their application elsewhere in Canada and
- the conservative approach adopted for the assessment that assumes TLMRU is practiced within the RAA, which overlaps with the traditional territories, harvesting areas, and other areas of interest of Kitikmiut and other potentially affected Indigenous groups.

In adopting a conservative approach, a degree of caution has been taken with respect to the extent in which TLMRU activities may occur within the LAA and RAA. Conservative assumptions regarding the Project were also made for VCs related to TLMRU, as described through the IS, to overestimate the effects assessed. WKR acknowledges the best source of information regarding intergenerational knowledge transfer and cultural expression is information provided directly by Kitikmiut and other potentially affected Indigenous groups. Given the qualitative and subjective nature of assessing TLMRU, the views of Kitikmiut or other potentially affected Indigenous groups may differ from the findings of this assessment. WKR also acknowledges that information in this assessment regarding TLMRU is not exhaustive and no document would be able to fully capture the complex, holistic, and interrelated lived experience of land users and their TLMRU and knowledge systems in their entirety. WKR has compensated for this limitation by adopting the conservative approach mentioned previously.

WKR will continue to respond to questions and concerns from Kitikmiut and other potentially affected Indigenous groups through its ongoing engagement efforts. WKR has endeavoured to review and integrate all information received, where applicable. Information provided following submission of the IS as well as any potential omissions will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate.

24.7 Follow-up and Monitoring

Follow-up and monitoring is intended to verify the accuracy of the assessment (effect predictions), evaluate the effectiveness of mitigation, management, and enhancement measures, and inform adaptive management, if and as required. The Project-specific management plans stipulate mitigation, management, and enhancement measures and monitoring required during Construction and Operations and Maintenance. These management plans include, but are not limited to, the:

- Road Management Plan
- Wildlife Mitigation and Monitoring Plan
- Port Management Plan

- Socio-economic Monitoring Program
- Culture Program

In collaboration with the Kitikmeot Inuit Association, WKR has developed an IAG. The purpose of the IAG is to discuss and receive feedback from the members on the environmental and socio-economic aspects of the proposed Project. This committee will advise WKR on potential environmental and socio-economic impacts or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, significance determination and the integration/use of Inuit Knowledge. Where possible, WKR will include relevant HTOs, Inuit land users, Elders, and Knowledge Holders in the membership of the committee and will demonstrate its consideration for community input and Inuit and Community Knowledge as part of the group's function.

The Project will apply adaptive management strategies that will be informed through monitoring and ongoing engagement. As part of this adaptive management approach, these measures will be regularly reviewed and updated by WKR to verify and enhance their effectiveness. In the event an unexpected deterioration of the environment is observed as part of follow-up and/or monitoring, intervention mechanisms may occur.

24.8 Knowledge and Literature Cited

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24.8.2 Personal Communications

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Community Member, Gjoa Haven, personal communications, November 14, 2024.

Community Member, Kugaaruk, personal communications, November 1, 2024.

Community Member, Kugluktuk, personal communications, November 8, 2024.

Community Member, Kugluktuk, personal communications, November 9, 2024.

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Gjoa Haven, personal communications, November 14, 2024.

Gjoa Haven, personal communications, November 16, 2024.

Kativik Health Centre, Gjoa Haven, personal communications, November 14, 2024.

Kitikmeot Inuit Association, Cambridge Bay, personal communications, November 4, 2024.

Kitikmeot Inuit Association, Kugluktuk, personal communications, November 7, 2024.

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Kurtairujuark Hunters & Trappers focus group, Kugaaruk, personal communications, October 29, 2024.

Qikiqtaq Co-op, Gjoa Haven, personal communications, November 15, 2024.

Qiqirtaq Ilihakvik High School, Gjoa Haven, personal communications, November 14, 2024.

25 Assessment of Potential Effects on Food Security and Food Sovereignty

Inuit Tapiriit Kanatami have identified Food Security and Food Sovereignty as key determinants of health and well-being, including Inuit health (ITK 2014). For Inuit and other Indigenous peoples, the practice of traditional activities, including traditional harvesting for subsistence, and connection to the land are integral to food security and food sovereignty and Inuit culture, language, and lifeways more broadly (Pauktuutit 2006).

Food Security and Food Sovereignty valued component (VC) of socio-economic importance selected because the Grays Bay Road and Port Project (the Project) has potential adverse and positive effects on both the traditional food system and the market system, including through changes to availability, access, utilization, and stability within these food systems. Food security and food sovereignty is of importance to Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities because it is a holistic VC that has complex interrelations with several other VCs, including:

- wildlife VCs (caribou, birds, and other wildlife)
- freshwater and marine VCs (fish and fish habitat, marine mammals)
- vegetation
- traditional land, marine, and resource use
- community health and well-being
- infrastructure and services, and
- employment and economy.

Ongoing changes to traditional activities and knowledge and the land, paired with a history of colonialism and rapid social change have resulted in disproportionately high rates of food insecurity for Inuit and other Indigenous peoples than the Canadian average (ITK 2014; Pauktuutit 2006). This assessment acknowledges these realities and incorporates Inuit, Indigenous, and Community perspectives through various means, including Gender Based Analysis Plus methods and the inclusion of primary research findings and quotes related to Inuit, Indigenous, and Community Knowledge. In addition, it considers applicable publicly available information on Inuit, Indigenous, and Community perspectives regarding food security.

This report conforms with requirements outlined in the Nunavut Impact Review Board (NIRB) Impact Statement (IS) Guidelines for the Project (NIRB 2026).

25.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on Food Security and Food Sovereignty.

25.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Kitikmiut, other Indigenous groups, and other potentially affected communities about the Project. Through early meetings, workshops, and direct conversations, WKR listened to the cultural, environmental, and social priorities shared by engaged groups. These have been considered in the IS and project design. A summary of engagement activities conducted from 2016 into 2025 is presented in Volume 3, Section 6 (Public Engagement). Additionally, an Inuit Advisory Group (IAG) was established to advise WKR on potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, baseline conditions, significance determination and consideration and integration of Inuit and Community Knowledge. IAG members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and water in the Project area.

To further inform the Project design, a project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the Naonaiyaotit Traditional Knowledge Project (NTKP), was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

In addition to the engagement activities and knowledge gathering initiatives described above, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak (conducted in October and November 2024) as well as a review of publicly available information. Applicable feedback identified during project engagement activities and through shared Inuit, Indigenous, and Community Knowledge (see Volume 3) has been integrated into the summary of baseline conditions for People and Communities (Appendix 25A) and integrated into the assessment where applicable.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring and throughout the life of the Project. Continued engagement through the NIRB process will support issues identification and mitigation measures to address them.

25.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge was reviewed with consideration to the proposed spatial boundaries. IAG members, community-based primary research interviewees, and NTKP consultants who informed the Project-specific Inuit Knowledge report are primarily Kitikmiut and/or representatives of Kitikmeot communities and information obtained through these sources contributed to the selection of spatial boundaries. The Local Assessment Area (LAA) considers the five main Kitikmeot communities, recognizing Kitikmiut as the primary users of the project area. The LAA and Regional Assessment Area (RAA) also considers that Kitikmeot communities are predicted to be those most likely to experience direct and indirect socio-economic effects as a result of the Project and of other projects and activities that are expected to act cumulatively with the Project (as discussed in this assessment Section 25.1.4.1; see also Sections 26-29).

25.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining Inuit-led and collaborative knowledge gathering (including the Project-specific community-based research, the Project-specific Inuit Knowledge report compiled from the NTKP database, and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies based on western scientific methods . Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered and summarized in Section 25.2.2.1; Table 25.3. This includes information about the traditional food system and perspectives shared on its ongoing importance to Inuit (see Section 25.2).

25.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities (e.g., clearing, blasting, etc.) and project infrastructure could affect socio-economic conditions within the Food Security and Food Sovereignty LAA. Through Project-specific community-based primary research, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities provided perspectives and values, which were considered and integrated into the potential effects to be considered. For example, potential changes in community resupply as it relates to the market food system was identified as a concern for residents in the Kitikmeot Region. As a result, changes in the market food system, including the stability of the market food supply chain was included as a potential effect in the Food Security and Food Sovereignty VC assessment. Residents also identified the ongoing importance of traditional foods and practices to Inuit culture, health, and well-being, and highlighted key wildlife and vegetation species that may be harvested, and locations where harvesting typically occurs. Changes in the traditional food system was thus included as a potential effect in the VC assessment.

Feedback also helped guide planning for the Project's mitigation and adaptive management measures. This feedback has been integrated in the assessment of project effects on food security and food sovereignty, where applicable (see Section 25.3).

25.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas, species and traditional food sources, and practices as well as socio-economic conditions that may experience combined effects from the Project and other projects and activities in the Project's RAAs.

WKR integrated Inuit, Indigenous, and Community Knowledge perspectives with western science to develop a holistic view of how multiple changes could affect food security and sovereignty, including land-based livelihoods, cultural continuity, and environmental integrity, over time (see Table 25.3). The analysis recognizes the importance of long-term monitoring, where local, Inuit co-developed and co-implemented data collection will track combined effects to inform adaptive management plans (see Section 25.4). For example, WKR will develop and implement a Socio-Economic Monitoring Program (SEMP) to monitor socio-economic effects, potentially including the availability and cost of market food. The SEMP will guide the implementation of mitigation and management measures, measure the effectiveness of those measures, track how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of potential new/emerging socio-economic effects.

25.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed with consideration of the priorities and values identified through Inuit, Indigenous, and Community Knowledge (see Volume 3). This supported WKR's consideration of whether there may be a persistent and substantial decline in the availability or quality of country foods or an adverse change from current conditions within the traditional and market food systems that cannot be managed or mitigated (see Table 25.3, and Section 25.5). In addition, members of the IAG provided additional criteria to consider when identifying whether a project is likely to have significant, or unacceptable, effects, including those related to food security (see Sections 25.1.6 and 25.5).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR's commitment to avoiding or strictly mitigating known high-risk activities is crucial. This includes implementing the Road Management Plan for maintaining consistent access to land and marine areas throughout all phases of the Project for local and Inuit, and other Indigenous populations.

- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).
- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

25.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce potential negative effects from the Project and enhance benefits from the Project were identified.

Proposed mitigation, management, and enhancement measures were often discussed and reviewed with Inuit community representatives during IAG workshops with the intent of developing and implementing measures that consider both the biophysical and human environment. Adjustments were made as appropriate based on advice from IAG members and the Kitikmeot Inuit Association, in addition to Indigenous groups and other potentially affected communities through engagement. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). IAG members also emphasized the need for education and signage to promote safe and responsible use of the road. They remarked on the need for monitoring and managing access to ensure safety and compliance. Concerns were raised about the need for education and training on hunting rather than imposing restrictions or buffer zones for community members (IAG 2025a). The importance of balancing access and safety to protect the environment, wildlife resources, traditional food sources, and community interests was discussed (IAG 2025a). Information obtained through Inuit, Indigenous, and Community Knowledge emphasized the importance of some of the mitigation measures relevant to food security and food sovereignty that are listed in Sections 25.3.3.2, and 25.3.4.2.

For example, WKR will develop and implement a Wildlife Mitigation and Monitoring Plan (including a Marine Mammal Mortality Management Plan) to monitor and manage potential Project-related effects on terrestrial and marine wildlife. WKR will also develop and implement a Road Management Plan, Port Management Plan and Risk Management and Emergency Response Plan to address issues related to use of the road, small craft harbour, and port facilities and access to the land and marine areas via the Project. Furthermore, through on-going Project engagement, WKR will track complaints and responses to manage and mitigate feedback from the public regarding concerns that may emerge related to changes in the traditional and market food systems.

25.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

25.1.2 Regulatory and Policy Setting

The management of food security and food sovereignty is related to traditional land, marine, and resource use. Traditional land, marine, and resource use in Nunavut is governed by the *Nunavut Lands Claim Agreement Act* (1993) which recognizes and protects the rights of Inuit in the territory. This includes the right to:

- Participate in decision-making concerning the use, management and conservation of land, water and resources (including offshore resources).
- Harvest wildlife and participate in decision-making concerning wildlife harvesting.
- Participate in decision-making concerning water.
- Financial compensation and means of participating in economic opportunities.
- Self-reliance and cultural and social well-being (Nunavut Agreement 1993).

The *Nunavut Land Claims Agreement Act* came into effect through the Nunavut Land Claims Agreement (1993), which further defined Inuit water rights, entry and access rights, harvesting rights, and governance rights, and led to the creation of Nunavut in 1999 (Nunavut Agreement 1993; GOC 2024).

Land in Nunavut is classified as either Crown land, Commissioner’s land, or Inuit Owned Land—which can include both surface and subsurface rights. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) oversees Crown land through the federal *Territorial Lands Act*. However, responsibilities for Nunavut's public lands, natural resources, and rights in respect to water will be transferred from the Government of Canada to the Government of Nunavut (GN) by April 1, 2027, in accordance with the Nunavut Lands and Resources Devolution Agreement.

Commissioner's Land is governed under the Government of Nunavut's *Commissioner's Land Act* (2024) and is administered by municipalities. Inuit Owned Lands are protected under the *Nunavut Lands Claim Agreement Act* (GOC 2024). In the Kitikmeot Region, the Kitikmeot Inuit Association oversees the management of 106,360 square kilometres (km^2) Inuit Owned Lands (KIA 2025). Subsurface exploration agreements and production leases for Inuit Owned Lands are managed by Nunavut Tunngavik Incorporated (GOC 2024).

The *Constitution Act* (1982) recognizes and affirms the rights of Inuit and other Indigenous Peoples, and the Supreme Court of Canada has confirmed that Aboriginal[1] title gives the holder the right to use, control, and manage lands for both traditional activities and modern purposes (GOC 1982, 2025b). Under the *Constitution Act* and the Nunavut Land Claims Agreement, Inuit have the right to harvest on Crown land, Commissioner's Land, and Inuit Owned Land (GOC 1982; Nunavut Agreement 1993). The *Nunavut Land Claims Agreement Act* does not limit the ability for other Indigenous Peoples to engage in their right to harvest on Crown land in accordance with the Constitution Act, however harvesting is also overseen by the Government of Nunavut, Inuit Hunters and Trappers Organizations (HTO) and Regional Wildlife Organizations in Nunavut to help manage the harvesting practices of both Inuit and non-Inuit (Nunavut Agreement 1993).

The Government of Canada is seeking to advance socio-economic and cultural equity for Inuit through its Inuit Nunagat Policy, which includes goals to recognize and promote the use of Inuktitut, consistent with the *Indigenous Language Act* (2019) (GOC 2025a). Within the territory, the Government of Nunavut's *Inuit Language Protection Act* (2022) similarly includes a strategy and implementation plan for revitalizing and promoting the use of Inuit languages (GN 2012, 2022).

The following federal and territorial acts and regulations are also applicable to food security and food sovereignty:

- *Canada Food and Drugs Act* – this act and associated regulations establish standards for the safety and nutritional quality of all foods sold in Canada.
- *Safe Food for Canadians Act* – this act and associated regulations establish safety standards for food for human consumption, including imported, exported, and inter-provincially traded food products.
- *Nunavut Public Health Act* – establishes measures related to health protection and promotion, including regulations that govern the safety of food manufacturing, handling, preparation, distribution, and storage.

Additionally, there are a number of federal acts and regulations that govern the operation of marine and air transportation, which apply to the supply of market foods to communities in Nunavut by sealift/barge and air freight.

[1] Referred to herein as Indigenous title. Language above reflects the language from Government of Canada (GOC 2025b)

In addition, the management of food security and food sovereignty is guided by *Inuit Qaujimaningit*, which encompasses "Inuit traditional knowledge (and variations thereof or *Inuit Qaujimajatuqangit*), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)" (NIRB 2018). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as *Inuit Qaujimajatuqangit* principles (NIRB 2018; Pauktuutit 2006). For more detail see Volume 3. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the IS. WKR has adopted this terminology and understands Inuit Knowledge encompasses *Inuit Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on Food Security and Food Sovereignty.

25.1.3 Potential Effects, Pathways, and Measurable Parameters

The potential effects of the Project on Food Security and Food Sovereignty are identified in Table 25.1. For each effect, effect pathways and indicators/measurable parameters have been identified to facilitate the quantitative and/or qualitative measurement of change in Project-specific and cumulative effects potentially caused by the Project.

Where possible, the assessment of potential effects on Food Security and Food Sovereignty used measurable parameters that are quantifiable (e.g., number of community members participating in traditional activities). However, not all effects pathways can necessarily be quantified (e.g., extent to which vulnerable populations experience disproportionate effects). Therefore, some effects are predicted qualitatively through consideration of Inuit, Indigenous, and Community Knowledge, literature and professional judgment.

Table 25.1 Potential Effects, Effects Pathways and Measurable Parameters for Food Security and Food Sovereignty

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in Traditional Food System	• Project activities (Construction and Operation and Maintenance) may affect availability of or access to country food (i.e., through change in wildlife/fish habitat, movement, and mortality). • Project activities (Construction and Operation and Maintenance) may affect quality or perceived quality of country food (i.e., through contamination or perceived contamination), leading to avoidance. • Employment on the Project could increase income available for individuals to access (i.e., participate in) traditional activities, including harvesting and sharing of country foods. • Project activities (Construction and Operation and Maintenance) will increase land- and marine-based infrastructure available for individuals to access (i.e., participate in) traditional activities, including harvesting and sharing of country foods	• Quality and quantity of and access to country foods (real or perceived) • Amount of country food consumed • Amount of country food available at the community level via HTOs and sharing networks • Number of community members participating in traditional activities, including harvesting of country foods • Employment rates • Household income • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in Market Food System	• Project Construction and Operation and Maintenance could alter the distribution of store-bought foods through changes to the capacity and frequency of community resupply. • Project Construction and Operation and Maintenance will increase land- and marine-based infrastructure available for use for community resupply. • Employment on the Project could increase income available to individuals and households to purchase store-bought foods.	• Quality and quantity of store-bought foods in community stores (real or perceived) • Community resupply metrics (e.g., frequency of sealift/barge, frequency of trucking goods to port location, area available on sealift/barge and air freight to transport goods) • Amount of food of higher nutritional value (e.g., fruits, vegetables, whole foods, etc.) consumed • Employment rates • Household income • Measures of food costing (e.g., healthy food basket) • Qualitative consideration of the intersectionality of factors contributing to the distribution of disproportionate effects

25.1.4 Boundaries

25.1.4.1 Spatial Boundaries

The following subsections describe the spatial boundaries used for the assessment of effects of the Project on Food Security and Food Sovereignty.

Project Development Area

The Project Development Area (PDA) encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. The boundaries of the PDAs were created by applying buffers around where the Project components will be sited, and varies by each of the sub-areas depending on necessary flexibility for final siting of certain Project components based on conditions on the ground. For the Road PDA and Winter Road PDA, a 75-metre (m) buffer was applied to the roads centreline, for the Port PDA and the Aerodrome PDA, the areas were subdivided based on the conceptual Project component locations and then buffered approximately 1,000 m for the landside Port PDA, approximately 300 m for the marine Port PDA, and 500 m for the Aerodrome PDA. The Jericho Station PDA was buffered based on the existing development from the old Jericho Mine site that will be used for the Project and the need for additional space to accommodate the Project components that will be developed as part of the Project for this location. The Winter Road PDA will only exist annually between the beginning of February and end of March, will be built on land where the existing Jericho Station road ends, at the

southeastern portion of Jericho Station, to the shoreline of Contwoyto Lake where it will connect to the Tibbitt to Contwoyto Winter Road (TCWR).

Local Assessment Area

The LAA for the Food Security and Food Sovereignty VC (Figure 25.1) is comprised of the five main Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven. The LAA was selected because traditional harvesting and market food purchases are cultural and/or socio-economic activities undertaken by residents based within the Kitikmeot communities and potential effects of the Project are expected to be experienced primarily by residents within each community.

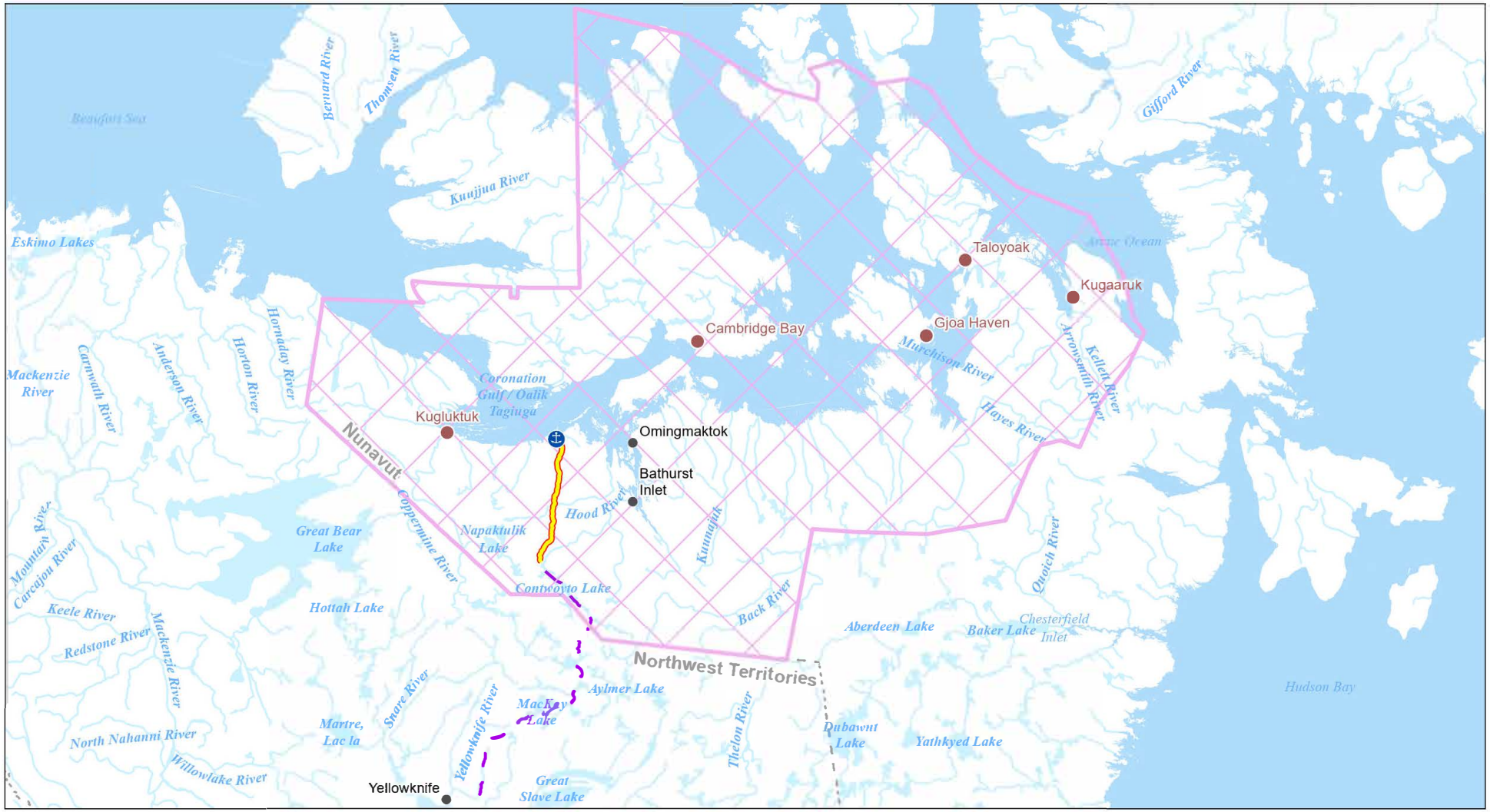
Regional Assessment Area

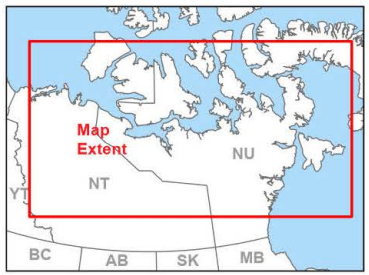
The RAA for the Food Security and Food Sovereignty VC is the Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven; as well as the primarily seasonal settlements of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) in the Kitikmeot Region (Figure 25.1). the RAA was selected because potential cumulative effects on traditional harvesting activities and market food supply may occur throughout the region.The LAA and RAA for the Food Security and Food Sovereignty VC do not include Yellowknife because the Project may affect traditional harvesting for residents based within the Kitikmeot communities and the Project is not anticipated to affect the market food system in Yellowknife. Transboundary effects (e.g., potential effects on traditional harvesting for residents based in Yellowknife, potential effects on the market food system in other provinces or territories) are assessed in Volume 10, Section 33.

25.1.4.2 Temporal Boundaries

The following temporal boundaries were used in the assessment of the Food Security and Food Sovereignty VC:

- The Construction phase of the Project will take approximately 5 years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The Operations and Maintenance phase of the Project will start in 2035 and will continue in perpetuity.





- Local Assessment Area (LAA)
- Grays Bay Port
- Grays Bay Road
- Regional Assessment Area (RAA)
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Watercourse
- Ocean
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2025-11-28
TR by SL on 2025-11-28

Client/Project
123514868_169

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
25.1

Title
Food Security and Food Sovereignty Assessment Area

Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada
3. Background:

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

25.1.5 Residual Effects Characterization

Table 25.2 presents descriptions and criteria that are used to characterize residual effects on Food Security and Food Sovereignty.

Table 25.2 Characterization of Residual Effects on Food Security and Food Sovereignty

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect	Positive – a residual effect that moves measurable parameters in a direction beneficial to food security and food sovereignty relative to baseline. Adverse – a residual effect that moves measurable parameters in a direction detrimental to food security and food sovereignty relative to baseline. Neutral – no net change in measurable parameters for the food security and food sovereignty relative to baseline.
Magnitude	The extent of a change in measurable parameters or food security and food sovereignty from baseline conditions.	No Measurable Change – no measurable change in the measurable parameters of food security and food sovereignty can be noted. Low – a measurable change in food security and food sovereignty indicators that maintains near baseline conditions or a decline in food security and food sovereignty at the individual level. Moderate – a measurable change in food security and food sovereignty indicators beyond baseline conditions and results in decline in food security and food sovereignty at the household level. High – a measurable change in food security and food sovereignty indicators beyond baseline conditions and results in decline in food security and food sovereignty at the community level.
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	PDA – residual effects are restricted to the PDA LAA – residual effects extend into the LAA RAA – residual effects interact with those of other projects in the RAA
Timing	Considers when an effect is predicted to occur, where relevant to food security and food sovereignty.	No sensitivity – seasonal or timing aspects are unlikely to affect residual effects on food security and food sovereignty. Moderate sensitivity - seasonal or timing aspects may affect residual effects on food security and food sovereignty. High sensitivity - seasonal or timing aspects will affect residual effects on food security and food sovereignty.
Duration	The time required until the measurable parameter or food security and food sovereignty returns to its existing condition, or the residual effect can no longer be measured or otherwise perceived.	Short-term – the residual effect is restricted to no more than the duration of the construction phase (five years). Long-term – the residual effect extends beyond the construction phase and into operations and maintenance.

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Frequency	How often an effect is predicted to occur.	Single event Multiple irregular event – occurs at no set schedule Multiple regular event – occurs at regular intervals Continuous – occurs continuously
Reversibility	The degree to which food security and food sovereignty can be returned to baseline conditions or other established reference point after relevant activities have ceased.	Reversible – the residual effect is likely to be reversed Irreversible – the residual effect is unlikely to be reversed

25.1.6 Significance Definition

During the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to food security and food sovereignty, feedback received from IAG members (IAG 2025b) identified the following priorities, when considering unacceptable changes as a result of the Project:

- That Inuit perspectives are considered and addressed in Project design,
- That the Project is located where community members can benefit,
- That the Project does not negatively affect peoples' ability to harvest caribou and put food on the table, and
- That water and wildlife are protected,
- That healthy caribou herds are supported (including predator management),
- That the Project provides access to hunters and supplies for hunters at both Grays Bay and Jericho,
- That the Project reduces cost of living,
- That the Project provides employment opportunities, and
- That the Project provides training opportunities.

In addition to the community indications identified above, the assessment also considers a significant adverse residual effect on Food Security and Food Sovereignty as defined as one where:

- There is a persistent and substantial decline in country food availability or perceived quality.
- The Project will create a measurable adverse change from current conditions and trends with respect to food security or food sovereignty at the community level that is attributable to the Project and cannot be managed or mitigated through adjustments to programs, policies, plans, or through other mitigation.

25.2 Baseline Conditions

25.2.1 Methods

To inform understanding of food security and food sovereignty baseline conditions, multiple sources of information were considered, including statistical data, academic literature, grey literature, Inuit, Indigenous, and Community Knowledge perspectives and values gathered through engagement, workshop and desktop review results, and findings from community-based primary research. Further information on methods is described in the People and Communities Baseline Report (Appendix 25A).

25.2.1.1 Literature Review and Secondary Data Collection

Quantitative and qualitative information on baseline conditions for food security and food sovereignty within the LAA and RAA was obtained from the following sources:

- Inuit Tapiriit Kanatami
- Nunavut Tunngavik Incorporated
- Pauktuutit Inuit Women of Canada
- Nunavut Wildlife Management Board
- Nunavut Wildlife Secretariat
- Hunters and Trappers Associations
- *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report*
- Government of Canada
- Government of Nunavut
- Statistics Canada
- Nunavut Bureau of Statistics
- Public Health Agency of Canada
- Canadian Institute for Health Information
- Other environmental assessment reports
- Published literature and “grey” literature

Disaggregated data by territorial region and by community were not always available. In instances where regional- or community-specific data were not available, Nunavut data are assumed to broadly represent similar trends found in the Kitikmeot Region and communities.

25.2.1.2 Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and key sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified.

25.2.1.3 Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to people and communities in the Kitikmeot Region in October and November 2024. A social sciences research license, which included ethics approval, was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

As described in the Grays Bay Road and Port Project People and Communities Baseline Report (Appendix 25A), a total of 61 interviews were conducted with 70 community members in-person and virtually over Microsoft Teams. In-person interviews were conducted in the communities of Kugaaruk, Cambridge Bay, Kugluktuk, Gjoa Haven and Taloyoak. Interview participants included regional public administration staff, hamlet administration staff, individuals in police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

25.2.1.4 Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded using written notes and audio recordings, when consent was granted. Written notes and audio recordings were later typed and transcribed, respectively. Primary research results then underwent thematic analysis, which grouped findings into major themes that align with the various People and Communities VCs (Food Security and Food Sovereignty, Community Health and Well-being, Employment and Economy, Infrastructure and Services, and Non-traditional Land, Marine, and Resource Use). Key findings of data analysis were integrated into the baseline report.

25.2.1.5 Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of a research program, the methods used, and the interpretation of information in some instances. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination based on gender, sexuality, Indigeneity and/or other identity factors. All members of the research team have taken unconscious bias training, a 2-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be effectively managed.

25.2.1.6 Gender-Based Analysis Plus (GBA Plus)

Gender-Based Analysis Plus (GBA Plus) guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the consideration of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including impacts of colonialism.

In addition, Pauktuutit Inuit Women of Canada (Pauktuutit) has produced an Inuit-Specific GBA Plus framework to reflect the unique needs, voice, and social experiences of Inuit women, girls, and gender-diverse populations (Pauktuutit 2025). Pauktuutit suggests that considering the whole person and all of their intersectional identities contributes to equity. Inuit cultural values, lifeways, and worldviews are the foundation of the Inuit Specific GBA Plus framework.

Key subpopulations have been selected based on GBA Plus and Inuit-Specific GBA Plus frameworks, feedback from engagement, through literature on socio--community impacts from industrial development projects, and on the professional experience and knowledge of the socio-economic technical team. Sub-populations that have been selected for consideration in the assessment and rationale for their inclusion are provided in the Grays Bay Road and Port Project People and Communities Baseline Report (Appendix 25A).

25.2.2 Overview

This section summarizes the data sources and existing (i.e. baseline) conditions for food security and food sovereignty in the Kitikmeot Region, including within the traditional food system and market food system.

25.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the Project-specific engagement program delivered from 2016 into 2025, including community meetings, workshops, community-based primary research, the Project-specific Inuit Knowledge report compiled from the NTKP database, and through a review of publicly available information, participants shared information, expressed concerns, and provided recommendations related to food security and food sovereignty. This feedback has been considered and summarized in Table 25.3 and has been integrated into the summary of baseline conditions and assessment of potential effects on food security and food sovereignty that follows.

Table 25.3 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Comment	Source	WKR Response	Where Addressed
NTKP consultants and IAG members identified several fish (including marine and freshwater), vegetation, and wildlife (including marine and terrestrial) species harvested by Inuit for consumption.	Banci and Spicker 2024; IAG 2025a, 2025b	This information has been incorporated into the summary of baseline conditions for the traditional food system.	Section 25.2.2.1: Baseline Conditions for Traditional Food System See also Volume 9, Section 24 (Traditional Land, Marine, and Resource Use)
During a previous Inuit Harvesting Study, several fish (including marine and freshwater), and wildlife (including marine and terrestrial) species harvested by Inuit for consumption were identified as species harvested in Bathurst Inlet, Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, Taloyoak, and Omingmaktok (Bay Chimo). Harvesters also provided estimate of species numbers from June 1996 – May 2001.	Priest and Usher 2004		
During engagement on a previous project, Kugaaruk residents expressed concern about the future food security for their youth, reporting they do not have greenhouses to grow food. Older generations were raised on country foods, but the available resources are changing.	NIRB 2024a		
During engagement on a previous project, Inuit in Gjoa Haven shared, "We don't only eat and harvest one herd of caribou, but our youth are becoming more accustomed to store-bought food. Their diet is very different from ours."	NIRB 2024b		

Comment	Source	WKR Response	Where Addressed
During early project engagement, the Hamlet of Taloyoak expressed concern regarding caribou migration routes crossing the road, and inquired about other wildlife considerations, community involvement, benefits to the local economy and if any discussions had occurred with northern stores.	GBRP 2017	WKR acknowledges this concern. The Project's potential effects, including potential effects on the traditional food system have been considered in this assessment. WKR is developing a Socio-Economic Monitoring Program that will track Project impacts, including food-related indicators. Annual reporting will support early identification of trends and help inform responsive measures if harvesting conditions change. WKR has also identified mitigation measures to reduce or eliminate potential effects on wildlife, including caribou. Additionally, a Wildlife Mitigation and Monitoring Plan is being developed, and will include input from Kitikmiut.	Section 25.2.2.1: Baseline Conditions for Traditional Food System Section 25.3.3: Assessment of Project Effects on Change in Traditional Food System See also Volume 6, Section 16 (Caribou).
During project engagement, Kugaaruk community members shared that their cost of living is high. One community member provided the example of a can of soda selling for roughly $5 at the local store.	GBRP 2025	WKR appreciates the feedback shared. This information was incorporated into the summary of baseline conditions for the market food system.	Section 25.2.2.4: Baseline Conditions for Store-bought Foods Accessibility
During project engagement, community members discussed the high cost of groceries in their community. Community members expressed support for the Project's impact on the cost of living. One community member said: "This Project should help the cost of groceries having a road. The road would make life a lot easier. Life in the Arctic is hard with the high prices of food. I give my blessing for the Project."	GBRP 2025	WKR acknowledges the concerns related to the cost of and access to food. The Project's potential effects, including potential effects on the market food system and community resupply, have been considered in the assessment. Mitigation measures to limit or avoid (when possible) adverse effects were provided.	Section 25.2.2.4: Baseline Conditions for Store-bought Foods Accessibility Section 25.3.3.4: Assessment of Project Effects on Change in Market Food System – Accessibility and Utilization Section 25.3.3.4: Assessment of Project Effects on Change in Market Food System – Availability and Stability
During early project engagement, Taloyoak community members expressed interest in opportunities and benefits for the community, such as jobs and increased access to food.	GBRP 2017		
During early project engagement, Kugaaruk School representatives inquired if the port would impact the resupplying of communities.	GBRP 2017		

Comment	Source	WKR Response	Where Addressed
During project engagement, the Hamlet of Gjoa Haven stated the Kitikmeot Region needs to have more supplies brought into the port. They reported the cost to buy things such as water trucks suited for the Arctic weather and built in Yellowknife need to be shipped from Yellowknife to Montreal and then to Gjoa Haven. With the road, this could present a cost-effective solution for the community.	GBRP 2025		
During engagement for a previous project, Kingaok residents expressed concern for caribou and their sensitivities to sound and vibration, stating that new development (a wind farm) would impact the return of caribou to the Kitikmeot Region, and would also impact moose.	NIRB 2024c	WKR acknowledges this concern. This information was incorporated into the summary of baseline conditions for the traditional food system.	Section 25.2.2.3: Baseline Conditions for Country Foods Stability See also Volume 6, Section 16 (Caribou).
During engagement on the Tłı̨chǫ All-Season Road project, the Tłı̨cho Government stated the all-season road would indirectly affect people who depend on furbearing animals due to loss of food and economies.	Tłı̨cho Government 2014	WKR appreciates the feedback shared. This information informed the summary of baseline conditions for the traditional food system.	Section 25.2.2.3: Baseline Conditions for Country Foods Stability
During project engagement, Gjoa Haven residents expressed concern for potential impacts to wildlife and vegetation.	GBRP 2017, 2025	WKR appreciates the feedback shared regarding impacts to country foods. This information was incorporated into the summary of baseline conditions for the traditional food system. Details regarding the ability to harvest can be found in Volume 9, Section 24.	Section 25.2.2.3: Baseline Conditions for Country Foods See also Volume 9, Section 24 (Traditional Land, Marine, and Resource Use) See also Volume 6, Sections 16 (Caribou), 17 (Birds), and 18 (Other Wildlife).
During engagement for a previous project, Kugaaruk residents shared they are concerned about all of their animals, and shared that there are other wildlife besides caribou that are at risk. They also shared that as a result of the cost of groceries increasing, protection of country foods is of particular importance.	NIRB 2024a, 2024b		
During engagement on the Tłı̨chǫ All-Season Road project, the North Slave Métis Alliance (NSMA) commented that in the past, caribou were more prevalent on the dinner table than moose. Caribou was shared amongst immediate family and extended family, including aunts, uncles, and friends.	NSMA 2016		
During early project engagement, the Kugluktuk HTO expressed concern regarding impacts on country food, wildlife and the environment.	GBRP 2017		

Comment	Source	WKR Response	Where Addressed
During engagement for a previous project, residents in Kugluktuk, Cambridge Bay, Bathurts Inlet, Omingmaktok, Gjoa Haven, Taloyoak, Kugaaruk, and Yellowknife shared information related to hunting. Local households consume country foods, which are a better source of nutrients such as iron, magnesium, and calcium. It was estimated that an average hunter takes 1,000 to 1,500 kilograms of meat and fish each year, which is anticipated at $10,00 to $15,000 per hunter per year.	RHA 2003	WKR appreciates the feedback shared regarding the quality, utilization, and stability of country foods and traditional food system. This information informed the summary of baseline conditions for the traditional food system and in the assessment of residual and cumulative effects of the change in traditional food system. Mitigation measures to limit or avoid (when possible) adverse effects were provided. Details regarding community health and well-being can be found in Volume 9, Section 26 Details regarding the ability to harvest can be found in Volume 9, Section 24.	Section 25.2.2.3: Baseline Conditions for Country Foods Section 25.3.3: Assessment of Project Effects on Food Security – Change in Traditional Food System. Section 25.4.3: Assessment of Cumulative Effects – Change in Traditional Food System. See also Volume 9, Section 24 (Traditional Land, Marine, and Resource Use)
During engagement for a previous project, NSMA commented that harvested caribou, fish, geese, and moose are healthier and taste better than store-bought foods. However, they added that youth are less interested in country foods than previous generations, and prefer buying groceries from the store.	NSMA 2001		
Community members in Yellowknife expressed concern for a change in the availability of caribou meat.	NIRB 2025b		
During engagement for a previous project, Yellowknives Dene First Nation (YKDFN) commented that Bathurst caribou was the single most important source of country food for their members. Without caribou, YKDFN warned their members would face serious food insecurity and had already undertaken significant hardship from harvesting restrictions imposed by the Government of Northwest Territories.	YKDFN 2016		
During engagement on the Tłı̨chǫ All-Season Road project, YKDFN expressed concern that shift work would result in members having less time on the land to harvest traditional foods, creating further reliance on store-bought foods and impacting food security.	GNWT 2017		
During project engagement, community members in Kugluktuk expressed concerns regarding potential effects to mental health from a change in food security.	GBRP 2025		

Comment	Source	WKR Response	Where Addressed
During project engagement, the Kugluktuk HTO commented that younger generations would have to cope with the decline in food sources if the Project had poor mitigation measures.	GBRP 2025		
In past research, community members in Kugluktuk have expressed concern that some youth are less interested in harvesting and eating country foods than before.	Prno et al. 2011		
During project engagement, Athabasca Denesųłiné First Nations commented that cumulative effects to caribou have resulted in a decrease in the quality and quantity of Beverly caribou available to harvest and eat. They added that the cost of store-bought food is three times what it costs in cities, emphasizing the importance of access to country foods.	NIRB 2025a	WKR appreciates the feedback shared. This information informed the summary of baseline conditions for the traditional food system. Details regarding the ability to harvest can be found in Volume 9, Section 24.	Section 25.2.2.3: Baseline Conditions for Country Foods See also Volume 9, Section 24 (Traditional Land, Marine, and Resource Use)
During project engagement, Taloyoak residents expressed concern regarding increased shipping traffic and its impacts to marine species. Taloyoak residents further shared their hope that the road would result in lower food costs.	GBRP 2025	WKR appreciates the feedback shared. Regarding shipping traffic, vessels in the form of freighters (sealifts), barges, and support tugs will be required to assist in the construction of the port. Subsequent annual resupply during the Construction phase (up to five years) will require approximately one sealift vessel and an associated lightering barge per year. During operations, vessel traffic to Grays Bay Port is currently expected to be limited to times when ice-breaking is not required and will include the resupply of materials required for road and port operations; one cargo vessel shipment and one fuel barge shipment are expected annually. This information was incorporated into the summary of baseline conditions for the traditional food system and in the assessment of residual and cumulative effects of the change in traditional food system.	Section 25.2.2.3: Baseline Conditions for Country Foods Section 25.4.3: Assessment of Cumulative Effects – Change in Traditional Food System. See also Volume 8, Section 22: Marine Mammals

25.2.2.2 Food Security and Food Sovereignty

As noted above, Inuit Tapiriit Kanatami have identified Food Security and Food Sovereignty as key determinants of health and well-being, including Inuit health (ITK 2014). For Inuit and other Indigenous peoples, the practice of traditional activities, including traditional harvesting for subsistence, and connection to the land are integral to Food Security and Food Sovereignty and Inuit culture, language, and lifeways more broadly (Pauktuutit 2006). Food security is defined by the United Nations Food and Agriculture Organization as: “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO 2022).

There are four main dimensions of food security (Leroy et al. 2015; Nunavut Food Security Coalition 2014):

- Availability (i.e., physical quantities of food that are produced and distributed; available food must be of adequate quantity, quality, and safety)
- Access (i.e., physical, legal, political, economic, and socio-cultural ability to secure food of adequate quantity, quality, and safety)
- Utilization (i.e., the nutritional and social values of food and knowledge about how to obtain, process, store, and consume food), and
- Stability (i.e., conditions that enable the availability, accessibility, and utilization of food at all times).

The concept of food sovereignty expands the understanding of food security to include “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (Nyéléni 2007). Inuit food sovereignty reflects the importance of the land and environment and Inuit culture, values, and well-being in the food system (Panikkar and Lemmond 2020; Nunavut Food Security Coalition 2014).

Inuit Food System

Inuit food systems are deeply rooted in their relationships with the land, water, ice, wildlife, and communities. Historically, Inuit were self-reliant and secured country foods from seasonal harvesting locations throughout the year, guided by Inuit Knowledge and cultural protocols. This system was not only a means of sustenance but a way of life, reinforcing language, skill-sharing, values of respect and reciprocity, and social cohesion through practices like food sharing (ITK 2021; Gilbert et al. 2021; Desautels et al. 2023).

Inuit self-determination in the food system has been impacted by colonial policies, such as relocations, settlement programs, and residential schools, that affected Inuit mobility, participation in harvesting activities, and the transfer of knowledge required for traditional harvesting, and it continues to be impacted by the legacy of colonialism on Inuit culture and society (ITK 2021).

Today, the Inuit food system is a mixed food system comprised of the natural environment and the resources it provides, built environment (e.g., supply chain infrastructure and retailers), policies and regulations, and organizations and community networks that enable harvesting, distribution, and trade of country foods, store-bought foods, and locally produced and harvested foods (ITK 2021). Traditional foods remain central to Inuit identity, culture, and way of life (ITK 2021; Gilbert et al. 2021). They also support physical health through diet and nutrition, mental health through spiritual connection to the land, and cultural continuity through the intergenerational transmission of Inuit Knowledge (ITK 2021; Nunavut Food Security Coalition 2014; Desautels et al. 2023). Community representatives for Kugaaruk described the food system in the Kitikmeot Region today: “We have to think about our youth and their future because today we need to ensure that food security is here for us and our future and – because we don't have greenhouses here to grow food and vegetables. So as Inuit, we're sitting here. We're here, and it's because our parents and our grandparents raised us on country food” (NIRB 2024a).

Individual and Household Food Insecurity

Food insecurity is the inverse of food security: “food insecurity is experienced by households and individuals when there is uncertainty about future food availability and access, insufficiency of the amount and kinds of foods (quality) required for a healthy lifestyle, or the need to use socially unacceptable ways to acquire food” (Leroy et al. 2015).

The rate of food insecurity among Inuit in Nunavut is extremely high, with 77.6% of Nunavummiut aged 15 and over and 78.7% of Nunavummiut children experiencing food insecurity in 2017-2018 (ITK 2021; Tarasuk and Mitchell 2020). The 2017/2018 Canadian Community Health Survey reported that 25.8% of Nunavut households experience moderate food insecurity and 23.7% experience severe food insecurity; these rates are 4.5-8 times greater than for households in the rest of Canada and one of the highest rates for Indigenous populations in a developed country (ITK 2021; Nunavut Food Security Coalition 2014).

In the Kitikmeot Region, community members in Kugluktuk and Kugaaruk described widespread food insecurity. One community member in Kugluktuk shared, “they have no food there. Nothing. Some people will sleep hungry” (Community Member, Kugluktuk, November 8, 2024, pers. comm.).

Factors Influencing Food insecurity

Food insecurity is most often a consequence of poverty, which is influenced by employment, education, and income status and household characteristics (CCA 2014; ITK 2021). In Nunavut, the relationship between un- or under-employment and food security is strong, with 83.3% of households that rely on social assistance reporting being food insecure (Nunavut Food Security Coalition 2014).

Food insecurity in Nunavut can also be attributed to historical factors (i.e., diminished Inuit self-determination and erosion of hunting and cultural practices), geographical remoteness (i.e., increased shipping distances and reliance on planes or other modern methods of delivery, resulting in variable grocery supplies and high cost of market food in communities), high cost of living (e.g., rent, goods, transportation, and services, in addition to market foods), demographic changes, environmental changes, and harvest restrictions (ITK 2021; Burton 2021; Ford et al. 2019).

Food Insecurity and Health and Well-being

Food insecurity affects individual health and well-being, contributing to poor physical health outcomes such as malnutrition, obesity, chronic diseases, and shorter lifespans (ITK 2021). Food insecurity can also contribute to poor mental health outcomes for all individuals and developmental, behavioural, and learning challenges for children (ITK 2021). Food insecurity at the household and community level can affect family and community stability and cultural integrity and continuity (Nunavut Food Security Coalition 2014).

25.2.2.3 Country Foods

Availability

Harvesting and consuming country foods is a pillar of Inuit identity, culture, way-of-life, and health. The majority of men (74%) and women (59%) in Nunavut participate in harvesting activities, including hunting, fishing, trapping, or gathering plants (ITK 2021; Panikkar and Lemmond 2020). Country foods also provide a major source of food for communities in the Kitikmeot Region (ITK 2021). For example, country foods may provide approximately two-thirds of the dietary intake for community members in Cambridge Bay and Kugluktuk (Panikkar and Lemmond 2020) and have been reported to provide a better source of nutrients such as iron, magnesium, and calcium (RHA 2003). Community representatives in Kugaaruk and other residents of the Kitikmeot Region[2] emphasised that residents "have been raised by country foods" underscoring the importance of country foods and concern for effects caused by development (NIRB 2024a).

Inuit have used the Grays Bay (Kogloktoakyok) area since time immemorial. Fish have and continue to be a staple in Inuit diet while waiting for the arrival of caribou. Fish harvested include Arctic char, Arctic cisco, burbot, jackfish, eels, whitefish, grayling, broad whitefish, lake trout, Arctic grayling, Arctic cod, saffron cod, and sucker (Banci and Spicker 2024). Wildlife species of interest used for a variety of culturally important purposes have been identified by Kitikmiut and other potentially affected Indigenous groups, including Arctic fox, caribou, muskox, grizzly bear, wolves, wolverine, Arctic hare, ground squirrel, and moose. Goose, ducks, and ptarmigan/grouse are important bird species in the region. Plant harvesting has held particular importance to Kitikmiut during times of food scarcity and during hunts, and edible plants are gathered opportunistically while traveling on the land (Banci and Spicker 2024). Some edible plants harvested by Kitikmiut include beach peas, blackberries, blueberries, cloudberries, crowberries, Eskimo potato, Labrador tea, licorice root (*mahok*), mountain sorrel, puffball mushroom, and seaweed (Banci and Spicker 2024). Berries have been harvested by Kitikmiut for generations and may be preserved in permafrost to maintain the longevity of the fruit (Banci and Spicker 2024). Ocean species harvested by Inuit included sculpins, capelin, smelt, flounder (turbot), wolf eel, crabs, oysters, sandy lance, clams, mollusks, mussels, shrimp, sea urchins, wolffish, and starfish. Crabs and oysters were not a commonly harvested food source in the Grays Bay area (Banci and Spicker 2024). Marine mammals such as seals, whales, narwhals, and walruses are also of importance and play a central role in the subsistence practices, culture, and livelihoods of Kitikmiut (Banci and Spicker 2024). A full list of species

[2] Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven; as well as the primarily seasonal settlements of Bathurst Inlet and Bay Chimo in the Kitikmeot Region (Figure 25.1).

of interest to Kitikmiut and other potentially affected Indigenous Groups are detailed in Tables 24.5 – 24.10 of Volume 9, Section 24 for each community in the RAA.

Caribou provide the top source of protein for most Inuit and is often a highly desired species (ITK 2021). When caribou and seal were not available, muskox became a staple in Inuit diet (Banci and Spicker 2024). An IAG member shared that when they were younger, when the caribou herds declined, they had to shift to eating muskox, but it was hard to adapt to the smell, and noted that members tend to prefer caribou (IAG 2025a). Ground squirrels and Arctic hares were also used as food when there was no fresh or cached meat available (Banci and Spicker 2024). As reported in 2023, community members in Cambridge Bay and Kugluktuk derived 40% of their dietary intake from caribou followed by fish (13-15%) and muskox, marine mammals, and birds (8-10%) (GN 2023).

The availability of wildlife and country foods in Kitikmeot communities has declined in recent years, particularly for caribou and muskox (ITK 2021; Tomaselli et al. 2018). Community members in Gjoa Haven noted that wildlife populations have declined and their distribution has changed, which affects harvest rates (Desautels et al. 2023). Harvest rates are also affected by the number of hunters going out on the land, which has similarly declined in Gjoa Haven over the past twenty years, citing wildlife distribution and health, climate change, and conservation efforts affecting the availability of harvested foods (Desautels et al. 2023). Kumar et al. (2019) have documented an on-going trend of decreasing Inuit participation in harvesting activities over the past 20 years, generally. However, such trends are not necessarily consistent across the Kitikmeot Region. Residents in Kugaaruk reported an increase in sightings of caribou, polar bears (*nanok*), seals, and whales in recent years (Panikkar and Lemmond 2020).

While some Kitikmeot communities organize annual community hunts to harvest and share country foods, these typically occur only once per year and are considered inadequate to meet community needs. Lack of community freezers in some communities limit the ability to store and distribute country foods from community hunts throughout the year (Man Chan et al. 2006; Desautels et al. 2023).

Accessibility

Accessibility to country food includes physical, legal, political, economic, and socio-cultural ability to secure food of adequate quantity, quality, and safety. Barriers to accessing country foods can include legal restrictions, economic barriers, and social change in Nunavut communities. Legal restrictions can include harvesting limits for caribou herds (e.g., when population numbers are low), quota systems for caribou, muskox. grizzly bears, and polar bears, and requirements for gun licenses for harvesting and food safety certificates to process and distribute country foods (Man Chan et al. 2006; Desautels et al. 2023).

Economic barriers remain the most substantial constraint to accessing country foods. Costs to harvest, including purchasing hunting equipment (e.g., all-terrain vehicles, boats, snowmobiles, guns) and supplies (e.g., gas, provisions, bullets, nets) (Little et al. 2021; Desautels et al. 2023) limit participation. The cost of harvesting poses challenges for many Nunavummiut given high living expenses and limited income levels. Lone-parent households, families on income assistance, large families, un- and under-employed individuals, and Elders on fixed incomes can experience greater difficulty in participating in harvesting. Certain programs such as the Nunavut Harvesters Support Program (described in the

Grays Bay Road and Port Project People and Communities Baseline Report, Appendix 25A) assist community members with the costs associated with harvesting; however, costs are considered greater than funding available (Man Chan et al. 2006).

Waged employment can limit the time available for harvesting. Individuals must balance income needs and job responsibilities with time on the land (Desautels et al. 2023; Kumar et al. 2019). Conversely, Inuit have previously reported that waged employment reduces financial barriers to participating in harvesting (Kumar et al. 2019). Additionally, Elders may be limited by the physical demands of harvesting, and some young hunters may not have the experience, training, and resources to harvest country foods (Desautels et al. 2023).

Utilization

Country foods are often perceived by Inuit as healthier, fresher, and more natural than store-bought foods (Gilbert et al. 2021; Carter et al. 2025). Country foods provide essential nutritional value, including a substantial proportion of protein, antioxidants, vitamins, and micronutrients (e.g., iron, niacin, vitamins D, B6, and B12), and are considered protective against cardiovascular diseases and diabetes (ITK 2021; Little et al. 2021; Nancarrow and Chain 2010). This has been reiterated within the Kitikmeot Region, with harvesters noting that store-bought foods do not replace country foods; and they provide a better source of nutrients such as iron, magnesium, and calcium (RHA 2003). Harvesting and consuming country foods also promote physical and mental health benefits to Nunavummiut (Little et al. 2021; Gilbert et al. 2021).

Kitikmiut have observed a decline in the quality of country foods they consume, including caribou, muskox, and fish. A possible explanation for the observed decline in quality has been attributed to diseases, contaminants, or other signs of physical illness linked to environmental changes (Panikkar and Lemmond 2020; Gilbert et al. 2021; Tomaselli et al. 2018).

Elders often rely on and prefer country foods to a greater extent than other sub-populations (Little et al. 2021). Youth typically consume less country foods than Elders, which may be attributed to the convenience and availability of store-bought foods, lack of Inuit Knowledge and skills to harvest country foods, and changes in dietary preference, lifestyle, and cultural practices (Little et al. 2021). It has been reported that some youth are increasingly less interested in traditional activities and have lost some of their taste for country foods. The lack of interest in hunting can lead to a decline in associated Indigenous Knowledge transfer and skills (Prno et al. 2011). An Elder from Kugaaruk shared that Elders eat the same amount of country food they always have, but “younger people's mostly from the store” (Community Elder, Kugaaruk, October 31, 2024, pers. comm.). Inuit in Gjoa Haven shared, “We don't only eat and harvest one herd of caribou, but our youth are becoming more accustomed to store-bought food. Their diet is very different from ours” (NIRB 2024c). Nonetheless, youth in Gjoa Haven noted that they enjoy country foods and would like to eat more of it, recognizing that it can be healthier than store-bought foods (Desautels et al. 2023).

Stability

The sustainability of the traditional food system depends on the stability of both harvested wildlife and harvesters, which are threatened by climate change and disruption in the intergenerational transmission of Inuit, Indigenous, and Community Knowledge (Panikkar and Lemmond 2020). Climate change is affecting Arctic regions at a rate more than twice the global average, resulting in changes to the temperature, precipitation, and seasonality in the Kitikmeot Region (ITK 2021). Community members in Kugluktuk and Cambridge Bay have also noted the presence of development such as mining, shipping, and tourism and the effects of noise, dust, and vessel routes on the populations, distribution, and sizes of wildlife (Panikkar and Lemmond 2020; Gilbert et al. 2021). Community representatives for Kugaaruk have also expressed concern for sensory impacts to wildlife, stating that “regardless of the size of wildlife, some [species] have tendencies to be more timid, and they have very good sensory perception” (NIRB 2024a).

Long-term food security and food sovereignty for Kitikmiut depends on younger generations’ ability to harvest, process, and store country foods (Desautels et al. 2023). Overall, community members in the Kitikmeot Region have noted a decline in harvesting among youth (Gilbert et al. 2021). Disruption of the intergenerational transmission of Inuit Knowledge, language, and skills have contributed to decreased participation in harvesting among youth in Kitikmeot communities (Man Chan et al. 2006; Desautels et al. 2023; Panikkar and Lemmond 2020). This disruption is influenced by the legacy of colonization, changes in dietary preferences and cultural practices of youth, and changes in way-of-life of Inuit and may be compounded by substance abuse and suicide among youth (Panikkar and Lemmond 2020).

25.2.2.4 Store-bought Foods

Availability

All five communities in the Kitikmeot Region are served by market food retail businesses including the Arctic Co-operatives Limited (ACL) and the North West Company (ITK 2021).

Due to existing transportation infrastructure limitations in the Kitikmeot Region, store-bought foods are shipped into communities during annual community resupply or flown in by Canadian North cargo flights or charter planes (ITK 2021). Dry goods and heavy, shelf-stable (i.e., non-perishable) items such as canned goods are transported via Montreal or other southern dispatching locations between January to July each year for shipment to the Kitikmeot Region in August and September. Community resupply by sealift has also operated out of Hay River in previous years, but since 2021 low water levels on the Mackenzie River have affected barge operations on the river. Many northern communities receive only one sealift per year. Delivery schedules are published provided by sealift providers but are prone to changes, delays, and cancellations depending on weather, water levels, and port operations.

Fresh and frozen products are packaged in distribution centres across Canada and trucked to Winnipeg and Thompson, Manitoba, and flown to the Kitikmeot Region on a weekly basis. ACL transports shipments using Canadian North cargo flights and North West Company transports shipments using its own private fleet of aircraft (ITK 2021). Air transportation is often delayed or cancelled due to weather or mechanical issues, which affects the availability of store-bought foods. The manager of the Co-op in Kugaaruk shared that planes are delayed or cancelled “All the time… planes are always delayed,

canceled, everything else" (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.). As a result of the long distances that goods must travel to communities, store-bought foods can be of low quality and selection can be limited (ITK 2021). They can also be damaged, spoilt, or expired (Man Chan et al. 2006).

Accessibility

Barriers to accessing store-bought food include physical access (e.g., supply chains and transportation infrastructure) and economic access. Community members access store-bought foods at community retail stores as described in Section 25.2.2.4 or through direct orders from food suppliers in southern Canada (ITK 2021). Direct orders require a credit card, which is inaccessible to many Inuit households (ITK 2021).

Accessing store-bought foods from community retail stores and food suppliers in southern Canada is limited by the cost of food. Food prices in Nunavut are extremely high and have increased in recent years due to inflation. During project engagement, attendees shared that the cost of living is expensive. Community members provided examples including that a box of granola bars sells for $40 and a can of soda sells for roughly $5 at the local store (GBRP 2025).

The cost of retail food in Nunavut is affected by transportation costs, energy prices, weather delays, and additional costs for food storage and building operation and maintenance (ITK 2021; Natcher and Ingram 2022). Depending on community location and supplier, transporting food by sealift costs approximately $1 per pound while transporting food by air freight costs approximately 3-5 times that amount (Kitikmeot Inuit Association, Kugaaruk, October 29 2024, pers. comm.; Koomiut Co-op, Kugaaruk, October 31 2024, pers. comm.).

Each of the LAA communities are eligible for retail subsidies through the federal Nutrition North Canada (NNC) program (NNC 2022). NNC subsidies are applied to fresh and nutritional food; with the subsidy applied, the cost of transporting food to communities by air freight is lowered to approximately the same cost as transporting food by sealift (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.). Additional financial support was available to community members to access nutritious food through Inuit Child First Initiative (ICFI) food voucher program, which began in 2024 (ITK 2022). However, as of April 2025, the food voucher program has ended and any further food-based funding requests through the ICFI will be assessed on a case-by-case basis depending on the needs of the child (Antunes 2025).

The economic inaccessibility of store-bought food for some is further exacerbated by low incomes in the Kitikmeot Region (ITK 2021). Most Inuit households are unable to afford the cost of the Revised Northern Food Basket (RNFB; GOC 2007), which is the approximate cost of selected, nutritious food items needed for a family of four. Very low-income households can only afford 6-13% of the RFNB (ITK 2021). The proportion of weekly median income needed to afford the RNFB is lowest in Cambridge Bay (24%) among the Kitikmeot communities where data are available, with 30-33% of weekly income needed to afford the RNFB in Gjoa Haven, Kugluktuk, and Taloyoak. In comparison, the average Canadian household spends 14.3% of its income on food, including groceries and restaurant meals (ITK 2021).

Utilization

Due to issues with the availability, quality, and cost of healthy store-bought foods such as fruits and vegetables in Nunavut communities, the most frequently consumed store-bought foods are often of low nutritional value (e.g., convenience and confectionary foods, non-perishable foods). Approximately 20% of calories consumed by Nunavummiut contain little to no micronutrients (ITK 2021).

Inuit are also experiencing a nutritional transition, resulting in changes in dietary patterns from consuming country foods to more store-bought foods, including processed foods high in salt, sugar, and fat (Little et al. 2021). Diets high in processed food are associated with higher rates of cardiovascular diseases, Type 2 diabetes, and obesity.

Stability

The stability of the market food system in Nunavut depends on the stability of supply chains to predictably transport food to communities (ITK 2021). Transport of food to communities by air freight is often affected by weather delays and maintenance issues, and disruption of this supply chain can affect the availability, selection, and quality of store-bought foods.

Annual community resupply by sealift may be disrupted by weather, tidal conditions, water levels, and climate change. For example, the 2018 barge resupply to Cambridge Bay and Kugluktuk from Hay River was cancelled as a result of impassable ice and bad fuel, resulting in the need to airlift goods and fuel into the communities at a cost of $4 million (ITK 2021; Cabin Radio 2024). The 2021, 2023, and 2024 barging seasons to Cambridge Bay and Kugluktuk from Hay River were disrupted by low water levels in the Mackenzie River (Cabin Radio 2024). Disruption to community resupply by sealift can also affect the cost of store-bought foods in Kitikmeot communities.

25.2.3 Summary of Baseline Information on Sub-Populations for Gender Based Analysis Plus

The rate of food insecurity among Inuit in Nunavut is extremely high and is one of the highest rates for Indigenous populations in a developed country (see Section 25.2.2.2). At the national level, women, Indigenous women, and two-spirit, lesbian, gay, bisexual, trans, queer, questioning, intersex and asexual (2SLGBTQQIA+)[3] communities also have higher rates of food insecurity than their counterparts in the general population (CCA 2014).

Rates of food insecurity among Inuit in Nunavut vary by sub-population:

- Inuit women have a higher prevalence of living in food insecure households than Inuit men, with 56% of Inuit women reporting to be food insecure (ITK 2021).

[3] + is inclusive of people who identify as part of sexual and gender diverse communities, who use additional terminologies.

- As food insecurity is most often a consequence of poverty, low-income individuals and households, households with children, and lone parent families experience higher rates of food insecurity:
  - Most Inuit households are unable to afford the cost of the RNFB. Very low-income households can only afford 6-13% of the RNFB (ITK 2021).
  - 83.3% of households that rely on social assistance report being food insecure (Nunavut Food Security Coalition 2014).
  - Inuit households with children report both high levels of moderate food insecurity (36%) and severe food insecurity (34%) (ITK 2021).
  - Lone-parent households are more likely to have lower income levels than couple-headed households.
- Low-income individuals and households, households with children, and lone parent families may not have access to country foods due to the cost of harvesting equipment and supplies.
- Individuals, including Elders, children, and youth, that do not have active hunters in their households experience limited access to country foods at disproportionate rates (Desautels et al. 2023; Gilbert et al. 2021). Elders may be limited by the physical demands of harvesting.
- Youth have been disproportionately affected by the nutritional transition and consume more store-bought foods of low nutritional value (Little et al. 2021). Youth often do not have the same experience, training, and resources to harvest country foods as their Elders do, including navigating on the land, processing and storing country foods, and food safety (Desautels et al. 2023).

25.3 Assessment of Project Effects on Food Security and Food Sovereignty

25.3.1 Analytical Assessment Techniques

The assessment of food security and food sovereignty, including the assessment of Project-related effects and cumulative effects, was informed by feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities regarding traditional and market food systems and was conducted in accordance with the methods set out in Section 4: EA Methodology. As described in Section 25.1.1, the assessment of food security and food sovereignty is informed by Inuit, Indigenous, and Community Knowledge and feedback from engagement. Disproportionate effects on subsets of the population have been assessed through a GBA Plus approach further described in Section 25.2.2.1.

The assessment of food security and food sovereignty draws on conclusions from assessments of other VCs, including Traditional Land, Marine, and Resource Use (Section 24), Employment and Economy (Section 27), and Infrastructure and Services (Section 28). Qualitative information collected from primary research was also used to inform the assessment of the Project on food security and food sovereignty and this information has been integrated into the assessment to inform potential pathways of effects, mitigation and enhancement measures, residual effects assessment, and cumulative effects assessment.

There are some uncertainties associated with the availability of information, data analyses, and interpretation of data and these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, the assumptions outlined in Section 25.3.1.1 err on the side of overstating an effect.

A summary of key feedback shared by Kitikmiut and other potentially affected communities relevant to food security and food sovereignty and available at the time of filing is consolidated in Table 25.3 and has been integrated into this assessment where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into project planning, as appropriate.

25.3.1.1 Assumptions

The following assumptions have been made to support the assessment on food security and food sovereignty:

- The Project is anticipated to directly employ approximately 200 to 500 people per year during the five-year Construction phase. Construction phase workers will be employed on a fly-in/fly-out (FIFO) rotational schedule. During Construction, there will be four temporary mobile camps and two stationary camps, one at Grays Bay port and the other at Jericho Station. Each stationary camp will accommodate approximately 80 people and each mobile camp will accommodate approximately 40 people, including construction, supervisory, and technical personnel.
- The total operational workforce based at the port site will include approximately 20 personnel for port operations and approximately 22 personnel for road operations, and approximately 12 personnel for Jericho operations. Operations and Maintenance phase workers will be employed on a FIFO rotational schedule. During Operations and Maintenance, there will be permanent accommodations at Grays Bay Port and Jericho Station. The Grays Bay Port will have capacity of up to 80 people, with an additional short-term capacity for up to approximately 150 and Jericho Station will have a capacity of up to 40 people.
- It is also expected there will be indirect employment associated with Project Construction and Operations and Maintenance phases.
- The workforce will be hired from the Kitikmeot Region and the Northwest Territories (NT), where possible, and from southern Canada. Non-resident Project workers will use commercial airlines to mobilize to Yellowknife and will stay there in the short term (e.g., one night) and transit to and from Project Site using charter aircrafts. Therefore, it is assumed that non-resident workers will not transit through Kitikmeot communities.
- Resident Project workers will use commercial airlines to mobilize to collection points in the Kitikmeot communities of Cambridge Bay and Kugluktuk, or travel to Yellowknife, where they will stay there in the short-term (e.g., one night) and transit to and from Project Site using chartered aircrafts.

- It is anticipated that most direct labour during construction will likely come from outside the five Kitikmeot communities (approximately 15% of the Construction workforce is expected to comprise Nunavut residents). This is driven by large Project labour demands relative to existing employment in 'trades, transport and equipment operators and related occupations' across the Kitikmeot communities, as well as the specialized nature of port construction and expectation that some skilled trades will not be present in the region. Most Operations and Maintenance workers are anticipated to be residents of Kitikmeot communities, over time (approximately 50-100% of the Operations and Maintenance workforce is expected to comprise Nunavut residents). Skilled workers (e.g., engineers, heavy equipment operators) may have to be sourced from outside the Kitikmeot communities.
- It is assumed that out-of-region workers and their families will not relocate to the LAA during Construction because it is short-term work. It is anticipated that most Operations and Maintenance workers will be residents of Kitikmeot communities, and therefore the Project will not depend on a substantial out-of-region workforce to meet Project demands. If an out-of-region workforce is required during Operations and Maintenance, it is assumed workers and their families will not relocate to the LAA during Operations and Maintenance. During Construction and Operations and Maintenance, non-resident workers will be accommodated during shifts at existing work camps in the PDA.
- The road and port (including the small craft harbour) will be accessible for local and regional use. Access to the road will be controlled.

25.3.2 Project Interactions with Food Security and Food Sovereignty

Table 25.4 identifies Project activities that may interact with the Food Security and Food Sovereignty VC, resulting in potential effects on the traditional food system and the market food system. These interactions are indicated by a check mark (✓), which indicates a potential interaction, or a dash (-), which indicates that an interaction is not anticipated. Project interactions are discussed in detail in Sections 25.3.2 and 25.3.3 in the context of effects pathways, standard and Project-specific mitigation measures, and residual effects.

The potential interactions between Project activities and were considered for the Construction phase and the Operations and Maintenance phase of the Project. The identification of project activities and their potential interactions was based on Inuit, Indigenous, and Community Knowledge, the professional judgment of socio-economic impact assessment practitioners involved in the assessment, and a review of known existing conditions. The selection of interactions is also informed by the potential effects and effects pathways for each VC, as described in Section 25.1.3. Interactions are discussed in the Project residual effects and cumulative residual effects assessments that follow.

All Project activities have the potential to interact with the traditional food system. Certain Project activities have the potential to interact with the market food system; however, some activities as indicated by a dash in Table 25.4 are not anticipated to interact with this system. These Construction and Operations and Maintenance activities are not anticipated to affect the supply chain for transporting market foods to the Kitikmeot Region, and therefore they are not anticipated to affect the availability of market foods in the Kitikmeot communities.

Table 25.4 Project Interactions with Food Security and Food Sovereignty

Project Activities	Effects	
	Change in Traditional Food System	Change in Market Food System
Construction		
Mobilization/demobilization of machinery/equipment, vehicles, materials, and fuel (e.g., by barge, sealift, boat, or road)	✓	✓
Staging and storage of materials, fuel, equipment and pre-fabricated components	✓	-
Chemical and hazardous material transport, storage and management (including explosives)	✓	-
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓	✓
Machinery/equipment and vehicle refuelling / fuel storage handling	✓	-
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	✓	-
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	✓	✓
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	✓	-
Water withdrawal to support construction activities (e.g., winter road construction, dust control, material compaction)	✓	-
Watercourse crossing construction (e.g., bridge and culvert installation)	✓	-
Ground based transportation (e.g., workforce, materials, supplies)	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	-
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refuelling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	✓	✓
Procurement of goods and services; employment of workers	✓	✓
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	✓	-

Project Activities	Effects	
	Change in Traditional Food System	**Change in Market Food System**
Operations and Maintenance		
Port landside operations and maintenance (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations and maintenance including use and maintenance of airstrip and facilities; and Jericho Station operations and maintenance).	✓	✓
Marine port use and operations and maintenance (e.g., vessels and cargo loading/unloading, barge landing operations and maintenance, small craft harbour operations and maintenance)	✓	✓
Borrow source and quarry operations and maintenance (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	✓	-
Desalinization operation and wastewater treatment (e.g., marine water use and effluent discharge)	✓	-
Water withdrawal / use (e.g., potable water, dust control, maintenance)	✓	-
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	✓	✓
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	✓	-
Vessel Fuel Line / Refueling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	✓	-
Equipment maintenance	✓	-
Chemical and hazardous material transport, storage and management (including explosives)	✓	-
Winter road construction and use (e.g., annual winter road construction and maintenance)	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	-
Procurement of goods and services; employment of workers	✓	✓

Notes:

✓ = Potential interaction

– = No interaction

While activities for each Project phase will have labour requirements and hiring may draw persons from the Kitikmeot communities, it is not possible to isolate the effects of individual activities for employment outcomes. Therefore, these effects are addressed collectively as part of the “procurement of goods, and services; employment of workers” activity for each phase.

25.3.3 Change in Traditional Food System

25.3.3.1 Project Effects Pathways

The Project may change the traditional food system in the Kitikmeot communities in the LAA through alterations to the availability, accessibility, utilization, and stability of traditionally harvested species. Project components and activities including road construction, increased traffic and access, port development, and enhanced human presence, have the potential to disrupt the traditional food system.

As noted in Section 25.2.2.3, Section 24 (Traditional Land, Marine, and Resource Use), Appendix 25A, and through the Project's engagement program and community-based primary research, as well as through publicly available literature, Kitikmeot communities in the LAA identified the following potential effects related to the traditional food system.

- **Terrestrial Wildlife Harvesting –** effects on terrestrial wildlife species, including birds, due to:
  - Alterations to, and loss of, terrestrial habitat as a result of Project Construction activities
  - Disturbance effects related to increased sensory disturbances and dust from the road
  - For example, infrastructure developments can have indirect effects on caribou, as caribou are perceived to avoid areas with increased noise and human activity (GBRP 2025).
    - Increased wildlife-vehicle collisions during Project Construction and Operations and Maintenance.
    - Effects on wildlife movement, including caribou populations and interactions with their migration route and the broader Bathurst caribou calving range. This interaction lies on the western fringe of the range, outside the core calving grounds where concentrated birthing activity occurs.
  - Potential for increased hunting pressure on wildlife due to increased access from non-Inuit harvesters.
  - Change in access to hunting areas.
- **Marine and Terrestrial Plant Harvesting –** effects on terrestrial and marine vegetation due to:
  - Effects of dust and removal of plant species
  - Alteration or loss of important habitat such as eskers as a result of Project Construction
  - Soil disturbances from Project activities and its effects on plant growth and nutrient availability
  - Change in access to harvesting areas
- **Marine Hunting and Fishing -** effects on marine species due to:
  - Habitat loss for species including ringed seal, bearded seal, beluga whale, bowhead whale, and narwhal.
  - Sensory disturbances due to Project Construction and Operations and Maintenance associated with the marine port.
  - Increased debris, noise, and contaminants entering water systems and marine ecosystems.

  - Risks associated with increased vessel interactions and potential vessel strikes.
  - Effects on marine (water, mammals, and fish) health due to potential for spills.
  - Change in access to harvesting areas.
- **Freshwater Fishing-** effects on freshwater fish due to:
  - Alterations to, and loss of, fish spawning and migration areas as a result of Project Construction activities.
  - Increased access resulting in overharvesting of fish.
  - Impacts on water quality (due to debris, noise, and contaminants) resulting in changes to fish quantity.
    - Potential for Project activities to affect acidity in freshwater sources, directly affecting fish availability.
  - Change in access to fishing areas.

Project Construction and Operations and Maintenance may adversely affect wildlife abundance and behaviour, which may in turn affect harvesting opportunities and food security. Wildlife-vehicle collisions, habitat fragmentation, noise disturbance, and potential increased hunting pressure by non-Inuit are all anticipated pathways through which the Project may influence access to and availability of traditional food sources, particularly key species like caribou and muskox. For caribou specifically, the proposed road alignment intersects with their migration route and the broader Bathurst caribou calving range. This interaction lies on the western fringe of the range, outside the core calving grounds where concentrated birthing activity occurs. Infrastructure development and associated disturbances, such as vehicle traffic and dust, may cause caribou to avoid the area, reducing their accessibility during key harvesting periods. Additionally, the Project may result in changes to caribou movement within the LAA due to physical infrastructure (such as fencing, steep road berms, and facilities), and sensory disturbances (such as visual and auditory changes from project activities and increased human presence) (see Volume 6, Section 16). Given that caribou are a central component of many Inuit diets, any reduction in their availability could have cascading effects on food security, intergenerational knowledge transfer, and cultural continuity. It was reported that the most critical unacceptable outcome is the adverse effect on the ability of Inuit to harvest caribou and obtain country food, as this would be considered a fundamental threat to Inuit culture and lifeways (IAG 2025a, 2025b).

Construction and operation of the all-season road and port landside facilities would create new and increased access, which may also lead to greater hunting pressure from non-local harvesters on terrestrial wildlife and birds. This could lead to a reduction in available game and increase competition for local harvesters. Air transport of goods and materials to resupply the Project, including construction camps, may to result in sensory disturbances for wildlife species. Residual effects on other wildlife habitat, movement, and mortality are predicted to occur during both the Construction and Operations and Maintenance phases (see Volume 6, Section 18), which will result in alterations to the current and future quantity and quantity of, and access to, country foods.

Project Construction and Operations and Maintenance could affect the distribution of traditional resources in the Kitikmeot through sensory disturbances to harvested species and deposition of dust on vegetation, which subsequently may decrease the availability and accessibility of traditional foods. During Construction, vegetation clearing (which will result from site preparation of Project infrastructure, quarry and borrow source development, preparation of road embankment, road cuts, culvert installation, access road construction, camps, and workspaces) may affect harvesting opportunities and food security. Similarly, road construction may degrade potentially important habitat features such as eskers, which could be used by both wildlife for denning and by Inuit as traditional travel and harvesting routes. Habitat alteration could contribute to reduced wildlife presence in familiar hunting areas, subsequently disrupting traditional harvesting patterns.

Project activities may also affect the availability and quality of plants, fish, and marine resources that support the traditional food system. Road dust, erosion, invasive species, and altered hydrology may impact vegetation used for food and medicine. Freshwater fish habitats may also be at risk of disruption, especially where the road intersects with rivers or where construction increases sedimentation and disturbs spawning grounds. Additionally, marine species like seals and whales may be affected by increased shipping traffic at Grays Bay Port, underwater noise, and potential contamination associated with port activities. These changes all pose a risk to the availability and reliability of country foods, with implications for Inuit diet, nutrition, and autonomy over food practices.

The Project may affect Kitikmeot communities' access to traditional foods. Revenue, taxes, and funding from the Project and from past, present, and reasonably foreseeable projects will flow to various governments (i.e., municipal, territorial and federal) in the RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support food security programming. Increased travel and access may allow harvesters to access areas more easily and support wayfinding (Community member, Kugluktuk, November 9, 2024, pers. comm.). It may also increase human presence and competition for traditional resources. During the Project's engagement program, land users reported they have had to travel further to access wildlife, fish, and plant resources than they did in the past (Kativik Health Centre, Gjoa Haven, November 14 2024, pers. comm.). Concern for competition of resources and impacts to the availability of traditional foods was expressed by IAG members and the Taloyoak HTO and Kugluktuk HTO (GBRP 2017, 2025; IAG 2025a) (see Section 24 for additional information). Additionally, Construction and Operations and Maintenance of the port may cause disturbance and nuisance effects within the marine environment from construction noise or during loading and unloading areas for cargo in the LAA. The Construction and Operations and Maintenance of the Port facility and road may change the aesthetic character and quality conditions near the proposed Project (see Section 29).

25.3.3.2 Mitigation, Enhancement, and Management Measures

Adherence to standards, best management practices, and mitigation measures are expected to prevent or reduce a change in the traditional food system resulting from the Project. Potential effects will be mitigated through management practices applied during design, Construction and Operations and Maintenance while specific mitigation may be required in certain circumstances. WKR will implement the following mitigation, management, and enhancement measures during Project construction and operations and maintenance to reduce potential adverse effects and enhance benefits of the Project on the traditional food system in the LAA:

- Blasting will be scheduled during less sensitive time periods (i.e., shift change, period with no traditional land use activities).
- Engagement will be conducted with Kitikmiut to determine the location and usage information for areas such that avoidance of noise generating activities (i.e., pile driving, drilling) may be considered.
- WKR's Road Management Plan will help limit Project-related disturbance to wildlife by setting clear expectations for industrial traffic. Drivers will receive training on what to do when caribou are present and will use radio systems to communicate sightings along the road. Electronic traffic monitoring may also be used to support compliance and accountability. Together, these measures are intended to reduce vehicle-wildlife interactions and support safe, predictable wildlife movement in areas traditionally used for harvesting.
- A Wildlife Mitigation and Monitoring Plan will also be developed and implemented, outlining procedures to prevent and respond to any incidents involving marine species. This plan supports the protection of important food sources and will include reporting, adaptive responses, and communication with communities.
- Personnel will not feed, harass, or harvest wildlife while working on the Project.
- As part of the Road Management Plan, access mitigation measures will be included to maintain access to land and marine areas throughout all phases of the Project for the public. This plan will include provisions for access to the road. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, to reduce the potential for illegal/non-permitted access, and support safe and respectful use of Project infrastructure.
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.
- WKR will develop and implement a Culture Program at the Project's main camps. The Culture Program will include provision of occasional country food to personnel at camps and is intended to create a more inclusive work environment while supporting local food traditions and aiding to build cultural respect among non-Inuit personnel.
- A SEMP will be developed and implemented. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

Valued component specific mitigation measures are also provided in the assessment sections for air quality (see Section 11.3), vegetation (see Section 15.3), caribou (see Section 16.3), birds (see Section 17.3), other terrestrial wildlife (see Section 18.3), marine fish (see Section 22), and marine mammals (see Section 23). Additional mitigation and management measures to reduce effects on or enhance conditions for country foods and on socio-economic conditions are presented in Volume 9, Sections 26 (Community Health and Well-Being), Employment and Economy (Volume 9, Section 27), Infrastructure and Services (Volume 9, Section 28), and 29 (Non-traditional Land, Marine, and Resource Use [for commercial harvesting and recreational hunting]); Volume 10, Section 32 (Accidents and Malfunctions); and Volume 11 (management plans), which include plans to manage and monitor resources and environments (e.g., wildlife, aquatic environments, air quality, spill contingency) and socio-economic conditions. Recommendations from Kitikmiut and other potentially affected Indigenous groups are in Section 24 (Traditional Land, Marine, and Resource Use).

25.3.3.3 Project Residual Effects

Project residual effects on the traditional food system are described in the following subsections. Project residual effects are described based on changes to the availability and stability and accessibility and utilization of country foods in the LAA.

Availability and Stability

Harvesting remains a key source of food for Inuit. Hunting and sharing food are considered one of the core aspects of Inuit culture. Both Inuit, Indigenous, and Community Knowledge and western scientific research highlight the strong link between individual and community health and well-being and consistent access to reliable sources of country food.

As noted in Section 25.2.2.3, species that were identified as important resources for traditional food system include caribou, muskox, moose, birds, edible plants, marine mammals, and various fish species.[4] The Project may affect the availability and perceived availability of traditional foods in the Kitikmeot communities in the LAA through road construction, increased traffic and access, changes to habitat and mortality risk, port development, and enhanced human presence.

> *Each year the number of animals are different, each summer is different. One time there is a lot of smoke, so animals we hunt will come to our area. One summer didn't catch a lot of caribou and went through caribou cache early moved to Sherman Inlet where there are a lot of seal – use seal meat for dog food* (Community Elder, Gjoa Haven, November 16, 2024, pers. comm.)

Project activities during construction and operations and maintenance could result in changes to the abundance and diversity of wildlife, native vegetation communities, marine species, and fish species relied upon for the traditional food system directly through clearing for site development (resulting in loss of habitat and alteration of migration and/or spawning areas), or indirectly from sensory disturbances, dust deposition, changes to vessel and vehicle traffic, changes to water quantity, and changes to vegetation and species diversity (see Volume 7 Sections 15-18, and Volume 8 Sections 20-23).

[4] Additional information about the assessment for each of these species can be found in their respective sections in Volume 6, Sections 15, 16, 17, and 18; Volume 7, Section 20; and Volume 8, Section 22 and 23.

Change in vegetation (including community and species diversity, and wetland function) is anticipated as a result of vegetation clearing during construction. During operations and maintenance, changes are anticipated as a result of dust deposition, changes to soil conditions, changes to water quantity, and the introduction and proliferation of non-native and invasive plant species (Section 15).

Change in fish habitat is anticipated as a result of the alteration, disruption, or destruction of fish habitat and the alteration of water quality, and changes in fish health, growth, or survival are expected to be driven by the potential effects of changes in water quality, death of fish from injury or stranding, impingement and entrainment, production of underwater noise, and increased fishing pressure (Section 20). Underwater noise and artificial light during Project construction, and operations and maintenance, may cause a change in mortality and/or injury risk to marine mammals (Section 23).

Cultural perceptions of food security and the presence of non-Inuit harvesters or workers on the land may also influence decisions about where and when to harvest. While the Project's Culture Program and considerations for wildlife interactions are intended to reduce these pressures from Project workers by reinforcing respect for Inuit, Indigenous, and Community values and avoiding direct competition, residual effects related to land use and cultural continuity may persist. These effects are likely to be intermittent and closely tied to specific locations and times when harvesters and non-Inuit harvesters or workers are in close proximity to one another.

Mitigation and management measures will reduce the likelihood and severity of residual effects to wildlife; however, some impacts remain possible. While measures such as regulated traffic, scheduled blasting, and the prohibition of recreational vehicle use by workers are designed to reduce stress on harvested species (e.g., caribou, marine mammals), some temporary displacement may still occur, particularly during sensitive periods such as calving or migration. These effects are expected to be most evident during the construction and early operations and maintenance phases, when activity levels are highest.

Accessibility and Utilization

The Project may contribute to both adverse and positive effects on the accessibility of the traditional food system and utilization of traditional foods in the LAA through changes to Project-related access, and Project-related revenue for various levels of government.

One barrier to accessing country food is the high costs associated with harvesting equipment (Shafiee et al 2022; Reading and Wien 2009). Through Project employment, residents in the Kitikmeot communities may receive an increased income, which could increase financial accessibility of harvesting, including purchasing and sharing equipment used for harvesting. However, increased participation in the workforce may result in limited time to harvest on the land. WKR will establish a Company Donations Program to support community well-being initiatives in the Kitikmeot communities, that could include supporting traditional harvesting programs and funding.

As construction and operations and maintenance of the Project will also require transport of goods and people to and from the Project site (by barge, sealift, boat, aircraft, or road), ongoing access may increase sensory disturbances for both harvesters in the Kitikmeot Region, as well as terrestrial wildlife and marine mammals (Coppermine Outfitters, Kugluktuk, November 8 2024, pers. comm.). These changes may result in both positive and adverse residual effects for harvesters in the Kitikmeot Region.

Positive effects include the increased accessibility to areas that were otherwise previously challenging to access or required additional resources to access country foods. Additionally, direct or indirect employment from the Project has the potential to both increase and decrease opportunities to participate in traditional economies due to increased income and reduced time from potential rotational shiftwork, resulting in both positive and adverse effects (see Volume 9, Section 27). Positive effects associated with employment and increased income are not characterized further. As part of the Road Management Plan, access mitigation measures, which are intended to support continued access to key harvesting areas by land and water, including around the port, road, and airstrip, may reduce concerns about the potential for harvesting routes to be disrupted or made less accessible. WKR will control access to the road through agreements with various user groups, and community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an HTO. During construction and operations and maintenance of the Project, WKR policies related to wildlife will be reinforced through training and camp rules and is designed to avoid competition with local harvesters and reduce the potential for wildlife stress or habituation. Recreational use of all-terrain vehicles and snowmachines by Project personnel will also be prohibited, helping to limit unnecessary disturbance and preserve quiet, undisturbed harvesting conditions in the region.

During operation, the Project will also create a new access route within the LAA for land-based harvesting, which will both allow for easier access to certain harvesting areas, and may increase competition from non-Inuit land users. This is anticipated to be mitigated with WKRs Road Management Plan, as ground-based transportation using the all-season road would be limited to the winter road season. Despite these measures, residual effects may still arise where increased industrial activity interrupts harvesting in the immediate vicinity of Project infrastructure, or where harvester confidence in traditional areas declines. These types of effects may be more difficult to detect and monitor, underscoring the importance of thoughtfully and consistently tracking harvest patterns and perceptions through the Socio-economic Monitoring Program and consideration of Inuit, Indigenous, and Community Knowledge and perspectives.

Project construction and operations and maintenance will largely be executed by a FIFO workforce living in remote work camps. Regional employment on the Project will be facilitated by the rotational work schedule, allowing workers to divide their time between the worksite and life in their home communities. However, rotational shiftwork and time spent at the worksite may affect individuals' ability to participate in the traditional food system. A frequently reported barrier for harvesting country foods is decreased time available for land- and marine-based activities due to waged employment.

Decreased participation in the traditional food system could increase individuals' and households' reliance on store-bought foods, changing their utilization of food (i.e., decreasing the frequency and type of country foods and increasing the frequency and type of market foods consumed). Alternatively, given that there is a preference for country foods, and that country foods are perceived as healthier, fresher, and more natural than store-bought foods, the new access route created by the Project in the LAA may result in land users, including Elders and youth, having more opportunity to harvest on the land, and as a result, increase the amount of country food they can consume and share with the wider community.

25.3.3.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

The assessment of effects on the traditional food system considered potential disproportionate residual effects for key subgroups as they relate to identity factors (including sex, age, and culture) for those subgroups, as determined through a GBA Plus assessment prepared in consideration of existing GBA Plus guidance.

Changes to the traditional food system could be experienced more intensely by certain subgroups due to a range of societal and structural influences. Inuit women+ and gender-diverse individuals may be disproportionately affected due to their central roles in food preparation, preservation, and distribution, as well as in passing on food-related knowledge. Reduced access to country foods may increase household stress and contribute to food insecurity, particularly for those responsible for feeding others. Similarly, lone-parent and caregivers may also face logistical and time constraints that reduce their ability to access more distant or less predictable harvesting areas, especially if harvesting becomes more time- or resource-intensive due to Project-related changes.

Elders and youth are likely to experience more pronounced impacts from changes to the traditional food system and harvesting activities. As Elders play key roles in cultural transmission and mentoring younger harvesters, they may be more significantly impacted by limited or altered access to traditional foods and harvesting areas. Barriers to participation in harvesting may limit these opportunities and contribute to feelings of loss or exclusion. Youth and emerging harvesters may be at risk of reduced exposure to traditional practices if harvesting opportunities near communities decline.

Lower-income households in small communities are also particularly vulnerable to altered country food access, as they may rely more heavily on these foods to offset high market food costs and may have fewer alternatives if traditional sources become less accessible.

Additionally, positive residual effects are anticipated to occur through improved accessibility to harvested resources which may reduce access barriers and support opportunities for Elders and youth to participate in the traditional food system. Individuals who participate in the employment opportunities provided by the Project (anticipated to be predominately Men+) will also experience positive residual effects related to income benefits, which will filter down to their households and broader community.

25.3.4 Change in Market Food System

25.3.4.1 Project Effects Pathways

The Project may change the market food system in the Kitikmeot communities in the LAA through alterations to the distribution of store-bought foods, Project-related employment and income, and through Project-related revenue for various levels of government.

Project construction and operations and maintenance could affect the availability of store-bought foods in the Kitikmeot communities through alterations to the distribution of store-bought foods, affecting the stability of the market food system. The distribution of dry goods and heavy, shelf-stable items (i.e., non-perishable) such as canned goods to Kitikmeot communities is currently accomplished through

sealift once or twice per year and regular air freight. Mobilization of equipment and supplies for construction of the Project could increase demand on existing sealift capacity, which could decrease the capacity of existing sealifts to deliver goods to the Kitikmeot communities, affecting the stability of the supply chain. Around three barges per year may be required from pre-construction (2029) through construction (2030-2034). Air transport of goods and materials to resupply the Project, including construction and operation camps, could increase demand on existing air freight capacity, which could decrease the capacity of existing airfreight to deliver goods and materials to the Kitikmeot communities.

Construction and operations and maintenance of Project components including port landside facilities, aerodrome, and the all-season road would increase the infrastructure available in the RAA for community resupply via sealift, air freight, and ground-based transportation. This could improve the timing, reliability, and frequency of resupply, could improve the availability of store-bought foods and stability of the market food supply chain, and could decrease the cost of transporting store-bought foods to the Kitikmeot communities. During Construction and Operations and Maintenance, the development of new transportation and/or hauling businesses could enable transport of goods between the Project and the Kitikmeot communities, facilitating distribution of store-bought foods to the Kitikmeot communities (however, this is outside the scope of the current Project proposal).

The Project can also affect access to the market food system and utilization of market foods for residents of the LAA through employment opportunities and income advancement. An increase in Project-related employment can provide individuals and families with increased income to purchase store-bought foods. Increased income can affect the types of store-bought foods individuals and families purchase, resulting in increased purchase and consumption of healthy and nutrient-dense foods.

Project-related employment may result in time away from the community, affecting individuals' ability to participate in the traditional food system and increasing individuals' and households' reliance on store-bought foods.

25.3.4.2 Mitigation, Management, and Enhancement Measures

During construction, the workforce will be accommodated at six temporary camps (two stationary camps at Grays Bay Port and Jericho Station and four mobile camps). During operation, the workforce will be accommodated at permanent facilities at Grays Bay Port and Jericho Station. WKR will implement the following mitigation, management, and enhancement measures during Project construction and operations and maintenance to reduce potential adverse effects and enhance benefits of the Project on the market food system in the LAA:

- WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project.
- WKR will work with local and territorial governments to minimize interference with each other's deliveries and if possible, coordinate joint resupply efforts.
- WKR will work with local and territorial governments and regional businesses to minimize interference on the TCWR and, if possible, coordinate joint supply efforts.

- Establish a Human Resources Plan and provide updates within the annual socio-economic report (topics such as employment/training annual survey, employee housing (voluntary survey results), cross-cultural awareness training results to eliminate barriers on site and make training available to employees and on-site contractors).
- WKR will develop and implement a Travel Policy in the event that personnel transiting to / from the Project site are overnighting or are weathered-in in a community. The Travel Policy will describe Company expectations of personnel and consequences of improper action while travelling, and include plans for accommodation, meals, use of community health and medical services, and other needs for personnel during potential travel delays.
- WKR will establish a Company Donations Program to support community well-being initiatives in the Kitikmeot communities.
- WKR is committed to ongoing engagement with the Government of Nunavut and/or Inuit Organizations and other affected Inuit of the Kitikmeot Region, other Indigenous groups, and other potentially affected communities during advancement of project design and planning.
- WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

Additionally, key mitigation and enhancement measures identified in the Employment and Economy VC section apply to the assessment of change in the market food system, including:

- A Labour Relations Strategy will be implemented to maximize and retain local Inuit employment. The Labour Relations Strategy details skills and entrance requirements, employee benefits, employee communication, work rotation schedules, and employee orientation programs.
- Information related to employment and contracting opportunities will be made accessible to local Inuit.
- Gender equity and diversity policies with be developed and implemented that focus on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs using existing community-based training centres or mobile training units.
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment.

25.3.4.3 Project Residual Effects

Project residual effects on the market food system are described in the following subsections. Project residual effects are described based on changes to the availability and stability and accessibility and utilization of market foods in the LAA.

Availability and Stability

The Project may affect the availability of market foods in the Kitikmeot communities in the LAA through alterations to the distribution of store-bought foods, which could affect the stability of the supply chain.

Construction of the Project will require the mobilization of equipment and supplies such as machinery, vehicles, materials, and fuel to the Project site. Through its Procurement Strategy, WKR will prioritize the use of local construction equipment from Kitikmeot communities to reduce the need to transport equipment from outside of the region and to enhance local benefits. Construction equipment and supplies sourced from outside of the Kitikmeot Region will be transported to the Grays Bay Port site by sealift during the open water season and to the Jericho Station site by trucks via the TCWR during winter. WKR will contract sealifts to transport equipment and supplies to the Project site, which will avoid affecting the ability and capacity of existing commercial sealift operations to service communities. If possible, WKR will coordinate joint resupply efforts with local and territorial governments, which may increase opportunity for community resupply in the LAA. WKR will also contract trucks to transport construction equipment and supplies to the Project site. With the implementation of these mitigation measures, there are no anticipated residual effects of the Project on the supply chain using sealift services and the distribution of dry goods and shelf-stable items to the Kitikmeot communities.

Construction and operations and maintenance of the Project will also require transport of certain goods (e.g., fresh and perishable food items) to the Project site using air freight. Project resupply using air freight will be accomplished using supply planes contracted specifically to deliver goods staged from Yellowknife to the Project site. Furthermore, goods to resupply the Co-op and Northern grocery stores are flown into the Kitikmeot Region from Manitoba. The Project is therefore not anticipated to decrease the capacity of existing air freight providers to deliver goods such as fresh and other perishable food items to the Kitikmeot communities.

Construction and operations and maintenance of the Project will increase the stability of the market food system through increased land- and marine-based infrastructure available in the RAA for the distribution of store-bought foods. During early project engagement, Kugaaruk School representatives inquired if the port would impact the resupplying of communities (GBRP 2017). During project engagement, attendees stated that the Kitikmeot needs to have more supplies brought into the region and that the port could be used as a stockpile location (GBRP 2025). Increased marine-based infrastructure would increase the infrastructure available in the RAA for community resupply using sealift services, although resupply using sealift would be limited to the open-water season.

The Project would also create a new pathway for transporting goods and materials to the RAA using ground-based transportation. Construction and operations and maintenance of the Grays Bay Road would allow for the transportation of goods and materials from Yellowknife to the Grays Bay Port via the TCWR. Ground-based transportation from Yellowknife, which is connected by all-season road to southern Canada, to Grays Bay Port using Grays Bay Road would be limited to the winter road season, although construction and operation of port landslide facilities including buildings would also allow for warehousing of goods at the Grays Bay Port year-round. Increased supply chain options in the LAA will improve the timing, reliability, and frequency of community resupply of store-bought foods and introduce redundancy in the supply chain in the event that existing sealift and air freight services are delayed or cancelled.

It would also be more efficient than transporting goods from Yellowknife and southern Canada to the Kitikmeot Region using sealift (GBRP 2025).

Increased resupply of goods and materials to the Grays Bay Port using sealift and ground-based transportation and warehousing would improve the distribution of store-bought foods in the LAA if there are means to transport goods from the Grays Bay Port to the Kitikmeot communities. Community members shared various means that could be employed to transport goods and materials to the Kitikmeot communities, including by air from the Project's aerodrome, overland using an ice-road network, and/or by sea using barges. Ice roads and the small-craft harbour could also facilitate personal travel from Kitikmeot communities to Grays Bay and potentially on to Yellowknife for resupply of market foods on an individual basis. See Section 28, Section 28.3.5 for additional details regarding changes to community resupply as a result of increased infrastructure in the RAA.

Accessibility and Utilization

The Project is anticipated to contribute to positive effects on the accessibility of the market food system and utilization of store-bought foods in the LAA through Project-related employment and income. Through mitigation and enhancement measures identified for the Project, including implementation of a Labour Relations Strategy, a Training Strategy, and a Procurement Strategy, WKR will increase opportunities for local Inuit employment and facilitate regional and Inuit business involvement on the Project. Households in the Kitikmeot communities currently spend a disproportionately high amount of their weekly income on food due to the high cost of food and low incomes in the LAA (ITK 2021; GBRP 2025). An increase in Project-related employment can therefore provide individuals and families with increased income to purchase store-bought foods. During early project engagement, Taloyoak community members expressed interest in opportunities and benefits for the community, such as jobs and access to food (GBRP 2017). During primary research for the Project, members of several communities agreed that the Project will bring employment opportunities:

> *The economic benefit of building the road is [it] incorporates lots of employment, which is always good. And it's not your minimum wage type jobs – you know, you don't pay someone to build roads at minimum wage […] that's definitely a bonus* (Hamlet Staff, Kugluktuk, November 7 2024, pers. comm.).

Kitikmeot residents who obtain employment on the Project will have regular access to market foods through camp accommodations. This would improve food security for these residents while they are on-shift.

There is also a strong relationship between employment and income and health behaviors such as food choices specific to market food. Increased income can result in the increased purchase and consumption of nutrient-dense foods (Reading and Wien 2009). However, behaviour change is a complex process that requires individual readiness and is dependent on individual beliefs, attitudes, and norms regarding the behaviour of interest (Noar 2017).

Through changes in the distribution of store-bought foods to the Kitikmeot communities (see Section 25.3.3.4), the cost of certain market foods such as dry goods and shelf-stable items may decrease, which would increase the economic accessibility of these foods to community members in the

LAA. The cost of transporting market foods to Kitikmeot communities by sealift is approximately $1 per pound while transporting food by air freight costs approximately 3-5 times that amount (Kitikmeot Inuit Association, Kugaaruk, October 29 2024, pers. comm.; Koomiut Co-op, Kugaaruk, October 31 2024, pers. comm.). Through the creation of new ground-based transportation to transport market foods to the RAA using Project infrastructure, the cost of transporting goods to the RAA may decrease. Engagement participants stated that ground-based transportation via the all-season road could also be a cost-effective solution to the high cost of community resupply (GBRP 2025). The Koomiut Co-op manager in Kugaaruk also agreed that ground-based transportation of supplies would lower the cost of resupply compared to transporting goods by air freight:

> *It [would provide] an outlet to buy goods and not pay $3.35/ pound to fly it in. [It would] take some pressure off the cost, because you see, it's expensive* (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.).

The manager of the Qikiqtaq Co-op in Gjoa Haven and other community members in the Kitikmeot communities also agreed that the Project could contribute to reducing the cost of food and rates of food insecurity (Qikiqtaq Co-op, Gjoa Haven, November 15 2024, pers. comm.; Kikitak Housing Association, Gjoa Haven, November 15 2024, pers. comm.; Community member, Taloyoak, November 20 2024, pers. comm.; Kitikmeot Foods, Cambridge Bay, November 4 2024, pers. comm.).

During project engagement, community members discussed the cost of groceries and one community member said, “this Project should help the cost of groceries, having a road. The road would make life a lot easier. Life in the Arctic is hard with the high prices of food” (GBRP 2025). Other community members said that the road could be a cost-effective solution for community resupply (GBRP 2025).

However, the distribution of store-bought foods to the RAA using ground-based transportation and warehousing at the Grays Bay Port would not be suitable for certain goods such as fresh and other perishable food items. These items would still need to be delivered to communities using existing air freight providers. Each of the five Kitikmeot communities are currently eligible for retail subsidies on fresh and nutritional food through the NNC program. With the subsidy applied, the cost of transporting food to communities by air freight is lowered to approximately the same cost as transporting food by sealift (Koomiut Co-op, Kugaaruk, October 31 2024, pers. comm.). As the Project will not be providing permanent road, rail, or marine access directly to the Kitikmeot communities, it will not affect the eligibility of Kitikmeot communities to receive the retail subsidy from NNC (Nutrition North Canada, CIRNAC, August 7, 2025, pers. comm.). Therefore, the cost of store-bought foods that are eligible for the NNC retail subsidy and that are transported to the Kitikmeot communities by air freight and by sealift will not change as a result of construction and operation of the Project, including creation of a ground-based transportation supply route to the RAA.

Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support food security programming. Furthermore, WKR will also establish a Company Donations Program to support community well-being initiatives in the Kitikmeot communities. Such initiatives may help address food insecurity in the Kitikmeot communities.

25.3.4.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Positive effects on the market food system through Project-related employment and income advancement may benefit several sub-populations in the LAA. Individuals who participate in the employment opportunities provided by the Project (anticipated to be predominately Men+) will experience positive residual effects related to income benefits, which will filter down to their households and broader community. Positive effects may also benefit sub-populations who currently experience high rates of food insecurity as a consequence of poverty, including Inuit, other Indigenous groups, women+, Inuit women+, Indigenous women+, 2SLGBTQQIA+ communities, low-income individuals and households, households with children, and lone parent families. Adverse effects on the accessibility of the market food system may disproportionately affect the same sub-populations due to existing, high rates of food insecurity among these populations.

Existing conditions related to the nutritional transition from country foods to increased reliance on store-bought foods that are transported to the region from southern Canada have been influenced by colonialism and intergenerational trauma. Adverse effects on the availability of store-bought foods and the stability of the market food system may disproportionately affect some youth due to their higher reliance on the market food system than Elders and older generations.

During community-based research, community members identified that increased infrastructure in the RAA and the potential transport of goods, including store-bought foods, from the Grays Bay Port to the Kitikmeot communities may benefit Cambridge Bay and Kugluktuk more than the communities in the eastern part of the Kitikmeot Region because of their proximity to the Project. For example, the manager of the Koomiut Co-op in Kugaaruk thought that the Project could benefit the distribution of store-bought foods to Kugluktuk and Cambridge Bay if there are overland or marine transportation options from the Port to these communities. However, the manager was skeptical the Project would lower the cost of transporting these foods to communities such as Kugaaruk due to its distance from the Project (Koomiut Co-op, Kugaaruk, October 31 2024, pers. comm.). Similarly, a staff member of the Kitikmeot Inuit Association felt the Project would improve community resupply for all Kitikmeot communities except Kugaaruk due to its location and the challenges of transporting goods and materials by land and sea from the Port to this community (Kitikmeot Inuit Association, Kugaaruk, October 29 2024, pers. comm.). A member of the HTO in Gjoa Haven was skeptical the Project would lower the cost of store-bought foods in this community and that community members in Gjoa Haven would benefit from the Project (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16 2024, pers. comm.).

25.3.5 Summary of Project Residual Effects

Project residual effects were informed by Inuit, Indigenous, and Community Knowledge, perspectives, and values, serving to understand current conditions and potential changes that may be experienced on the market and traditional food systems relied upon by Kitikmiut, other Indigenous groups, and other potentially affected communities. With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on food security and food sovereignty are anticipated to be both positive and adverse. Positive residual effects are not characterized further. Table 25.5 summarizes adverse residual effects of the Project on Food Security and Food Sovereignty.

Table 25.5 Project Interactions with Food Security and Food Sovereignty

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in Traditional Food System	C, O	P*/A	L-M	PDA-LAA	N/A	ST-LT	IR	I
Change in Market Food System	C, O	P*	N/A	N/A	N/A	N/A	N/A	N/A

Key:

See Table 25.2 for detailed definitions

Project Phase:
C: Construction
O: Operations and Maintenance

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:
* Positive residual effects are not characterized further.

25.3.5.1 Change in Traditional Food System

With the implementation of mitigation measures, residual effects of the Project on the traditional food system are likely to occur, and are predicted to be both positive and adverse in direction. Adverse effects could result from potential effects on wildlife, vegetation, marine, and fish resources that are harvested by Inuit or other Indigenous groups. Positive residual effects are anticipated to occur as a result of improved accessibility to harvested resources which may reduce access barriers and support traditional food systems, including ability to participate in harvesting activities. Positive residual effects are not characterized further.

The Project is also anticipated to have adverse residual effects on the traditional food system through increased sensory disturbances and dust from the road; alterations to, and loss of, terrestrial and marine habitat as a result of Project construction activities; increased hunting pressure by non-Indigenous people and non-local residents and effects on species movement, including caribou populations and interactions with their migration route and the broader Bathurst caribou calving range. This interaction lies on the western fringe of the range, outside the core calving grounds where concentrated birthing activity occurs.

Adverse residual effects are anticipated to be low (for accessibility to harvesting areas) to moderate (for the stability, availability, and therefore utilization of species required for the traditional food system, at the household level) in magnitude. This is due to country food species and associated ecological components that may be affected by project activities more than others. For example, there will be a direct loss of native vegetation, resulting in loss of plants and habitat within the PDA, while the LAA will result in potential effects on terrestrial wildlife, freshwater and marine fish, and marine mammals that make up the traditional food system in the Kitikmiut. Changes to the availability of species important to the traditional food system would be experienced at the household level as country foods are shared between and relied upon by all members of a household. Other effects, such as accessibility, would be limited by mitigation and management measures. Overall, the Project has the potential to affect country foods and may affect the availability, accessibility, stability, and utilization of country foods (or perceptions of; i.e., through contamination or perceived contamination), that may lead to potential avoidance of species important to the traditional food system.

Adverse residual effects are expected to be short term (i.e., during construction there may be limited access to important harvesting areas) to long- term (for impacts to species required for traditional food system) and are irreversible.

25.3.5.2 Change in market food system

With the implementation of mitigation, management, and enhancement measures, residual effects on the market food system are expected to be positive in direction. Positive residual effects are anticipated to occur as a result of improved stability of the supply chain of store-bought foods and improved accessibility to and utilization of store-bought foods through Project-related employment, income, and revenue. Positive residual effects are not characterized further.

There are no anticipated residual effects of the Project on the availability and stability of the market food system from using sealift or air freight services to mobilize goods and materials for Construction and Operations and Maintenance of the Project.

25.3.6 Transboundary Effects

An assessment of the potential for transboundary effects on food security and food sovereignty is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

25.3.7 Effects of Climate Change on Food Security and Food Sovereignty

Through the Project-specific Inuit Knowledge report, compiled from the NTKP database, NTKP consultants shared insight into the changing environmental conditions being experienced in the Kitikmeot Region, which they attribute to changes in climate and weather patterns. The local and regional climate projections for the Project area were described at a high-level (see Volume 5, Section 12) and were used to inform the assessment of VCs (e.g., Air Quality [Volume 5, Section 11], Noise and Vibration [Volume 5, Section 13], Freshwater Fish and Fish Habitat [Volume 7, Section 20], Vegetation [Volume 6, Section 15], Wildlife and Wildlife Habitat [Volume 6, Sections 16 - 18]]) for the Project. The assessment used appropriate Global Climate Models, or climate change models, provided in the Intergovernmental Panel on Climate Change's Fifth and Sixth Assessment Reports (AR5 and AR6).

Climate projections were analyzed across various timeframes, comparing three future scenarios (i.e., high, intermediate, and low emissions). Projections were segmented into four 30-year periods: Baseline (1991-2020), 2030s (2021-2050), 2050s (2041-2070), and 2080s (2071-2100) representing end-of-century climate projections with climate data provided for the Grays Bay, Ulu, and Jericho-Lupin regions, representing the northern, central, and southern portions of the Project, respectively (Volume 5 Section 12.3.2).

Analysis of climate change projections revealed that (Volume 5 Section 12.3.2):

- Annual mean temperatures and maximum temperatures are projected to increase over time under all scenarios.
- Annual precipitation is projected to increase across all scenarios and time periods.
- Fire season length, fire weather severity, and the number of days classified as 'very high' fire danger are projected to increase.

Potential effects on Food Security and Food Sovereignty associated with climate effects are discussed below.

25.3.7.1 Traditional Food System

During community-based primary research, members of Kitikmeot communities have expressed concern about ice roads from the NT becoming dangerous due to climate change and asking whether the Project's road design will take into account climate changes (Kurtairujuark Hunters & Trappers, Kugaaruk, focus group, October 29, 2024, pers. comm.). Also during early engagement on the Project, the Kugluktuk HTO reported that the warming climate is affecting caribou (GBRP 2017). NTKP consultants reported there are more moose present in the Kitikmeot Region than there were in the past, which was attributed to climate change (Banci and Spicker 2024). Similarly, the Yellowknives Dene First Nation reported that climate change and other projects have put increased pressure on caribou (YKDFN 2016).

Analysis of climate change projections indicated that annual mean and maximum temperatures are projected to increase over time under all scenarios, annual precipitation is projected to increase across all scenarios and time periods, and fire season length, fire weather severity, and the number of days classified as 'very high' fire danger are projected to increase under continued climate change (see Volume 5, Section 12 [Climate Change] Appendix 12B [Climate Risk Assessment]).

Changing climate conditions could affect terrestrial and marine country foods. Additionally, changing climate conditions may affect aquatic ecosystems by reducing the survival and reproduction of aquatic species, including freshwater fish (Section 20). The increase in wildfire risk could potentially lead to increased pressure on the availability of wildlife resources for hunting (Sections 16-18). As a result, the accessibility of country foods during the winter (via snowmobile or other methods) for harvesters has been affected from the lack of snowfall and changing waterbody freeze-up conditions in the past (Banci and Spicker 2024).

To address climate change, resilience, mitigation, management, and enhancement measures will be factored into the project design and planning to avoid or lessen potential effects of the Project on the environment, including on climate-sensitive landforms such as permafrost, while working to address site drainage or erosion of roadbeds to reduce impacts of changing storm patterns influenced by climate change (see the Climate Change Risk Assessment in Appendix 12B). The Project's adaptative management process will also allow WKR to identify and respond to new or emerging issues in the traditional food system that may occur.

25.3.7.2 Market Food System

Changing climate conditions could result in increased annual average temperature and precipitation and changes to permafrost, which could affect ground and air transportation infrastructure, affecting the distribution of market foods to the Kitikmeot Region (see the Climate Change Risk Assessment in Appendix 12B). Project design will take climate change into consideration to maintain the stability of supply chain infrastructure in differing climate scenarios.

Climate change could also result in a longer open water season, which could allow sealifts to deliver goods to the Kitikmeot Region more frequently, depending on conditions. This could improve the timing, reliability, and frequency of community resupply to the region.

25.4 Assessment of Cumulative Effects

25.4.1 Project Residual Effects Likely to Interact Cumulatively

Appendix 9A in Volume 4 presents the project inclusion list (PIL) which identifies other projects and physical activities whose effects might act cumulatively with the residual effects of the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 25.6), a cumulative effects assessment is carried out. Interactions in the table have been informed by Inuit, Indigenous, and Community Knowledge, perspectives, and values, such as concerns noted about increased harvesting pressure and a desired priority to have more efficient supply chains.

Table 25.6 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects	
	Change in Traditional Food System	Change in Market Food System
Past		
Bathurst Inlet	✓	✓
Omingmaktok	✓	✓
Snap Lake Mine	-	-
Present		
Arcadia Bay Project	✓	✓
B2Gold George Property	✓	✓
B2Gold Marine Laydown Area	✓	✓

Physical Activities	Effects	
	Change in Traditional Food System	Change in Market Food System
Bulk Carriers	✓	✓
Cambridge Bay	✓	✓
Chuk and Fire Shear Blocks	✓	✓
Commercial Cargo	✓	✓
Commercial and Domestic Harvesting	✓	✓
Coppermine Project	✓	✓
Coppermine River Project	✓	✓
Diavik Diamond Mine	✓	✓
Ekati Diamond Mine	✓	✓
Epworth Project	✓	✓
Fishing Vessels	✓	-
Gahcho Kué Diamond Mine	-	-
Goose Mine	✓	✓
Hackett River Project	✓	✓
High Lake (Izok Corridor Project)	✓	✓
High Lake East	✓	✓
Hood River Gold Project	✓	✓
Hope Bay Project	✓	✓
Hydroelectric	-	-
Icebreakers	✓	-
Itchen Lake Property	✓	✓
Izok Lake (Izok Corridor Project)	✓	✓
Jericho Mine	✓	✓
Kennady North - Exploration	✓	✓
Kugluktuk	✓	✓
Lupin Mine	✓	✓
Muskox Nickel Property	✓	✓
Nunavut Community Infrastructure	✓	✓
NWT Community Infrastructure	-	-
Overflights	✓	✓
Passenger Ships and Pleasure Craft	✓	-
Pistol Lake Project	✓	✓
Rae Copper Exploration Project	✓	✓
Rockinghorse (Koamaogaktok) Project	✓	✓
Roma Project	✓	✓
Scientific Research	✓	✓

Physical Activities	Effects	
	Change in Traditional Food System	**Change in Market Food System**
South Kitikmeot Gold Project	✓	✓
Tanker Ships	✓	✓
Tibbitt to Contwoyto Winter Road	✓	✓
Tourism	✓	✓
Tree River Lodge	✓	✓
TTMG Project	✓	✓
Tugs/Barges	✓	✓
Ulu Gold Project	✓	✓
Wolf/Mistake Lake Property	✓	✓
Yellowknife City Gold Project	-	-
Past and Reasonably Foreseeable		
Indin Lake Gold Project	-	-
Mon Mine	✓	✓
Yellowknife Gold Project	-	-
Project-Related Physical Activities		
Reasonably Foreseeable		
Arctic Economic & Security Corridor	✓	✓
Courageous Lake Mine	✓	✓
NICO	-	-
Reasonably Foreseeable Induced		
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion: Jericho	✓	✓
Grays Bay Road and Port: Airstrip Expansion	✓	✓
Grays Bay Road and Port: Road Traffic	✓	✓
Grays Bay Road and Port: Port Traffic	✓	✓
Grays Bay Road and Port: Air Traffic	✓	✓
Grays Bay Road and Port Phase 2 –Jericho Mine to NWT Border	✓	✓
Hackett River Project	✓	✓
Hackett and Back River Access Road	✓	✓
High Lake Mine (Izok Corridor Project)	✓	✓
Izok Lake Mine (Izok Corridor Project)	✓	✓
Izok Lake Access Road	✓	✓

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

Effects identified in Table 25.6 as not likely to interact cumulatively with residual effects of other projects and physical activities (no check mark) are briefly discussed below. The assessment of the cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

Past projects are considered in baseline conditions and will continue to contribute to cumulative effects on the traditional food system in the RAA. Current and reasonably foreseeable projects and activities that overlap spatially and temporally with the Project could interact cumulatively within the RAA. Projects that do not overlap spatially or temporally with the RAA are not considered further.

Residual effects of other projects and physical activities that are not likely to interact cumulatively with residual effects of the Project on the market food system include mines and mineral exploration projects that are located in NT. Construction and operation of these projects are not anticipated to affect the availability, stability, or accessibility of country food in the Kitikmeot Region. Construction and operation of these projects are not anticipated to affect the supply chain for transporting market foods to the Kitikmeot Region, and therefore they are not anticipated to affect the availability and stability of the supply chain of market foods in the Kitikmeot communities. Construction and operation of these projects and other activities (e.g., fishing vessels, icebreakers) are not anticipated to directly affect employment and associated income of residents of the LAA.

25.4.2 Change in Traditional Food System

25.4.2.1 Cumulative Effect Pathways

Table 25.6 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project.

Current physical activities such as mining and exploration projects, community infrastructure in Nunavut, and transportation activities (i.e., the use of bulk carriers, commercial cargo, tanker ships, tugs/barges) have influenced the existing conditions for the traditional food system (see Section 25.2.2.3). Present, reasonably foreseeable, and induced projects could increase the amount of sensory disturbance and loss of habitat for country foods, contribute to a reduction in country food availability, quality, and perceived quality of country foods, and accessibility of country foods, which will contribute to changes in the traditional food system in the RAA. Reasonably foreseeable projects and activities, along with the Project, have the potential to result in cumulative effects by reducing the land base available for the traditional food system and habitat for country foods. Clearing activities required for the Project and future projects activities within the RAA could contribute to the reduction in country food availability and accessibility of country foods which could contribute to changes in the traditional food system in the RAA.

Past projects including Jericho Mine and Lupin Mine are also anticipated to interact cumulatively with the Project. Construction and operations and maintenance of the Project will create a new access route within the LAA, which will allow for easier access to certain harvesting areas and may result in increased competition from non-Indigenous and non-local land users. As noted in Section 25.3.3, WKR will control access to the road through agreements with various user groups, and community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the

Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTO). Ground-based transportation using the all-season road would be limited to the winter road season until such time that an all-weather connector is potentially built.

All past, present, reasonably foreseeable, and induced projects and activities that will require a workforce may change accessibility of the traditional food system and utilization of country foods through employment and income advancement for residents of the RAA by increasing access and reducing barriers to the costs associated with harvesting. These projects are primarily mines, mineral exploration activities, and infrastructure projects that may provide employment and related income to residents of the RAA. However, increased participation in the workforce may conversely result in limited time to harvest on the land.

25.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The introduction of the mitigation, enhancement, and management measures outlined in Section 25.3.3.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on change in the traditional food system. For example, WKR's Road Management Plan will help limit Project-related disturbance to wildlife by setting clear expectations for industrial traffic. Drivers will receive training on what to do when caribou are present and will use radio systems to communicate sightings along the road. Electronic traffic monitoring may also be used to support compliance and accountability. Together, these measures are intended to reduce vehicle-wildlife interactions and support safe, predictable wildlife movement in areas traditionally used for harvesting. As part of the Road Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local and Inuit, and other Indigenous populations. This plan will include provisions for access to the road. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, to reduce the potential for illegal/non-permitted access, and support safe and respectful use of Project infrastructure by harvesters.

It is also anticipated that current, reasonably foreseeable, and induced projects in the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative effects on changes in the traditional food system, including country foods, to the Kitikmeot communities.

No additional management measures are proposed for the management of residual cumulative effects on change in the traditional food system.

25.4.2.3 Cumulative Effects

Past, present, and reasonably foreseeable projects and physical activities have had, and will continue to have, direct effects on vegetation community diversity (i.e., removal of vegetation communities) and wetland function (i.e., removal of wetland area), and indirect effects on vegetation community diversity (i.e., changes to hydrology, permafrost conditions, dust deposition, and establishment of non-native and invasive plant species), wetland function (due to alteration of surface and sub-surface water flows, nutrient levels and downstream export, decomposition and carbon accumulation rates, water infiltration and storage), and plant diversity. Mineral exploration projects are not anticipated to contribute to cumulative effects on wetland function as they are short-term exploration programs with localized and temporary effects on wetland function. All landcover types (including wetlands) are expected to remain in abundance within the vegetation LAA and RAA when accounting for the combined footprints of all projects and physical activities. Operations and maintenance of the projects will contribute to indirect effects on vegetation community diversity. Based on the expected direct and indirect effects on vegetation community diversity, cumulative effects are expected to be low in magnitude as no landcover class will be lost from the vegetation RAA, including by the Project. Indirect effects from dust deposition (to 40 m from the PDA) could affect an additional 1,976.2 hectares (ha) (0.1%) of the RAA.

Past, present, and reasonably foreseeable projects and physical activities have had and will continue to have direct effects on wildlife and wildlife habitat, including through changes in habitat, movement, mortality risk, and health of caribou, birds, and other wildlife such as moose and muskox.

Past, present, and reasonably foreseeable projects and physical activities have had and will continue to have direct effects on marine fish and marine mammals. Disturbance to marine mammals due to underwater noise associated with vessel traffic would be transitory. Given the estimated source levels, infrequency of traffic, and marine mammal distributions within the RAA, the disturbance is anticipated to be minor and relatively brief in duration, lasting less than <4% of the open water season for whales (i.e., bowhead, beluga, and narwhal) and <1% for seals (see Volume 8 Section 23.4).

The Project will affect approximately 134,561 square metres (m^2) of fish habitat (118,788 m^2 of riparian habitat and 15,773 m^2 of habitat below the high-water mark) (Section 20). Although the Project will result in some permanent change in fish habitat, compensation through offsetting will counterbalance unavoidable habitat alterations or losses within the PDA and therefore have a low contribution to residual cumulative effects on fish habitat. The Project will also create new access to previously inaccessible or difficult to access areas and its connection with other projects, specifically other corridor projects, in the RAA can be expected to result in increased fishing pressure on some fish populations.

For sensory disturbances to Kitikmeot communities and wildlife species, harvesters are currently affected by changes, to some degree, in access and availability of lands from which to conduct these uses due to past and present physical activities and resource use (see Section 25.3.2). The construction and operation of future likely projects could further affect the traditional food system within the RAA from which these activities can occur, including associated disturbance and nuisance effects from infrastructure and noise.

Effects management measures proposed by proponents of other Projects and activities in addition to those proposed by the Project may limit the potential for cumulative effects on the change in the traditional food system within the RAA. Similar new access roads constructed for other projects will also need to put in place access management and air quality and noise measures as per project-specific management plans.

Reasonably Foreseeable Induced

Residual cumulative effects of reasonably foreseeable induced projects could occur through changes in access and availability of lands from which to conduct these uses due to past and present physical activities and resource use.

Past, present, reasonably foreseeable, and reasonably foreseeable induced projects and physical activities may continue to direct effects on vegetation and wetlands, wildlife and wildlife habitat

The Project in combination with past, present, reasonably foreseeable, and reasonably foreseeable induced projects and activities will result in a reduction in the abundance of natural upland and wetland landcover classes, although all landcover classes will remain present within the Vegetation LAA and RAA; these combined projects and activities will result in a direct loss of 5,672 ha of natural landcover classes, representing 0.4% of the Vegetation RAA (Volume 6, Section 15).

The Project is anticipated to result in a maximum of 0.8% for selected habitat loss for the Bathurst Caribou Herd, whereas reasonably foreseeable induced physical activities contribute to a maximum of 2.4%. Project-related effects to Dolphin-Union Herd selected habitat loss are higher at 1.4%; however, reasonably foreseeable induced physical activities are anticipated to contribute to a lower maximum amount of 0.3% (see Volume 6, Section 16). Bird and other wildlife habitat will also see a loss within the RAA. Bird habitat loss within the RAA will range between 42.6 and 333.2 km^2, depending on the bird guild. The Project is anticipated to account for 2.6% to 7.9% of bird habitat loss within the RAA, while the RFI activities will attribute an additional 0.7% to 2.2% of bird habitat loss, depending on the bird guild (Volume 6, Section 17). The Project will affect the suitability of 2.4% and 2.7% of muskox summer and late winter habitat, respectively, and for moose, future physical activities are predicted to result in the direct and indirect loss or alteration of 92.9 km^2 of suitable habitat, for a total loss of 110.8 km^2. The predicted loss of grizzly bear and wolverine habitat as a result of the Project and reasonably foreseeable projects and activities is anticipated to be 1.2% and 0.5% of baseline suitable habitat identified within the Other Wildlife RAA, respectively (see Volume 6, Section 18).

During Operations and Maintenance, the Project is anticipated to add five vessels, and reasonably foreseeable induced projects and activities are expected to add 40 additional vessels annually at peak RFI activity and the probability of vessel strikes predicted for marine mammals is expected to remain low (see Volume 8, Section 23). The Project will act cumulatively with other present, reasonably foreseeable, and reasonably foreseeable induced projects and activities to increase the potential for shoreline/seabed disturbance as a result of vessel wake and propellor wash as well as underwater noise levels in the marine environment, which could affect marine fishing (see Volume 8, Section 22).

Increased access to the RAA as a result of the Project, and in consideration of past, present, reasonably foreseeable, and reasonably foreseeable induced projects, may increase harvesting pressure on wildlife resources used by the Kitikmeot communities. The proponents of reasonably foreseeable induced projects are expected to follow mitigation measures similar to those discussed in Section 25.4.2.2 to reduce cumulative effects on changes in the traditional food system, including country foods, for the Kitikmeot communities.

Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would allow for increased access to the RAA from Yellowknife to the Grays Bay Port year-round. Ongoing access using various methods (by barge, sealift, boat, aircraft, or road) may increase sensory disturbances for both harvesters in the Kitikmeot Region, as well as terrestrial wildlife and marine mammals. New access routes within the LAA and RAA for ground-based harvesting will both allow for easier access to certain harvesting areas, and may increase competition from non-Indigenous and non-local land users. Ground-based transportation using the all-season road would be limited to the winter road season.

Reasonably foreseeable induced projects may also affect accessibility of the traditional food system through related employment and income. Increased employment and income would improve the accessibility of the traditional food system for individuals and their households in the communities in the LAA. As it is anticipated that regional employment will be facilitated by a rotational work schedule. Rotational shiftwork and time spent at the worksite may also affect individuals' time and ability to participate in the traditional food system. Decreased participation in the traditional food system could increase individuals' and households' reliance on store-bought foods, changing their utilization of food (i.e., decrease the frequency and type of country foods and increase the frequency and type of market foods consumed). Alternatively, given that there is a strong preference for country foods, and that country foods are often perceived by Inuit as healthier, fresher, and more natural than store-bought foods, the new access routes created by reasonably foreseeable induced projects may result in some land users, including Elders and youth, having more opportunity to harvest on the land, and as a result, increase the amount of country food they can consume.

25.4.3 Change in Market Food System

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in the market food system.

25.4.3.1 Cumulative Effect Pathways

Table 25.6 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project. Some past and current physical activities included in the PIL improved dimensions of the market food system in the RAA. For example, Hudson Bay Company trading posts established in the settlements of Bathurst Inlet and Omingmaktok enabled Kitikmiut to trade furs for items that were not available from the land, such as tea, sugar, and other food items (Banci and Spicker 2024). Current physical activities such as the use of bulk carriers, commercial cargo, tanker ships, and tugs/barges currently facilitate community resupply of shelf-stable goods to the Kitikmeot communities via annual sealift during ice-free seasons. Existing Nunavut community infrastructure, including airports in

each of the Kitikmeot communities, allows for community resupply via flights year-round. Present, reasonably foreseeable, and induced projects could increase the amount of infrastructure available in the RAA for community resupply, which would increase the timing, reliability, and frequency of resupply.

Past projects including Jericho Mine and Lupin Mine are anticipated to interact cumulatively with the Project. The TCWR was constructed to facilitate mobilization and resupply of goods from Yellowknife to these mines. Construction and operations and maintenance of the Project could allow for mobilization of shelf-stable goods from Yellowknife to the Grays Bay Port using the TCWR and the Project during the winter road season, which could in turn facilitate community resupply through the transport of goods from the port onwards to the Kitikmeot communities. Reasonably foreseeable and reasonably foreseeable induced projects such as the Arctic Economic & Security Corridor, Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, and access roads to mine sites would increase ground-based transportation infrastructure available in the RAA, which could facilitate community resupply year-round.

There are no anticipated residual effects of the Project on the availability and stability of the market food system from using sealift or air freight services to mobilize goods and materials for Construction and Operations and Maintenance of the Project. Therefore, present, reasonably foreseeable, and reasonably foreseeable induced projects are not anticipated to interact cumulatively with the Project on the availability and stability of the market food system using sealift or air freight services.

All past, present, reasonably foreseeable, and induced projects and activities that will require a workforce may change accessibility of the market food system and utilization of store-bought foods through employment and income advancement for residents of the RAA. These projects are primarily mines, mineral exploration activities, and infrastructure projects that may provide employment and related income to residents of the RAA.

25.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The introduction of the mitigation, enhancement, and management measures outlined in Section 25.3.3.3 are anticipated to reduce the Project's contributions to adverse cumulative effects on changes in the market food system. For example, WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project, and will communicate with local and territorial governments and regional businesses to minimize interference with delivery of goods to the Kitikmeot communities. A SEMP will provide a mechanism to identify and respond to potential emerging pressures on community infrastructure and service use, including community resupply. It is also anticipated that current, reasonably foreseeable, and induced projects in the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative effects on the distribution of market foods to the Kitikmeot communities.

WKR will also implement strategies and policies, including a Labour Relations Strategy, Training Strategy, Procurement Strategy, and gender equity and diversity policies, that focus on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations. WKR will also monitor employment, training, and business procurement for residents of the LAA through implementation of a Socio-economic Monitoring Program. It is anticipated that current, reasonably foreseeable, and induced projects in the Kitikmeot Region will implement similar mitigation strategies to

increase employment, training, and business procurement opportunities for these underrepresented populations in the LAA, which will improve food security through increased employment income for individuals and households in the RAA.

Proponents of current, reasonably foreseeable, and induced projects in the Kitikmeot Region, including the Project, are also anticipated to contribute to community well-being initiatives through Company Donations Programs, including initiatives to improve food security in the Kitikmeot communities.

25.4.3.3 Cumulative Effects

The Project will act cumulatively with other projects to create positive effects on community resupply, including store-bought foods. Construction of the Project will increase land- and marine-based infrastructure available in the RAA for the distribution of store-bought foods via sealift, air freight, and ground-based transportation. The Grays Bay Port could be used as an additional location for sealifts to the Kitikmeot Region, which could increase the timing and frequency of resupply to the RAA.

The Project will also allow for ground-based transportation of goods from Yellowknife to Grays Bay Port using the TCWR. The construction of the Arctic Economic Security Corridor, a reasonably foreseeable project, would establish year-round access from Yellowknife to the NT-Nunavut border. From the NT-Nunavut border, access to the Grays Bay Road would be accomplished using a winter road (e.g., the TCWR). This would allow for mobilization of goods from Yellowknife to the Grays Bay Port during the winter road season. From warehouses at Grays Bay Port, goods may then be delivered onwards to

Kitikmeot communities as well as to certain present and reasonably foreseeable projects in the RAA via ice roads in winter road season, barges in open water season, and flights (although these activities are outside the scope of this Project proposal). Transportation of goods from Yellowknife to the Grays Bay Port via truck and onwards to Kitikmeot communities would increase the frequency and reliability of community resupply, although this would be seasonally limited to the winter road season. Proponents of Present, reasonably foreseeable, and induced projects, including the Project, may procure services to transport goods and materials between Grays Bay Port and their project sites, as well as to Kitikmeot communities. New local and/or Inuit-owned businesses may also be established to provide these services.

Increased infrastructure in the RAA could improve the distribution and availability of store-bought foods in Kitikmeot communities and the stability of the market food supply chain. New ground-based transportation routes in the RAA would introduce redundancy in the supply chain in the event that existing sealift and air freight services are delayed or cancelled. This may also decrease the cost of transporting store-bought foods to the Kitikmeot communities, which could in turn increase the economic accessibility of these foods for individuals and families in the RAA.

Past, present, and reasonably foreseeable projects and activities in the RAA (e.g., mines, mineral exploration, infrastructure construction projects, tourism, commercial harvesting), including the Project, that involve the employment of and related income generation for residents of the RAA may cumulatively improve access to and utilization of the market food system for workers and their families. As food insecurity is most often a consequence of poverty, increased employment income is likely to improve the

ability of workers and their families to purchase store-bought foods, including nutrient-dense foods (Reading and Wien 2009). Projects such as mining projects offer residents of the RAA greater employment and income opportunities than may be available in the Kitikmeot communities. During primary research conducted for the Project, one participant described why they thought more community members in Kugaaruk were seeking employment on mining projects in the RAA, particularly in the context of limited opportunities for employment and income advancement in the community:

> *I think it's because of the lack of work […] and also most of the time, mining pays very well compared to work here, so I think that's a big motivator for people to go for jobs at the mines* (Community Member, Kugaaruk, November 1 2024, pers. comm.).

Another community member shared they currently work at B2Gold Corp.'s Goose Mine in order to "feed his family" (Community member, Taloyoak, November 20 2024, pers. comm.). According to results of surveys of Inuit workers on the project, respondents reported that their ability to provide for themselves and their families is 'better' (32.9% in 2024; 40.4% in 2023) or 'much better' (47.9% in 2024; 55.3% in 2023) since obtaining employment on the Back River project (Jason Prno Consulting Services Ltd. 2024, 2025).

Currently, the skilled and qualified labour force in the RAA is limited. This may limit the ability of some residents in the RAA, including Inuit, to obtain employment on present and reasonably foreseeable projects and activities and benefit from increased income and related improvements in food security. However, it is expected that proponents of present and reasonably foreseeable projects and activities, including the Project, will implement labour, training, and procurement strategies to prioritize employment opportunities and associated benefits for Inuit and other Indigenous persons in the RAA. Such strategies are intended to increase the capacity of the regional labour force to obtain employment on projects and activities in the RAA in the future. Furthermore, it is anticipated that proponents would implement gender equity and diversity policies to increase employment opportunities and associated benefits for underrepresented populations such as women+ and 2SLGBTQQIA+ persons. Proponents of present and reasonably foreseeable projects, including the Project, that are subject to NIRB assessment and monitoring are also anticipated to be required to monitor and adaptively manage pertinent employment, training, and procurement opportunities available to residents of the RAA through socio-economic monitoring programs.

Revenue, taxes, and funding from the Project and from past, present, and reasonably foreseeable projects will flow to various governments (i.e., municipal, territorial and federal) in the RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support food security programming. WKR and proponents of other projects are and will also contribute to initiatives that improve food security in the Kitikmeot communities through Company Donations Programs. For example, as part of the Back River project, B2Gold Corp. donated $66,000 in 2023 and $210,000 in 2024 to community initiatives, including food banks (Jason Prno Consulting Services Ltd. 2024, 2025).

Reasonably Foreseeable Induced

Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NWT Border, a reasonably foreseeable induced project, would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round. From warehouses at Grays Bay Port, goods may then be delivered onwards to Kitikmeot communities as well as to certain reasonably foreseeable induced projects in the RAA via ice roads in winter road season, barges in open water season, and flights. Transportation of goods to Kitikmeot communities facilitated using an all-season road connection from Yellowknife to Grays Bay Port could increase the frequency and reliability of community resupply, and introduce year-round redundancy in the supply chain.

Reasonably foreseeable induced projects may also affect accessibility of the market food system through related employment and income. Increased employment and income would improve the accessibility of the market food system for individuals and their households in the communities in the LAA. Revenue, taxes, and funding from the Project and from past, present, and reasonably foreseeable projects will flow to various governments (i.e., municipal, territorial and federal) in the RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support food security programming.

25.4.4 Summary of Cumulative Effects

Table 25.7 summarizes cumulative effects on Food Security and Food Sovereignty.

Table 25.7 Residual Cumulative Effects on Food Security and Food Sovereignty

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	**Magnitude**	**Geographic Extent**	**Timing**	**Duration**	**Frequency**	**Reversibility**
Change in Traditional Food System	P*/A	L-M	RAA	N/A	LT	C	I
Contribution from the Project to Residual Cumulative Change in Traditional Food System	Cumulative effects on traditional food systems arising from past, present, reasonably foreseeable, or RFI projects and physical activities have the same potential effect pathways as those arising from the Project during all phases. The Project may result in adverse changes in the availability, accessibility, utilization, and stability of country foods through direct loss or alteration of species habitat, alteration to the ability to travel to and through preferred areas, or through indirect effects of sensory disturbance. With mitigation, management, and enhancement measures, the contribution of the Project to residual cumulative effects on traditional food systems is expected to be low to moderate because the area to be disturbed represents a small proportion of the overall RAA but will result in changes at the household level and the road will be permanent. Further, the Project may facilitate easier access for individuals participating in traditional food systems. Positive changes may also occur as the road will open access to areas previously difficult or dangerous to access by Kitikmiut or other affected Indigenous groups.						
Change in Market Food System	P*	N/A	N/A	N/A	N/A	N/A	N/A
Contribution from the Project to Residual Cumulative Change in Market Food System	The Project will contribute to positive cumulative effects through the establishment of infrastructure in the RAA that could improve community resupply of store-bought foods. The Project contributes to employment and income advancement opportunities for residents of the RAA; the Project may open the RAA to further resource development projects which would increase opportunities employment and income advancement. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) and could support improved food security over time.						

Key:
See Table 25.2 for detailed definitions

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

25.4.4.1 Change in Traditional Food System

With the application of mitigation, management, and enhancement measures, residual cumulative effects are likely to occur and are predicted to be adverse and low to moderate in magnitude in the RAA, taking into consideration cumulative residual effects on country foods relied upon within households, including caribou, marine mammals, and marine water. Project residual effects will be long-term and will contribute to cumulative effects from RFI projects due to the continued sensory disturbances and removal/alteration of habitat for country food. However, the availability of country foods and access to country foods is expected to continue to be available throughout the RAA.

25.4.4.2 Change in Market Food System

With the implementation of mitigation, enhancement, and management measures, cumulative effects on the market food system are expected to be positive. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will increase land- and marine-based infrastructure in the RAA, which could improve community resupply and improve stability of the market food system. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will contribute to employment and income advancement opportunities for residents of the RAA. Revenue, taxes, and funding from the Project, reasonably foreseeable, and reasonably foreseeable induced projects will flow to various governments and support funds and resources to their respective priorities and interests and the development and implementation of policies that affect the lives and health of their communities, including food security. Positive cumulative effects are not characterized further.

25.5 Significance of Effects

25.5.1 Significance of Project Residual Effects

The determination of significance of residual effects provided here considers information obtained through Project-specific engagement, the Project-specific Inuit Knowledge report, compiled from the NTKP database, IAG workshops, literature review, and community-based primary research. The Project is anticipated to result in residual effects on food security and food sovereignty as a result of alterations to country foods. However, with the implementation of mitigation, enhancement, and management measures, adverse residual effects of the Project on food security and food sovereignty are predicted to be not significant because they will not result in a persistent and substantial decline in availability and/or perceived quality of country foods or a measurable change in the market food system at the community level that cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

The Project is also expected to have positive effects. The Project will be located where community members can benefit from improved transportation infrastructure in the region and may improve community resupply of market foods, which could decrease the cost of transporting goods and materials to the Kitikmeot communities. The Project will also provide employment, income generation, and training opportunities to Kitikmiut through the life of the Project.

25.5.2 Significance of Cumulative Effects

Adverse cumulative effects were identified for changes in the traditional food system, but are not anticipated to occur at levels that restrict the availability, accessibility, stability, and utilization of country foods at levels where the traditional food system cannot continue within the RAA at current levels and the contribution of the Project to residual cumulative effects is expected to be low. With the implementation of mitigation, enhancement, and management measures, cumulative effects on food security and food sovereignty are predicted to be not significant.

Adverse cumulative effects were not identified for changes in the market food system.

25.5.3 Summary of Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures are expected to reduce the potential for adverse residual and cumulative effects of the Project on the traditional and market food systems.

WKR's Road Management Plan will help limit Project-related disturbance to wildlife by setting clear expectations for industrial traffic. As part of the Road Management Plan, access mitigation measures will be included to maintain consistent access to land and marine areas is throughout all phases of the Project for local and Inuit, and other Indigenous populations. This plan will include provisions for access to the road, airstrip, and associated facilities. WKR will develop and implement a Port Management Plan and a Marine Mammal Mortality Management Plan (as part of the Wildlife Mitigation and Monitoring Plan) to help limit Project-related disturbance to marine wildlife. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, to reduce the potential for illegal/non-permitted access, and support safe and respectful use of Project infrastructure by harvesters.

WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, and trucks contracted specifically for the Project and coordinate joint resupply efforts, if possible, with local and territorial governments. WKR will also minimize interference with community resupply efforts by sealift, air-freight, and ground transportation, where possible. WKR will increase opportunities for local Inuit employment and facilitate regional and Inuit business involvement on the Project through implementation of a Labour Relations Strategy, a Training Strategy, and a Procurement Strategy. In addition, WKR will engage with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project to meaningfully incorporate their valuable perspectives into management of the Project.

25.6 Prediction Confidence and Uncertainty

With the proposed mitigation, management, and enhancement measures, including implementation of normal planning procedures by the relevant authorities, and ongoing liaison between WKR and those local authorities and other stakeholders, residual and cumulative effects on food security and food sovereignty have been determined with a medium level of confidence. Prediction confidence is based on:

- Information available through WKR's engagement to date.
- Uncertainty regarding the extent to which goods will be transported from Grays Bay Port to the Kitikmeot communities by air, land, and sea individually or by new businesses that are established to provide transport.
- Uncertainty regarding the extent to which Project employment will be realized by residents of the LAA.
- Changes regarding the status of other proposed projects in the region that are outside the control of the Project.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

25.7 Follow-up and Monitoring

WKR will establish a SEMP to monitor the socio-economic effects of the Project. The SEMP will be one of the key strategies used to guide the implementation of mitigation and management measures, measure the effectiveness of those measures, track how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of potential new/emerging socio-economic effects. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as necessary.

Some land, marine, and resource use activities associated with the traditional food system within the RAA are also subject to regulatory enforcement, and monitoring by the territorial government. This may include the monitoring and collection of information on hunting, trapping, and fishing activity for the purposes of licensing, enforcement, and resource management.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, including adaptive management and monitoring, as appropriate. WKR will also develop "Guidance for Incorporating Community Perspectives and Inuit, Indigenous, and Community Knowledge in the Project's Monitoring Programs" to meaningfully incorporate this valued information and knowledge into project operations.

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25.8.2 Personal Communications

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Community Elder, Kugaaruk, personal communications, October 31, 2024.

Community Member, Kugaaruk, personal communications, November 1, 2024.

Community Member, Kugluktuk, personal communications, November 8, 2024.

Community Member, Kugluktuk, personal communications, November 9, 2024.

Community Member, Taloyoak, personal communications, November 20, 2024.

Coppermine Outfitters, Kugluktuk, personal communications, November 8, 2024.

Gjoa Haven Hunters & Trappers, Gjoa Haven, personal communications, November 16, 2024.

Hamlet Staff, Kugluktuk, personal communications, November 7, 2024.

Kativik Health Centre, Gjoa Haven, personal communications, November 14, 2024.

Kikitak Housing Association, Gjoa Haven, personal communications, November 15, 2024.

Kitikmeot Foods, Cambridge Bay, personal communications, November 4, 2024.

Kitikmeot Inuit Association, Kugaaruk, personal communications, October 29, 2024.

Koomiut Co-op, Kugaaruk, personal communications, October 31, 2024.

Kurtairujuark Hunters & Trappers, Kugaaruk, focus group, personal communications, October 29, 2024.

Nutrition North Canada, CIRNAC, personal communications, August 7, 2025.

Qikiqtaq Co-op, Gjoa Haven, personal communications, November 15, 2024.

26 Assessment of Potential Effects on Community Health and Well-being

Community health and well-being has been identified as a topic of interest to Inuit, Indigenous groups, and other potentially affected communities. For Inuit, the land, water, and ice are integral to community health and well-being because they are essential for hunting, travel, connection to the land, and Inuit culture more broadly (Pauktuutit 2006). Changes to the land, water, and ice paired with a history of colonialism and rapid social change have resulted in current community health and well-being conditions that are disproportionately worse than Canadian averages (ITK 2014; Pauktuutit 2006). This assessment acknowledges the interconnectedness of health and well-being conditions, and is centered on Inuit perspectives through use of a Gender Based Analysis Plus (GBA Plus) framework and the inclusion of primary research and other relevant findings throughout the assessment.

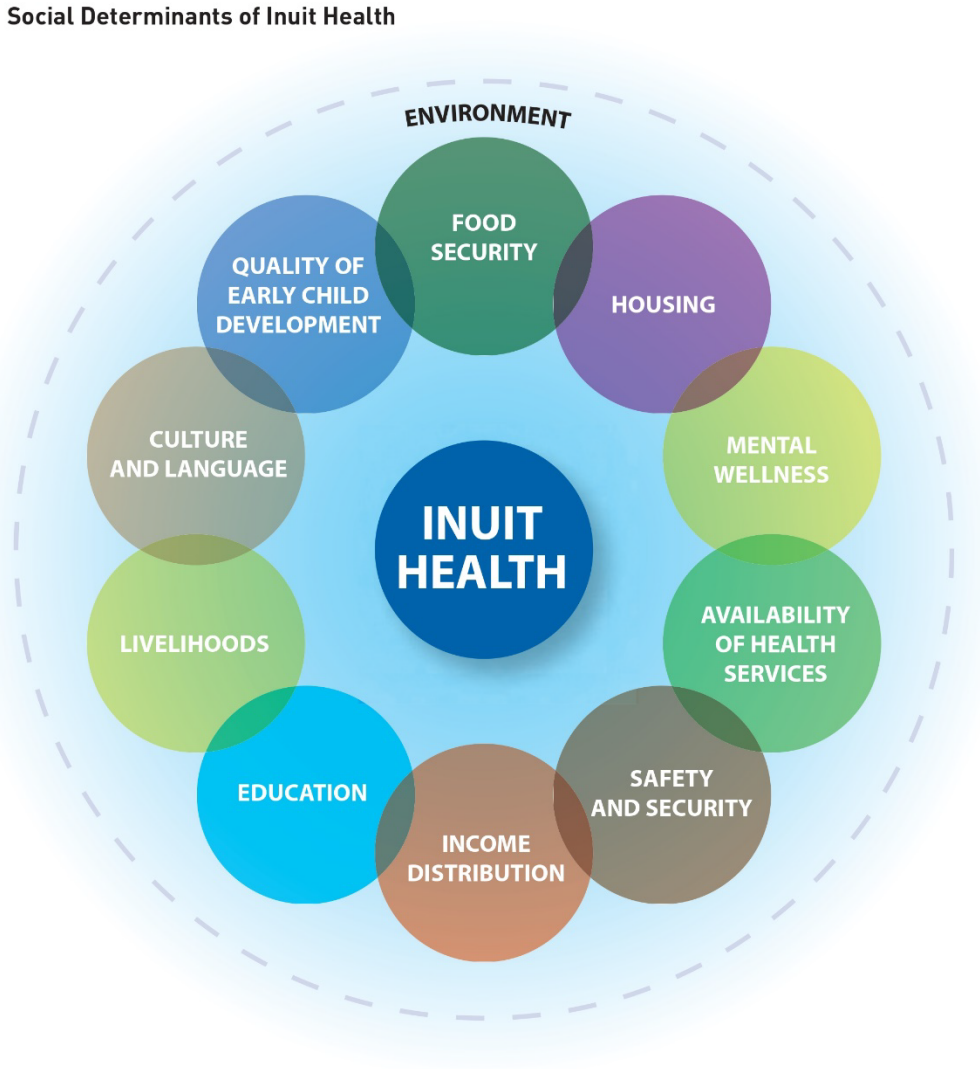
Based on the importance placed by Inuit, Indigenous groups and stakeholders, Community Health and Well-being has been selected as a valued component (VC). The Grays Bay Road and Port Project (Project) may result in both adverse and positive effects through potential changes to physical and mental health, community safety and well-being, demand for health and medical infrastructure, and services and potential changes in health from exposure to pollutants and hazards.

The World Health Organization (WHO 1946) defines health as a “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Determinants of health include both biophysical and social components. Biophysical determinants of health can refer to environmental chemical pollutants and non-chemical hazards (e.g., noise) that influence the physiological health of people. Social Determinants of Health (SDOH) are the social, cultural, and economic circumstances in which people are born, grow up, live, work, and age that can influence health and well-being outcomes and conditions (GOC 2024; NCCDH 2022).

Examples of SDOH include income levels, employment and working conditions, education and literacy, early childhood development, access to health services, housing, gender, food insecurity, geography and physical environments, social inclusion, and culture and language. The SDOH for Inuit may be weighted differently or include different determinants depending on their lived experience and/or differences in worldview (ITK 2014). Determinants of Inuit health include, but are not limited to, livelihoods, culture, language, food security, and the environment (ITK 2014). The social determinants of Inuit health are displayed in Figure 26.1. Inuit Knowledge informs how the environment acts on all other determinants of health because of how intimately the environment (e.g., the land, water, and wildlife) is connected to Inuit culture (ITK 2014). It is the environment which provides what is necessary for food security, culture and language, and a healthy lifestyle (Pauktuutit 2006). This is supported through the following statement:

> *To live in a boundless landscape and a close-knit culture in which everything matters and everything is connected is a kind of magic.* (Watt-Cloutier 2016)

Figure 26.1 Inuit Determinants of Health



Source: ITK (2014)

Several determinants of health are assessed in other sections throughout the Impact Statement (IS) and are not replicated in this VC. Each VC in the IS independently assesses pertinent socio-economic, cultural, and environmental conditions that can work to influence community health and well-being outcomes. For instance, Food Security and Food Sovereignty (Section 25) assesses potential changes in traditional food systems such as the availability and utilization of country food associated with terrestrial hunting, marine and terrestrial vegetation, marine hunting, and freshwater fish and fish habitat. Changes in income and cost of living could also affect the ability to access (including participation in) traditional harvesting of country food.

The Traditional Land, Marine, and Resource Use VC (TLMRU, Section 24) assesses the potential changes in quality, quantity, or distribution of resources, to specific areas of cultural importance, in access to resources or the sites or areas and to cultural practices, language use, intergenerational knowledge transfer, and governance systems that inform the manner in which TLMRU occurs. Employment and Economy (Section 27) assesses potential changes in regional employment, education and training, regional business, regional and territorial economy, community resupply resilience, and traditional economy. Project-related employment can provide meaningful income and training to workers, which in turn can influence health and well-being outcomes. Infrastructure and Services (Section 28) assesses potential changes in community infrastructure and access to public services or utilities, accommodation and housing availability, and transportation infrastructure and community resupply. Access to health and social services, housing availability, and food security are all known social determinants of health.

This VC assesses the following potential effects:

- Change in access to health infrastructure and services
- Change in rates of communicable diseases
- Change in mental health, emotional health, and coping mechanisms
- Change in family and community dynamics and cohesions
- Change in community and personal safety
- Change in health from exposure to pollutants and hazards

This report conforms with requirements outlined in the Nunavut Impact Review Board's (NIRB; File 24XN038) Final Guidelines for the Preparation of an Impact Statement for the (NIRB 2026).

26.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on community health and well-being.

26.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities about the Project. Through ongoing meetings, workshops, and direct conversations, WKR listened to the cultural, environmental, and social priorities shared by engaged groups. These have been considered in the IS and project design. A summary of engagement activities conducted from 2016 to 2025 is presented in Volume 3, Section 6 (Public Engagement). Additionally, an Inuit Advisory Group (IAG) was established to advise WKR on potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, baseline conditions, significance determination, and consideration and integration of Inuit and Community Knowledge. IAG members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and water in the Project area.

To further inform the Project design, a Project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the Naonaiyaotit Traditional Knowledge Project (NTKP) database, was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

In addition to the engagement activities and knowledge gathering initiatives described above, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak, along with organizations in Yellowknife. Community-based primary research was conducted in the Kitikmeot Region in October and November 2024 and with Yellowknife organizations in May and June 2025. Applicable feedback identified during project engagement activities and through shared Inuit, Indigenous, and Community Knowledge (see Volume 3) has been integrated into the summary of baseline conditions for Community Health and Well-being and integrated into the assessment where applicable.

As well, publicly available sources of Inuit and Indigenous Knowledge were reviewed to provide further context about baseline conditions and how conditions are changing, as well as potential mitigation measures recommended on previous projects that could be considered for the Project. Results from monitoring studies and other community-based research were also reviewed.

Through the Project-specific engagement program and community-based primary research, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations specifically related to socio-economic topics, including community health and well-being. Through review and incorporation of this information, Inuit, Indigenous, and Community Knowledge has influenced key components of this assessment.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring, throughout the life of the Project. Continued engagement through the Nunavut Impact Review Board (NIRB) process will support issues identification and mitigation measures to address them.

26.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge was reviewed with consideration to the proposed spatial boundaries. IAG members and NTKP consultants who informed the Project-specific Inuit Knowledge report are primarily Kitikmiut and/or representatives of Kitikmeot communities; community-based primary research interviewees are representatives of Yellowknife or Kitikmeot communities and organizations. Information obtained through these sources contributed to the selection of spatial boundaries.
The Local Assessment Area (LAA) considers the five main Kitikmeot communities, recognizing Kitikmiut as the primary users of the project area. It also includes Yellowknife, NT. The LAA and Regional Assessment Area (RAA) also considers that Kitikmeot communities and Yellowknife are those most likely to experience direct and indirect socio-economic effects as a result of the Project and of other projects and activities that are expected to act cumulatively with the Project (as discussed in this assessment; see also Sections 25, and 27-29). See Section 26.1.4.1.

26.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining Inuit-led and collaborative knowledge gathering (including the Project-specific community-based primary research, NTKP, and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies based on western scientific methods. For example, Kitikmeot communities expressed concerns about alcohol and drugs being brought to communities (GBRP 2025). IAG members requested that programs be made available for employees and their families (GBEEC 2018; IAG 2025b). Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered and summarized throughout Section 26.2.

26.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities and project infrastructure could affect socio-economic conditions within the Community Health and Well-being LAA. Through Project-specific community-based primary research, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities provided perspectives and values, which were considered and integrated into the potential effects to be considered. For example, residents of the Kitikmeot Region also identified the influence of substance availability and use on health and well-being and this has been incorporated in the discussion of potential effects on mental health, emotional health, and coping behaviours and personal and community safety. The effects assessment also includes an assessment of potential change in family and community dynamics and cohesion to address the effects of rotational shift work on individuals and families in the Kitikmeot Region, as described by residents in Kitikmeot communities. Access to health and medical infrastructure and services was also identified as a concern for residents in the Kitikmeot Region. Evaluation of potential effects on health and medical infrastructure and services has been included in the VC assessment.

Feedback also helped guide planning for the Project's mitigation and adaptive management measures. Feedback has been integrated in the assessment of project effects on community health and well-being, where applicable (see Section 26.3).

26.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas, species, and practices as well as socio-economic conditions that may experience combined effects from the Project and other projects and activities in the Project's Regional Assessment Areas.

WKR considered Inuit, Indigenous, and Community perspectives with western science to develop a holistic view of how multiple changes could affect people and communities' health and integrity over time. The analysis recognizes the importance of long-term monitoring, where Inuit co-developed monitoring will track combined effects to inform adaptive management plans (see Section 26.4). For example, WKR will develop and implement a Socio-Economic Monitoring Program (SEMP) to monitor socio-economic effects, including effects on community health and well-being. The SEMP will guide the implementation of mitigation, management and enhancement measures, measure the effectiveness of these measures, track how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of potential new/emerging socio-economic effects.

26.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed with input from Inuit, Indigenous, and Community Knowledge. Inuit, Indigenous, and Community values and perspectives (see Volume 3) supported WKR's consideration of whether there will be an exceedance or otherwise measurable change as described in Section 26.1.6. In addition, members of the IAG provided additional criteria to consider when identifying whether a project is likely to have significant, or unacceptable, effects (see also Section 26.5). From this, it became clear that community health and well-being is a multi-faceted issue requiring unique considerations to be made,

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR is committed to implementing proactive socio-economic planning strategies and monitoring plans that prioritize health and well-being.
- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).

- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

26.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce potential negative effects from the Project and enhance benefits were identified. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Feedback also helped inform the assessment of project effects and to develop monitoring, enhancement, and mitigation measures.

Many proposed mitigation, management, and enhancement measures were often discussed and reviewed with Inuit community representatives during IAG workshops to confirm they align with community priorities. Adjustments were made as appropriate based on advice from IAG members and the Kitikmeot Inuit Association, in addition to Indigenous groups and other potentially affected communities through engagement. The IAG emphasized the need for an employee assistance program to support Inuit community members working for the Project. The importance of balancing public road access and safety to protect the environment and community was also discussed (IAG 2025a). Information obtained through Inuit, Indigenous, and Community Knowledge emphasized the importance of some of the mitigation measures relevant to community health and well-being listed in Sections 26.3.3.2, 26.3.4.2, 26.3.5.2, 26.3.6.2, and 26.3.7.2. Inuit co-developed monitoring and reporting were incorporated to support ongoing involvement and accountability. The Project will apply adaptive management strategies (see Section 26.5.3).

26.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

26.1.2 Regulatory and Policy Setting

The management of community health and well-being is subject to several statutes, regulations, policies, and agreements. The federal and territorial acts and regulations listed below are applicable to community health and well-being. Legislation can directly and indirectly contribute to community health and well-being and WKR will adhere to these federal and territorial acts and regulations through the development of mitigation, management, and enhancement measures.

- *Canada Health Act* – federal legislation for publicly funded health care insurance; facilitates reasonable access to insured health services without financial or other barriers.
- *Canada Public Health Act* – federal legislation that promotes health; prevents and controls communicable diseases, chronic diseases, and injuries; prepares for and responds to public health emergencies; strengthens intergovernmental collaboration on public health and facilitates national approaches to public health policy and planning.
- *Nunavut Public Health Act* – establishes measures related to health protection and promotion, population health assessment, public health surveillance, disease and injury prevention, and public health emergency preparedness and response.
- *Nunavut Mental Health Act* – improves the mental wellness of Nunavummiut and addresses Inuit-specific needs related to mental wellness, including through improving mental health care and addictions services.
- *Workers' Compensation Act, Workers' Compensation General Regulations* – administered by the Workers' Safety & Compensation Commission, this legislation governs workers' compensation in Nunavut, including compensation to injured or diseased workers.
- *Safety Act, Occupational Health and Safety (OHS) Regulations* – administered by the Workers' Safety & Compensation Commission, this legislation governs workplace health and safety in Nunavut, including the identification and control of health and safety hazards to maintain the health and safety of workers.
- *Camp Set Up and Management Code of Practice* – administered by the Workers' Safety & Compensation Commission, this code of practice outlines regulations, hazards, and risks to be considered for the set up and management of workcamps.
- *Nunavut Camp Sanitation Regulations* – establishes measures for the operation of workcamps in sanitary conditions.

Community health and well-being is related to the *Nunavut Lands Claim Agreement Act* (1993), as well; this act recognizes and protects the rights of Inuit in the territory, including the right to:

- Participate in decision-making concerning the use, management and conservation of land, water, and resources (including offshore resources).
- Harvest wildlife and participate in decision-making concerning wildlife harvesting.
- Inuit water rights.
- Self-reliance and cultural and social well-being (Nunavut Agreement 1993).

In addition, the management of community health and well-being is guided by *Inuit Qaujimaningit*, which encompasses “Inuit traditional knowledge (and variations thereof or *Inuit Qaujimajatuqangit*), and local and community-based knowledge, as well as Inuit knowledge systems as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2025c). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as *Inuit Qaujimajatuqangit* principles (NIRB 2025c; Pauktuutit 2006). For more detail see Volume 3. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the IS. WKR has adopted this terminology and understands Inuit Knowledge encompasses *Inuit Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on community health and well-being.

26.1.3 Potential Effects, Pathways, and Measurable Parameters

Potential effects, effects pathways, and measurable parameters for community health and well-being are described in Table 26.1. For each potential effect, effect pathways, and measurable parameters have been identified to facilitate the quantitative or qualitative measurement of change in Project-specific and cumulative effects.

Table 26.1 Potential Effects, Effects Pathways, and Measurable Parameters for Community Health & Well-being

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in access to health infrastructure and services	• Demand for health infrastructure and services may be affected by project activities. • Demand for transportation infrastructure for medical travel may be affected by project activities. • Through provision of health and medical services provided on-site, workers will have access to additional services, potentially including those that are not available in their home communities	• Resident and transient population (number of persons) • Project workforce (average and peak number) • Relevant sub-populations (e.g., age, gender, Indigeneity, other identity factors) identified through GBA Plus • Qualitative measures of health care capacity • Number and capacity of commercial planes/year to service communities
Change in rates of communicable diseases	• Interaction of local populations and community members with Project workers, can potentially contribute to changes in rates of communicable diseases	• Measures of communicable diseases (e.g., rates of sexually transmitted infections, respiratory infections, gastroenteric infections)

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in mental health, emotional health, and coping mechanisms	• Project-related employment, income and working conditions may positively and adversely affect mental health, emotional health, and coping mechanisms through: • An increase in project-related employment and income may alleviate personal and family financial pressures that can improve mental health outcomes • Working conditions may include time away from family and friends which can contribute to adverse mental health outcomes, and in turn may increase harmful coping mechanisms among some (e.g., substance use) • Income earned by employees may contribute to increased rates of substance use by some individuals • Project-related changes to social determinants of health assessed in other effects and VCs (e.g., housing conditions, access to health and social services, cost of living, employment and income) can positively and adversely contribute to changes in mental and emotional health outcomes and health behaviours	• Measures of mental and emotional health (e.g., stress, depression, anxiety) • Qualitative perception of fears or concerns • Rates of substance use (e.g., smoking, illicit substance use, alcohol consumption)
Change in family and community dynamics and cohesion	• Project-related employment and income may positively and adversely affect family dynamics and the social structure of communities through: • An increase in project-related employment and income may alleviate family financial pressures and/or increase pressure to support extended networks of family and friends • Working conditions may include time away from family which may contribute to adverse effects on family dynamics • Income earned by employees may contribute to increased rates of substance use by some individuals • Income earned by employees may contribute to wealth disparity within families and communities	• Rates of intimate-partner violence • Rates of lone-parent families/divorce

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in community and personal safety	• Project working conditions (e.g., isolated camp accommodations) may contribute to adverse perceptions and incidences of personal safety concerns • Interactions with local community members and Project workers can potentially contribute to changes in community safety • Income earned by employees may contribute to increased rates of substance use by some individuals • Project construction will increase land- and marine-based infrastructure available for use, which may contribute to trafficking of drugs and alcohol to the LAA	• Crime rates • Perceived on-site safety • Perceived community safety • Rates of substance use (e.g., smoking, illicit substance use, alcohol consumption)
Change in health from exposure to pollutants and hazards	• Project activities may result in pollutant emissions to air, soil, water, and traditional country foods, and generate noise, which may adversely affect human health	• Pollutant concentrations in the environment relative to screening criteria, where health effects are assumed to be minimal or absent below these criteria. • Percent Highly Annoyed (%HA) – The %HA represents the percent of the population likely to be annoyed at a specific noise level. The change in %HA from baseline is used to assess the potential health effect. The risk acceptability benchmark is an incremental increase of 6.5% HA. • Sleep Disturbance – Nighttime noise limits are: indoor continuous noise levels should not exceed 30 A-weighted decibels (dBA) while intermittent outdoor sound level should not exceed 60 dBA more than 15 times per night.

26.1.4 Boundaries

26.1.4.1 Spatial Boundaries

The following subsections describe the spatial boundaries used for the assessment of effects of the Project on Community Health and Well-being.

Project Development Area

The Project Development Area (PDA) encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. The boundaries of the PDAs were created by applying buffers around where the Project components will be sited, and varies by each of the sub-areas depending on necessary flexibility for final siting of certain Project components based on conditions on the ground. For the Road PDA and Winter Road PDA, a 75-metre (m) buffer was applied to the roads centreline, for the Port PDA and the Aerodrome PDA, the areas were subdivided based on the conceptual Project component locations and then buffered approximately 1,000 m for the landside Port PDA, approximately 300 m for the marine Port PDA, and 500 m for the Aerodrome PDA. The Jericho Station PDA was buffered based on the existing development from the old Jericho Mine site that will be used for the Project and the need for additional space to accommodate the Project components that will be developed as part of the Project for this location. The Winter Road PDA will only exist annually between the beginning of February and end of March, will be built on land where the existing Jericho Station road ends, at the southeastern portion of Jericho Station, to the shoreline of Contwoyto Lake where it will connect to the TCWR.

Local Assessment Area

The LAA for the Community Health and Well-being VC (Figure 26.2) is comprised of the five main Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven, as well as Yellowknife, NT. These communities are predicted to be most likely to experience direct and indirect socio-economic effects as a result of the Project and the primary users of the project area.

Changes in human health from exposure to pollutants and hazards are evaluated using the LAA that corresponds to the type of health effect being considered. For effects related to exposure to air pollutants, the Air Quality LAA is applied, which consists of a 30-kilometre (km) by 30 km air quality model domain centered on the Grays Bay Port, which includes a 15 km segment of the road that is used to represent Project activities along the entire road alignment. Grays Bay Port represents the location with the higher Project-related air pollutant emission rates; therefore, potential air quality related effects on human health at Jericho Station are inferred based on the Grays Bay Port results and are expected to be lower in magnitude. For effects related to exposure to noise, the Noise and Vibration LAA is applied, which consists of a 1.5 km model domain from the PDA, including the Grays Bay Port, Jericho Station, and the road.





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

- Local Assessment Area (LAA)
- Regional Assessment Area (RAA) (including Yellowknife)
- Grays Bay Port
- Grays Bay Road
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Ocean
- Watercourse
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2025-12-02
TR by SL on 2025-12-02

Client/Project
123514868_015

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
26.2

Title
Community Health and Wellbeing Assessment Area

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Regional Assessment Area

The RAA for the Community Health and Well-being VC is the Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven; as well as the primarily seasonal settlements of Bathurst Inlet and Omingmaktok in the Kitikmeot Region; and part of the Northwest Territories (NT), focusing on Yellowknife, since Yellowknife will serve as a logistics and staging location for the Project (Figure 26.1). These communities are the primary users of the project area and those most likely to experience direct and indirect socio-economic effects as a result of the Project and of other projects and activities that are expected to act cumulatively with the Project

Changes in human health from exposure to pollutants and hazards are evaluated using the RAA that corresponds to the type of health effect being considered. For effects related to exposure to air pollutants, the Air Quality RAA is applied, which consists of a 30 km by 30 km air quality model domain centered on the Grays Bay Port, which includes a 15 km segment of the road that is used to represent Project activities along the entire road alignment. Grays Bay Port represents the location with the higher Project-related air pollutant emission rates; therefore, potential air quality related effects on human health at Jericho Station are inferred based on the Grays Bay Port results and are expected to be lower in magnitude. For effects related to exposure to noise, the Noise and Vibration RAA is applied, which consists of a 3 km model domain from the PDA, including the Grays Bay Port, Jericho Station, and the road.

26.1.4.2 Temporal Boundaries

The following temporal boundaries were used in the assessment of the Community Health & Well-being VC:

- The **Construction phase** of the Project will take approximately 5 years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The **Operations and Maintenance phase** of the Project will start in 2035 and will continue in perpetuity.

26.1.5 Residual Effects Characterization

Table 26.2 presents descriptions and criteria that are used to characterize residual effects on community health and well-being.

Table 26.2 Characterization of Residual Effects on Community Health & Well-being

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect	Positive – a residual effect that moves measurable parameters in a direction beneficial to community health and well-being relative to baseline. Adverse – a residual effect that moves measurable parameters in a direction detrimental to community health and well-being relative to baseline. Neutral – no net change in measurable parameters for community health and well-being relative to baseline.
Magnitude	The extent of a change in measurable parameters or the VC from baseline conditions.	No Measurable Change – no measurable change in the measurable parameters of the VC can be noted or residual effects cannot be distinguished from existing conditions or is within the normal range of variability of existing conditions. Low – a measurable change in regional population health and wellness indicators that maintains near baseline conditions or a decline of community health and well-being outcomes at the individual level; capacity of health infrastructure and services will be at or near to baseline conditions. For a change in health from exposure to pollutants, a low magnitude is considered a measurable change in the measurable parameter (pollutant or noise levels) that results in a residual health effect that is similar to existing conditions. Moderate – a measurable change in regional population health and wellness indicators that results in decline of community health and well-being outcomes beyond baseline conditions at the household level; demand for health infrastructure and services approaches current capacity, standard or threshold but will not result in a reduction in standards of service. For a change in health from exposure to pollutants, a moderate magnitude is considered a measurable change in the measurable parameter (pollutant or noise levels), which may affect individual health outcomes but is not expected to result in changes at the community/population level. High – a measurable change in regional population health and wellness indicators or capacity of health and medical infrastructure and services beyond baseline conditions and results in decline of community health and well-being outcomes at the community level; demand for health infrastructure and services exceeds current capacity, standard or thresholds that result in a reduction in standards of service. For a change in health from exposure to pollutants, a high magnitude is considered a measurable change in the measurable parameter (pollutant or noise levels), which may result in health outcomes at the community/population level.
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	PDA – residual effects are restricted to the PDA LAA – residual effects extend into the LAA RAA – residual effects interact with those of other projects in the RAA

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Timing	Considers when an effect is predicted to occur, where relevant to the VC.	No sensitivity – seasonal or timing aspects are unlikely to affect residual effects on community health and well-being outcomes. Moderate sensitivity - seasonal or timing aspects may affect residual effects on community health and well-being outcomes. High sensitivity - seasonal or timing aspects will affect residual effects on community health and well-being outcomes.
Duration	The time required until the measurable parameter or the VC returns to its existing condition, or the residual effect can no longer be measured or otherwise perceived.	Short-term – the residual effect is restricted to no more than the duration of the Construction phase (five years). Long-term – the residual effect extends beyond the Construction phase and into Operations and Maintenance.
Frequency	How often an effect is predicted to occur.	Single event Multiple irregular event – occurs at no set schedule Multiple regular event – occurs at regular intervals Continuous – occurs continuously
Reversibility	The degree to which a VC can be returned to baseline conditions or other established reference point after relevant activities have ceased.	Reversible – the residual effect is likely to be reversed Irreversible – the residual effect is unlikely to be reversed

26.1.6 Significance Definition

During the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to community health and well-being, feedback received from IAG members (IAG 2025b) identified the following priorities, when considering unacceptable changes as a result of the Project:

- That Inuit perspectives are considered and addressed in Project design,
- That the Project is located where community members can benefit,
- That the Project provides employment opportunities,
- That the Project provides training opportunities, and
- That the Project reduces cost of living.

Furthermore, a significant adverse residual effect on community health and well-being is defined as one where:

- There is an exceedance of available capacity of health infrastructure and services, or a substantial decrease in the quality of a service, provided on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures.
- The Project will create a measurable adverse change in physical or mental health outcomes or determinants of health from current conditions and trends at the community level; adverse changes are attributable to the Project and cannot be managed or mitigated through adjustments to programs, policies, plans, or through other mitigation.
- Physical health from exposure to pollutants and hazards may be impaired compared to baseline conditions, even with the implementation of mitigation and management.

26.2 Baseline Conditions

26.2.1 Methods

To inform understanding of community health and well-being baseline conditions, multiple sources of information were considered, including statistical data, academic literature, grey literature, Inuit, Indigenous, and Community Knowledge perspectives, engagement feedback, and primary research with people in communities in the LAA. Further information on methods is described in the Grays Bay Road and Port – People and Communities Baseline Report (Appendix 25A).

26.2.1.1 Social Determinants of Health and Well-being

Literature Review and Secondary Data Collection

Quantitative and qualitative baseline conditions for community health and well-being for the LAA and RAA were obtained from the following sources:

- Government of Canada
- Government of Nunavut (GN)
- Government of Northwest Territories (GNWT)
- Municipal Governments
- Statistics Canada
- Nunavut Bureau of Statistics
- Public Health Agency of Canada
- Canadian Centre on Substance Use and Addiction
- Canadian Institute for Health Information
- Inuit Tapiriit Kanatami
- Nunavut Tunngavik Incorporated
- Pauktuutit Inuit Women of Canada

- Hunters and Trappers Associations
- Other environmental assessment reports
- Published literature and “grey” literature

Disaggregated data by territorial region and by community were not always available. In instances where regional- or community-specific data were not available, Nunavut and NT data are assumed to broadly represent similar trends found in the Kitikmeot Region and communities and in Yellowknife.

Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified. A total of 68 interviews were conducted with over 80 individuals, including both in-person interviews and virtual interviews.

Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to People and Communities in the Kitikmeot Region in October and November 2024. A social sciences research license, which included ethics approval, was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

As described in the Grays Bay Road and Port – People and Communities Baseline Report (Appendix 25A), a total of 61 interviews were conducted with 70 community members in-person and virtually. In-person interviews were conducted in the communities of Kugaaruk, Cambridge Bay, Kugluktuk, Gjoa Haven, and Taloyoak. Interview participants included regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

Yellowknife

Key person interviews were also undertaken with seven government agencies, stakeholders, and community organizations in Yellowknife virtually in May and June 2025. A research license was obtained from the GNWT Department of Education, Culture and Employment (License Number 5957 and 6135) and ethics approval was obtained from Aurora Research Institute (Approval Number AC-REC 24-09) to conduct research in Yellowknife.

Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded using written notes and audio recording, when consent was granted. Written notes and audio recordings were later typed and transcribed, respectively. Primary research results then underwent thematic analysis, which grouped findings into major themes that align with the various People and Communities VCs.
Key findings of data analysis were integrated as appropriate into the baseline report.

Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of a research program, the methods used, and the interpretation of information in some instances. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination based on gender, sexuality, Indigeneity, and/or other identity factors. All members of the research team have taken unconscious bias training, a 2-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be effectively managed.

Gender Based Analysis Plus

GBA Plus guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the consideration of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including the impact of colonialism.

In addition, Pauktuutit Inuit Women of Canada has produced an Inuit-Specific GBA Plus framework to reflect the unique needs, voice, and social experiences of Inuit women, girls, and gender-diverse populations (Pauktuutit 2025). Pauktuutit suggests that considering the whole person and all of their intersectional identities contributes to equity. Inuit cultural values, lifeways, and worldviews are the foundation of the Inuit Specific GBA Plus framework.

Key subpopulations have been selected based on GBA Plus and the Inuit-Specific GBA Plus framework, feedback from engagement, through literature on socio--community impacts from industrial development Projects, and on the professional experience and knowledge of the socio-economic technical team. Sub-populations that have been selected for consideration in the assessment and rationale for their inclusion are provided in the People and Communities baseline report.

26.2.1.2 Biophysical Determinants of Health

Baseline conditions for biophysical determinants of health are characterized by existing environmental conditions (e.g., existing air quality and noise levels). The baseline environmental conditions from environmental monitoring data form the foundation for evaluating the potential Project-related changes to health from exposure to pollutants and noise.

26.2.2 Overview

The following subsections summarize data sources and existing (i.e., baseline) conditions for community health and well-being including health infrastructure and services, physical health conditions and outcomes, mental health conditions and outcomes, personal health behaviours, community and family stability, community safety, and the biophysical determinants of health. Further details on baseline conditions can be found in the Grays Bay Road and Port – People and Communities Baseline Report (Appendix 25A).

26.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the Project-specific engagement program delivered from 2016 to2025, including community meetings, workshops, community-based primary research, the Project-specific Inuit Knowledge report, compiled from the NTKP database, and through a review of publicly available information, Kitikmiut, other Indigenous groups, and other potentially affected communities shared information, expressed concerns, and provided recommendations related to community health and well-being. This feedback has been considered and summarized in Table 26.3 and has been integrated into the summary of baseline conditions and assessment of potential effects on community health and well-being.

Table 26.3 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Comment	Source	WKR Response	Where Addressed
During engagement on a previous project, it was reported that in the early 2000s, Kugluktuk had the highest adult and juvenile incarceration rates in Nunavut, high suicide rates, Inuinnaqtun language loss, education gaps, and a long public housing wait list.	NIRB 2004	Existing conditions on crime, substance use, suicide, and socio-economic status have been integrated into the overview of baseline conditions for mental health conditions and outcomes and community and family stability.	See Section 26.2.2.4 for baseline conditions on mental health conditions and outcomes, including suicide. See Section 26.2.2.6 for baseline conditions on community and family stability, including criminal code violations.
Through previous research, Kugluktuk residents reported high rates of crime, substance abuse and suicide, potentially linked to poverty, newfound wealth, overcrowded housing, erosion of cultural practices, and low education levels.	Prno et al. 2011		
The Baffin Region has outpost camps for offenders who meet minimum-security requirements. Kugluktuk and Cambridge Bay are interested in establishing similar camps near their communities; camps take only one or two offenders at a time and the average stay is a couple of months. Offenders are taught traditional skills like hunting, trapping, and dressing of their food.	RHA 2003		

Comment	Source	WKR Response	Where Addressed
IAG members expressed the need for family assistance 'northern style' for families of workers that are on rotation.	GBEEC 2018	The Project's potential effects, including both potential positive and adverse effects, on access to health infrastructure and services were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided, including the provision of an Employee and Family Assistance Program and Inuit Employee Assistance Program.	See Section 26.3.3 for the effects of the Project on Change in Access to Health Infrastructure and Services, including proposed mitigation, enhancement, and management measures. See Section 26.3.5 for the effects of the Project on mental health, emotional health, and coping mechanisms, including proposed mitigation, management and enhancement measures. See Section 26.3.6 for the effects of the Project on family dynamics and community cohesion, including proposed mitigation, enhancement, and management measures. See Section 26.3.7 for the effects of the Project on community and personal safety, including proposed mitigation, enhancement, and management measures.
During Project engagement, IAG members recommended an employee assistance program be developed to support Inuit community members working for the Project.	IAG 2025b		
Through previous research, it was reported that increased investment in northern mineral exploration and development and the opening of the Northwest Passage, could greatly increase employment opportunities for certain residents of Kugluktuk. This may be an opportunity but may also exacerbate alcoholism, class disparities, and lessen interest in traditional knowledge and activities. Alternatively, increased industrial development could lead to impact benefit agreements that provide benefits such as improved infrastructure, education resources, and enable support for traditional subsistence activities.	Prno et al. 2011	The Project's potential effects, including both potential positive and adverse effects, on mental health, emotional health, and coping mechanisms and on family and community cohesion were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided, including the provision of an Employee and Family Assistance Program and Inuit Employee Assistance Program.	See Section 26.3.5 for the effects of the Project on mental health, emotional health, and coping mechanisms, including proposed mitigation, management and enhancement measures. See Section 26.3.6 for the effects of the Project on family dynamics and community cohesion, including proposed mitigation, enhancement, and management measures. See Section 26.3.7 for the effects of the Project on community and personal safety, including proposed mitigation, management and enhancement measures.
Through previous research, community members from Kugluktuk explained that some communities follow an "alcohol by permit" model where alcohol is ordered from an out-of-community distribution site. They added that while increased access to goods and services may increase employment opportunities and the wealth of some Kugluktuk residents, it may also exacerbate existing concerns related to alcoholism, class disparities, and lessened interest in traditional activities and knowledge.	Prno et al. 2011		

Comment	Source	WKR Response	Where Addressed
During a public scoping meeting for the NIRB, community members in Inuvik expressed concern about the Project's potential effects to their mental well-being.	NIRB 2025c		
During engagement for a previous project, North Slave Métis Alliance expressed concern that increased disposable income would be used negatively (i.e., buying drugs or other substances).	NSMA 2001		
During project engagement, Taloyoak residents expressed concern about the Project, with one Elder stating: "The road can bring in dangerous aspects such as drugs… I am scared this will bring a lot of tourists, like in Yellowknife, and we don't know what they have in their pockets".	GBRP 2025	The Project's potential effects on community and personal safety, including as a result of increased availability and use of drugs and alcohol, were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided, including the implementation of a Drug and Alcohol Policy, Travel Policy, and controlled access of the Grays Bay Road.	See Section 26.3.7 for the effects of the Project on community and personal safety, including proposed mitigation, management and enhancement measures.
During project engagement, community members in Kugluktuk asked questions about check points along the road to screen for contraband items and illegal substances.	GBRP 2025		
During engagement for a previous project, the Tłı̨chǫ Government expressed concern that an all-season access road would increase the use of drugs and alcohol in the community.	Tłı̨chǫ Government 2017		
During engagement on a previous mining project, the Kitikmeot Inuit Association expressed concern about poor water quality, which may lead to human health concerns.	KIA 2003	The Project's emission of pollutants to the environment are described in Section 26.3.8. Mitigation measures to limit or avoid (when possible) adverse effects were provided.	See Section 26.3.8 for the effects of the Project on health from exposure to pollutants and hazards, including proposed mitigation, management and enhancement measures.
During a public comment period for the NIRB, representatives of the Tłı̨chǫ Government, Athabasca Denesųłiné NeNe Land Corporation, North Slave Métis Alliance, and Northwest Territory Métis Nation submitted comments as part of a Caribou Guardians Coalition. The Caribou Guardians Coalition expressed concern regarding the Project's potential impacts on human health.	NIRB 2024		

26.2.2.2 Health Infrastructure and Services

The Government of Nunavut's Department of Health is responsible for delivering health care services in Nunavut as well as for developing policies and legislation that govern the health care system. The Department of Health is responsible for directly delivering health care services. The GN offers the Nunavut Health Care Plan for permanent residents of Nunavut. The plan covers the costs of health services similarly to the plans provided by the provinces (Office of the Auditor General of Canada 2017).

Health care is provided at community health centres throughout the Kitikmeot. Cambridge Bay has the Kitikmeot Regional Health Centre, which is the largest health facility in the region; Kugaaruk, Kugluktuk, Gjoa Haven, and Taloyoak each have health centres, as well. Primary health care providers in the communities may include nurse practitioners, community health nurses, home care nurses, public health nurses, family physicians, and pharmacists. In 2023, the number of visits to a community health centre was highest in Cambridge Bay, followed by Taloyoak. The highest number of visits to a community health centre per capita in 2023 was in Taloyoak (8.8 visits per person, per year); Kugaaruk had the fewest total visits to a community health centre and number of visits per capita (5.3 visits per person, per year). The most common reason for visiting a community health centre across all Kitikmeot communities in 2023 was for a general medical examination, followed by immunizations (Nunavut Bureau of Statistics 2025).

Medical travel is often necessary for residents requiring services that are not available in the territory. Due to the size of the territory, dispersion of the small population, weather, and reliance on air transportation, delivering health care services in Nunavut is challenging and expensive. Medical travel is either through a scheduled commercial flight or by a medical air evacuation (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). Patients are sent to larger centres in Iqaluit, Rankin Inlet, Cambridge Bay, Yellowknife, Ottawa, Churchill, Winnipeg, or Edmonton depending on their home community and level of treatment required. The main referral centres for people in the Kitikmeot Region are Cambridge Bay, Yellowknife and Edmonton (Office of the Auditor General of Canada 2017).

The Stanton Territorial Hospital in Yellowknife is the largest hospital in the NT. The hospital offers a full spectrum of health care services for NT patients as well as residents of the Kitikmeot Region of Nunavut. The hospital has a 25-bed medicine unit that provides inpatient care to adult patients with cardiac and respiratory conditions, diabetes, and neurological disorders and an 11-bed surgical unit providing postoperative care. It also has obstetrics, pediatrics, and psychiatry units with a total of 27 beds (NTHSSA 2024). Stanton Territorial Hospital operated at or above 100% capacity in 2024-25 and experiences periodic closures of certain units (e.g., obstetrics) due to staff shortages (CBC 2024; NNSL 2025; GNWT 2025).

In addition to the Stanton Territorial Hospital, Yellowknife has a Primary Care Centre, which provides access to primary care practitioners, public health services, mental health and adult services, diagnostic imaging and lab services, diabetic care, and outpatient psychiatry. Other health facilities in Yellowknife include the Frame Lake Community Health Clinic, the Stanton Medical Center, an audiology clinic and an eye clinic. (NTHSSA 2024).

Healthcare Providers

Nunavut residents are the least likely in Canada to have a regular healthcare provider (Nunavut Tunngavik Incorporated 2020). The territory has the fewest staffed and operational hospital beds per capita in the country, with 1,095 persons per bed in 2018-2019, compared to a national average of 409. Nunavut also spends the most per capita of any region in Canada on out-of-jurisdiction healthcare and travel (Nunavut Tunngavik Incorporated 2020).

There are challenges with recruiting and retaining health care personnel in Nunavut. Many of Nunavut's health care personnel—especially nurses and physicians—are from outside the territory. Challenges to recruiting and retaining health care personnel include a high cost of living, expensive travel, and limited job opportunities for spouses. Working in small, isolated communities far from family can also be a disincentive (Office of the Auditor General of Canada 2017).

It is common for health care in small jurisdictions to be provided by physicians who temporarily relocate during the year from other larger jurisdictions (itinerant physicians) (CIHI 2023). Typically, about half of the family physicians in Nunavut are travel doctors (CIHI 2022). In 2022, there were 29 physicians with a postal code in Nunavut comprised of 25 family medicine physicians and four specialists. Data indicate there were 175 individual family medicine physicians providing 8,020 days of service in the territory in 2022, or an average of 46 service days each. There were also 29 individual specialist physicians providing 2,347 days of service in the territory that year, or an average of 81 service days each (CIHI 2023). In 2022-2023, there were 10 family medicine physicians in the Kitikmeot Region, down from 19 in 2019-2020. There was only one specialist in the Kitikmeot Region in 2021-2022. Data for 2022-2023 were not available (CIHI 2023).

Health care providers that work in one community for long terms are considered much more effective than short term travel nurses. For example, Taloyoak and Kugluktuk currently have long-term mental health care providers that have built strong relationships with their patients, which allows for a higher standard of care (Hamlet Staff, Kugluktuk, November 7, 2024, pers. comm.; Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.). Staffing health centres in the Kitikmeot is always an issue (Hamlet Staff, Kugluktuk, November 7, 2024, pers. comm.; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Northwest Territories Health and Social Services Authority provides health and social services to all areas of the NT. In 2022, there were 57 physicians with a postal code in NT, consisting of 45 family medicine physicians and 12 specialists. NT also relies on itinerant physicians for care and in 2022-2023, had 1,131 visiting doctors including 663 family medicine physicians and 468 specialists (CIHI 2023).

Gaps in Health Services as Informed by Primary Research

The demand for healthcare services in the Kitikmeot Region is greater than local healthcare professionals can supply. Primary research supports the claim that lack of healthcare services is a concern among health professionals across the Kitikmeot (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). For example, in Gjoa Haven, doctors only come to the community for five days every six weeks (Kativik Health Centre,

Gjoa Haven, November 14, 2024, pers. comm.). Specialized health services are often not available in community, or there are not enough staff to provide care.

Cambridge Bay has a mental health facility servicing the entire region with eight beds (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.); the facility provides counselling programs which are largely unavailable in other communities. There are usually between one and three mental health workers in Cambridge Bay, and Cambridge Bay is considered a health resource rich community when compared to others in the Kitikmeot (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). The communities' mental health affects Royal Canadian Mounted Police (RCMP) call volumes (RCMP, Gjoa Haven, November 14, 2024, pers. comm.; RCMP, Kugaaruk, October 29, 2024, pers. comm.). A gap identified in current health services is alcohol detoxification and treatment programs (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.).

In Kugluktuk there are two mental health workers, while some services are provided in Cambridge Bay through the Wellness Centre and the Kitikmeot Friendship Society. Staff associated with the Hamlet of Kugluktuk, Cambridge Bay Wellness Centre, and the Kitikmeot Friendship Society recognized that the need for mental health workers is high.

> *…We have that access to service because that's something that we've noticed. This is there's not enough services being provided. It's particularly when you go to a mine where it's camp life, you know, you're being away from home for three weeks at a time. You know, so we want to offer that emotional support in terms of overall, I do know that. There is very big need for social workers across the whole territory, not just the continue to the whole territory. There is a need for social workers. There is a need for mental health workers. I do know that right now we do have one mental health worker in Cambridge Bay. I don't know if said person is offering mental health services to all five communities, or just particularly Cambridge Bay, but there's not enough mental health workers that can provide enough services* (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

The Government of Nunavut Department of Health runs a program called ‘Healing by Talking’ which connects people in Nunavut with therapists. Inuit using federal Non-Insured Health Benefits can see a therapist through the program with covers 22 sessions per year, however all current therapists live outside Nunavut and all sessions are offered virtually (CBC 2025).

In most communities there are Elders that live at home without the level of care needed (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.). In the Kitikmeot Region, there are two long-term-care facilities, which are in Cambridge Bay and Gjoa Haven, each with approximately 10-12 beds (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). These facilities have palliative care and respite care beds and are for anybody in the territory (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

26.2.2.3 Physical Health Conditions and Outcomes

Physical health conditions and outcomes described in this section include rates of self-reported perceived health, rates of life expectancy, premature mortality, prevalence of chronic diseases, cancers, sexually transmitted infections, tuberculosis, immunization coverage, and suicide rates.

Perceived Health

Self-reported perceived health for Nunavut and NT is generally worse than the Canadian average. In 2019/2020, Nunavut and NT residents had lower rates of "very good or excellent" perceived health (52.7% and 57.0%, respectively) than Canadian average (61.8%); rates of "fair or poor" perceived health were similar to or slightly higher than the national rates (Statistics Canada 2022a).

Life Expectancy

Life expectancy in Nunavut is notably lower than the Canadian average. From 2020 to 2022, Nunavut resident life expectancy was 71.7 years for both sexes (68.9 years for males; 74.4 years for females); NT resident life expectancy is higher, at 75.4 years for both sexes (Statistics Canada 2023a). These lifespans are lower than the average life expectancy for all Canadian residents, which is 81.3 years (79.1 years for males; 83.6 years for females) (Statistics Canada 2023a).

Premature Mortality

Premature mortality is greater in Nunavut and NT than the national average. From 2019 to 2021, the premature mortality rate in Nunavut (667.4 per 100,00 persons) was 2.4 times greater than that of Canada (Statistics Canada 2023b). In NT, a similar pattern prevails, although not as drastically; NT premature mortality from 2019-2021 was 465.3 per 100,000 persons compared to Canada's 281.3 per 100,000 persons (Statistics Canada 2023b).

Chronic Diseases

Health professionals in Kitikmeot Region communities confirmed that hypertension, diabetes, and chronic obstructive pulmonary disease are chronic diseases of concern (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.; Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.).
The prevalence of select chronic diseases in Nunavut and NT are similar to the Canadian prevalence; however, prevalence of chronic obstructive pulmonary disease and heart failure are higher in Nunavut and NT than Canada-wide.

Cancer

The incidence of cancer in Nunavut is generally greater than the Canadian average (GN 2022; ITK 2016a). Incidence is a measurement that represents the number of new cases that occur in a population over a given time period. Factors associated with cancer incidence include tobacco use, alcohol abuse, nutrition, physical activity, environmental hazards, as well as other factors (ITK 2016a). Residents of the LAA must leave their communities to seek medical treatments for cancer; medical travel can be difficult

for cancer patients as well as their medical escorts (Tammaaquik Women's Centre, Kugaaruk, October 29, 2024, pers. comm.). Yellowknife is a medical hub for the Kitikmeot; however, many people must travel farther south to Edmonton for cancer treatment (Pauktuutit 2021). Unfortunately, reported cancer cases are often diagnosed only once the cancer is already invasive (ITK 2016a).

Sexually Transmitted Infections

The rates of sexually transmitted infections such as syphilis, gonorrhea and chlamydia are greater in Nunavut compared to the rest of Canada (GN 2023; GNWT 2019). The incidence (number of new infections) of syphilis in 2020/2021 were between one to two infections per 1,000 persons in Nunavut; comparatively, syphilis incidence in Canada were less than 0.35 per 1,000 persons (GN 2023). The incidence of gonorrhea from 2019 to 2021 was on average 18 infections per 1,000 persons; compared to the Canadian average of less than one case per 1,000 persons (GN 2023). The incidence of chlamydia from 2019 to 2021 were 31.6 infections per 1,000 persons, compared to the Canadian average of less than 5 infections per 1,000 persons (GN 2023).

Sexually transmitted infections are also more prevalent in NT than the Canadian average. In 2016, NT had over seven times the national rate (30.7 infections/1,000 persons compared to 4.1 infections/1,000 persons) of sexually transmitted infections with gonorrhea being over 16 times the national rate (GNWT 2019). Rates are disproportionately high among Indigenous peoples (GNWT 2019).

Primary research indicates there is an upward trend occurring in sexually transmitted infections incidence. Anecdotal evidence suggests that travel to cities or work camps may be a driver of sexually transmitted infection incidence (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).Chlamydia and gonorrhea are the primary infections documented; syphilis is less common but still presents in the region (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.; Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

Tuberculosis

Tuberculosis among Inuit has been identified as a public health crisis because of the disproportionately high prevalence among Inuit compared to other Canadians (ITK 2018; Patterson et al. 2018). Rates of active tuberculosis among Inuit in Inuit Nunangat were 38 times greater than Canadian rates (ITK 2018). The continuing high rates of tuberculosis are associated with inequities in the social determinants of health, with poverty and overcrowded housing being the main contributing factors (Patterson et al. 2018).

26.2.2.4 Mental Health Conditions and Outcomes

Mental health conditions and outcomes are described using available rates of perceived mental health, perceived life stress, rates of mood disorders, use of health services for mental illness and alcohol/drug induced disorders and rates of suicide. The results from primary research indicate that both health professionals and Kitikmiut are concerned with the state of mental health in the region.

Perceived Mental Health

In, 2019/2020, the proportion of residents reporting their perceived mental health as “very good or excellent” was notably lower in Nunavut and NT (53.6% and 58.9%, respectively) compared to the national rate (66.0%). Across Nunavut and NT, females had lower rates of “very good or excellent” perceived mental health compared to males (Statistics Canada 2022a).

Primary research undertaken with healthcare professionals and some Kitikmeot community members confirmed that mental health outcomes are generally poor and there is a large deficit in the provision of mental health services in the health system (Community Member, Cambridge Bay, November 3, 2024, pers. comm.; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.; Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.). Adverse mental health is often associated with alcohol use and intergenerational trauma. There is more public discourse about mental health now than there used to be (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Perceived Life Stress

The perceived life stress of Nunavut and NT residents is lower than the Canadian average (Statistics Canada 2022a); however, perceived life stress is higher among women than men. Stress can result from a variety of factors related to an individual’s life, work, family, health, or other matters.

Mood Disorders

Mood disorders are mental health conditions that affect people’s emotional state, such as depression or bipolar disorder. Although there are lower rates of “very good or excellent” perceived mental health in Nunavut than nationally, Nunavut and NT have a lower proportion of people with diagnosed mood disorders compared to national rates (Statistics Canada 2022a). However, there is a lack of access to medical professionals in Nunavut (Office of the Auditor General of Canada 2017); this may contribute to reduced mental health service use (Public Health Agency of Canada 2024) and therefore lower prevalence of diagnosed mood disorders because there are few doctors to provide those medical diagnoses.

The age-standardized prevalence for use of health services for mental illness and alcohol/drug induced disorder in Canada is 16.2%, meaning 16.2% of the population uses these health services (Public Health Agency of Canada 2024). In Nunavut, the prevalence is 3.9%, less than a quarter of the nationwide prevalence (Public Health Agency of Canada 2024). The prevalence of mental health service use for Nunavut has been decreasing since 2014 while the Canada-wide prevalence has been increasing. The burden of mood disorders is higher among youth; it was noted that youth may be more susceptible to anxiety and depression (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.).

Each community is under-resourced to manage the burden of mental health conditions. Mental health care represents a large gap in the health system (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). As a result, people in the community may self-medicate their depression or mental health conditions with alcohol (Kitikmeot Inuit Association, Kugaaruk, October 29, 2024, pers. comm.).

Suicide

Suicide rates among Inuit are 25 times higher than the Canadian average (Affleck et al 2020). The suicide rate has steadily increased from roughly 10 suicides/100,000 persons in the 1970s to over 100 suicides/100,000 persons in the 2010s (Nunavut Tunngavik Incorporated 2015). Men and youth are disproportionately affected by suicide (Nunavut Tunngavik Incorporated 2015). In 2017 in Inuit Nunangat, 11.6% of the Inuit population (age 18+) reported attempting suicides in their lifetime (Konefal 2021). In the NT from 2013 to 2017, the age-standardized suicide rate was 23 deaths/100,000 persons compared to the Canadian rate of 12 suicides/100,000 persons; suicides were highest among males and Indigenous peoples (GNWT 2019).

The results of primary research align with published information, suggesting that Kitikmeot Region residents have a higher than Canadian average of suicidal ideation (suicidal thoughts) (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). Several interview participants mentioned that suicide disproportionately affects youth (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.; Netsilik Ilihakvik, Taloyoak, November 19, 2024, pers. comm.). Interview participants also spoke to how deeply suicides are felt across the community, especially when youth are involved. Feedback from engagement and Inuit, Indigenous, and Community Knowledge also align with published information. In particular, Kugluktuk residents report high rates of suicide, potentially linked to poverty, newfound wealth, overcrowded housing, erosion of cultural practices, and low education levels (NIRB 2004; Prno et al. 2011). However, suicide is known to be a complex issue with many diverse drivers.

Suicide prevention is a top priority for Inuit governments, organizations, and communities (ITK 2016b). The elevated risk for suicide in Inuit communities is an effect of historical and intergenerational trauma and widespread social and economic inequities (ITK 2016b; CCSA 2021).

From 2013-14 to 2017-18, the age-standardized hospitalization rate for a self-injury was 14.9/10,000 persons in NT (GNWT 2019). Self-injury hospitalizations in NT are highest among Indigenous peoples and females (GNWT 2019).

26.2.2.5 Personal Health Behaviours

Personal health behaviors relate to the actions taken by individuals that affect health or mortality (Short and Mollborn 2015). Based on available information, this section describes smoking, alcohol consumption, illicit drug use and immunization coverage information relevant to the Kitikmeot Region.

Substance Use

Substance use among Inuit is influenced by complex historical and cultural contexts, including intergenerational trauma stemming from settler colonialism (Pauktuutit 2006). Generally, alcohol, and marijuana were reported to be the main drugs that are used in the Kitikmeot Region (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Smoking

In Nunavut, the proportion of current daily or occasional smokers for both sexes was 3.8 times the national rate (Statistics Canada 2022a). In 2017, 20% of Inuit also reported daily or near daily use of cannabis (CCSA 2021). The prevalence of cannabis use is higher among Inuit men than women (CCSA 2021). In NT, the proportion of smokers is more than 77% above the national rate (Statistics Canada 2022a).

Alcohol Consumption

The GN provides communities with decision-making authority over potential liquor restrictions. Within the RAA, three liquor restriction regimes are in place. Alcohol restriction regimes in the Kitikmeot Region are shown in Table 26.4.

Table 26.4 Alcohol Restriction Regimes in Kitikmeot Region

Community	Alcohol Restriction Regime
Cambridge Bay	Unrestricted
Gjoa Haven	Prohibited
Kugaaruk	Prohibited
Kugluktuk	Restricted Quantities
Taloyoak	Unrestricted

Through previous research, some residents from Kugluktuk explained that some communities follow an "alcohol by permit" model where alcohol is ordered from an out-of-community distribution site (Prno et al. 2011). Bootlegging alcohol is not uncommon; methods of smuggling alcohol into the Kitikmeot Region include sending it by mail or bringing it while flying into the region (RCMP, Kugluktuk, November 8, 2024, pers. comm.).

Despite liquor restrictions across many communities in the territory, heavy drinking rates in Nunavut are similar to the national rates (Statistics Canada 2022a). Inuit consume less alcohol overall than the Canadian average; however, bouts of binge drinking are more prevalent and binge drinking among Inuit is associated with violence and abuse (CCSA 2021).

> *Medical travel is problematic when people become stuck on the street and into drugs or alcohol as this is a major center and there is more access to those vices. Generally, workers have a fairly quick visit and get transited through fairly quickly* (Yellowknife Airport, Yellowknife, May 5, 2025, pers. comm.).

> *They would have to go a long way by SkiDoo to meet somebody on that road who might have alcohol, and then bring it back like they it's just not logical. I don't think it's when it's easier to just order it on the mail, right? So, right. So I don't think it'll affect us, okay…I mean, we're not too bad here, so I don't really think there is a lot to do if you if you denied people from moving here, if you banished a couple bootleggers, if you shut down Canada Post, and if you stopped flying into the*

> *community, you would eliminate all alcohol issues, a road would just open that up even worse. Those are really limited means of accessing alcohol now, but a [all] weather road, or any type of road coming in here would certainly access, create greater access. As I've said, I've worked in these communities in Manitoba, and there is a definitive difference between when there's no all weather road and when you have an all weather road, the second the all weather open road opens up, and it just becomes a "free for all* "(RCMP, Kugaaruk, October 29, 2024, pers. comm.).

In NT, the proportion of people indulging in heavy drinking (27.7%) is 58% above the national average (Statistics Canada 2022a).

Alcoholism is a chronic disease that has a substantial health burden in the region, as it relates closely to mental health, intergenerational trauma, violence and abuse (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024; Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.). Alcohol detoxification programs in the region are unavailable to most, as illustrated by the following quote:

> *There's absolutely no work being done around drinking, the complications of drinking, drinking in moderation* (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Illicit Drugs

In 2017, 2.8% of the Inuit population (aged 18+) in Canada reported using illegal substances in the previous year (CCSA 2021) and 1.2% of the Inuit population reported the use of non-medical prescription drugs in the previous year (CCSA 2021). This may not be representative of the baseline conditions in Kitikmeot, as most illegal substance use was by Inuit living outside of Inuit Nunangat (CCSA 2021). This was also prior to the legalization of cannabis in Canada.

Rates of police reported crime for selected drug offences can serve as a proxy indicator of illicit drug use. In 2020, the overall rate of crime for drug offenses in Nunavut was about 15% lower than for Canada overall (Statistics Canada 2021).

NT has over twice the rate of mental health hospitalizations compared to Western Canada as a whole[1], of which the main cause is related to substance use by some individuals (GNWT 2019). The rate of crime for cocaine offenses in NT is more than 16 times higher than the national average (GNWT 2019). However, drug offenses for opioids and heroin are either absent or below national averages.

Primary research indicates the presence of illicit drugs in the Kitikmeot Region varies between community. Illicit drugs are more visible in Cambridge Bay than the smaller communities in the LAA. It appears that opiates are not readily available in the region (RCMP, Gjoa Haven, November 14, 2024, pers. comm.). RCMP in Taloyoak and Kugaaruk suggested that hard drugs are uncommon, only identifying cannabis and psychedelic mushrooms as being used (RCMP, Taloyoak, November 18, 2024, pers. comm.; RCMP, Kugaaruk, October 29, 2024, pers. comm.).

[1] Western Canada refers to British Columbia, Alberta, Saskatchewan. Manitoba, Yukon, Northwest Territories and Nunavut (GNWT 2019)

> *There's alcohol, but there's no hard drugs. People smoke cannabis, but there's no hard drugs like you find down south* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

26.2.2.6 Community and Family Stability

Sense of Community Belonging

Sense of belonging to a community is one indicator of community and family stability. The rate of sense of belonging to local community (somewhat strong or very strong) is greater among Nunavut residents (83.0%) than the national rates (70.0%) (Statistics Canada 2022a). However, the rate of life satisfaction (satisfied or very satisfied) is lower among Nunavut residents (87.7%) compared to the national rate (93.3%) (Statistics Canada 2022a).

Culture and language play a strong role supporting family dynamics within Kitikmeot communities (Pauktuutit 2006). People still regularly participate in traditional activities (e.g., harvesting), which supports community stability; however, potential barriers to the transfer of Inuit Knowledge and language to younger generations present a challenge to community well-being (Community Member, Kugaaruk, November 1, 2024, pers. comm.; Kitikmeot Inuit Association, Kugaaruk, October 29, 2024, pers. comm.).

The role of harvesting on community well-being is demonstrated through the statements below.

> *Cultural heritage, passing that down, harvesting that that makes a person feel, you know, important, and makes them feel good they're able to provide very that's really important for community well being, yeah, passing down a cultural knowledge you acknowledge that's important also* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

> *Going out on the land is really where you don't have a whole bunch of people around you, where you have your privacy, where you're able to connect with yourself, where you're able to connect with the land. And for Inuit, they're able to practice their traditional activities. They're able to hunt, they're able to play their games outside. They're able to eat country food. They're able to just be there and have a private life in communities. There's nothing private, and it's just everybody's in your business, and you're just continuously living with a lot of people* (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Food sharing among Inuit remains important and there is support from Inuit organizations or local hunters and trappers associations through community freezers where country food is shared (Community Member, Kugaaruk, November 1, 2024, pers. comm.). An Elder in Kugaaruk noted the way people help others in their community has changed; people don't help their family as much and they don't share food in the same way as before (Community Elder, Kugaaruk, October 30, 2024, pers. comm.).

Individuals completing training or employment-related activities away from home reported periods of loneliness when away that can also be potential barriers to successfully completing their studies:

> *If you have kids, yeah, it's very difficult. But if you know, if you're free, if you got your parents and siblings to worry about, that's not so bad, not as bad, I should say. So it's easier. But you know, if you have a small family of your own, it's quite difficult to stay out* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

> *The issue when they move south is they're so used to a busy home, a lot of family living together, so when they go down south, they feel alone. Yeah, like they come back right away. Or some of them, like, as soon as they got in school, they come back. Yeah, it's like there's a "NS" program in Ottawa. A lot of Inuit students go over there and they at least feel like they're still part of a community. That's kind of nice, but it all depends on what you want to do* (Community Member, Cambridge Bay, November 3, 2024, pers. comm.).

> *Sometimes some of the employees, when they get hired, they'll stay there for a good period of time, and then they'll find out, 'oh, it's not for me'. Or a family situation comes up, and they're like, okay, sorry, I have to go home. Or they say it's not for me, I'm going home* (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.).

> *I've hired several people who need jobs here to go to the mine and then find it's very, very hard to be away from family for three weeks to be at the mine. And then they quit that, and then they come back here. And then the wages are not here, so it's a revolving door…I appreciate that the mining jobs [and] road construction jobs are providing really great wages and opportunities for people. But what I am seeing is it's really hard for community members to be out of community for those periods of times. And so it's…a struggle between, again, that culture to be family oriented, to be with family and support family and be away for that period of time. It's a real emotional battle* (Kugluktuk Co-op, Kugluktuk, November 8, 2024, pers. comm.).

Family Dynamics and Relationships

Modern Inuit family dynamics are distinct from traditional dynamics because of larger, more permanent communities and other societal changes stemming from colonization (Pauktuutit 2006). Due to a chronic shortage of housing, it is common for multiple families to share the same house (Cambridge Bay Housing Association, Cambridge Bay, November 5, 2024, pers. comm.). Interviews with housing associations and some residents across the region have confirmed how common multigenerational homes are, and the concern about overcrowding (Kikitak Housing Association, Gjoa Haven, November 15, 2024, pers. comm.). In severe instances, there are reports of upwards of 15 people living in one household (RCMP, Gjoa Haven, November 14, 2024, pers. comm.). Overcrowded housing is a potential strain on family dynamics and may lead to the pattern commonly seen where youth are asleep during the day and active at night, sometimes called 'going backwards' (Kitikmeot Inuit Association, Cambridge Bay, October 29, 2024, pers. comm.).

Lone parent families may experience disproportionate negative health and well-being outcomes related to mental health, substance use, struggles with academics and behavioral problems (Campbell et al. 2016). Negative health outcomes associated with lone parent families are not limited to the children of those families, as the parent may experience negative health outcomes as well. The high rate of teenage pregnancy in the Kitikmeot Region presents public health issues and burdens, and young mothers may turn to custom adoption (RHA 2003).

Increased community programs targeting health and social well-being are important support systems that may promote community family stability (Cambridge Bay Wellness Centre, Cambridge Bay, November 5, 2024, pers. comm.; Hamlet Staff, Gjoa Haven, December 5, 2024, pers. comm.).

An Inuit community Elder in Kugaaruk explained the linkage between housing and strained family relationships:

> *I noticed that too many young people living together, making kids and the Elders are going away and you got no one to tell them what to do, how to raise your family. And nowadays, two problems: Number one, right now is the drugs, a lot of people go on the drugs. And alcohol of course. I know some will look for a job and make money. You know what I mean? All the communities short of houses, too many persons for the housing community right now. We had about 100 people on waiting lists* (Community Elder, Kugaaruk, October 30, 2024, pers. comm.).

Access to housing is an important contributor to family dynamics and it is considered in this section as it pertains to the ability to perform household duties or its impact on relationships. Impacts related to the availability of housing – the physical space available to a family - is assessed separately in Infrastructure and Services VC Section 28.

Criminal Code Violations

Criminal code violations in Nunavut are higher than national rates (Statistics Canada 2023c). On a per capita basis, violent criminal code violations are nine times more prevalent in Nunavut; sexual assault (level 1) is six times more prevalent; and sexual violations against children are 14 times more prevalent, compared to Canada overall (Statistics Canada 2023c).

The rate of homicide in Nunavut is also much greater than the Canadian average, with Nunavut having the highest rate in Canada (GN 2019). RCMP officers in the Kitikmeot Region suggest the main reasons for calls to the RCMP are health related and include those related to alcohol, mental health, and domestic violence (RCMP, Cambridge Bay, November 4, 2024, pers. comm.).

In 2023, the rates of all criminal code violations (per 100,000) were 7.3 times greater in Yellowknife compared to Canada overall (Statistics Canada 2023c). On a per capita basis, violent criminal code violations were five times more prevalent; sexual assault was three times more prevalent; and sexual violations against children were over two times as prevalent in Yellowknife compared to the national rates. (Statistics Canada 2023c)

Through previous research, Kugluktuk residents reported high rates of crime, including the highest adult and juvenile incarceration rates in Nunavut, potentially linked to poverty, newfound wealth, overcrowded housing, erosion of cultural practices, and low education levels (NIRB 2004; Prno et al. 2011). However, crime is known to be a complex issue with myriad causes. Outpost camps were suggested as a way to engage with people who have offenses:

> *The Baffin Region has outpost camps for offenders who meet minimum-security requirements. Kugluktuk and Cambridge Bay are interested in establishing camps near their communities; camps take only one or two offenders at a time and the average stay is a couple of months. Offenders are taught traditional skills like hunting, trapping and dressing of their food* (RHA 2003).

Gender-based Violence

Both Inuit men and women experience violence, although women are more affected by gender-based violence (Pauktuutit 2020). Women in Nunavut experience violent crime at more than 13 times the rate of the average Canadian woman (Pauktuutit 2020). Local RCMP officers confirm that several calls per month are related to domestic abuse or intimate partner violence; often with the same offender, repeatedly (RCMP, Gjoa Haven, November 14, 2024, pers. comm.; RCMP, Taloyoak, November 18, 2024). High rates of sexual assault, sexual violations against children, forcible confinement and kidnapping, and offences in relation to sexual services in Nunavut (Statistics Canada 2023c) illustrate the severity of gender-based violence in the region.

There are also shelters for people experiencing gender-based violence in Kugaaruk, Kugluktuk, Gjoa Haven, and Cambridge Bay. The Kitikmeot Friendship Society operates a shelter that provides services for women experiencing gender-based violence in Cambridge Bay; it is a 14-bed domestic violence and homeless shelter for women (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.). Gjoa Haven recently opened two shelters, one for men, and one for women (Cambridge Bay Wellness Centre, Cambridge Bay, November 5, 2024, pers. comm.). The demand for shelter services increases in the winter, particularly when families are indoors after the holiday season (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

Gendered violence in Nunavut has been associated with colonialism, resource extractive industry, racialized policing, and intergenerational trauma (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.; Pauktuutit 2016, 2020). Interview participants spoke to the link between gender-based violence and addictions, intergenerational trauma, and overcrowded housing (Omingmak Centre, Men's Shelter, Cambridge Bay, November 5, 2024, pers. comm.; RCMP, Taloyoak, November 18, 2024, pers. comm.; Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

In NT in 2017, women were victims of interpersonal violence at a rate of about 20/1,000 persons, which is nearly 10 times the national rate (GNWT 2019). From 2016 to 2019, over 98% of women admitted to family violence shelters were Indigenous (GNWT 2019). In 2016-17 to 2018-19, Yellowknife had a shelter admission rate of 9.6 /1,000 persons. The top reasons for admission were related to emotional/psychological abuse, physical abuse, inability to find housing, drug and alcohol addiction and threats (GNWT 2019).

26.2.2.7 Biophysical Determinants of Health

Baseline health related to exposure to environmental pollutants and hazards is considered good. The Kitikmeot Region, including the PDA is considered to be pristine with no widespread industrial development or intensive human activity to introduce anthropogenic environmental pollutants. The remote location and limited sources of anthropogenic emissions contribute to good ambient air quality and low baseline noise levels.

26.2.2.8 Summary of Baseline Information on Sub-Populations for Gender Based Analysis Plus

Different segments of the population can have unique SDOH, and this can lead to differing (or disproportionate) health outcomes. An Inuit SDOH perspective views the environment as an all-encompassing determinant of Inuit health (ITK 2014). The importance of the environment as a determinant of health is emphasized among Inuit, hunters and trappers, and Elders, but is typically less important among non-Indigenous Nunavummiut.

Colonialism and intergenerational trauma are contributing determinants of physical and mental health outcomes, alcoholism, gender-based violence, and numerous other challenges affecting Inuit in the Kitikmeot Region (Pauktuutit 2020, 2021). Certain identity factors and experiences with colonialism or intergenerational trauma can manifest in gendered patterns in issues such as violence against women or disproportionately poor mental health outcomes among men and youth.

A large proportion of people in the Kitikmeot Region live below the poverty line in crowded households (Section 27, Employment and Economy; Section 28, Infrastructure and Services). Low-income individuals and households, households with children, and lone parent families may have disproportionately worse health outcomes because income and housing are strong social determinants of health and can have a powerful effect on community and family stability. Low-income individuals can experience financial barriers to participating in traditional land use activities because of the high cost of the equipment and supplies needed to get out on the land.

Healthcare professionals noted no major differences in health outcomes between men and women (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.). However, statistics indicate women have a higher life expectancy than men and perceived health (very good or excellent) is higher among women (Section 26.2.2.3). The majority (80%) of crime in Nunavut is committed by men (GN 2017). Gender based violence is a concern that primarily affects Indigenous women and girls (Pauktuutit 2020). Primary research indicated there are some services and support available for gender diverse people, including gender affirming care (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.).

Age is another important identity factor. Younger generations may have worse mental health outcomes than older generations, and there is a current shortage in support systems for people between the ages of 16 and 18 (RCMP, Gjoa Haven, November 14, 2024, pers. comm.). Similarly, there is an unmet need for Elder care in the region. Elders are respected and viewed as an integral part of communities in the Kitikmeot. Some Elders may receive traditional food from their community through sharing, which supports their well-being.

26.3 Assessment of Project Effects on Community Health & Well-being

26.3.1 Analytical Assessment Techniques

The assessment of community health and well-being, including the assessment of Project-related effects and cumulative effects, was conducted in accordance with the methods set out in Section 26.2.1. As described in Section 26.1.2, the assessment of community health and well-being is informed by Inuit, Indigenous, and Community Knowledge and engagement feedback. Disproportionate effects on key subsets of the population have been assessed through a GBA Plus approach further described in Section 26.2.

The assessment of community health and well-being draws on conclusions from assessments of other VCs, including Employment and Economy (Section 27), Infrastructure and Services (Section 28), Non-Traditional Land, Marine, and Resource Use (Section 29), Food Security (Section 25) and Traditional Land, Marine, and Resource Use (Section 24). Qualitative information collected from primary research was also used to inform the assessment on community health and wellbeing and this information has been integrated into the assessment to inform potential pathways of effects, proposed mitigation, management and enhancement measures, residual effects assessment and cumulative effects assessment.

In accordance with guidance from the IAG (2025a), WKR adapted best practices from previously approved Arctic developments (e.g., Mackenzie Valley Highway, Back River, Meadowbank, Mary River and Inuvik Tuktoyaktuk Highway) — developed with Inuit, Indigenous, and Community Knowledge — forming the basis of mitigation, management and enhancement measures presented in this IS as appropriate.

There are some uncertainties associated with the availability of information, data analyses, and interpretation of data and these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an effect.

The assessment of health from exposure to pollutants and hazards follows the approach outlined in Health Canada's guidance for evaluating human health effects in Impact Assessments (Health Canada 2023). The assessment of health from exposure to pollutants and hazards draws on the conclusions of the Human Health and Ecological Risk Assessment Report (Appendix 26A), which follows the methodology outlined in *Health Canada's Guidance for Evaluating Human Health in Impact Assessments* (Health Canada 2023). This approach applies a structured, scientific process that compares anticipated exposure levels such as concentrations of air pollutants and noise levels to established health-based benchmarks. By evaluating predicted exposures against these benchmarks, the assessment characterizes the potential for health risks to affected populations and provides a transparent basis for determining whether project-related pollutants or hazards may pose concerns for human health.

26.3.1.1 Assumptions

The following assumptions have been made to support the assessment on community health and well-being:

- The Project is anticipated to directly employ approximately 200 to 500 people per year during the five-year Construction phase. Construction phase workers will be employed on a fly-in/fly-out rotational schedule. During Construction, there will be four temporary mobile camps and two stationary camps, one at Grays Bay Port and the other at Jericho Station. Each stationary camp will accommodate up to approximately 80
- The total operational workforce based at the port site will include approximately 20 personnel for port operations, approximately 22 personnel for road operations, and approximately 12 personnel for Jericho operations. Operations and Maintenance phase workers will be employed on a fly-in/fly-out rotational schedule. During Operations and Maintenance, there will be permanent camps at Grays Bay Port and Jericho Station. The Grays Bay Port will have accommodations capacity of up to 80 people with additional short-term capacity for up to around 150 persons and Jericho Station will have capacity of up to 40 people.
- The health and safety of on-duty workers is managed under occupational health and safety regulations. Occupational exposure guidelines acknowledge that workers may experience higher exposure levels, and correspondingly, a greater level of acceptable risk due to the nature of their employment. During off-duty periods, workers are considered human receptors while residing at the accommodation camps. Health risks to these human receptors are assessed, including other potential receptors such as people located at the Ulu Gold and High Lake Gold mining exploration camps, Inuit, Indigenous, and Community country food harvesters, and residents of the five hamlets in the Kitikmeot region.
- It is also expected there will be indirect employment associated with Project Construction and Operations and Maintenance phases.
- The workforce will be hired from the Kitikmeot Region and NT, where practical, and from southern Canada. ***Non-resident*** Project workers will use commercial airlines to mobilize to Yellowknife and will stay there in the short term (e.g., one night) and transit to and from Project Site using charter aircrafts. Therefore, it is assumed that non-resident workers will not transit through Kitikmeot communities.

  Resident Project workers will use commercial airlines to mobilize to collection points in the Kitikmeot communities of Cambridge Bay and Kugluktuk, or travel to Yellowknife, where they will stay there in the short-term (e.g., one night) and transit to and from Project Site using chartered aircrafts.

- It is anticipated that most direct labour during Construction will likely come from outside the five Kitikmeot communities (approximately 15% of the Construction workforce is expected to comprise Nunavut residents). This is driven by large Project labour demands relative to existing employment in 'trades, transport, and equipment operators and related occupations' across the Kitikmeot communities, as well as the specialized nature of port construction and expectation that some skilled trades will not be present in the region. Most Operations and Maintenance workers are anticipated to be residents of Kitikmeot communities, over time (approximately 50-100% of the Operations and Maintenance workforce is expected to comprise Nunavut residents). Some skilled workers (e.g., engineers, heavy equipment operators) may have to be sourced from outside the Kitikmeot communities.
- It is assumed that out-of-region workers and their families will not relocate to the LAA during Construction because it is short-term work. It is anticipated that most Operations and Maintenance workers will be residents of Kitikmeot communities, and therefore the Project will not depend on a substantial out-of-region workforce to meet Project demands. If an out-of-region workforce is required during Operations and Maintenance, it is assumed that the majority of these workers and their families will not relocate to the LAA during Operations and Maintenance. During Construction and Operations and Maintenance, non-resident workers will be accommodated during shifts at existing work camps in the PDA through fly-in/fly-out rotations.
- Operations and Maintenance of the Grays Bay Road will consist of Project-related ground transportation between the port and areas of the road for maintenance, security and environmental monitoring. Resupply will also occur for the maintenance camps along the road route. Potable water and fuel required at Jericho Station may be trucked from the port weekly or as required. Based on anticipated demand, one to two trips per week are anticipated on the Grays Bay Road.
- The road and port (including the small craft harbour) will be accessible for local and regional use. Access to the road will be controlled.

26.3.2 Project Interactions with Community Health & Well-being

Table 26.5 identifies, for each potential effect, the Project activities that might interact with the VC and result in the identified effect. These interactions are indicated by a check mark (or a dash, where no interaction is anticipated) and are discussed in detail in the following sections, in the context of effects pathways, standard and Project-specific mitigation measures, and residual effects.

The potential interactions between Project activities and community health and well-being were considered for the Construction phase and the Operations and Maintenance phase of the Project. The identification of Project activities and their potential interactions was based on Inuit, Indigenous, and Community Knowledge, the professional judgment of socio-economic impact assessment practitioners involved in the assessment, and a review of known existing (e.g., baseline) conditions. The selection of interactions is also informed by the potential effects and effects pathways for each VC, as described in Section 26.1.3. Interactions are discussed in the Project residual effects and cumulative residual effects assessments that follow.

Table 26.5 also identifies non-interactions with community health and well-being effects. Non-interactions with change in access to health infrastructure and services mainly relate to project activities that are not associated with health infrastructure and service use and, therefore, will not exert excessive pressure on these. Project activities not interacting with change in rates of communicable diseases are those that do not involve the movement and interaction of project workers that may enable communicable disease transmission. Project activities not interacting with change in mental health, emotional health and coping mechanisms are those that generally do not involve transportation of project workers or establishment and operation of camps and facilities. Project activities not interacting with change in family and community dynamics and cohesion are those that do not involve the interaction of project workers with LAA communities. Project activities not interacting with change in community and personal safety are also those that do not involve the interaction of project workers with LAA communities.

Project activities that interact with health through exposure to pollutants and hazards are those associated with emissions of air pollutants and noise. For example, vehicle and equipment operations that produce fuel exhaust and noise represent potential health interactions. Conversely, activities such as bulk fuel storage, where emissions are negligible due to safe handling and storage practices, are considered to have no health interaction because direct or indirect exposure does not occur.

A summary of key feedback shared by Kitikmiut and other potentially affected communities relevant to community health and well-being and available at the time of filing is consolidated in Table 26.6 and has been integrated into this assessment where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

Table 26.5 Project Interactions with Community Health & Well-being

Project Activities	Effects					
	Change in access to health infrastructure and services	Change in rates of communicable diseases	Change in mental health, emotional health, and coping mechanisms	Change in family and community dynamics and cohesion	Change in community and personal safety	Change in health from exposure to pollutants and hazards
Construction						
Mobilization/demobilization of machinery /equipment, vehicles, materials, and fuel (e.g., by barge, sea lift, boat, or road)	-	-	-	-	-	✓
Staging and storage of materials, fuel, equipment and prefabricated components	-	-	-	-	-	✓
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-	-	✓
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓	✓	✓	✓	✓	✓
Machinery/equipment and vehicle refuelling / fuel storage handling	-	-	-	-	-	✓
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	-	-	-	-	-	✓
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	-	-	-	-	✓	✓

Project Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health, and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	-	-	-	-	-	✓
Water withdrawal to support Construction activities (e.g., winter road construction, dust control, material compaction)	-	-	-	-	-	-
Watercourse crossing construction (e.g., bridge and culvert installation)	-	-	-	-	-	✓
Ground based transportation (e.g., workforce, materials, supplies)	-	✓	✓	✓	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓	-	✓	✓	✓
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	-	-	-	-	-	✓
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refuelling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	-	-	-	-	✓	✓

Project Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health, and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Procurement of goods and services; employment of workers	✓	✓	✓	✓	✓	-
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	-	-	-	-	-	✓
Operations and Maintenance						
Port landside operations (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operation and maintenance).	✓	✓	✓	✓	✓	✓
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	-	-	-	-	✓	✓
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	-	-	-	-	-	✓
Desalination Operation and Wastewater Treatment (e.g., marine water use and effluent discharge)	-	-	-	-	-	-
Water withdrawal / use (e.g., potable water, dust control, maintenance)	-	-	-	-	-	-

Project Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health, and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	-	✓	✓	✓	✓	✓
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	-	-	-	-	-	-
Vessel Fuel Line / Refuelling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	-	-	-	-	-	-
Equipment maintenance	-	-	-	-	-	✓
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-	-	✓
Winter road construction and use (e.g., annual winter road construction and maintenance)	-	-	-	-	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓	✓	✓	✓	✓
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	-	-	-	-	-	✓

Project Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health, and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Procurement of goods and services; employment of workers	✓	✓	✓	✓	✓	-

Notes:

✓ = Potential interaction

– = No interaction

26.3.3 Change in Access to Health Infrastructure and Services

26.3.3.1 Project Effects Pathways

Project activities have the potential to affect access to health infrastructure and services for populations in the LAA both positively and adversely. This effects pathway is primarily associated with the establishment and operation of work camps and employment of workers during Construction and Operations and Maintenance phases. The out-of-region Project workforce could increase demand on health and social services in the LAA due to potential injuries or medical conditions, thereby reducing availability and access for some residents.

There is a possibility of workers migrating within the LAA, particularly to Yellowknife, although it is not anticipated that out-of-region workers will relocate to Kitikmeot communities in the LAA during Construction and Operations and Maintenance phases of the Project. Project-related population growth due to in-migration and associated increases in demand on health infrastructure and services in the Kitikmeot communities are, therefore, not anticipated to occur.

Basic health infrastructure and services are available in the Kitikmeot communities; however, medical travel to Yellowknife, and locations further south is often necessary for residents requiring services not available in the Kitikmeot Region and territory. Medical travel is accomplished using both evacuation on chartered flights (emergent cases) and on regularly scheduled commercial airlines (non-emergent cases). Project activities may increase demand on air transportation infrastructure and services, which may affect medical travel.

26.3.3.2 Mitigation, Management, and Enhancement Measures

The Project has been designed to reduce demand on health infrastructure and services in the LAA by accommodating the Construction and Operations and Maintenance workforce at camps. WKR will implement the following mitigation, management, and enhancement measures during Project Construction and Operations and Maintenance phases to reduce potential adverse effects on access to health infrastructure and services in the LAA:

- WKR will develop and implement a Health and Medical Services Plan (HMSP) which will include:
  - prevention and management measures for injuries, infection, and disease.
  - a description of medical and first aid services available to personnel at the Project site, including first aid/medical staff and a medical clinic
  - medical emergencies response, including medical emergencies requiring evacuation
  - workplace health promotion program, including an Employee and Family Assistance Program (EFAP) and an Inuit Employee Assistance Program (IEAP) where appropriate resources exist
- WKR will develop and implement an education program to inform workers of the range of health services available onsite

- WKR will develop and implement a health, safety, security, and environment (HSSE) plan. The HSSE plan will include:
  - safety training requirements for personnel
  - security procedures
  - response procedures
- WKR will develop and implement a Travel Policy in the event that personnel transiting to / from the Project site are overnighting or are weathered-in in a community. The Travel Policy will describe Company expectations of personnel and consequences of improper action while travelling, and include plans for accommodation, meals, use of community health and medical services, and other needs for personnel during potential travel delays.
- WKR is committed to ongoing engagement with the Government of Nunavut and/or Inuit Organizations and other affected parties during advancement of project design and planning
- A Socio-economic Monitoring Program will be developed and implemented. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

The following mitigation measures are applicable to changes to air transportation infrastructure and services, which may affect medical travel:

- The Labour Relations Strategy will increase local Inuit employment to reduce the need to transport personnel from outside of the region
- WKR will provide transportation for its workforce from designated points of hire directly to the Project site, wherever feasible

26.3.3.3 Project Residual Effect

The Project may have both positive and adverse effects on health infrastructure and services in the LAA.

The Project could have some positive residual effects on access to health infrastructure and services. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could enable governments to direct funds to support health and social resourcing and programming, including health infrastructure and services. During previous research project, it was reported that increased industrial development could lead to Impact Benefit Agreements that provide benefits such as improved infrastructure (Prno et al. 2011).

As part of the HMSP, WKR will develop and implement a workplace health promotion program, which includes access to an EFAP and an IEAP to support worker health and well-being and limit demand on services in the LAA. Providing access to an EFAP and an IEAP aligns with recommendations from IAG members for an employee assistance program to support Inuit community members working for the Project, including “northern style” assistance for families of workers that are on rotation for the Project (GBEEC 2018; IAG 2025b).

Through provision of a HMSP, EFAP, and IEAP, the Project may serve to increase access to health and social services for employees (and their dependents in the case of an EFAP and an IEAP), although

positive residual effects on access to these services depend on the level of uptake by Project workers. For example, the use of the IEAP at Back River delivered 2,197 engagements in 2024. The use of the EFAP at B2Gold Corp.'s Back River site has been limited, with fewer than five employees or their dependents accessing the program each year between 2018-2023 (Jason Prno Consulting Services Ltd. 2024). Use of the EFAP at Back River rose with the rise in employment on the project in 2024; the EFAP was used 6 times in Nunavut and 28 times at other locations in 2024 (Jason Prno Consulting Services Ltd. 2025). A study in Alberta found that although 76% workers had access to health care services while on rotation, more than half indicated they wouldn't use the services in fear of negative consequences such as layoffs (Safety and Health 2021). WKR will inform workers of the range of health services available onsite to encourage workers to use them without fear of reprisals. inform workers of the range of health services available onsite to encourage workers to use them without fear of reprisals.

The Project workforce, including out-of-region workers, may require acute health and medical care services as a result of occupational and non-occupational injuries and illnesses during Construction and Operations and Maintenance phases. In the event of medical emergencies and non-emergency incidences requiring care that cannot be addressed on-Site, WKR will transfer workers to appropriate medical facilities. Project workers requiring such medical attention will most likely be transferred to Stanton Territorial Hospital in Yellowknife or other hospitals in southern Canada, such as in Edmonton. Therefore, it is not anticipated the Project workforce will require medical services in the Kitikmeot communities, except in the event of a medical emergency or non-emergency incident occurring while workers are travelling to the Project site, which would be an infrequent occurrence at most Local and non-local workers may seek health services for non-emergent health issues such as follow-up appointments for occupational or non-occupational injuries, pre-employment medical examinations, immunizations, and prescription refills among other examples. Employees on the Project will be provided with contact details and support resources to assist them while in transit. In the event that personnel transiting to/from the Project site are weathered in in a community, the Project Travel Policy will include plans for use of community health and medical services that may be required during travel delays. The implementation of an on-site HMSP and HSSE Plan will reduce reliance on health infrastructure and services in the LAA by the Project workforce. Prevention and management measures for injuries, infection, and disease, the provision of self-contained medical and first-aid services to personnel at the Project site, and safety training and security and response procedures will mitigate risk of acute medical events.

A review of socio-economic monitoring conducted by B2Gold Corp.'s Back River project supports the finding that the Project may add to the demand on emergency health services and health services in Yellowknife. Between 2018-2024, the Back River project has required use of GN emergency health services ten times for project personnel at project sites (Jason Prno Consulting Services Ltd. 2025). All ten instances were for use of medevac services from the project sites to Yellowknife. The Back River project also required use of non-emergency health services (with the assistance of B2Gold Corp. charter aircraft) in Yellowknife 28 times in 2023 (Jason Prno Consulting Services Ltd. 2024), and in Yellowknife and Edmonton 91 times in 2024 (Jason Prno Consulting Services Ltd. 2025). However, the Back River project is larger in scale than the Project, requiring a larger workforce: there were 1,379 personnel in 2023 and 3,221 personnel in 2024 who worked on the Back River project, while the Project is anticipated to directly employ approximately 200 to 500 people per year during Construction and approximately 22 to 32 people total during Operations and Maintenance. It is, therefore, anticipated the

Project's contribution to demand on health infrastructure and services in the LAA will be less than that of the Back River project. Health centres in both the Kitikmeot Region and Yellowknife have limited capacity to respond to urgent and primary care needs of the local population. Therefore, additional demand on health infrastructure and services in the LAA as a result of the Project may affect the available capacity of these services, reducing access to them by residents of the LAA, including Kitikmeot community members.

Nonetheless, services are still anticipated to be delivered to residents of the LAA through contingency planning and through medical travel. For example, although the capacity of the Stanton Territorial Hospital's emergency department was exceeded at times in 2025 due to staff shortages, contingency planning was implemented to provide continual emergency care in Yellowknife (GNWT 2025).

Medical travel is often necessary for residents of the Kitikmeot Region and, at times, for residents of Yellowknife. For example, during closure of obstetrics units at Stantec Territorial Hospital in 2021-22, residents were required to travel outside of Yellowknife (e.g., to primary care centres in Edmonton) to give birth (NTHSSA n.d.). Medical travel for Kitikmeot community members is currently accomplished using both evacuation on chartered flights and on regularly scheduled commercial airlines (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). Construction of the Project may require the use of commercial airlines to transport personnel to pick-up locations (Yellowknife for non-Kitikmeot residents, Cambridge Bay and Kugluktuk for Kitikmeot residents) for transport to the Project site. In the event there is limited capacity on regularly scheduled commercial airlines to transport residents of the LAA to access health and social services outside of the LAA, the GN and GNWT may arrange for additional chartered flights for medical travel.

It is not anticipated that out-of-region workers will relocate to Kitikmeot communities in the LAA during Construction and Operations and Maintenance phases of the Project because workers will be housed in remote camp accommodations and southern points-of-hire will be established; however there is a possibility that some in-migration may occur to Yellowknife (given that Yellowknife has amenities and access to employment opportunities). It is, therefore, expected that out-of-region Project workers would continue to use health infrastructure and services located in their home communities to manage chronic conditions and will not contribute to excessive demand on health infrastructure and services in communities in the LAA. Out-of-region workers may transit through Yellowknife on their way to and from the camps and are not expected to be in Yellowknife for extended periods.

26.3.3.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Adverse changes to access to health infrastructure and services may disproportionately affect Inuit and other Indigenous peoples in the LAA due to limited existing availability of health infrastructure and services to meet demand. Existing conditions have, in some cases, been impacted by legacies of colonial underinvestment in Inuit and northern infrastructure and services.

Residual effects related to access to health infrastructure and services are likely to be experienced unevenly across sub-populations. Women, Elders, persons with disabilities, and those with chronic health conditions are expected to be disproportionately affected by any reduction in the availability or timeliness of health services (Pauktuutit 2021). These groups tend to have greater and more consistent healthcare

needs and often face structural barriers in accessing care, including limited transportation options, caregiving responsibilities, and/or socio-economic constraints (Pauktuutit 2021). In small and remote communities, where healthcare services are already limited, additional pressures on health infrastructure and services may further reduce access for those most dependent on routine or specialized care (NCCIH 2022), although as assessed in Section 26.3.3.3, medical emergencies and non-emergency incidents that cannot be addressed on-Site, will most likely be transferred to Stanton Territorial Hospital in Yellowknife.

26.3.4 Change in Rates of Communicable Diseases

26.3.4.1 Project Effects Pathways

Project activities have the potential to affect rates of communicable diseases (e.g., sexually transmitted infections, viral, or bacterial diseases), primarily through increased movement of people and an associated increase in the interactions between people. Movement of workers will lead to more interactions with residents of the LAA, which may facilitate the spread of communicable diseases.

Workers residing in camp settings may be more susceptible to communicable diseases due to living within close proximity to each other. Workers may unknowingly travel with a communicable disease to the Project site and may inadvertently contract a communicable disease at camp and transmit it when back home. This pathway of effect may be more pronounced in Yellowknife, Cambridge Bay, and Kugluktuk as these locations will be pick-up points for Project workers.

Sexually transmitted infections may increase due to the potential of risky sexual behaviours (e.g., unprotected sex) with colleagues or some residents. Through primary research, concerns about transmission of sexually transmitted infections among workers accommodated in camp settings and transmission back into LAA communities was identified (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

26.3.4.2 Mitigation, Management, and Enhancement Measures

WKR will implement the following mitigation, management, and enhancement measures during Project Construction and Operations and Maintenance phases to reduce potential adverse effects on rates of communicable diseases in the LAA:

- WKR will develop and implement an education program to inform workers of the range of health services available onsite.
- WKR will develop and implement a HMSP which includes prevention, management, and outbreak response measures for injuries, infection, and disease.
- WKR will develop and implement a Travel Policy, including plans for accommodation, meals, use of community health and medical services, and other needs for personnel during travel delays.
- WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

26.3.4.3 Project Residual Effect

Residual effects of the Project on rates of communicable disease could occur during Construction and Operations and Maintenance, primarily through increased interactions between Project workers (including employed LAA residents) residing in camp accommodations.

Construction is expected to be short term (up to five years), consisting of a predominantly fly-in fly-out (FIFO) workforce living in remote work camps. With a workforce of about 200 to 500 people per year during the five-year Construction phase, a large number (relative to LAA community populations) of out-of-region FIFO workers will transit through Yellowknife. Local workers will transit through Kitikmeot communities including Cambridge Bay, and Kugluktuk. Risk of transmission of communicable diseases are reduced during Operations and Maintenance because the workforce will be reduced (approximately 54 people) and workers are anticipated to be drawn primarily from Kitikmeot communities.

To reduce communicable disease transmission, WKR will implement a HMSP. The HMSP includes the development and implementation of communicable disease prevention and outbreak protocols to promote healthy behaviours, identify potential outbreaks, and limit disease transmission. Medical and first aid services will be available at the Project site during Construction and Operations and Maintenance. This can support with communicable disease diagnosis, treatment, and subsequent health promotion measures. Communicable disease outbreak prevention measures include protocols for declaring outbreaks, communication with the Government of Nunavut's Department of Health and Social Services, isolation or quarantine measures, cleaning and disinfecting measures and community notifications. The workplace health promotion program will support workers' wellness by encouraging healthy behaviours and awareness of health resources and communicable disease transmission.

A Travel Policy will be developed and implemented that is intended to govern workers' travel within the LAA and includes plans for accommodation, meals, use of community health and medical services, and other needs for personnel during potential travel delays. WKR will also provide employees with clear information regarding expectations for respectful conduct and applicable company policies. Employees will also be provided with contact details and support resources to assist them while in transit.

26.3.4.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Residual effects on rates of communicable disease are likely to be unevenly distributed across the population. In particular, low-income individuals and overcrowded households may experience increased susceptibility to communicable disease transmission and worse health outcomes if they become infected. Elders and people with disabilities may not have as robust of an immune response to communicable diseases, putting them at risk of disproportionate effects (Kolahdooz et al. 2025). With regards to sexually transmitted infection, the residual effects are likely to be gendered because industrial development is associated with a male-dominated workforce. The potential for gender-based violence, predominantly affecting women+, youth, two-spirit, lesbian, gay, bisexual, transgender, queer, questioning, intersex, asexual, other identities and orientations (2SLGBTQQIA+) community, and Indigenous women and girls has also been noted as an issue of concern (Firelight et al. 2017).

26.3.5 Change in Mental Health, Emotional Health, and Coping Mechanisms

26.3.5.1 Project Effects Pathways

The Project may affect mental health, emotional health, and coping mechanisms for residents of the LAA through employment opportunities, income advancement, and working conditions, which have the potential to both improve mental and emotional health outcomes as well as exacerbate existing conditions for mental and emotional health. Changes in mental and emotional health may influence how individuals cope, and coping mechanisms, including health behaviours such as substance use by some individuals, may influence mental health and emotional health.

An increase in Project-related employment and income may alleviate personal and family financial pressures, potentially improving mental health outcomes. Income can provide families with improved food and housing security and opportunities to participate in harvesting and recreational activities that enhance well-being. Project--related employment opportunities and increased household income may positively affect health behaviours and life skills development. However, behaviour change is a complex process that requires individual readiness and is dependent on individual beliefs, attitudes, and norms regarding the behaviour of interest (Noar 2017).

Increased income and working conditions (e.g., rotational shift work, social interactions on-site) may affect mental health and coping mechanisms (e.g., substance use) among some individuals in the LAA. Working conditions may include time away from friends and family, intense labour (e.g., long work hours, fast paced environments), long commutes, and accommodation facility living, which can contribute to work-related stress levels and mental health issues, and in turn may increase harmful coping mechanisms (e.g., substance use) for some (Safety and Health 2021). Workers may experience homesickness due to being away from family for extended periods and through reduced participation in cultural events, and access to traditional food (Community Member, Taloyoak, November 20, 2024, pers. comm.).

The availability and type of substances (e.g., alcohol, drugs) in the LAA may change with increases in transient populations, social interactions between residents of the LAA and workers at work camps, and the opportunity for residents of the LAA to transit through regional hubs (e.g., Yellowknife, Cambridge Bay, Kugluktuk) when travelling to site for shiftwork. Changes in mental and emotional health and coping mechanisms are also known potential contributors to suicide and self-injury rates. However, there are many factors that contribute to suicide and suicide factors specifically for Indigenous youth including consequences of colonialism, discrimination, community disruption and the loss of culture and language (Konefal 2021).

Residents of the LAA may also experience both positive and adverse changes in mental health, emotional health, and coping mechanisms through changes to SDOH assessed in other VCs (e.g., housing security, food security) and other effects on community health and well-being (e.g., changes in access to health infrastructure and services). Fears and uncertainties related to the Project, including potential effects on the environment and TLMRU, may also adversely affect mental health conditions for residents within the LAA.

26.3.5.2 Mitigation, Management, and Enhancement Measures

During Construction, the workforce will be accommodated at six temporary camps (two stationary camps at Grays Bay Port and Jericho Station and four mobile camps). During Operations and Maintenance, the workforce will be accommodated at permanent facilities at Grays Bay Port and Jericho Station. WKR will implement the following mitigation, management, and enhancement measures during Project Construction and Operations and Maintenance phases to reduce potential adverse effects on mental health, emotional health, and coping mechanisms in the LAA:

- WKR will develop and implement a HMSP which will include a workplace health promotion program, including an EFAP and IEAP.
- workplace health promotion program, including an Employee and Family Assistance Program (EFAP) and an Inuit Employee Assistance Program (IEAP) where appropriate resources exist.
- WKR will develop and implement an education program to inform workers of the range of health services available onsite.
- WKR will consider opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling.
- WKR will develop and implement a worker code of conduct that includes no discrimination, bullying, and harassment in the workplace policy and relevant training.
- WKR will develop and implement a No Drug and Alcohol Policy. The Drug and Alcohol Policy will apply to all personnel and contractors on-Site, at work camps, and during transit through communities.
- WKR is committed to ongoing engagement with the GN and/or Inuit Organizations and other affected parties during advancement of project design and planning.
- WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

Additionally, key mitigation, management and enhancement measures identified in the Employment and Economy VC section apply to the assessment of change in mental health, emotional health, and coping mechanisms, including:

- A Labour Relations Strategy will be implemented to maximize and retain local Inuit employment. The Labour Relations Strategy details skills and entrance requirements, employee benefits, employee communication, work rotation schedules, and employee orientation programs.
- Information related to employment and contracting opportunities will be made accessible to local Inuit.
- WKR will develop and implement gender equity and diversity policies that focus] on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations.

- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project and to work with local and regional training and educational facilities to increase opportunities for local Inuit and youth employment, and to implement on-the-job training and apprenticeship programs.
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment.

26.3.5.3 Project Residual Effect

The Project is anticipated to contribute to positive effects on mental and emotional health for residents of the LAA through employment opportunities and income advancement and distribution. During a previous research project, it was reported that increased investment in northern mineral exploration and development and the opening of the North-west Passage could greatly increase employment opportunities for certain residents of Kugluktuk (Prno et al. 2011). Potential mitigation, management and enhancement measures identified for the Project, including implementation of a Labour Relations Strategy, a Training Strategy, and a Procurement Strategy, WKR will increase opportunities for local Inuit employment and facilitate regional and Inuit business involvement on the Project. Employment and income are key determinants of health and well-being, including for Inuit populations (Reading and Wien 2009; ITK 2014). The ways in which Inuit make their livelihoods, including through wage-based employment and participation in the traditional economy, contribute to positive health outcomes (ITK 2014). Health Canada identifies income as “the most important determinant of health” (Little 2006) and higher income is linked to better health outcomes (WHO 2013).

Project-related employment and income can improve other determinants of health and well-being for residents of the LAA. For residents of the LAA that obtain employment on the Project, increased income can relieve financial pressures and enable workers and their families to purchase healthy and nutrient-dense food, increase participation in traditional activities, including access and harvest of country food, secure safe housing, and participate in recreational activities that enhance well-being (Reading and Wien 2009; Community member, Gjoa Haven, November 14, 2024, pers. comm.). Furthermore, improved income security for workers and their families may alleviate psychosocial stress related to financial pressures and anxieties, which can improve mental and emotional health (Reading and Wien 2009). There is also a strong relationship between employment and income and health behaviors. For example, there is an observed trend between higher smoking rates and lower income brackets, as well as with those who are unemployed compared to those who are employed (Pan-Canadian Health Inequalities Data Tool 2022). However, behaviour change is a complex process that requires individual readiness and is dependent on individual beliefs, attitudes, and norms regarding the behaviour of interest (Noar 2017).

The Project may also affect mental and emotional health for residents of the LAA through working conditions at site. Project Construction and Operations and Maintenance phases will largely be executed by a FIFO workforce living in remote work camps. Regional employment on the Project will be facilitated by the rotational work schedule, allowing workers to divide their time between the worksite and life in their home communities. The ability to travel outside of home communities may have positive effects on mental and emotional health for some residents of the LAA who gain employment on the Project. For example,

some participants during primary research described employment on projects in the Kitikmeot Region as a means to travel outside of home communities, which can be isolating for some:

> *Mining offers you a way to get out of town, right? Sometimes being in town is a lot for years and years* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

Rotational shift work may negatively affect mental and emotional health for some residents of the LAA who gain employment on the Project due to long periods of time away from their families and communities. During primary research, participants described the strong connections Inuit have to their families and communities and the strain that rotational shiftwork can have on workers and their families:

> *Some people are really, real close to their parents and grandparents, and they don't want to leave. Because it is difficult, if you're leaving for three weeks, six weeks at a time, for years on end, it's very hard. In my personal experience, I have a common law and we have two kids – three kids now – but when I was working with mines then we had two; that was really difficult for her. So I'd say some people face the same problem. You know, they just [don't] want to leave their family. It's difficult* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

It's possible some residents of the LAA who obtain employment on the Project may also be subjected to discrimination, racism, harassment, and violence on-site, which can negatively affect mental and emotional health (see Section 26.3.7 for further discussion). WKR will develop and implement a worker code of conduct that includes a no-discrimination, bullying, and harassment in the workplace policy and relevant training.

Negative effects on mental and emotional health as a result of employment on the Project may exacerbate existing mental and emotional health conditions in the LAA. Currently, residents of the LAA have lower rates of "very good or excellent" perceived mental health than national rates and self-injury and suicide occur at higher rates in Nunavut and NT. Results from primary research indicate that both health professionals and Kitikmiut are concerned with the current state of mental health and availability of mental health services and supports in the region (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.; Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Community Member, Kugaaruk, October 30, 2024, pers. comm.).

Furthermore, poor mental health can be a barrier to entering the workforce, limiting the benefits that certain individuals may be able to gain from the Project (Cambridge Bay Wellness Centre, Cambridge Bay, November 5, 2024, pers. comm.; Nunavut Arctic College, Taloyoak, November 19, 2024, pers. comm.).

To address potential changes in mental and emotional health of workers, WKR will develop and implement measures such as a HMSP, which includes mental health supports on-site and in camp accommodations. As part of the HMSP, WKR will develop and implement a workplace health promotion program, which includes access to an EFAP and an IEAP to support worker health and well-being and limit demand on services in the LAA. Through the EFAP, workers and their family members will have access to temporary counselling support related to a variety of topics, including stress induced by working conditions, financial pressures, family relationships, or substance use. While EFAP services can improve

mental health services and support workers who access the services, previous studies have identified potential barriers for workers accessing EFAP, including a lack of awareness of the services provided, concerns regarding confidentiality, and a lack of understanding of how to access the services (Dobson 2023). These matters would need to be considered by WKR in their planning.

Providing access to an IEAP aligns with requests for “northern style” family assistance for families of workers that are on rotation for the Project, as identified by attendees at Project engagement sessions in 2018 (GBEEC 2018). Through provision of an EFAP and IEAP, the Project may serve to increase access to mental health services for employees and their dependents, particularly in the current context of limited mental health services in the Kitikmeot Region (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.). For example, the Kitikmeot Friendship Society offers an IEAP at B2Gold Corp.’s Goose Mine to support Inuit and residents of the Kitikmeot Region employed on the project:

> *We offer an Inuit Employment Assistance program for B2Gold. So any Inuit worker or employee from the Kitikmeot Region can access these services. So we have counselling services for any person, regardless of them being male or female, if they're from the Kitikmeot Region, and if they're Inuit. We have that access to service because that's something that we've noticed. There's not enough services being provided. It's particularly when you go to a mine where it's camp life, you know, you're being away from home for three weeks at a time. So we want to offer that emotional support* (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

In 2024, the Kitikmeot Friendship Society delivered 2,197 engagements (engagements include onboarding and orientation, calls, appointments, texts, emails) with Inuit employees through the IEAP (Jason Prno Consulting Services Ltd. 2025). Although the provision of an EFAP and IEAP may increase the availability of mental health services for employees and their dependents, positive residual effects on access to these services will ultimately depend on uptake by Project workers.

The Project may also affect certain coping mechanisms used by residents of the LAA. Health behaviours, such as substance use by some individuals, may change as a way to cope with stress and/or working conditions and through Project-related income. Factors that may contribute to substance use among employees in industries such as mining include coping with pain and injuries; working in remote, isolated sites; and financial incentives (Argyropoulos n.d.). Through a study of FIFO workers, it has been found that when workers return home from their shift, some may consume amounts of alcohol and substances to wind down after their rotation (Dorow et al. 2021). During primary research, participants described observing some community members employed on projects in the Kitikmeot Region who use substances when they return from rotations:

> *You see a lot of mental issues, mental health issues, because families are separated for three weeks at a time, two weeks at a time. When they come back, there's a lot of drinking sometimes, with some of the families, not everybody. I won't blanket it* (Community member, Kugluktuk, November 9, 2024, pers. comm.).

Rotational shiftwork and Project-related income may contribute to rates of drinking, including binge drinking, and use of legal (e.g., marijuana) and illicit drugs in the LAA. In turn, increased rates of substance use by some individuals could have detrimental effects on mental and emotional health.

During a previous research project (Prno et al. 2011), it was reported that increased investment in northern mineral exploration and development and the opening of the North-west Passage could greatly increase employment opportunities for certain residents of Kugluktuk. This may be an opportunity but may also exacerbate alcoholism in some cases. Kugluktuk residents reported high rates of existing substance use and suicide, potentially linked to newfound wealth (Prno et al. 2011). The North Slave Métis Alliance also expressed concern that increased disposable income would be used negatively (i.e., buying drugs or other substances) (NSMA 2001).

To address the potential or substance use on-site, WKR will develop and implement a Drug and Alcohol Policy that strictly prohibits possession of alcohol or illicit drugs on company property. WKR will also implement drug and alcohol screening procedures for checked and carry-on luggage on chartered flights. WKR will also establish a Company Donations Program to support community well-being initiatives in the Kitikmeot communities. Such initiatives may address mental and emotional health and coping mechanisms in the Kitikmeot communities. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could enable governments to direct funds to support health and social resourcing and programming including that pertaining to mental health, emotional health, and coping mechanisms such as substance use.

Residents of the LAA may also experience both positive and adverse changes in mental health, emotional health, and coping mechanisms through changes to other SDOH. Fears and uncertainties related to the Project, including potential effects on the environment and TLMRU, may also adversely affect mental health conditions for residents within the LAA. Effects on other SDOH are assessed in other VCs and through other potential effects on community health and well-being:

- Change in accommodation and housing availability are assessed in Volume 9, Section 28.
- Change in the traditional food system and change in the market food system, which affects food security and sovereignty, are assessed in Volume 9, Section 25.
- Change in access to health infrastructure and services is assessed in Section 26.3.3.3 of this section.
- Effects of the Project on TLMRU are assessed in Volume 9, Section 24.

26.3.5.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Adverse changes to mental health, emotional health, and coping mechanisms may disproportionately affect Inuit and other Indigenous peoples in the LAA due to existing mental health and emotional conditions including high rates of suicide and self-injury, harmful coping mechanisms including high rates of heavy drinking, and limited availability of mental health services and supports to meet demand. Existing conditions have been impacted by colonialism and intergenerational trauma, and legacies of colonial underinvestment in Inuit and northern infrastructure and services.

Indigenous women and 2SLGBTQQIA+ populations may be subjected to greater harassment, gender-based violence, and physical violence in a male-dominated workforce. WKR will develop and implement a worker code of conduct that includes a discrimination, bullying and harassment in the workplace policy and relevant training.

Men+ are more likely to obtain employment opportunities and income advancement from the Project. Effects of rotational shiftwork, working conditions, and potentially adverse coping mechanisms while living in camp may, therefore, disproportionately affect men+, although it is acknowledged these effects can also filter down to families. Rotational shift work is associated with adverse mental health outcomes due to isolation and being away from family for extended periods of time. Additionally, identified trends between increased income and the prevalence of heavy drinking are particularly observed in men+ (GOC 2024).

Positive effects on mental health, emotional health, and coping mechanisms through Project-related employment and income advancement may disproportionately benefit Inuit and other Indigenous peoples in the LAA. Inuit and other Indigenous peoples experience lower rates of participation and employment in the labour force than non-Indigenous peoples in the LAA (Statistics Canada 2022b). Furthermore, mean total income and mean employment income are less for Inuit and other Indigenous peoples than non-Indigenous peoples in the LAA (Statistics Canada 2022b). Employment on the Project would contribute to increased employment rates and income for Inuit and other Indigenous peoples in the LAA. Inuit and Indigenous peoples in the LAA are currently employed in various trades, transport, equipment operators, and related occupations (Statistics Canada 2022b). However, as Indigenous peoples experience unequal access to education and training, they may not have the same opportunity as non-Indigenous peoples to procure employment requiring specialized skills. Current employment in trades, transport, equipment operators, and related occupations is predominantly held by men+ across the total and Indigenous populations in the LAA (Statistics Canada 2022b).

Due to the nature of the Project and its employment roles, men+ are more likely to obtain employment on the Project than women+. Women+ may also be less likely to seek and obtain employment on the Project due to the nature of rotational work, family responsibilities and the potential difficulty finding childcare for longer durations, and other issues. Furthermore, the National Inquiry into Missing and Murdered Indigenous Women and Girls (2019) suggest that, often, Indigenous women who are employed on industrial development projects work in lower-paying jobs such as housekeeping, cleaning, and food services. WKR will develop and implement gender equity and diversity policies that focus on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations. For more information about Project labour and employment, see Section 27 Employment and Economy or the People and Communities Baseline Report (6.2 Labour and Employment).

26.3.6 Change in Family and Community Dynamics and Cohesion

26.3.6.1 Project Effects Pathways

The Project has the potential to both positively and adversely affects family and community dynamics and cohesion primarily through Project-related income and working conditions. Through Project-related income, families may experience reduced financial stress by having financial means to support housing, food security and other opportunities that support well-being. However, Project-income may contribute to wealth disparity in some families that may change existing family relationships. Additionally, there may be pressure on some workers to financially support members of their immediate and extended families, or friends.

Working conditions, such as working on a fly-in/fly-out rotational schedule in a remote and isolated setting, requires workers to be removed from their home routines and family. The absence of a primary or secondary caregiver for extended periods can create challenges for raising children, providing Elder care, and maintaining household stability. Rotational work associated with resource extraction projects was identified as one of many factors that has led to increased violence against Indigenous women identified by the *National Inquiry into Missing and Murdered Indigenous Women and Girls* report in 2019 (National Inquiry into Missing and Murdered Indigenous Women and Girls 2019). Factors specific to rotational work potentially leading to domestic violence include individuals returning home after a rotation away, experiences of inter-partner jealousy, less availability for partners, and lack of accountability for family responsibilities that become strained. Other examples included increased spousal assaults, a failure to address conflict issues with disruptive behaviour in children, and mental health challenges that can affect the well-being of employees, spouses/partners and children (National Inquiry into Missing and Murdered Indigenous Women and Girls 2019; Pauktuutit 2016). Additionally, changes in mental health, emotional health, and coping mechanisms (assessed in Section 26.3.5) may affect family relationships and dynamics. If workers return home with poor mental health conditions or participate in unhealthy coping mechanisms such as substance use while on shift, or while at home, family relationships and community dynamics may be further strained.

26.3.6.2 Mitigation, Management, and Enhancement Measures

The following mitigation, management and enhancement measures are applicable to address changes to family and community cohesion for workers and their families:

- WKR will develop and implement a Health and Medical Services Plan, which will include:
  - prevention and management measures for injuries, infection, and disease.
  - a description of medical and first aid services available to personnel at Site, including first-aid/medical staff and a medical clinic
  - medical emergencies response, including medical emergencies requiring evacuation
  - workplace health promotion program, including an Employee and Family Assistance Program (EFAP) and an Inuit Employee Assistance Program (IEAP) where appropriate resources exist
- WKR will provide access to on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness.

- WKR will consider opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling
- WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

Additionally, key mitigation, management and enhancement measures identified in the Employment and Economy VC section apply to the assessment of change in family and community dynamics including:

- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project and to work with local and regional training and educational facilities to increase opportunities for local Inuit employment, and to implement on-the-job training and apprenticeship programs.
- WKR will develop and implement gender equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations.
- A Labour Relations Strategy will be implemented to maximize and retain local Inuit employment. The Labour Relations Strategy details skills and entrance requirements, employee benefits, employee communication, work rotation schedules, and employee orientation programs.
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment.

26.3.6.3 Project Residual Effect

Positive and adverse residual effects on family and community dynamics are expected to occur due to Project-related income and Project working conditions. WKR's Procurement and Training Strategies are designed to prioritize local and Inuit participation in Project employment and business opportunities, aim to strengthen family incomes, reduce out-migration, and support knowledge and skill transfer. These strategies can benefit residents within the LAA and contribute to Project-income opportunities. Project-income can be used to address external family stressors such as cost-of-living, housing insecurity, and food insecurity. WKR will develop and implement gender equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations. This strategy can support more women being employed by the Project, which may reduce pressure on some male workers to be the sole household financial provider and to reduce instances of wealth disparity among family members. Throughout Construction and Operations and Maintenance, rotational shiftwork is anticipated to adversely affect some family relationships due to workers being away from their families for extended durations, although it's demonstrated that many families are able to cope effectively with work rotations and schedule (Jason Prno Consulting Services Ltd. 2024). During community-based primary research, some residents shared:

> *They do go out of town for money, but a lot of them come back just not wanting to be away from their family. It's a different, it's a completely different lifestyle. I mean, family is important to everybody, so it's hard to keep people out at the mine or other sites* (Kikiak Contracting, Kugluktuk, November 9, 2024, pers. comm.).

> *If you have kids, it's very difficult. But if you know, you got your parents and siblings to worry about, that's not so bad, not as bad, I should say. But you know, if you're if you have a small family of your own, it's quite difficult to stay out* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

> *I'm assuming it, it depends on the person. So, like, if they like being home and they have a lot of friends, or they like being home for their child, I guess it will be hard on them. Right now, I don't think there's any issues on that or that I heard of, but I know there's a lot of guys that can work, like six weeks out and three weeks home. Yeah, and in my opinion, they don't, they don't mind to work that long* (Hamlet Staff, Kugaaruk, October 31, 2024, pers. comm.).

To enhance worker communication with their families and connection to their communities while they are on-shift, WKR will provide access to on-site virtual or telephone communication tools for calling family members and will identify opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling.

During a previous research project, it was reported that increased investment in northern mineral exploration and development and the opening of the North-west Passage could greatly increase employment opportunities for certain residents of Kugluktuk. This may be an opportunity but may also exacerbate class disparities between some residents who obtain employment on the Project and residents who do not (Prno et al. 2011). Furthermore, increased income for employees may increase pressure to financially support networks of extended family and friends in some instances.

As previously assessed in Section 26.3.5, the Project is anticipated to result in changes to mental health, emotional health and coping mechanisms. Families and communities may realize effects from a change in workers' mental health conditions or coping mechanisms as some workers may have changes in behaviours. The EFAP and IEAP can provide mental health services and supported related to couples counselling, managing stress or substance use issues, and addressing stress related to financial management among other health topics.

26.3.6.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

As described in Section 26.3.5.4, men are likely to be the primary recipients of Project-related employment, which could result in disproportionate rates of mental health issues and substance use rates by men. Project-employed Men may have additional pressure related to financially supporting their households. Women, single-parent households or extended families with shared or complex caregiving roles may experience disproportionate effects related to emotional and logistical stress; for example, some individuals may be required to take on more household responsibilities while their partner/family member is away for extended periods of time.

26.3.7 Change in Community and Personal Safety

26.3.7.1 Project Effects Pathways

Project activities have the potential to result in changes to community and personal safety. Personal safety concerns are primarily anticipated to occur in work settings and could be influenced by workers subjected to racism, harassment, bullying, or toxic workplace environments. Women, Indigenous women and girls and the 2SLGBTQQIA+ population may experience disproportionate rates of perceived or actual incidences of compromised personal safety (Pauktuutit 2020) due to an anticipated predominantly male workforce and working in remoted and isolated conditions (Firelight et al. 2017).

Through community-based primary research, it was suggested the Project could enable drug and alcohol trafficking using Project infrastructure and by out-of-region workers, especially towards communities that have restrictions on alcohol (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.; Government of Nunavut Staff, Kugluktuk, November 7, 2024, pers. comm.; RCMP, Kugaaruk, October 29, 2024, pers. comm.). Kitikmeot community members, including Elders, shared concerns that the construction of roads can bring drugs to communities and regions (GBRP 2025; Community Elder, Cambridge Bay, November 3, 2024, pers. comm.; RCMP, Kugaaruk, October 29, 2024, pers. comm.). Some residents also shared that trafficking alcohol and drugs into Kitikmeot communities may be accomplished through transporting substances on flights, including by out-of-region workers, and using air freight (RCMP, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). One community member in Cambridge Bay shared how construction of projects can increase the availability of drugs in the community:

> *Even in Cambridge Bay, when there's construction season here, there will be more proliferation of drugs, street drugs, through the migrant construction crews* (Nunavut Housing Corporation, Cambridge Bay, November 6, 2024, pers. comm.).

Additionally, increases in disposable income as a result of Project employment could contribute to increased alcohol and drug use. Drugs and alcohol are associated with crime and gender-based violence in Nunavut (Pauktuutit 2020). One community member described the effect of employment in resource development projects in the Kitikmeot Region and related income on substance use by some individuals and associated issues in Kugluktuk:

> *So you've got a lot of money coming in, you've got a lot of people, which is not always a good thing, because that brings in drugs and alcohol, higher volumes of that and some issues* (Kikiak Contracting, Kugluktuk, November 9, 2024, pers. comm.).

26.3.7.2 Mitigation, Management, and Enhancement Measures

WKR will implement the following mitigation, management, and enhancement measures during Project Construction and Operations and Maintenance phases to reduce potential adverse effects on community and personal safety in the LAA.

- WKR will develop and implement a No Drug and Alcohol Policy, including personnel and baggage screening procedures, which will apply to all personnel and contractors onsite, at work camps, and during transit through communities.
- WKR will develop and implement a Travel Policy in the event that personnel transiting to/from the Project site are weathered-in, in a community. The Travel Policy will include plans for accommodation, meals, use of community health and medical services, and other needs for personnel during travel delays.
- WKR will develop and implement cultural awareness and sensitivity training for all long-term personnel and contractors.
- WKR will develop and implement an Employee Code of Conduct that includes no-discrimination, bullying, and harassment in the workplace policy and relevant training.
- WRK will develop and implement anti-harassment and violence in the workplace policies, procedures and training.
- Security personnel and access control will be provided at the Project site.
- WKR will develop and implement a Community Engagement Plan to receive and address community suggestions, concerns, and complaints.
- WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

26.3.7.3 Project Residual Effect

The Project may adversely affect community and personal safety as a result of working conditions (i.e., FIFO rotational shiftwork at camp accommodations), increased movement of workers that transit through the LAA communities and Project-related employment and income.

The Project may adversely affect personal safety as a result of working conditions. During rotational shiftwork and at camp accommodations, workers may be subjected to racism, harassment, bullying, and violence on-site. During primary research, residents of the LAA shared their experiences working at remote mining sites in the Kitikmeot Region, saying that while incidences of racism are not common at site, they do occur (Community Member, Kugaaruk, November 1, 2024, pers. comm.; Community member, Taloyoak, November 20, 2024, pers. comm.). One community member who works at a remote mining site in the Kitikmeot Region shared:

> *You don't see it often, but once in a while, you'll see something […] nothing serious, just, you know, harassment, mainly. There's also racism […] Most of the time, my experience has been good, but there's been a few times I've seen racism or experienced it. Both ways, actually. So you know, Indigenous being racist to white people or white people being racist to Indigenous. It goes*

> *both ways. It doesn't just go one way. I've seen it happen both ways, yeah? But, you know, it's not common* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

WKR will provide cultural awareness and sensitivity training to all long-term personnel and contractors, which is expected to enhance intercultural awareness and sensitivity among workers and is intended to reduce adverse effects on personal safety for employees. The Employee Code of Conduct will set standards of behaviour regarding discrimination, bullying, and harassment in the workplace that workers and contractors will be expected to follow; failure to adhere to the Employee Code of Conduct may result in disciplinary actions. To promote personal safety at work camps, WKR will develop and implement anti-harassment and violence in the workplace polices, procedures and training. WKR will also develop mechanisms to receive and address concerns and complaints, including relating to personal safety at site.

Such mitigation and management measures have proven effective at other worksites. For example, the same community member quoted above also stated that when incidences such as racism and harassment are reported to on-site management at remote mining sites, they can be dealt with effectively:

> *Usually, because you're [at] a remote site for extended periods of time, you don't want to deal with a person like that, yeah? So, like I said, they kind of weed the person out, you know, "Hey, we don't want you here. You don't belong. If you're gonna have this attitude, you know, just leave," yeah? Or, you know, the company will fire them. So, you know, grievances. Reporting, I've seen it work very well* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

The Project may adversely affect community safety through the movement of workers through the Kitikmeot Region. During Construction, 200-500 workers will be required per year and it is anticipated the majority of direct labour during Construction will likely come from outside the five Kitikmeot communities. Out-of-region workers will transit through Yellowknife on their way to and from the camps and are not expected to be in Yellowknife for extended periods The interaction of workers in local communities may contribute to changes to real and perceived community safety. WKR will develop and implement a Travel Policy in the event that personnel transiting to/from the Project site are weathered-in, in a community and includes plans for accommodation, meals, use of community health and medical services, and other needs for personnel during travel delays. WKR will also provide employees with clear information regarding expectations for respectful conduct and develop applicable company policies. Through the implementation of these measures, the potential for adverse changes in community safety due to the interaction of workers during transit will be reduced.

The transportation of workers to/from the Project site may enable alcohol and drug trafficking into Kitikmeot communities and to the camp site, which can affect community safety. Although there are various restrictions on alcohol in place for Kitikmeot communities (Table 26.4), out-of-region workers may traffic alcohol and drugs to site, where local workers then may transport it to Kitikmeot communities (RCMP, Gjoa Haven, November 14, 2024, pers. comm.; Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.). For instance, Gjoa Haven RCMP stated:

> *"…people that are flying in and out on a regular basis, then that opens up a new pathway for alcohol to get into the community"* (RCMP, Gjoa Haven, November 14, 2024, pers. comm.)

The Kitikmeot Regional Health Centre stated:

> *"The harder drugs, yeah, come and they go down to Yellowknife and get a bunch of cocaine and bring it up here in their carry on. So I think, I seriously think they should be starting to screen carry-ons when they come up here, and they need to police the liquor coming in, you know, and who's selling it"* (Kitikmeot Regional Health Centre, Cambridge Bay, November 6, 2024, pers. comm.)

As described in Section 26.3.5, the Project may affect coping mechanisms used by residents of the LAA, including as a result of Project-related employment and income. Alcohol and drugs are associated with changes in community and personal safety, including increased crime and gender-based violence in Nunavut (Pauktuutit 2020). For example, the majority of RCMP calls in Kugluktuk are related to alcohol abuse, indicating a link between alcohol use, RCMP calls, and community and personal safety:

> *It's mostly alcohol related. When the alcohol gets delivered, we immediately feel it. I want to say maybe 50 to 55% of calls are probably alcohol related, in some sort of way* (RCMP, Kugluktuk, November 8, 2024, pers. comm.).

To reduce adverse effects on community safety, WKR will develop and implement a Drug and Alcohol Policy which applies to all personnel and contractors on-site and at work camps. Additionally, WKR will implement screening procedures for workers' checked and carry-on luggage for alcohol and other substances that may be brought on-site. These measures are expected to reduce perceived and actual concerns of workers bringing substances into the communities in the LAA and changes to community safety. As described, in Section 26.3.5.3, WKR will also develop and implement a workplace health promotion program, which includes access to an EFAP and an IEAP to support worker health and well-being. Through the EFAP, workers and their family members will have access to temporary counselling support related to a variety of topics, including substance use.

Project Construction will increase land- and marine-based infrastructure available for use in the Kitikmeot Region. Through community-based primary research, some residents shared their concerns that drugs and alcohol could be transported to the LAA communities and Kitikmeot Region using Project infrastructure. For example, Elders in Cambridge Bay, Taloyoak, and Kugaaruk shared examples of how the construction of all-season roads in NT increased the transportation of drugs and alcohol to road-connected communities (GBRP 2025; Community Elder, Cambridge Bay, November 3, 2024, pers. comm.; Community Elder, Kugaaruk, October 30, 2024, pers. comm.). An RCMP officer in Kugluktuk also shared concerns that increased access to the Kitikmeot Region by road and sea as a result of the Project could increase the transportation of drugs and alcohol to the LAA communities:

> *In Northwest Territories, the most northern communities, when they got the roads, they got an influx of drugs, alcohol and all those because it was easily accessible, easier to access. Would there be a boat that comes every week or every second week? If that's the case, then maybe it'll impact the community here, because there's going to be more alcohol and drugs being brought in. It all depends on how accessible Kugluktuk becomes. So, if that road makes it so that there's a boat every week, I think there will probably be an increase in in terms of substance. But it's hard to say* (RCMP, Kugluktuk, November 8, 2024, pers. comm.).

During engagement for a previous project, the Tłı̨chǫ Government expressed concern that an all-season access road would increase the use of drugs and alcohol in the community (Tłı̨chǫ Government 2017). Following construction of an all-season road to the Tłı̨chǫ community of Whatì, the availability and use of drugs and alcohol in the community increased substantially (Jones 2025).

Through construction of the Project, Yellowknife will be connected to Grays Bay Road and Grays Bay Port through the Tibbitt to Contwoyto Winter Road (TCWR) and annual construction of a winter road that connects the TCWR to Jericho Station. Access to Grays Bay Road and Grays Bay Port from Yellowknife would be limited to the winter road season. Access to Grays Bay Road will be further controlled and monitored by WKR at both the Grays Bay Port and Jericho Station. This will limit the transportation of drugs and alcohol to the LAA using Project infrastructure. Furthermore, the Grays Bay Road will not be physically connected to any communities in the Kitikmeot Region, which is also expected to limit the transportation of drugs and alcohol to Kitikmeot communities.

26.3.7.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Adverse changes to personal and community safety may disproportionately affect certain sub-populations identified through GBA Plus. Indigenous women and 2SLGBTQQIA+ populations may be subjected to greater harassment, gender-based violence, and physical violence in a male-dominated workforce. WKR will develop and implement a Worker Code of Conduct that includes an anti-discrimination, bullying and harassment in the workplace policy and relevant training.

Adverse changes in personal and community safety as a result of increased availability and use of drugs and alcohol may affect any sub-population, although women, Inuit and Indigenous women and girls, and the 2SLGBTQQIA+ population may be disproportionately affected by gender-based violence. Drugs and alcohol are associated with crime and gender-based violence in Nunavut and evidence shows these sub-populations are most vulnerable to violence due to intergenerational trauma combined with drug and alcohol misuse (Pauktuutit 2020). WKR will implement a Drug and Alcohol Policy and screening procedures, and provide access to an EFAP and an IEAP, to reduce effects on personal and community safety as a result of increased availability and use of drugs and alcohol in the LAA.

26.3.8 Change in Health from Exposure to Pollutants and Hazards

The assessment of Project effects on change in health from exposure to pollutants and hazards is based upon the conclusions described in the Human Health and Ecological Risk Assessment Report (Appendix 26A). Technical details regarding the assessment methods and data sources are discussed in Appendix 26A. A summary of the report conclusions is presented here.

26.3.8.1 Project Effects Pathways

The Human Health and Ecological Risk Assessment Report (Appendix 26A) identifies potential human receptors that could be exposed to Project-related environmental pollutants and noise during the Construction and Operations and Maintenance phases. The potential human receptors include off-duty workers residing at the accommodation camps at Grays Bay Port and Jericho Station, individuals present at the Ulu Gold and High Lake Gold mining exploration camps, residents of the five hamlets in the Kitikmeot region (Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, and Kugaaruk), and Inuit, Indigenous, and Community country food harvesters.

Based on the air quality and noise modelling results, exposure to air pollutants at levels relevant to human health are limited to within four km of the PDA, while noise levels relevant to health are limited to within one km of the PDA. The human receptors with the greatest potential for exposure are off-duty workers residing at the Grays Bay Port and Jericho Station accommodation camps. Inuit, Indigenous, and Community country food harvesters within four km of the PDA would experience a lower degree of exposure. Beyond four km of the PDA, air pollutant concentrations and noise levels are of negligible magnitude because they are below the minimum threshold (i.e., below health-based guidelines) to constitute an adverse health effect in the context of potential health effects to people. Therefore, the assessment of potential changes in health risk from exposure to air pollutants and noise focuses on off-duty workers at the accommodation camps, as concentrations of contaminants of potential concern and noise levels are expected to attenuate with increasing distance from Project activities due to dispersion.

The Human Health and Ecological Risk Assessment Report (Appendix 26A) also includes an evaluation of the potential changes in health risk from exposure to Project-related pollutants in soil, surface water, groundwater, and traditional country foods. These exposure pathways were characterized as *inoperable pathways*, meaning that one or more of the requirements for health risk were absent. For these pathways, there were no identified chemicals of potential concern from the Project, and therefore, no pathway to affect human health.

26.3.8.2 Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures proposed in the Air Quality VC (Section 11) and the Noise and Vibration VC (Volume 5, Section 13) have been incorporated into the Project design and were implemented in the air quality and acoustic modelling. These measures include, for example, the use of low-sulphur fuels, the installation of emission stacks on diesel generators with a height of approximately 8 m to enhance the dispersion of air pollutants, and the application of management protocols to reduce unnecessary vehicle idling, which in turn reduces air pollutant and noise emissions. With these measures in place, predicted air pollutant concentrations and noise levels at the accommodation camps and beyond the PDA are not expected to result in adverse effects on human health. The proposed mitigation, management, and enhancement measures identified in these VCs are therefore considered sufficient to address potential human health risks associated with exposure to Project-related air pollutants and noise.

26.3.8.3 Project Residual Effect

Project Residual Effects (Air Quality and Health)

In the Human Health and Ecological Risk Assessment Report (Appendix 26A), modelled air quality for the worst-case Project phase (Construction phase) was compared to health-based screening criteria. These include the World Health Organization (WHO) Air Quality Guidelines (AQG) (WHO 2021), and reference concentrations from Health Canada (Health Canada 2016a,b) to identify chemicals of potential concern related to air quality and health. This comparison identified nitrogen dioxide (NO_2) and fine particulate matter ($PM_{2.5}$) as chemicals of potential concern.

The modeled air quality results for the worst-case scenario also indicate that dispersion of air pollutants is localized, with concentrations relevant to adverse health effects largely restricted within four km of the PDA. For this reason, human receptors for potential health effects from air pollutants are off-duty workers at the accommodation camps, particularly at Grays Bay Port which has a higher air pollutant emission inventory relative to Jericho Station. Inuit, Indigenous, and Community country food harvesters within four km of the PDA would experience a lower degree of exposure than people at the accommodation camps as air pollutants dissipate with increasing distance from the emission sources. Other potential human receptors such as people at the High Lake and Ulu Gold mining exploration camps (43 km and 100 km from Grays Bay Port, respectively, and 1,000 m from the Grays Bay Road), residents of the five hamlets in the Kitikmeot region, and Inuit, Indigenous, and Community country food harvesters further than four km from the PDA, are located beyond the extent of air quality effects.

The human health ecological risk assessment considered potential exposures to NO_2 and $PM_{2.5}$ for off-duty workers at the Grays Bay accommodation camp with permanent accommodations for approximately 80 workers, with an additional surge capacity of up to approximately 150. During the peak construction year (Year 3), elevated NO_2 concentrations above the WHO AQG are estimated to occur for up to 40% of the year. However, both the magnitude and frequency of these concentrations are likely overestimated due to conservative modeling assumptions, including the assumption of continuous operation of equipment and vehicles for 24 hours per day throughout the construction period.

Modeled NO_2 concentrations suggest that sensitive individuals with pre-existing respiratory conditions could experience mild, transient effects such as airway irritation, coughing, or shortness of breath. These effects are generally reversible, do not require hospitalization, and are not considered serious. If worker fly-in/fly-out rotational schedules are taken into account, where specific trades and specialized personnel are on-site for several weeks to a few months at a time, the potential effect to an individual worker with an existing respiratory health condition would be small. Non-sensitive adult workers, who are anticipated to comprise the majority of the camp population, are unlikely to experience noticeable effects.

Similarly, modeled $PM_{2.5}$ concentrations indicate that any respiratory effects would be minor, temporary, and limited to health-sensitive individuals. Such effects are expected for only 4 days per year, while concentrations remain below WHO AQG levels for approximately 98% of the year. If the overestimation of emissions in the model is accounted for, $PM_{2.5}$ concentrations would likely remain below the WHO AQG for the entire Construction and Operations and Maintenance phases.

Overall, short-term exposures to NO_2 and $PM_{2.5}$ at the accommodation camp are expected to pose minimal health risks. Any effects are mild, temporary, and primarily limited to a small subset of sensitive individuals, and no long-term or serious respiratory outcomes are anticipated under the modeled conditions.

When the modelled NO_2 and $PM_{2.5}$ concentrations are compared to Health Canada's Air Quality Health Index (AQHI), Project-related effects to air quality under the worst-case scenario (Year 3) are expected to fall within the following categories at the accommodation camp:

- Low Risk (AQHI ranking 1 to 3) for 93% of the year - At risk and general populations can enjoy outdoor activities
- Moderate Risk (AQHI ranking 4 to 6) for up to 7% of the year - At risk populations should consider reducing or rescheduling strenuous activities outdoors if experiencing symptoms. The general population does not need to modify outdoor activities unless experiencing symptoms such as coughing and throat irritation.
- High Risk (AQHI ranking 7 to 10) may occur less than 0.01% of the year - At risk populations should reduce or reschedule strenuous outdoor activities. Children and the elderly should take it easy. The general population should consider reducing or rescheduling strenuous activities outdoors if experiencing symptoms such as coughing and throat irritation.
- Very High Risk (AQHI ranking 10+) is not expected to occur – At risk populations should avoid outdoor activities. The general population should reduce or reschedule strenuous outdoor activities if experiencing symptoms such as coughing and throat irritation. These conditions are typically the result of wildfire smoke.

Based on the AQHI category definition, the off-duty workers at the accommodation camps do not need to adjust their outdoor behavior and can enjoy outdoor activities. At risk populations, such as people with existing respiratory conditions (e.g., asthma, chronic obstructive pulmonary disorder) should consider reducing or rescheduling outdoor activities if they are experiencing respiratory symptoms (e.g., coughing, irritation of the mucous membranes). Beyond the PDA, the air quality is expected to remain within the Low-Risk category throughout the year, such that the health risk to Inuit, Indigenous, and Community country food harvesters within four km of the PDA is negligible.

Project Residual Effects (Noise and Health)

The assessment of potential health effects from noise characterized how Project-related noise during the Construction and Operations and Maintenance phases could affect off-duty workers living at the Grays Bay Port and Jericho Station accommodation camps and Ulu Gold Project and High Lake Gold Project exploration camps.

- Modelled noise levels presented in Table 26.6 show a small incremental increase relative to baseline noise conditions. The highest noise levels were modelled at the Grays Bay accommodation camp during the Operation and Maintenance phase, increasing from 47.3 decibels (dBA) under baseline conditions to 55.8 dBA. When this noise level is converted into annoyance rates, it increases from 1.5% highly annoyed (%HA) to 4.6 %HA. This means that the incremental increase in the %HA is 3.1%, which is well below the acceptable incremental increase of 6.5 %HA. Off-duty workers at the Grays Bay accommodation camp are not expected to experience meaningful increases in noise-related annoyance. This conclusion would also extend to off-duty workers at the Jericho Station accommodation camp, the mining exploration camps, and to Inuit, Indigenous, and Community country food harvesters, who would be located further away from Project activities, with both a lower exposure to the magnitude and duration of Project noises.

Table 26.6 Noise Levels and Annoyance Rates

Human Receptor Location	Noise Levels and Annoyance Rates							
	Baseline (w/ wind)		Construction			Operation & Maintenance		
	L_{dn} (dBA)	%HA	L_{dn} (dBA)	%HA	Change in %HA	L_{dn} (dBA)	%HA	Change in %HA
Grays Bay Camp	47.3	1.5%	55.6	4.5%	+ 3.0%	55.8	4.6%	+ 3.1%
Jericho Station Camp	43.2	0.9%	45.5	1.2%	+ 0.3%	45.1	1.2%	+ 0.3%
Ulu Gold Camp	-	-	45.9	1.3%	+ 1.3%	44.9	1.1%	+ 1.1%
High Lake Camp	-	-	46.2	1.3%	+ 1.3%	44.9	1.1%	+ 1.1%

Note:
Annoyance threshold for Change in %HA is +6.5%

Modelled noise levels presented in Table 26.7 are used to determine whether Project noises could disturb sleep for off-duty workers. This assessment considered both daytime and nighttime noises, since construction and operation activities are expected to take place 24 hours a day. Therefore, night-shift workers would be sleeping during daytime hours. The modelled outdoor noise levels were adjusted to reflect what people would hear inside their rooms, assuming that worker accommodation rooms either have no windows or that windows are closed. Average indoor noise levels at the Grays Bay Port and Jericho Station accommodation camps were below the sleep disturbance noise limit of 30 dBA, and the loudest short-term noise events were also below the limit of 60 dBA that could cause repeated awakenings while sleeping.

Table 26.7 Noise Levels and Sleep Disturbance

Human Receptor Location	Noise Levels (dBA)					
	Outdoor		Outdoor to Indoor Transmission Loss (dB)	Indoor		
	L_d or L_n (dBA)	L_{MAX} (dBA)		L_d or L_n (dBA)	L_{MAX} (dBA)	Exceed Sleep Disturbance Limits
Construction						
Grays Bay Port Camp	49.8	55.9	27	22.8	28.9	No
Jericho Station Camp	47.2	52.9	27	20.2	25.9	No
Ulu Gold Camp	40.1	41.8	27	13.1	14.8	No
High Lake Camp	31.8	38.8	27	4.8	11.8	No
Operation & Maintenance						
Grays Bay Port Camp	49.4	54.8	27	22.4	27.8	No
Jericho Station Camp	36.4	52.9	27	9.4	25.9	No
Ulu Gold Camp	37.0	41.1	27	10.0	14.1	No
High Lake Camp	28.4	36.0	27	1.4	19.0	No

Notes:
Sleep disturbance threshold is an indoor sound level no more than 30 dBA during the sleep period.
L_{MAX} sleep disturbance threshold is 60 dBA that should not be exceeded more than 15 times per night.

Both the annoyance and sleep disturbance assessments showed that Project-related noise is not expected to affect people's overall annoyance rate or their ability to sleep. This conclusion extends to the accommodation camps, exploration camps, and potential country food harvesting locations that were considered in the health assessment.

26.3.8.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

A GBA Plus perspective helps consider whether differences in biological characteristics, social roles, occupational patterns, and living conditions could influence exposure to, or health responses from, Project-related air quality and noise. In the context of this Project, the human receptors with the highest exposures are adult workers residing temporarily at an accommodation camp, with no children, seniors, or other age-sensitive populations present. As a result, differences in exposure related to age, caregiving roles, housing conditions, or time spent in residential environments, which are often central to GBA Plus considerations, do not apply.

From a biological perspective, there may be modest differences in respiratory responses or noise annoyance between males and females; however, these differences do not translate into distinct or separate health endpoints. Importantly, existing health-based air quality guidelines and noise criteria are designed to be protective of the general population and do not differentiate by sex or gender. Adverse effects associated with air pollutants and noise, such as mild respiratory irritation or sleep disturbance, are therefore expected to be similar across genders at comparable exposure levels.

Overall, the assessment indicates that Project-related air quality and noise effects do not disproportionately affect any gender-based group. Health sensitivities are more strongly associated with factors such as pre-existing respiratory conditions or individual susceptibility rather than gender. While the population most likely to be exposed consists primarily of men, reflecting the anticipated gender distribution of workers residing at the accommodation camps, this exposure pattern does not imply a difference in health response. Individuals of any gender located in the same environment would be expected to experience comparable potential health effects. Consequently, the Project is not expected to result in differential health outcomes for men, women, or gender-diverse individuals, and no gender-specific mitigation measures are required with respect to air quality or noise.

26.3.9 Summary of Project Residual Effects

With the implementation of mitigation, management and enhancement measures, residual effects of the Project on Community Health and Well-being are anticipated to be both positive and adverse. Positive residual effects are not characterized further. Table 26.8 summarizes adverse residual effects of the Project on Community Health & Well-being.

Change in Health Infrastructure and Services

With the implementation of mitigation, management, and enhancement measures, residual effects on access to health infrastructure and services are expected to be both positive and adverse. Positive residual effects may occur through revenue, taxes, and funding that could enable governments to direct funds to support health and social resourcing and programming, including health infrastructure and services. Positive residual effects are not characterized further.

Adverse residual effects are anticipated to be low in magnitude as increased demand on capacity of health infrastructure and services would be at or near to baseline conditions and standards of service are unlikely to be affected through alternate and contingency planning. Residual effects are anticipated to occur in the LAA, be long-term in duration, occur as multiple, irregular events, and are irreversible given the perpetuity of the Project, however, once Construction is complete, there is anticipated to be a reduced workforce during Operations which will further reduce potential changes in health infrastructure and services. Timing is not applicable.

Table 26.8 Project Interactions with Community Health & Well-being

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in access to health infrastructure and services	C, O	P*/A	L	LAA	NS	LT	MIR	I
Change in rates of communicable diseases	C, O	A	L-M	LAA	MS	LT	MIR	I
Change in mental health, emotional health and coping mechanisms	C, O	P*/A	M	LAA	NS	LT	MIR	I
Change in family and community dynamics and cohesion	C, O	P*/A	M	LAA	NS	ST-LT	MIR	I
Change in community and personal safety	C, O	A	M	LAA	NS	LT	MIR	I
Change in health from exposure to pollutants and hazards	C, O	A	L	LAA**	NS	LT	R	I

Key:

See Table 26.2 for detailed definitions

Project Phase:
C: Construction
O: Operations and Maintenance

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
MIR: Multiple Irregular event
MR: Multiple Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Notes:

* Positive residual effects are not characterized further.

** The LAA for change in health applies the Air Quality LAA (30 km by 30 km model domain centered on Grays Bay Port) for health effects from exposure to air pollutants, and the Noise and Vibration LAA (1.5 km zone within the PDA) for health effects from exposure to noise.

Change in Communicable Diseases

With the application of mitigation, management and enhancement measures, residual effects on rates of communicable diseases are expected to be adverse and low to moderate in magnitude. In the event that spread of communicable diseases is limited to individuals working at site, magnitude is expected to be low and maintains near baseline conditions. Magnitude may be moderate if communicable diseases are transmitted to other individuals and households in the LAA. It is unlikely that an entire community would become infected.

Timing of change in rates of communicable disease is moderately sensitive because some diseases are more prevalent during the winter, such as the flu, while others are not as seasonally dependent, such as sexually transmitted infections. Shift change is another timing factor that may influence this effect. The duration is long-term because effects are expected during Construction and Operations and Maintenance phases due to accommodation of the Project workforce in camp settings. Communicable disease transmission may occur at any time, with no set schedule (irregular events). Residual effects on rates of communicable disease are expected to be irreversible given the perpetuity of the Project, however, once Construction is complete, there is anticipated to be a reduced workforce during Operations which will further reduce potential changes in communicable disease transmission.

Change in Mental Health, Emotional Health, and Coping Mechanisms

With the implementation of mitigation, management, and enhancement measures, residual effects on mental health, emotional health, and coping mechanisms are expected to be both positive and adverse. Positive residual effects may occur through Project-related employment and income advancement, which can alleviate financial pressures, improve other determinants of health and well-being, and improve mental and emotional health. Positive residual effects are not characterized further.

Adverse residual effects are anticipated to be moderate in magnitude as changes to mental and emotional health and coping mechanisms may affect both individuals employed on the Project and their families, thereby extending to the household level and go beyond baseline conditions. Residual effects are anticipated to occur in the LAA. Residual effects are expected to occur over the long-term because the primary cause of changes to mental and emotional health and coping mechanisms is related to Project income and working conditions. Residual effects may occur as multiple irregular events and are irreversible given the perpetuity of the Project, however, once Construction is complete, there is anticipated to be a reduced workforce during Operations which will further reduce potential changes in mental health, emotion health and coping mechanisms. Changes to mental and emotional health related to working conditions will likely be reversible following the end of employment on the Project; however, substance use-related effects may continue due to their addictive nature. Timing is not applicable.

Change in Family Dynamics and Community Cohesion

With the implementation of mitigation, management, and enhancement measures, residual effects on family dynamics and community cohesion are expected to be both positive and adverse. Positive residual effects may occur through Project-related employment and income advancement, which can alleviate financial pressures, improve other determinants of health and well-being, and improve family dynamics. Positive effects are not characterized further.

Adverse residual effects are expected to be moderate in magnitude because effects extend into the household level which could go beyond baseline conditions. Duration will range from short- to long-term, depending on how long workers remain employed with the Project. Effects are anticipated to occur as multiple irregular events, aligning with worker rotations and seasonal activity. Some effects, such as disruptions to caregiving, are irreversible given the perpetuity of the Project.

Change in Community and Personal Safety

With the implementation of proposed mitigation, management, and enhancement measures, residual effects on community and personal safety are expected to be adverse and moderate in magnitude because actual or perceived safety-related concerns or incidents may be experienced by individuals at the Project site or multiple individuals in communities in the LAA through the potential trafficking of substances, although concerns are not likely to be experienced by all members of a community. Residual effects may occur during both Construction and Operations and Maintenance phases. The frequency of effects may be multiple irregular events, because of the unpredictable nature of events that affect community and personal safety. Effects are irreversible given the perpetuity of the Project, however, once Construction is complete, there is anticipated to be a reduced workforce during Operations which will further reduce potential changes in community and personal safety.

Change in Health from Exposure to Pollutants and Hazards

Residual effects to health from exposure to air pollutants and noise are expected to extend throughout the Construction and Operations and Maintenance phases. The direction of the effect is adverse, with a low magnitude. The low magnitude rating is based on the low exposure concentration of nitrogen dioxide and fine particulate matter. The low magnitude rating is also based on modelled noise levels which are below the annoyance and sleep disturbance thresholds. The geographic extent of these effects are within the LAA (i.e., the LAA for the Air Quality VC and Noise and Vibration VC). The timing characterization is not applicable, as there is no time sensitivity to the health risk. The duration of effect is long-term, spanning the entire construction and operation period. The frequency of effect is regularly occurring as emissions of air pollutants and noise take place at all times. The potential effect is characterized as irreversible, as the Project will be operating in perpetuity. Although air pollutants and noise typically dissipate within a relatively short period once an emission source ceases, these emissions would be repeated over the operational life of the Project, which is an indefinite period.

26.3.10 Transboundary Effects

An assessment of the potential for transboundary effects on community health and well-being is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

26.3.11 Effects of Climate Change on Community Health & Well-being

In the absence of the Project, environmental conditions are projected to continue changing (due to climate change) in ways that undermine community health and well-being. It is known that due to climate change, sea ice extent is declining, the Arctic Ocean is warming and acidifying, and permafrost temperatures are increasing (Meredith et al. 2019). As climate change continues to affect hydrological systems, increase wildfire risk, and the frequency and severity of abrupt thaw events (Meredith et al. 2019), social-ecological systems change is inevitable. The interactions between baseline community health and well-being conditions and climate change are dependent upon complex socio-ecological systems, making potential effects difficult to predict and characterize. The National Inuit Climate Change Strategy (Meredith et al. 2019), supports this claim, stating that social and health related challenges will be intensified due to climate change. The *Intergovernmental Panel on Climate Change Special Report on the Ocean and Cryosphere in a Changing Climate* (Meredith et al. 2019) report states that,

> "*The polar regions will be profoundly different in future compared with today, and the degree and nature of that difference will depend strongly on the rate and magnitude of global climatic change."*

Changes to environmental conditions are not likely to alter the conclusions of the effects assessment of community health and well-being due to the Project. While potential pathways of effects related to climate change will not be explored in depth for each potential Project effect, notable pathways of effect are summarized below.

Climate-induced changes such as permafrost thaw may affect human infrastructure, including health infrastructure and air transportation infrastructure, in communities in the LAA. This could affect access to health infrastructure and services, including medevac services for residents of the LAA (Meredith et al. 2019).

Climate change may have adverse effects on mental health, emotional health, and coping mechanisms, including through climate anxiety and solastalgia, the sense of loss and emotional distress resulting from adverse environmental change. Through changes to Inuit cultural practices that are interconnected to the environment (e.g., harvesting and country food consumption), climate change may have adverse effects on family dynamics and community cohesion.

Climate-induced reductions in sea ice and associated increases in shipping activity, including tourism, in the Arctic Ocean may increase the movement of people in the LAA, which may affect the rates of communicable disease or community and personal safety.

Climate change is not expected to meaningfully influence potential human health risks associated with Project-related pollutants or hazards. The primary pathway of human exposure to project-related air pollutants is through emissions generated by Project vehicles and equipment operating near the accommodation camps and exploration camps. These exposures occur only in the immediate vicinity of emission sources. Air quality and acoustic modelling show that pollutant concentrations and noise levels decline rapidly with distance and do not disperse far beyond the active work areas. Given this context, climate change does not alter the amount or type of emissions produced by the Project. While climate

change may influence the broader regional meteorological patterns, any climate-driven changes in atmospheric dispersion would be negligible compared to the localized influence of near-field emissions.

26.4 Assessment of Cumulative Effects

26.4.1 Project Residual Effects Likely to Interact Cumulatively

Table 1 in Volume 4, Appendix 9A, presents the Project inclusion list (PIL) which identifies other projects and physical activities that might act cumulatively with the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 26.9), a cumulative effects assessment is carried out.

Table 26.9 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Past						
Bathurst Inlet	✓	✓	✓	✓	✓	-
Omingmaktok	✓	✓	✓	✓	✓	-
Snap Lake Mine	✓	✓	✓	✓	✓	-
Present						
Arcadia Bay Project	✓	✓	✓	✓	✓	-
B2Gold George Property	✓	✓	✓	✓	✓	-
B2Gold Marine Laydown Area	✓	✓	✓	✓	✓	-
Bulk Carriers	✓	✓	-	-	-	✓
Cambridge Bay	✓	✓	✓	✓	✓	-
Chuk and Fire Shear Blocks	✓	✓	✓	✓	✓	-
Commercial Cargo	✓	✓	-	-	-	✓
Commercial and Domestic Harvesting	✓	✓	✓	✓	✓	✓
Coppermine Project	✓	✓	✓	✓	✓	-
Coppermine River Project	✓	✓	✓	✓	✓	-

Physical Activities	Effects					
	Change in access to health infrastructure and services	Change in rates of communicable diseases	Change in mental health, emotional health and coping mechanisms	Change in family and community dynamics and cohesion	Change in community and personal safety	Change in health from exposure to pollutants and hazards
Diavik Diamond Mine	✓	✓	✓	✓	✓	-
Ekati Diamond Mine	✓	✓	✓	✓	✓	-
Epworth Project	✓	✓	✓	✓	✓	-
Fishing Vessels	✓	✓	-	-	-	✓
Gahcho Kué Diamond Mine	✓	✓	✓	✓	✓	-
Goose Mine	✓	✓	✓	✓	✓	-
Hackett River Project	✓	✓	✓	✓	✓	-
High Lake (Izok Corridor Project)	✓	✓	✓	✓	✓	-
High Lake East	✓	✓	✓	✓	✓	-
Hood River Gold Project	✓	✓	✓	✓	✓	-
Hope Bay Project	✓	✓	✓	✓	✓	-
Hydroelectric	✓	✓	-	-	-	-
Icebreakers	✓	✓	-	-	-	✓
Itchen Lake Property	✓	✓	✓	✓	✓	-
Izok Lake (Izok Corridor Project)	✓	✓	✓	✓	✓	-
Jericho Mine	✓	✓	✓	✓	✓	-
Kennady North - Exploration	✓	✓	✓	✓	✓	-
Kugluktuk	✓	✓	✓	✓	✓	-
Lupin Mine	✓	✓	✓	✓	✓	-
Muskox Nickel Property	✓	✓	✓	✓	✓	-
Nunavut Community Infrastructure	✓	✓	✓	✓	✓	-
NWT Community Infrastructure	✓	✓	✓	✓	✓	-
Overflights	✓	✓	✓	✓	✓	✓

Physical Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Passenger Ships and Pleasure Craft	✓	✓	✓	✓	✓	✓
Pistol Lake Project	✓	✓	✓	✓	✓	-
Rae Copper Exploration Project	✓	✓	✓	✓	✓	-
Rockinghorse (Koamaogaktok) Project	✓	✓	✓	✓	✓	-
Roma Project	✓	✓	✓	✓	✓	-
Scientific Research	✓	✓	✓	✓	✓	-
South Kitikmeot Gold Project	✓	✓	✓	✓	✓	-
Tanker Ships	✓	✓	-	-	-	✓
Tibbitt to Contwoyto Winter Road	✓	✓	✓	✓	✓	-
Tourism	✓	✓	✓	✓	✓	✓
Tree River Lodge	✓	✓	✓	✓	✓	-
TTMG Project	✓	✓	✓	✓	✓	-
Tugs/Barges	✓	✓	-	-	-	✓
Ulu Gold Project	✓	✓	✓	✓	✓	-
Wolf/Mistake Lake Property	✓	✓	✓	✓	✓	-
Yellowknife City Gold Project	✓	✓	✓	✓	✓	-
Past and Reasonably Foreseeable						
Indin Lake Gold Project	✓	✓	✓	✓	✓	-
Mon Mine	✓	✓	✓	✓	✓	-
Yellowknife Gold Project	✓	✓	✓	✓	✓	-

Physical Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
Project-Related Physical Activities						
Reasonably Foreseeable						
Arctic Economic and Security Corridor (AESC)	✓	✓	✓	✓	✓	-
Courageous Lake Mine	✓	✓	✓	✓	✓	-
NICO	✓	✓	✓	✓	✓	-
Reasonably Foreseeable Induced						
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion: Jericho	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port: Airstrip Expansion	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port: Road Traffic	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port: Port Traffic	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port: Air Traffic	✓	✓	✓	✓	✓	✓
Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border	✓	✓	✓	✓	✓	✓
Hackett River Project	✓	✓	✓	✓	✓	-
Hackett and Back River Access Road	✓	✓	✓	✓	✓	✓

Physical Activities	Effects					
	Change in access to health infrastructure and services	**Change in rates of communicable diseases**	**Change in mental health, emotional health and coping mechanisms**	**Change in family and community dynamics and cohesion**	**Change in community and personal safety**	**Change in health from exposure to pollutants and hazards**
High Lake Mine (Izok Corridor Project)	✓	✓	✓	✓	✓	✓
Izok Lake Mine (Izok Corridor Project)	✓	✓	✓	✓	✓	-
Izok Lake Access Road	✓	✓	✓	✓	✓	✓

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

Effects identified in Table 26.9 as not likely to interact cumulatively with residual effects of other projects and physical activities **(no check mark)** are briefly discussed below. The assessment of cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

Physical activities that are not anticipated to interact cumulatively with the Project on change in mental health, emotional health, and coping mechanisms, change in family and community dynamics and cohesion, and change in community and personal safety include bulk carriers, commercial cargo, fishing vessels, icebreakers, tanker ships, tugs/barges, and hydroelectric. These activities are not anticipated to interact with these effects because they do not employ community members from the RAA and the workforces of these vessels do not spend extended periods of time in the RAA communities.

26.4.2 Change in Access to Health Infrastructure and Services

26.4.2.1 Cumulative Effect Pathways

Table 26.10 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project on access to health infrastructure and services. Pathways identified in Section 26.3.4.1 apply to the assessment of cumulative effects on change in access to health infrastructure and services.

Some past and current physical activities included in the PIL facilitate access to health infrastructure and services. There was a health centre in the settlement of Omingmaktok and there were infrequent visits by GN health care staff to Bathurst Inlet and the provision of health services in this settlement is limited (Windeyer 2008). Presently, Nunavut community infrastructure (including community health centres) in the Kitikmeot communities (including Cambridge Bay and Kugluktuk), NT community infrastructure (including Stanton Territorial Hospital and other health infrastructure and services), airstrips, and

overflights (including scheduled commercial flights and chartered medical evacuation flights) support access to health infrastructure and services. Health services are provided to residents of NT and Kitikmeot residents through community health infrastructure in Kitikmeot communities and sometimes requires medical travel to Cambridge Bay, Yellowknife, or facilities in southern Canada.

All other present, reasonably foreseeable, and induced projects activities may increase demand on health infrastructure and services, including medical travel services, thereby affecting access to these services for residents of the RAA. Similarly, reasonably foreseeable physical activities that involve the employment of personnel, transport of personnel to project sites, and establishment and operation of work camps may adversely affect health infrastructure and services. Through increased demand for these services in communities in the RAA and increased demand on commercially scheduled flights, which are at times used for medical travel for residents of the RAA, demand for health infrastructure and services is anticipated to increase.

Present, reasonably foreseeable, and reasonably foreseeable induced projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project. Operation of the Back River Project, a gold mine that includes two main development areas with a winter ice road connecting the Goose Property with the Marine Laydown Area / Port located at Bathurst Inlet started in June 2025. The mine is projected to operate for at least 10 to 15 years. Associated mineral exploration is ongoing with the Back River Exploration Project by B2 Gold which involves two work camps at Goose Lake and George Lake. Mineral exploration is ongoing with the Ulu Gold Project which consists of the operation of a seasonal camp and Hackett River Exploration which involves an exploration camp at Hackett River. Linear developments also overlap spatially and temporally with Project, including the TCWR operates between January and early April.

There are several reasonably foreseeable projects, including reasonably foreseeable induced projects (i.e., future mines and access roads, expansion of the Grays Bay Road and Port) that could potentially overlap spatially and temporally with the Project. The Hackett River Mine is currently under NIRB review. It is a proposed base metal mine consisting of one underground and two open pits with an estimated life span of 15 years. The Hackett and Back River Access Road is proposed to be an approximately 260 km access road from the Grays Bay Road near the Jericho terminus to support two Hackett Mine exploration sites and the existing Back River project. Similarly, the High Lake project is a potential future base metal mine and milling project with both open pit and underground components which is under a paused NIRB review. The associated High Lake Access Road is proposed to be an all-season road from Grays Bay Road to the High Lake mine. Some of the reasonably foreseeable projects and reasonably foreseeable induced projects and activities listed in Table 26.9 may not proceed.

Some out-of-region workers may relocate to the RAA (e.g., Yellowknife) during construction and operation of projects and population growth may also increase demand on health infrastructure and services. Worker relocation to Kitikmeot communities is anticipated to be unlikely, for instance, for B2Gold Nunavut's Goose Mine, zero non-Inuit employees relocated into Nunavut in 2022, 2023 and 2024 (Jason Prno Consulting Services Ltd. 2025). However, the potential for some in-migration of local and out-of region workers to Yellowknife is acknowledged.

26.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The introduction of the proposed mitigation, management, and enhancement measures outlined in Section 26.3.3.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on changes in access to health infrastructure and services. The HMSP, which includes health promotion initiatives, and an HSSE Plan are intended to limit reliance on health infrastructure and services in the RAA by providing health and first aid services at the Project site. The HMSP includes protocols for medical emergencies response, including those requiring evacuation to access health infrastructure and services in communities in the RAA. A Socio-economic Monitoring Program will provide a mechanism to identify and respond to emerging pressures on community health infrastructure and service use. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative demands on health infrastructure and services.

26.4.2.3 Cumulative Effects

Cumulative effects on access to health infrastructure and services are anticipated to occur through increases in demand on health infrastructure and services in communities in the RAA. Health infrastructure and services in communities in the RAA have limited capacity to respond to existing demand due to staff shortages, lack of specialized services, and legacies of colonial underinvestment in Inuit and northern health infrastructure and services.

All other present and reasonably foreseeable projects and activities that involves the employment and transport of personnel through the RAA (e.g., mineral exploration, mines, tourism, scientific research, shipping) have the potential to increase demand on health infrastructure and services in communities in the RAA. The need for medical care may occur if personnel require medical care while they are in the region. For example, workers transiting through communities in the RAA or in the event of medical emergencies and non-emergency incidences may require care that cannot be addressed at the Project site. It is anticipated that all present and reasonably foreseeable projects will provide some level of medical and first-aid services to personnel. Projects that include the establishment and operation of work camps are anticipated to provide a greater degree of medical, first-aid, and employee assistance services to employees than activities such as tourism and scientific research that occurs in the RAA.

Increased demand on health infrastructure and services in the RAA may also occur through increased use of commercial flights to transport personnel to project sites. Medical travel is often necessary for residents of the Kitikmeot region and, at times, for residents of Yellowknife to facilities in southern Canada. The use of commercial airlines and increased use of airstrips for resupply planes for present and reasonably foreseeable projects will increase demand on existing capacity of air transportation service and infrastructure, which may affect the availability or timeliness of chartered medical evacuations and access to health services for some residents in the RAA. In the event that there is limited capacity on regularly scheduled commercial airlines to transport residents of the RAA to access health infrastructure and services outside of the RAA, it is anticipated that additional chartered flights will be employed for medical travel.

However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Back River Project, the Ulu Gold Project, and annual construction of the TCWR. Reasonably foreseeable projects, including the Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project. Proponents of present and reasonably foreseeable projects as well as the Project, that are permitted through the NIRB will be required to track and respond to unexpected pressures on health infrastructure and services through socio-economic monitoring programs.

Relocation of out-of-region workers is not anticipated to occur for the Project within Kitikmeot communities and Nunavut, however workers may choose to relocate to Yellowknife. For example, there were no employees who relocated into or out of Nunavut during construction of the Back River mine in 2023 (Jason Prno Consulting Services Ltd. 2024). Two employees relocated out of Nunavut during construction of the Back River mine in 2024 (Jason Prno Consulting Services Ltd. 2025). The Back River mine is located outside of communities in the RAA and employed rotational shiftwork for its construction. Relocation of out-of-region workers may occur for projects that are located close to Yellowknife (e.g., Yellowknife City Gold Project and associated, reasonably foreseeable induced exploration). Population growth as a result of present and reasonably foreseeable projects would increase demand on health infrastructure and services in Yellowknife, which provides services to NT patients as well as Kitikmeot residents.

Revenue, taxes, and funding from the Project and from past, present, and reasonably foreseeable projects will flow to the various governments (i.e., municipal, territorial and federal) in the RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support health and social service resourcing and programming, including health infrastructure and services.

Reasonably Foreseeable Induced

Increased demand on health infrastructure and services in the RAA may occur if reasonably foreseeable induced projects proceed. Increased demand may occur through increased use of commercial flights to transport personnel to project sites and community airstrips, which may affect the availability or timeliness of chartered medical evacuations and access to health services for some residents in the RAA. Increased demand may also occur if out-of-region workers relocate to communities in the RAA, particularly Yellowknife, during construction and operation of reasonably foreseeable induced projects, which would increase the population of RAA communities and the demand on community health infrastructure and services. The workforces for expansion of Grays Bay Port and Jericho Station and Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border will most likely be housed at existing camp accommodations at the port and Jericho station during construction and operations and maintenance of these reasonably foreseeable induced projects. Similarly, the workforces of reasonably foreseeable induced projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely be housed at existing camp accommodations. As a result, in-migration to RAA communities because of construction and operations of these projects is anticipated to be minimal. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to unexpected pressures on health infrastructure and services through socio-economic monitoring programs. If reasonably foreseeable induced projects proceed, revenue, taxes, and funding could enable governments

to direct funds to support health and social resourcing and programming, including health infrastructure and services.

26.4.3 Change in Rates of Communicable Diseases

26.4.3.1 Cumulative Effect Pathways

Table 26.9 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project on rates of communicable diseases. Pathways identified in Section 26.3.4 apply to the to the assessment of cumulative effects on change in rates of communicable diseases.

Pas, present, reasonably foreseeable, and reasonably foreseeable induced projects that are most likely to act cumulatively with the Project on communicable disease transmission are projects that involve the employment of personnel, transport of personnel to project sites, and establishment and operation of work camps. Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 26.3.4.2).

26.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Proposed mitigation, management, and enhancement measures identified in Section 26.3.4.2 may reduce the Project's contributions to adverse cumulative effects on communicable disease transmission. The HMSP, which includes prevention, management, and outbreak response measures for infection and disease, and the Travel Policy, which includes transit plans for personnel through communities and during travel delays, are intended to limit the transmission of communicable diseases within the Project workforce and communities in the RAA. Proponents of present, reasonably foreseeable, and reasonably foreseeable induced projects and physical activities are expected to implement similar mitigation strategies to reduce adverse cumulative effects on rates of communicable diseases. Should a communicable disease outbreak occur, effects on rates of communicable disease may be best managed through cooperation between proponents, RAA communities, and municipal, territorial, and federal governments.

26.4.3.3 Cumulative Effects

Cumulative effects on rates of communicable diseases are anticipated to occur through increases in the movement of people through communities in the RAA and in-migration. All present and reasonably foreseeable projects and activities that involve the employment and transport of personnel through the RAA (e.g., mineral exploration, mines, tourism, scientific research, shipping) have the potential to increase rates of communicable diseases. As described in Section 26.3.1.1 non-resident Project workers will use commercial airlines to mobilize to Yellowknife and resident Project workers will use commercial airlines to mobilize to collection points in Kitikmeot communities of Cambridge Bay and Kugluktuk and Yellowknife and will stay there in the short term (e.g., one night) on their way to/from the project site. The Project workforce will stay in workcamps during construction and operations and maintenance. Workforces for current and reasonably foreseeable projects in the RAA are expected to transit through the same communities on their way to/from project sites and similarly stay in workcamps.

Present or reasonably foreseeable projects requiring a camp where workers live in close quarters may increase the rate of communicable disease outbreaks in the RAA. Workers from communities in the RAA may also transmit communicable diseases from work accommodations to other individuals and families in their home communities. Camp accommodations may potentially contribute to communicable disease transmission due to close quarters, adverse hygiene, food hygiene, and water quality conditions that may result in increased incidence of enteric, food, and waterborne diseases (BC Centre for Disease Control 2022). This may result in increases in the prevalence and incidence of infectious diseases, sexually transmitted infections, and enteric, food, and waterborne illnesses in the RAA. However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Back River Project and the Ulu Gold Project and annual construction of the TCWR. Reasonably foreseeable projects, including the Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project.

WKR will implement a Travel Policy to mitigate the transmission of communicable diseases in the RAA, in the event that personnel transiting to and from the project site are weathered in in a community. WKR will also implement an HMSP at the Project site, including at work camps. The HMSP will include prevention, management, and outbreak response measures for infection and disease. It is expected that proponents of other current and reasonably foreseeable projects will implement similar mitigation strategies to prevent, manage, and respond to increased rates of communicable diseases. For example, B2Gold Corp. developed and implemented policies requiring testing and screening of its workforce for COVID-19 at the Back River project site during the COVID-19 pandemic (NIRB 2022). Proponents of present, reasonably foreseeable, and induced projects, as well as the Project, that are permitted through the NIRB will be required to track and respond to increased rates of communicable disease through socio-economic monitoring programs.

Proponents of current and reasonably foreseeable projects, as well as the Project, will be expected to cooperate with RAA communities and municipal, territorial, and federal governments in the event of an outbreak of communicable diseases requiring a coordinated response. For example, the GN implemented travel restrictions and mandatory isolation requirements in response to the COVID-19 pandemic, which reduced the spread of the COVID-19 disease in Nunavut. Proponents of operating mines in Nunavut continued operations during the pandemic and met regularly with GN to discuss the pandemic and response and increased testing capacity for COVID-19 on-site (MNP 2024). The remote nature of mining sites facilitates isolation of FIFO employees from Nunavut communities and, in some cases (e.g., Baffinland Mary River Mine), Nunavummiut employees were sent home with full pay to reduce transmission of COVID-19 from mining sites to Nunavut communities (Pike et al. 2021).

Relocation of out-of-region workers is not anticipated to occur for the Project and is unlikely to occur for most current and reasonably foreseeable projects that are in remote locations and require rotational shiftwork by the workforce (as described in Section 26.4.2.3). Relocation of out-of-region workers may occur for projects that are located close to Yellowknife (e.g., Yellowknife City Gold Project). In-migration of individuals may introduce communicable diseases to population centres. Increased rates of communicable diseases in population centres in the RAA are anticipated to be managed through existing health infrastructure and services in these communities, as well as through municipal, territorial, and federal legislation and regulations, as required.

Reasonably Foreseeable Induced

Increased rates of communicable diseases in the RAA may occur if reasonably foreseeable induced projects proceed. Increased rates of communicable diseases may occur through the hiring of workers from communities in the RAA and the hiring of out-of-region workers to meet workforce demands and accommodation of workforces at camp. This would increase worker social interactions at workcamps, and could result in the transmission of diseases between people in the RAA and at workcamps. Increased rates of communicable diseases may also occur if out-of-region workers relocate to communities in the RAA during construction and operation of reasonably foreseeable induced projects, which could introduce communicable diseases to these communities, although as previously assessed, this is an unlikely scenario The workforces for expansion of Grays Bay Port and Jericho Station and Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border will most likely be housed at existing camp accommodations at the port and Jericho station during construction and operations and maintenance of these reasonably foreseeable induced projects. Similarly, the workforces of reasonably foreseeable induced projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely be housed at existing camp accommodations and in-migration to RAA communities as a result of construction and operations of these projects is anticipated to be minimal. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to increased rates of communicable diseases through socio-economic monitoring programs.

26.4.4 Change in Mental Health, Emotional Health, and Coping Mechanisms

26.4.4.1 Cumulative Effect Pathways

Table 26.9 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project. Pathways identified in Section 26.3.5 apply to the assessment of cumulative effects on change in mental health, emotional health, and coping mechanisms.

Some past and current physical activities included in the PIL may have affected the mental health, emotional health, and coping mechanisms for residents of the RAA. Previously, Kitikmiut did not live in permanent settlements or communities, but gathered seasonally at Omingmaktok and Bathurst Inlet for harvest, trade, and social interactions, which may have facilitated improved mental and emotional health among Kitikmiut (Banci and Spicker 2024). By the 1960s, Kitikmiut shifted from living on the land to modern permanent settlements such as Cambridge Bay and Kugluktuk to access services. This shift resulted in substantial and rapid changes to Inuit values, culture, and life ways and, in turn, mental and emotional health and coping mechanisms (Pauktuutit 2006).

Other past, present, reasonably foreseeable, and induced projects and activities that will require a workforce may change mental health, emotional health, and coping mechanisms through employment and income advancement for residents of the RAA and through rotational shiftwork on these projects. These projects are primarily mines, mineral exploration activities, and infrastructure projects that may provide employment and related income to residents of the RAA. Additionally, construction of many of these projects involves remote work camps and FIFO rotational shiftwork by employees. Working conditions such as FIFO rotational shiftwork can affect mental and emotional health and coping mechanisms for employees.

Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 26.4.2.1).

26.4.4.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The introduction of the proposed mitigation, management, and enhancement measures outlined in Section 26.3.5.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on changes in mental health, emotional health, and coping mechanisms. WKR will implement a Labour Relations Strategy, Training Strategy, Procurement Strategy, and gender equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations. WKR will also monitor employment, training, and business procurement for residents of the LAA through implementation of a Socio-economic Monitoring Program. It is assumed that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to increase employment, training, and business procurement opportunities for these underrepresented populations in the LAA.

WKR will also provide a workplace health promotion program, including an EFAP and IEAP to employees, as well as a worker code of conduct and Drug and Alcohol Policy. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative effects on mental health, and emotional health and coping mechanisms.

26.4.4.3 Cumulative Effects

The Project is anticipated to interact cumulatively with other projects to create positive effects on mental health, emotional health, and coping mechanisms through increased employment and income. Past, present, and reasonably foreseeable projects and activities (e.g., mines, mineral exploration, infrastructure construction projects, tourism, commercial harvesting) that involve the employment of and related income for residents of the RAA may cumulatively affect mental and emotional health and coping mechanisms for workers and their families. Employment and income are determinants of health and well-being, including for Inuit populations (Reading and Wien 2009; ITK 2014), and higher income has been linked to positive health outcomes for Indigenous and non-Indigenous populations (ITK 2014; WHO 2013).

Past, present, and reasonably foreseeable projects and activities in the RAA such as mines, mineral exploration, and infrastructure construction projects are likely to provide employment and income opportunities to residents of the RAA. During primary research conducted for the Project, one participant shared their perspective on the effect that mining in the RAA has had for some residents in Gjoa Haven:

> *I think the people that are able to go work in the mines, they make good income, and it reflects good on their families* (Kativik Health Centre, Gjoa Haven, November 14, 2024, pers. comm.).

Another participant described why they thought more some residents in Kugaaruk were seeking employment on mining projects in the RAA, particularly in the context of limited opportunities for employment and income advancement in the community:

> *I think it's because of the lack of work […] and also most of the time, mining pays very well compared to work here, so I think that's a big motivator for people to go for jobs at the mines* (Community Member, Kugaaruk, November 1, 2024, pers. comm.).

Employment on past, present, and reasonably foreseeable projects in the RAA is anticipated to improve mental and emotional health and well-being for those that obtain employment on these projects through income advancement and reduced financial pressures. The B2Gold Corp. Back River project is one mining project in the Kitikmeot Region. It employed 167 Inuit workers (12.1% of total workforce) in 2023 and the majority of Inuit workers on the project were based in the Kitikmeot communities (B2Gold 2024). In 2024, 12.2% of labour hours were performed by Kitikmeot Inuit living in the Kitikmeot Region (10.6%) and residing elsewhere (1.6%) (Jason Prno Consulting Services Ltd. 2025). According to results of surveys of Inuit workers on the project, respondents reported that their health and well-being and that of their family was ‘better’ (35.6% in 2024; 44.7% in 2023) or ‘much better’ (17.8% in 2024;34.0% in 2023) since obtaining employment on the project and that their community’s well-being was ‘better’ (30.1% in 2024; 40.4% in 2023) or ‘much better’ (21.9% in 2024; 23.4% in 2023) as a result of mining in the region. Respondents also reported that their ability to provide for themselves and their families is ‘better’ (32.9% in 2024; 40.4% in 2023) or ‘much better’ (47.9% in 2024; 55.3% in 2023) since obtaining employment on the Back River project (Jason Prno Consulting Services Ltd. 2024, 2025).

Currently, the qualified labour force in the RAA is limited. This may limit the ability of residents in the RAA, including Inuit, to obtain employment on present and reasonably foreseeable projects and activities and benefit from increased income and related improvements in food security. However, it is assumed that proponents of present and reasonably foreseeable projects and activities, including the Project, will implement labour, training, and procurement strategies to prioritize employment opportunities and associated benefits for Inuit and other Indigenous persons in the RAA. Such strategies are intended to increase the capacity of the regional labour force to obtain employment on projects and activities in the RAA in the future. Furthermore, it is assumed that proponents will implement gender equity and diversity policies to increase employment opportunities and associated benefits for underrepresented populations such as women+ and 2SLGBTQQIA+ persons. Proponents of present and reasonably foreseeable projects, including the Project, that are permitted by the NIRB are and will be required to monitor and adaptively manage employment, training, and procurement opportunities available to residents of the RAA through socio-economic monitoring programs.

Revenue, taxes, and funding from the Project and from past, present, and reasonably foreseeable projects will flow to various governments (i.e., municipal, territorial and federal) in the RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could enable governments to direct funds to support health and social resourcing and programming, including mental health services and supports. WKR and proponents of other projects (e.g., B2Gold Corp. through the Back River project) are and will contribute to community well-being initiatives in the Kitikmeot communities through Company Donations Programs.

Past, present, and reasonably foreseeable projects and activities that involve remote work camps (e.g., mines, infrastructure construction projects) and FIFO rotational shiftwork, resulting in long periods away from family and community support networks, may adversely affect mental and emotional health. Changes in mental and emotional health and increased income from employment could also exacerbate negative coping mechanisms such as substance use by some individuals (Argyropoulos n.d.; Dorow et al. 2021). Kugluktuk residents have noted that increased employment opportunities due to increased investment in northern mineral exploration and development can exacerbate alcoholism in the community, through increased disposable income (Prno et al. 2011). Adverse cumulative effects on mental health, emotional health, and coping mechanisms could exacerbate existing mental health conditions in the LAA, as well as corresponding coping mechanisms (e.g., substance use), which have been impacted by the legacies of colonialism, intergenerational trauma, and underinvestment in Inuit and northern infrastructure and services, including mental health services (ITK 2014; Pauktuutit 2006).

Proponents of present and reasonably foreseeable projects and activities may, similar to the Project, provide workplace health promotion programs to employees and their families, including EFAP and IEAP programs. For example, the Kitikmeot Friendship Society offers an IEAP at B2Gold Corp.'s Back River project to support Inuit and residents of the Kitikmeot Region employed on the project. B2Gold Corp. also employs on-site Inuit support coordinators and arranges site visits by the Supervisor, Community Relations to support Inuit personnel (B2Gold 2025). According to surveys of Inuit workers on the Back River project, respondents 'agreed' (38.4% in 2024; 66.0% in 2023) or 'strongly agreed' (24.7% in 2024; 21.3% in 2023) that they and their family were coping effectively with their work rotations and schedule (B2Gold 2024).

Reasonably Foreseeable Induced

Changes to mental health, emotional health, and coping mechanisms for residents of the RAA may occur if reasonably foreseeable induced projects proceed. Changes may occur as a result of employment and related income for residents of the RAA, which can improve mental and emotional health and coping mechanisms. Through the implementation of labour, training, and procurement strategies on present and reasonably foreseeable projects, the capacity of the regional labour force may increase. This may in turn facilitate increased employment for residents of the RAA on reasonably foreseeable induced projects.

If reasonably foreseeable induced projects proceed, revenue, taxes, and funding could support health and social resources and programming within the RAA, including mental health infrastructure and services.

Changes to mental health, emotional health, and coping mechanisms may also occur if reasonably foreseeable induced projects involve remote work camps and FIFO rotation shiftwork. The expansion of Grays Bay Port and Jericho Station, Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border, and projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely require rotational shiftwork and workforces will most likely be housed at camp accommodations. These working conditions may have adverse effects on mental and emotional health, which could exacerbate negative coping mechanisms such as substance use by some individuals. Increased substance use could, in turn, exacerbate existing mental health conditions in the RAA.

Proponents of reasonably foreseeable induced projects and activities may, similar to the Project, provide workplace health promotion programs to employees and their families, including EFAP and IEAP programs. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to unexpected changes to mental health, emotional health, and substance use through socio-economic monitoring programs.

26.4.5 Change in Family and Community Dynamics and Cohesion

26.4.5.1 Cumulative Effect Pathways

Table 26.9 lists past, present, reasonably foreseeable, and induced physical activities that may interact cumulatively with the Project. The same pathways described in Section 26.3.6.1 will apply to cumulative effects on family and community dynamics and cohesion.

Some past and current physical activities included in the PIL may have affected family and community dynamics and cohesion for residents of the RAA. Previously, Kitikmiut did not live in permanent settlements or communities, but travelled seasonally along traditional routes in small family groups and gathered seasonally at Omingmaktok and Bathurst Inlet for harvest, trade, and social interactions. By the 1960s, Kitikmiut shifted from living on the land to modern permanent settlements such as Cambridge Bay and Kugluktuk to access services. This shift resulted in substantial and rapid changes to Inuit values, culture, and life ways (Pauktuutit 2006). Presently, Kitikmiut reside in five incorporated hamlets in the Kitikmeot Region: Cambridge Bay/*Ekaluktutiak*, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk.

Other past, present, reasonably foreseeable, and induced projects and activities that will require a workforce may change family and community dynamics and cohesion through employment and income advancement for residents of the RAA and through rotational shiftwork on these projects. Rotational shiftwork for employees hired from the RAA requires long periods away from home, which may contribute to adverse effects on family dynamics

Income associated with employment on past, present, reasonably foreseeable, and induced projects and activities is anticipated to result in positive outcomes on family and community dynamics through the improved housing security, food security, and other factors that support health and well-being.

Additionally, cumulative changes in mental health, emotional health and coping mechanisms (Section 26.4.4) may contribute to adverse changes in family and community stability and cohesion due to the effects of employees' poor mental health, poor emotional health, and/or increased substance use by some individuals to cope with these effects on families and communities.

Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 26.4.2.1).

26.4.5.2 Mitigations, Management, and Enhancement Measures for Cumulative Effects

Mitigation measures outlined in Section 26.3.6.2 may reduce the Project's contributions to adverse cumulative effects and enhance Project contributions to positive cumulative effects on family and community dynamics and cohesion. For example, WKR will provide access to virtual family and mental

health-related consulting services within the EFAP and IEAP, on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness and identify opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling. Furthermore, WKR will implement a Drug and Alcohol Policy and a Travel Policy for its workforce to govern employee behaviour during transit through communities in the RAA and on-site. Proponents of present, reasonably foreseeable, and reasonably foreseeable induced projects and physical activities are expected to implement similar mitigation strategies to reduce adverse cumulative effects on family and community dynamics and cohesion.

Employment and procurement strategies that prioritize local participation in Project activities, coupled with socio-economic monitoring programs, may also help to strengthen family incomes, reduce outmigration, and maintain community cohesion. Cooperation efforts between Project proponents, Inuit organizations, community members in the RAA, and municipal, territorial, and federal governments may serve to reduce adverse cumulative effects on family and community dynamics and cohesion.

26.4.5.3 Cumulative Effects

The Project is anticipated to interact cumulatively with other projects to create positive effects on family and community dynamics and cohesion through increased employment and income. Past, present, and reasonably foreseeable projects and activities (e.g., mines, mineral exploration, infrastructure construction projects, tourism, commercial harvesting) that involve the employment of and related income for residents of the RAA may cumulatively affect family and community dynamics and cohesion through reduced financial pressures for workers and their families. Income generated from employment and procurement opportunities over multiple projects can support families and communities as wages are re-invested in communities, which can improve community function overall. As described in Section 26.4.4.3, 53% of Inuit workers on the B2Gold Corp. Back River Project reported ‘better’ or ‘much better’ family and community well-being since obtaining employment on the project. Inuit workers (81%) also reported that their ability to provide for themselves and their families is ‘better’ or ‘much better’ since obtaining employment on the Back River project (Jason Prno Consulting Services Ltd. 2025). The current shortage of qualified labour in the RAA may restrict local employment, including for Inuit. However, strategies focusing on labour, training, and procurement aim to increase employment opportunities and workforce capacity for Inuit and other Indigenous people in the region for future projects.

Men+ are more likely to benefit from more employment opportunities and income advancement from past, present, reasonably foreseeable, and induced projects and activities in the RAA (see Section 27, Employment & Economy). This may contribute to wealth disparity between men+ and women+ in communities, as well as between residents who obtain employment on projects and activities and residents who do not. Furthermore, increased income for employees may increase pressure to financially support networks of extended family and friends.

Adverse cumulative effects on family and community cohesion are anticipated to occur through FIFO rotational shiftwork. The Project would contribute to a pattern of rotational shiftwork in the resource industry within the Kitikmeot Region and NT. In particular, present and reasonably foreseeable projects and activities such as mines and mineral exploration projects require workers to be on rotational shifts

and to stay in camp accommodations during shifts. As previously described in Section 26.3.6, rotational work can lead to adverse effects on family dynamics, including domestic violence, experiences of inter-partner jealousy, less availability for partners, and lack of accountability for family responsibilities (National Inquiry into Missing and Murdered Indigenous Women and Girls 2019; Pauktuutit 2016). Furthermore, adverse cumulative effects on family and community cohesion may occur through adverse changes in mental health, emotional health and coping mechanisms in the RAA (as described in Section 26.4.4.3). An increase in coping mechanisms such as substance use at the individual level can have additional effects at the family and community levels. WKR will provide a HMSP, which will provide access to an EFAP and IEAP for workers and their families. WKR will also promote communication and connectedness with family and home communities for Project workers. It is expected that other present and reasonably foreseeable projects and physical activities are expected to provide similar programs to employees and their families, including EFAP and IEAP programs. Through the implementation of such programs on the B2Gold Corp. Back River Project, 63% of Inuit workers ‘agreed’ or ‘strongly agreed’ that that they and their family were coping effectively with their work rotations and schedule (B2Gold 2024).

Reasonably Foreseeable Induced

Changes to family and community dynamics and cohesion for residents of the RAA may occur if reasonably foreseeable induced projects proceed. Changes may occur as a result of employment and related income for residents of the RAA, which can improve family and community dynamics. However, increased income can also lead to income disparity within and between families and communities and increased pressures to support family and friends. Through the implementation of labour, training, and procurement strategies on present and reasonably foreseeable projects, the capacity of the regional labour force may increase. This may in turn facilitate increased employment for residents of the RAA on reasonably foreseeable induced projects.

Changes to family and community dynamics and cohesion may also occur if reasonably foreseeable induced projects involve remote work camps and FIFO rotation shiftwork. The expansion of Grays Bay Port and Jericho Station, Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border, and projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely require rotational shiftwork and workforces will most likely be housed at camp accommodations. These working conditions would result in residents of the RAA being away from home for extended periods of time, which can adversely affect family and community dynamics and cohesion. Related cumulative effects on mental and emotional health could exacerbate negative coping mechanisms such as substance use by some individuals which could, in turn, affect families and communities in the RAA.

Proponents of reasonably foreseeable induced projects and activities may, similar to the Project, provide workplace health promotion programs to employees and their families, including EFAP and IEAP programs. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to unexpected changes to mental health, emotional health, and substance use through socio-economic monitoring programs.

26.4.6 Change in Community and Personal Safety

26.4.6.1 Cumulative Effect Pathways

Table 26.9 lists past, present, reasonably foreseeable, and induced projects and physical activities that may interact cumulatively with the Project. Current physical activities such as NT community infrastructure and existing Nunavut community infrastructure provide transportation infrastructure such as airstrips in the Kitikmeot communities and an airport in Yellowknife. Through community-based primary research, some residents shared that drugs and alcohol are transported using air freight, including legal import to unrestricted communities and illegally through Canada Post to restricted communities. Drugs and alcohol may also be transported by individuals on overflights to communities in the RAA (RCMP, Kugaaruk, October 29, 2024, pers. comm.; RCMP, Cambridge Bay, November 4, 2024, pers. comm.).

Other past, present, reasonably foreseeable, and reasonably foreseeable induced projects may cumulatively affect community and personal safety through the construction of land- and marine-based infrastructure, increased movement of people and in-migration to the RAA, changes in employment and related income, and the use of work camps for project workforces. Construction of the Project and present, reasonably foreseeable, and induced projects could increase the amount of land- and marine-based transportation infrastructure available in the RAA. This infrastructure could be used to transport drugs and alcohol to the RAA. The movement of workers and in-migration could result in increased transportation of drugs and alcohol to communities in the RAA, including on overflights that transport project workforces. Income associated with employment on past, present, reasonably foreseeable, and induced projects and activities may result in increased rates of alcohol and drug use. Additionally, cumulative changes in mental health, emotional health and coping mechanisms (Section 26.4.4) and cumulative changes in family and community stability and cohesion (Section 26.4.5) may result in increased substance use by some individuals to cope with these changes. Increased substance use could increase rates of crime and violence, including gender-based violence, in communities in the RAA. Additionally, conditions such as at the use of work camps can affect personal safety through discrimination, racism, bullying, and violence against residents of the RAA that obtain employment on projects.

Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 26.4.2).

26.4.6.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Through Project design, access to Grays Bay Road will be controlled and monitored at both the Grays Bay Port and Jericho Station. The proposed mitigation, management, and enhancement measures identified in Section 26.3.7.2 may reduce the Project's contributions to adverse cumulative effects on community and personal safety. WKR will implement policies, including a Drug and Alcohol Policy, Travel Policy, luggage screening policy, and other applicable company policies, for all personnel and contractors on-site and during transit through communities in the RAA. WKR will also develop and implement cultural awareness and sensitivity training, an Employee Code of Conduct, and anti-harassment and violence in the workplace policies, procedures and training for all personal and

contractors. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative effects on community and personal safety.

26.4.6.3 Cumulative Effects

Past, present, and reasonably foreseeable projects may act cumulatively with the Project on community and personal safety in the RAA.

Past, present, and reasonably foreseeable projects and activities that involve remote work camps (e.g., mines, mineral exploration projects, infrastructure construction projects) and FIFO rotational shiftwork may adversely affect personal safety through discrimination, racism, and harassment of workers at project sites, including work camps. Men+ are more likely to obtain employment on mining and construction projects in the RAA (MIHR 2024). For example, 12.8% of the workforce on the B2Gold Corp. Back River project in 2024 were female. Women+, including Indigenous women, and 2SLGBTQQIA+ populations may experience greater harassment, gender-based violence, and physical violence in a male-dominated workforce. WKR will develop and implement an employee code of conduct that includes a discrimination, bullying and harassment in the workplace policy and relevant training and anti-harassment and violence in the workplace policies, procedures and training to reduce effects on personal safety at the Project site. Proponents of other present and reasonably foreseeable projects are expected to implement similar mitigation strategies to reduce cumulative effects on personal safety at project sites. For example, B2Gold Corp. provides workplace violence and harassment training for employees at the Back River project and has zero tolerance policy for harassment at the workplace. In a 2024 survey of Inuit employees at the Back River project, 85% of respondents ‘agreed’ or ‘strongly agreed’ that they felt safe working at the project and 58% ‘agreed’ or ‘strongly agreed’ that Inuit and Inuit culture are respected at the project site (Jason Prno Consulting Services Ltd. 2025).

Past, present, and reasonably foreseeable projects and activities may result in potential interactions of workers within the RAA (e.g., interaction of workers between communities). As described in Section 26.3.1.1, non-resident Project workers will transit through Yellowknife and will stay there in the short-term (e.g., one night) on their way to/from the project site and resident Project workers will use commercial airlines to mobilize to collection points in the Kitikmeot communities of Cambridge Bay and Kugluktuk, or travel to Yellowknife. Resident and non-resident workforces for current and reasonably foreseeable projects in the RAA are expected to transit through the same communities on their way to/from project sites or if they are weathered in in a community. The interaction of workers between communities may result in adverse social interactions with residents in RAA communities, which could affect perceived or real incidences of safety concerns for individuals and communities in the RAA. Out-of-region workforces in resource industries have been associated with gender-based violence and human trafficking against women and Indigenous women and girls (Firelight et al. 2017; National Inquiry into Missing and Murdered Indigenous Women and Girls 2019).

However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Back River Project and the Ulu Gold Project and annual construction of the TCWR. Reasonably foreseeable projects, including the

Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project. WKR will develop and implement a Travel Policy to govern workers' behaviour while transiting through Kitikmeot communities. WKR will also provide employees with clear information regarding expectations for respectful conduct and applicable company policies. It is anticipated that proponents of other projects in the RAA will implement similar mitigation strategies, which are intended to reduce adverse social interactions between workers and community members in the RAA and reduce adverse cumulative effects on community safety.

Relocation of out-of-region workers is not anticipated to occur for the Project and is unlikely to occur for most current and reasonably foreseeable projects that are in remote locations and require rotational shiftwork by the workforce. Relocation of workers may occur for projects that are located close to Yellowknife (e.g., Yellowknife City Gold Project), which could affect perceived or real incidences of safety concern for residents in this RAA community.

The workforces of current and reasonably foreseeable projects may result in increased transportation of drugs and alcohol to communities in the RAA, including during transit to/from communities. Increased availability of drugs and alcohol in communities may increase consumption of these substances, which affects community safety. WKR will develop and implement a Drug and Alcohol Policy which applies to all personnel and contractors on-site, at work camps, and during transit through communities. Additionally, WKR will implement screening procedures for workers' checked and carry-on luggage for alcohol and other substances that may be brought on-site. It is anticipated that proponents of other projects in the RAA will implement similar mitigation strategies, which are intended to reduce perceived and actual concerns of workers bringing substances into the communities in the RAA and changes to community safety.

As described in Section 26.4.4.3, substance use by some residents of the RAA may also be affected by employment and related income advancement and cumulative effects on mental health, emotional health, and coping mechanisms and family and community dynamics and cohesion. Proponents of present and reasonably foreseeable projects and activities may, similar to the Project, provide workplace health promotion programs to employees and their families, including EFAP and IEAP programs.

The Project is expected to increase land- and marine-based infrastructure in the RAA such as the future construction of Arctic Economic and Security Corridor and TCWR that could increase the transportation of drugs and alcohol from Yellowknife to the RAA using new infrastructure. However, access to Grays Bay Road and Grays Bay Port from Yellowknife would be limited to the winter road season and controlled by WKR in all seasons. This will limit the transportation of drugs and alcohol to the RAA using new transportation infrastructure in the RAA. Furthermore, Grays Bay Road will not be physically connected to any communities in the Kitikmeot Region, which is also expected to limit the transportation of drugs and alcohol to Kitikmeot communities.

Proponents of present, reasonably foreseeable, and induced projects that have been subject to a NIRB review will likely be required to address changes in community and personal safety through appropriate mitigation measures, similar to those proposed for the Project. These could include drug and alcohol policies, travel policies, and socio-economic monitoring programs.

Reasonably Foreseeable Induced

Changes to community and personal safety for residents of the RAA may occur if reasonably foreseeable induced projects proceed. Changes may also occur if reasonably foreseeable induced projects involve remote work camps, which could affect personal safety of residents whom obtain employment on these projects. The expansion of Grays Bay Port and Jericho Station, Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, and projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely require rotational shiftwork and workforces will most likely be housed at camp accommodations. Related cumulative effects on mental and emotional health and family and community dynamics and cohesion could exacerbate negative coping mechanisms such as substance use by some individuals which could, in turn, affect crime rates, gender-based violence, and community safety in the RAA.

Changes to community safety may also occur through the movement of workers from various communities to meet workforce demands. This would increase worker movement through RAA communities, increase social interactions in RAA communities, and could result in changes in perceived and real incidences of safety concerns and transportation of drugs and alcohol to RAA communities by the out-of-region workforce. Increased availability of drugs and alcohol in communities may increase consumption of these substances, which affects community safety. Substance use by residents of the RAA may also be affected by employment and income from reasonably foreseeable induced projects and cumulative effects on mental health, emotional health, and coping mechanisms and family and community dynamics and cohesion. Proponents of reasonably foreseeable induced projects and activities may, similar to the Project, implement mitigation strategies to reduce the transportation of drugs and alcohol to the RAA and reduce adverse social interactions with RAA residents, and provide workplace health promotion programs to employees and their families, including EFAP and IEAP programs. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to unexpected changes to personal and community safety through socio-economic monitoring programs.

Construction of the Project, the Arctic Economic & Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would establish ground transportation infrastructure from Yellowknife to the Grays Bay Port year-round. This could increase the transportation of drugs and alcohol from Yellowknife to the RAA using new infrastructure. Access to Grays Bay Road will be controlled and monitored by WKR, which could help to limit the transportation of drugs and alcohol to the RAA using new transportation infrastructure. Grays Bay Road will not be physically connected to any communities in the Kitikmeot Region, which is expected to limit the transportation of drugs and alcohol to Kitikmeot communities.

26.4.7 Change in Health from Exposure to Pollutants and Hazards

26.4.7.1 Cumulative Effect Pathways

For a cumulative effect on health to occur, the Project's air pollutant or noise emissions must overlap in the same place and at the same time with emissions from other activities. If emissions do not coincide spatially and temporally, they cannot combine to create cumulative effects.

Past projects such as the Jericho Mine do not contribute to cumulative air quality or noise effects because they no longer produce emissions of air pollutants or noise that could interact with Project emissions. Present physical activities are of considerable distance from the Project, such that their effects to air pollutant and noise levels would not overlap with the Project's effects, which are within 4 km of the PDA.

Some present and potential future activities in the region such as mineral exploration, mining, or increased traffic could produce air pollutants and noise from equipment or vehicles at the same time and in the same general area as the Project. If this happens, their emissions could overlap with the Project's emissions of air pollutants and noise at Grays Bay Port and along the road. Marine traffic could also overlap with Project emissions of air pollutants and noise.

26.4.7.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

There are no recommended mitigation, management or enhancement measures for cumulative effects for changes in health from exposure to pollutants and hazards. The residual effects of the Project on health are expected to be low magnitude and do not merit the need for mitigation, management or enhancement measures or enhancement measures. Based on the minimal degree of health risk from the Project and the limited potential of foreseeable future projects to have overlapping effects, no additional mitigations are recommended.

26.4.7.3 Cumulative Effects

Project-related air pollutants with potential effects on health are likely limited to within four km of the PDA at Grays Bay Port and Jericho Station, while noise effects are limited to within one km of the PDA including the road. Within this area of potential health effects, off-duty workers at the accommodation camps would experience the greatest degree of exposure and health risk. Beyond these distances, air pollutants and noise levels may still be measurable, but they are of negligible magnitude when considered in the context of potential human health effects. This means that there is no adverse Project effect on health for people at the High Lake and Ulu Gold mining exploration camps, which are located approximately 43 km and 100 km from Grays Bay Port, and one km from the road corridor, or for Inuit, Indigenous, and Community country food harvesters beyond four km of Grays Bay Port and Jericho Station.

If emissions of air pollutants and noise from reasonably foreseeable future projects or activities were to affect these receptors, the associated health effects would be attributable solely to those projects or activities and would not interact cumulatively with the Project.

For example, country food harvesting activities and fishing vessels near the Project may produce air pollutants and noise that overlaps with the Project. However, air pollutants and noise levels associated with these activities are generally intermittent, short in duration, and sufficiently far away from the Project that off-duty workers at the accommodation camps would not be adversely affected. However, if noise from country food harvesting activities, such as snowmobile use, were to occur in the vicinity of the mining exploration camps, the resulting acoustic environment would be primarily influenced by proximity to that local source, while contributions from Project-related traffic along the road would be comparatively limited.

Overall, the cumulative change in health from exposure to air pollutants and noise is expected to be adverse but low in magnitude. The geographical extent of the effects is within the RAA (based on the RAA for air quality and noise effects). There is no sensitivity of effect related to timing. The duration is long-term, lasting the life of the Project, with a continuous frequency of effect as emissions from other projects will continue for years. The cumulative effects are irreversible. The Project will be operating in perpetuity. When reasonably foreseeable future projects reach the end of their project lifecycle, those emissions of air pollutants and noise will cease, and so would the potential cumulative effects. However, there will be reasonably foreseeable future projects, such as additional roads and marine operations that will also operate in perpetuity that will contribute to overall air and noise emissions. Therefore, the cumulative effects are considered to be irreversible.

Reasonably Foreseeable Induced

If the Reasonably Foreseeable Induced mines were developed, their use of the Grays Bay Road and Port would introduce an incremental increase in air pollutant emissions and noise from additional vehicle traffic, ore haulage, and support equipment. These emissions would contribute to cumulative air quality and noise conditions along the Grays Bay Road.

Detailed technical information about potential future mines, relevant to supporting detailed health-based assessments, is not available. Without this information, it is not feasible to estimate the magnitude or type of environmental effects associated with these reasonably foreseeable induced projects.

When such mining projects proceed to environmental assessment, they would be required to evaluate potential health effects from exposure to their project-related pollutants and hazards. This assessment would draw on project-specific operational details and incorporate up-to-date environmental monitoring data available at that time. Future proponents would use this information to prepare a human health risk assessment that considers their emissions in combination with existing conditions, including the contribution from the Grays Bay Road and Port.

26.4.8 Summary of Cumulative Effects

In the cumulative effects case without the Project, the existing land base comprising the RAA has been partially modified by mining and infrastructure development over the past 60 years. Some of the other reasonably foreseeable projects and activities including mining development could proceed while others may not. The timing of these developments is uncertain at present and would be dependent on the state of market conditions for resource development.

Table 26.10 summarizes cumulative effects on Community Health & Well-being.

Table 26.10 Residual Cumulative Effects on Community Health & Well-being

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in access to health infrastructure and services	P*/A	M	RAA	NS	LT	IR	I
Contribution from the Project to Residual Cumulative Change in access to health infrastructure and services	The Project may contribute a low magnitude adverse effect on increased demand on health infrastructure and services in the event that personnel require medical care while they are in the region and through use of commercial flights to transport personnel to site. Thereby, decreasing access to health infrastructure and services, including medical travel on commercially scheduled flights, for residents of the RAA. Revenue, taxes, and funding could enable governments to direct funds to support health and social resourcing and programming, including health infrastructure and services.						
Change in rates of communicable diseases	A	L-M	RAA	NS, A	LT	MIR	I
Contribution from the Project to Residual Cumulative Change in rates of communicable diseases	The Project may contribute a low-moderate magnitude adverse effect on increased rates of communicable diseases due to the interaction of workers through transit and camp settings that may enable transmission of communicable diseases to individuals and households.						
Change in mental health, emotional health and coping mechanisms	P*/A	M	RAA	NS	LT	IR	I
Contribution from the Project to Residual Cumulative Change in mental health, emotional health, and coping mechanisms	The Project contributes to employment and income advancement opportunities for residents of the RAA, which can alleviate financial pressures and improve the determinants of health and well-being for individuals and families. Revenue, taxes, and funding could enable governments to direct funds to support health and social resourcing and programming, including mental health services and supports. However, the Project may contribute a moderate magnitude adverse effect on mental and emotional health and associated coping mechanisms (e.g., substance use by some individuals) through FIFO rotational shiftwork and increased income to spend on substances.						
Change in family and community dynamics and cohesion	P*/A	M	RAA	NS	LT	IR	I
Contribution from the Project to Residual Cumulative Change in family and community dynamics and cohesion	The Project contributes to employment and income advancement opportunities for residents of the RAA, which can alleviate financial pressures and improve the determinants of health and well-being for families. The Project may contribute a moderate magnitude adverse effect on family dynamics and community cohesion through rotational shiftwork and a camp setting that results in increased time away from families and communities. The movement of workers through the RAA may change community cohesion.						

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in community and personal safety	A	M	RAA	NS	LT	IR	I
Contribution from the Project to Residual Cumulative Change in community and personal safety	The Project may contribute a moderate magnitude adverse effect on community and personal safety through use of a camp setting, the movement of workers through the RAA, and the potential for increased availability and use of drugs and alcohol, which can influence rates of crime and violence, including gender-based violence in RAA communities.						
Change in health from exposure to pollutants and hazards	A	L	RAA	NS	LT	C	I
Contribution from the Project to Residual Cumulative Change in health from exposure to pollutants and hazards	The Project contributes a low magnitude of adverse effects on health from exposure to air pollutants and noise within the RAA (based on the Air Quality RAA for health effects from air pollutants and the Noise and Vibration RAA for health effects from noise). The cumulative effect from exposure to air pollutants and noise is long-term, continuous over the life of the projects, with the potential health risks being irreversible.						

Key:
See Table 26.2 for detailed definitions

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
MIR: Multiple Irregular event
MR: Multiple Regular event
C: Continuous
C: Continuous

Reversibility:
R: Reversible
I: Irreversible
N/A: Not applicable

Change in Health Infrastructure and Services

With the implementation of mitigation, management and enhancement, cumulative effects on access to health infrastructure and services are expected to be both positive and adverse. Positive cumulative effects may occur through revenue, taxes, and funding that could enable governments to direct funds to support health and social resourcing and programming, including health infrastructure and services. Positive cumulative effects are not characterized further.

Adverse cumulative effects on health infrastructure and services are expected to occur in the RAA due to increased demand on health infrastructure and services, thereby reducing access for residents of Yellowknife and the Kitikmeot communities. Given limited local and regional capacity of existing health infrastructure and services in the RAA, access to these services, including emergency services, may be delayed or may be delivered through contingency planning such as chartered medical evacuation in locations in southern Canada. Cumulative effects are anticipated to be adverse, moderate in magnitude given the demand for health infrastructure and services may approach current capacity in the RAA but is not expected to result in a reduction in standards or services, long-term, and irreversible, and occur at multiple, irregular intervals. Timing is not applicable. In the event that reasonably foreseeable projects and reasonably foreseeable induced projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during Construction and Operations and Maintenance of the Project.

The Project may contribute a low magnitude adverse effect on increased demand on health infrastructure and services in the event that personnel require medical care while they are in the region and through use of commercial flights to transport personnel to site, thereby decreasing access to health infrastructure and services, including medical travel on commercially scheduled flights, for residents of the RAA.

Change in Communicable Diseases

With the implementation of mitigation, management and enhancement measures, cumulative effects on rates of communicable disease may occur in the RAA due to increased movement of and interaction between people and subsequent disease transmission among populations. The magnitude of adverse residual cumulative effects is expected to be low to moderate in magnitude as the transmission of communicable diseases may occur at the individual and household levels, but is not anticipated to affect entire communities. Some communicable diseases may be more prevalent during the winter, such as the flu, while others are not as seasonal dependent, such as sexually transmitted infections. Communicable disease transmission may occur at any time, with no set schedule (multiple irregular events). Residual effects on rates of communicable disease are expected to be irreversible. In the event that reasonably foreseeable projects and reasonably foreseeable induced projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during Construction and Operations and Maintenance of the Project.

The Project may contribute a moderate magnitude adverse effect on increased rates of communicable diseases due to the movement of workers within the RAA and a camp setting that may enable transmission of communicable diseases to individuals and households.

Change in Mental Health, Emotional Health, and Coping Mechanisms

With the implementation of mitigation, management and enhancement measures, cumulative effects on mental and emotional health are expected to be both positive and adverse. Positive residual effects may occur through employment and income advancement on projects in the RAA, including on the Project, which can alleviate financial pressures, improve other determinants of health and well-being, and improve mental and emotional health. Positive residual effects are not characterized further.

Adverse cumulative effects are anticipated to occur due to working conditions (i.e., rotational shiftwork), which could exacerbate existing mental and emotional health conditions and increase negative coping mechanisms such as substance use by some individuals, and increased income, which could lead to increased substance use rates in the RAA. Cumulative effects are anticipated to be moderate in magnitude as changes to mental and emotional health and coping mechanisms would affect both individuals employed on present, reasonably foreseeable, and induced projects and their families, thereby extending to the household level. Cumulative effects will occur at multiple, irregular intervals. In the event that reasonably foreseeable and reasonably foreseeable induced projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during Construction and Operations and Maintenance of the Project. Changes to mental and emotional health related to working conditions will likely be reversible following the end of employment on present, reasonably foreseeable, and induced projects; however, workers may experience other mental health concerns related to Project closure and substance use-related effects may continue due to their addictive nature. Timing is not applicable.

The Project may contribute to a moderate magnitude adverse effect on mental and emotional health and associated coping mechanisms (e.g., substance use) through FIFO rotational shiftwork and increased income to spend on substances.

Change in Family Dynamics and Community Cohesion

With the implementation of mitigation, management and enhancement measures, cumulative effects on family dynamics and community cohesion are expected to be both positive and adverse. Positive residual effects may occur through employment and income advancement on projects in the RAA, including on the Project, which can alleviate financial pressures, improve other determinants of health and well-being, and improve family dynamics. Positive residual effects are not characterized further.

Adverse cumulative effects are anticipated to occur due to working conditions (i.e., rotational shiftwork), which could adversely affect families, and the movement of workers within communities, which could affect community cohesion. Cumulative effects are anticipated to be moderate in magnitude as changes to family dynamics and community cohesion would affect individuals in communities in the RAA, but are unlikely to affect all members of a community. Cumulative effects will occur at multiple, irregular intervals. In the event that reasonably foreseeable and reasonably foreseeable induced projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during Construction and Operations and Maintenance of the Project. Some effects, such as disruptions to caregiving, are reversible with the end of rotational shiftwork on projects (e.g., end of contract with a project), while others, like changes in community cohesion, may be irreversible.

The Project may contribute a moderate magnitude adverse effect on family dynamics and community cohesion through rotational shiftwork and a camp setting that results in increased time away from families and communities.

Change in Community and Personal Safety

With the implementation of mitigation, management, and enhancement measures, cumulative effects on community and personal safety are expected to be adverse and moderate in magnitude because actual or perceived safety-related concerns or incidents may be experienced by individuals at project sites or

individuals within communities in the RAA, although concerns are not likely to be experienced by all members of a community. Cumulative effects will occur at multiple, irregular intervals. In the event that reasonably foreseeable and reasonably foreseeable induced projects proceed, cumulative effects are anticipated to be long-term as they are expected to occur during Construction and Operations and Maintenance of the Project. Effects are anticipated to be irreversible.

The Project may contribute a moderate magnitude adverse effect on community and personal safety through use of a camp setting, the movement of workers through the RAA, and the potential for increased availability and use of drugs and alcohol, which can influence rates of crime and violence, including gender-based violence in RAA communities.

Change in Health from Exposure to Pollutants and Hazards

Cumulative health effects from air pollutants and noise can only occur when emissions from the Project overlap in the same place and at the same time with emissions from other activities. Since the Project air quality effects to health are localized within four km of the Project, and noise effects within one km of the Project, reasonably foreseeable future projects are too far away to contribute a cumulative effect. Overall, cumulative effects on health are expected to be low in magnitude, within the PDA, long-term and irreversible.

26.5 Significance of Effects

26.5.1 Significance of Project Residual Effects

The Project's potential adverse effects on community health and well-being are anticipated to be not significant. Significant adverse residual effects are defined in Section 26.1.6 (Significance Definition) and residual effects are described in Section 26.3 (Assessment of Project Effects on Community Health and Well-being).

The Project is not expected to create an exceedance of available capacity of health infrastructure and services, or a substantial decrease in the quality of a service, provided on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation, management, and enhancement measures. The Project is not expected to create a measurable or observed change from current conditions and trends at the community level that cannot be avoided or reduced to an acceptable level through adjustments to programs, policies, plans, or through other mitigation, management, and enhancement measures. The Project is not expected to result in a significant adverse health effect to people from their exposure to pollutants and noise. In addition to the above, several beneficial effects on community health and well-being are anticipated to arise due to the Project.

26.5.2 Significance of Cumulative Effects

Cumulative effects on community health and well-being are anticipated to be not significant, which includes the Project's contribution to cumulative effects on community health and well-being. With the implementation of mitigation, management, and enhancement measures, residual cumulative effects on community health and well-being in the RAA are predicted to be not significant. This is because they are not expected to exceed available capacity for health infrastructure and services and do not result in a

substantial decrease in community health and well-being, on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures. The Project is not expected to result in a significant adverse cumulative health effect to people from their exposure to pollutants and noise.

26.5.3 Summary of Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures are expected to enhance the positive effects and reduce the adverse residual and cumulative effects on community health and well-being. The Labour Relations and Training Strategies will maximize and retain local Inuit employment and reduce the requirement for non-local employees to the degree practical.

WKR will develop and implement a HMSP that includes prevention and management measures for injuries, infection and diseases, provisions for medical and first aid services, response protocols for medical emergencies, and work health promotion initiatives including an EFAP and IEAP. The HMSP is anticipated to reduce demand on local health infrastructure and services, reduce communicable disease transmission and manage outbreaks, and provide mental health services available to workers and their families to reduce adverse mental health effects due to working on rotational shifts in remote and isolated locations.

WKR will develop and implement measures to reduce adverse effects on community health and well-being and to enhance benefits including:

- A Travel Policy in the event that personnel transiting to/from the Project site are weathered in in a community. The Travel Policy will include plans for accommodation, meals, use of community medical services, and other needs for personnel during travel delays
- An education program to inform workers of the range of health services available onsite
- A HSSE plan will include safety training requirements for personnel, and security and response procedures
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, including providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region
- A Training Strategy will identify specific skill requirements for employment on the Project and work with local and regional training and educational facilities to increase opportunities for local Inuit employment, and to implement on-the-job training and apprenticeship programs
- Gender, equity, and diversity policies that focus on hiring Inuit, other Indigenous persons, and women to increase Project employment among underrepresented populations
- Access to on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness
- A Drug and Alcohol Policy that will apply to all personnel and contractors on-site, at work camps, and during transit through communities

- Drug and alcohol screening procedures for checked and carry-on luggage on chartered flights
- Cultural awareness and sensitivity training to all personnel and contractors
- An Employee Code of Conduct that includes a no-discrimination, bullying, and harassment in the workplace policy and relevant training
- Anti-harassment and violence in the workplace policies, procedures and training
- On-site security personnel and access control
- A Community Engagement Plan to receive and address community suggestions, concerns, and complaints
- Opportunities for on-site Inuit workers to engage with community Elders to provide a connection point with home communities and for traditional counselling

In addition, WKR will engage with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project.

26.6 Prediction Confidence and Uncertainty

With the proposed management and enhancement measures, including implementation of normal planning procedures by the relevant authorities, and liaison between WKR and local authorities, the residual environmental effect on community health and well-being has been determined with a medium level of confidence.

There are quantitative data available on communicable diseases, mental health, and community and personal safety for the LAA. There are fewer quantitative data for access to health infrastructure, coping mechanisms, and family and community dynamics and cohesion. In these cases, qualitative data was used to inform the assessment. There is high quality data from Inuit organizations such as ITK and Pauktuutit Inuit Women of Canada. As there are uncertainties associated with the availability of some other information, data analyses, and interpretation of data, these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an effect.

The prediction confidence in the conclusions for project residual effects and residual cumulative effects for community health and well-being is also based on:

- Uncertainty regarding the extent to which project employment will be realized by local residents, the number of people who may require transit through communities in the LAA, and increased interactions between residents of the LAA and the out-of-region workforce
- Effectiveness of mitigation measures and management plans
- Changes regarding the status of other reasonably foreseeable and reasonably foreseeable induced projects in the region that are outside the control of the Project

The proposed mitigation and management plans, including the provision of camps to accommodate Project employees, Training and Labour Relations Strategies, and Road Management Plan, are standard mitigations that have proven to be effective for managing effects of other resource development projects.

The prediction confidence associated with health related to exposure to pollutants and hazards is high, as the model inputs for air quality and noise modelling are deemed to be representative of Project activities, and the model results are substantially below those deemed to be a significant health risk to people. Overall, the uncertainty associated with the assessment of effects on health from exposure to pollutants and noise is low.

26.7 Follow-up and Monitoring

WKR will establish a program to monitor the socio-economic effects of the Project, including potential effects on community health and well-being. A SEMP will be one of the key strategies to guide the implementation of mitigation and management measures, measure the effectiveness of mitigation, management and enhancement measures, measure how communities are experiencing effects (both positive and adverse), help with the economic and socio-economic development of Inuit communities, and enable adaptive management of new/emerging socio-economic effects.

The SEMP is likely to address potential Project effects on:

- Employment
- Training
- Business procurement
- Community infrastructure and services use
- Availability and cost of housing
- Availability and cost of market food
- Health infrastructure and social services
- Other socio-economic indicators

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, including adaptive management and monitoring, as appropriate.

With respect to changes in human health from exposure to air pollutants and noise hazards, specific monitoring within the PDA, given the conclusions above of minimal effects, is likely not required for the purpose of addressing potential human health effects. The Human Health and Ecological Risk Assessment indicates that predicted air pollutant concentrations and noise levels are not expected to result in a substantial adverse health effect.

26.8 Knowledge and Literature Cited

26.8.1 References

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26.8.2 Personal Communications

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Cambridge Bay Wellness Centre, Cambridge Bay, personal communications, November 5, 2024.

Community Elder, Kugaaruk, personal communications, October 30, 2024.

Community Member, Cambridge Bay, personal communications, November 3, 2024.

Community Member, Gjoa Haven, personal communications, November 14, 2024.

Community Member, Kugaaruk, personal communications, October 30, 2024.

Community Member, Kugaaruk, personal communications, November 1, 2024.

Community Member, Kugluktuk, personal communications, November 9, 2024.

Community Member, Taloyoak, personal communications, November 20, 2024.

GBRP 2025; Community Elder, Cambridge Bay, personal communications, November 3, 2024.

Government of Nunavut Staff, Kugluktuk, personal communications, November 7, 2024.

Hamlet Staff, Gjoa Haven, personal communications, December 5, 2024.

Hamlet Staff, Kugaaruk, personal communications, October 31, 2024.

Hamlet Staff, Kugluktuk, personal communications, November 7, 2024.

Judy Hill Memorial Health Centre, Taloyoak, personal communications, November 20, 2024.

Kativik Health Centre, Gjoa Haven, personal communications, November 14, 2024.

Kikiak Contracting, Kugluktuk, personal communications, November 9, 2024.

Kikitak Housing Association, Gjoa Haven, personal communications, November 15, 2024.

Kitikmeot Friendship Society, Cambridge Bay, personal communications, November 14, 2024.

Kitikmeot Inuit Association, Cambridge Bay, personal communications, November 4, 2024.

Kitikmeot Inuit Association, Cambridge Bay, personal communications, October 29, 2024.

Kitikmeot Inuit Association, Kugaaruk, personal communications, October 29, 2024.

Kitikmeot Regional Health Centre, Cambridge Bay, personal communications, November 6, 2024.

Kugluktuk Co-op, Kugluktuk, personal communications, November 8, 2024.

Netsilik Ilihakvik, Taloyoak, personal communications, November 19, 2024.

Nunavut Arctic College, Taloyoak, personal communications, November 19, 2024.

Nunavut Housing Corporation, Cambridge Bay, personal communications, November 6, 2024.

Omingmak Centre, Men's Shelter, Cambridge Bay, personal communications, November 5, 2024.

RCMP, Cambridge Bay, personal communications, November 4, 2024.

RCMP, Gjoa Haven, personal communications, November 14, 2024.

RCMP, Kugaaruk, personal communications, October 29, 2024.

RCMP, Kugluktuk, personal communications, November 8, 2024.

RCMP, Taloyoak, personal communications, November 18, 2024.

Tammaaquik Women’s Centre, Kugaaruk, personal communications, October 29, 2024.

Yellowknife Airport, Yellowknife, personal communications, May 5, 2025.

27 Assessment of Potential Effects on Employment and Economy

Employment and other economic considerations are a topic of strong interest to Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities and organizations. During engagement, local participants highlighted the importance of employment, business, and other economic opportunities across Kitikmeot communities.

Employment and Economy has been identified as a valued component (VC) because the Grays Bay Road and Port project (project) is anticipated to increase demand for goods and services, which has the potential to influence the local and regional economy. The project is also anticipated to result in employment opportunities, as well as training and employment-related labour income. Local hiring is viewed to strengthen community well-being and reduce reliance on transient workers, while training and education could help prepare residents for future job opportunities. Rising costs of living have sparked interest in potential opportunities for the Project to lower costs of goods. Traditional economic activities such as hunting, trapping and fishing remain important to the Kitikmeot Region, though these same rising costs have made participation more difficult for some.

This assessment is linked to other VC assessments. The potential effects assessed in the employment and economy section may affect (or be affected by) other VCs either through integration (information from other VCs is incorporated into this assessment) or support (information from this assessment is incorporated into the assessment of other VCs). Components of this assessment may be used to inform the following VCs:

- Traditional Land, Marine, and Resource Use (Section 24) – The traditional land, marine, and resource use section considers changes to land and water use, language, cultural activities, and harvesting by Inuit and other potentially affected Indigenous groups within the Kitikmeot Region of Nunavut. Changes in food security and harvesting could be a driver for changes to the traditional economy. Pertinent results of the traditional land, marine, and resource use section have been integrated into the employment and economy section.
- Food Security and Food Sovereignty (Section 25) – The food security section considers potential changes on both the traditional food system and the market system, including through changes to availability, access, utilization, and stability within these food systems. Changes in food security and food sovereignty could be a driver for changes in the traditional economy. Pertinent results of the food security and food sovereignty section have been integrated into the employment and economy section.

- Community Health and Well-being (Section 26) – The community health and well-being section holistically examines social determinants of health, including employment and economic conditions that can affect well-being. Pertinent results of the employment and economy assessment and analyses have been integrated into the community health and well-being section.
- Infrastructure and Services (Sections 28) – project-related employment could be a driver of population change and migration patterns that could affect demand for community services. Similarly, changes in community re-supply could change community resupply resilience. Pertinent results of the employment and economy and infrastructure and services assessments and analyses have been integrated into the respective sections.

This report conforms with requirements outlined in the Nunavut Impact Review Board's (NIRB 2025a; File 24XN038) Guidelines for the Preparation of an Impact Statement (IS) for the Project issued January 2026.

27.1 Scope of Assessment

This section describes the scope of the assessment of potential effects on the Employment and Economy VC, including influence of engagement and Inuit, Indigenous, and Community Knowledge on the assessment, regulatory setting, potential effects, pathways, and measurables parameters, assessment boundaries, definitions of criteria used for residual effects characterization, and significance definition for negative residual effects.

27.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Kitikmiut, other Indigenous groups, and other potentially affected communities about the Project. Through various meetings, workshops, and direct conversations, WKR listened to the cultural, environmental, and social priorities shared by engaged groups. These have been considered in the IS and project design. A summary of engagement activities conducted from 2016 to 2025 is presented in Volume 3, Section 6 (Public Engagement). Additionally, an Inuit Advisory Group (IAG) was established to advise WKR on potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, baseline conditions, significance determination, and consideration and integration of Inuit and Community Knowledge. Members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and water in the project area.

To further inform the project design, a project-specific Inuit Knowledge report titled Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road project Final Report (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the Naonaiyaotit Traditional Knowledge project was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

In addition to the engagement activities and knowledge gathering initiatives described above, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay (Ekaluktutiak), Gjoa Haven (Ursuqtuq), , Kugaaruk, Kugluktuk, and Taloyoak, along with organizations in Yellowknife, NT. Community-based primary research was conducted in the Kitikmeot Region in October and November 2024 and with Yellowknife organizations in May and June 2025.

In addition, publicly available sources of Inuit and Indigenous Knowledge were reviewed to provide further context about baseline conditions and how conditions are changing, as well as potential mitigation measures recommended on previous projects that could be considered for the Project. Results from monitoring studies and other community-based research were also reviewed.

Feedback identified through the socio-economic community-based research, project-specific engagement activities and through shared Inuit, Indigenous, and Community Knowledge (see Volume 3) has been integrated into the Grays Bay Road and Port project People and Communities Baseline Report (Appendix 25A). Refer to Volume 3 for details regarding public engagement for the Project and issues and concerns identified to date.

Through the Project-specific engagement program and community-based primary research, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations specifically related to employment and economic conditions. Through reviewing and considering the information, Inuit, Indigenous, and Community Knowledge has influenced key components of this assessment.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring and throughout the life of the Project. Continued engagement with communities, organizations, and stakeholders through the Nunavut Impact Review Board (NIRB) process will also support on-going identification of issues and mitigation measures to address them.

27.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge was reviewed with consideration to the proposed spatial boundaries. IAG members and Naonaiyaotit Traditional Knowledge project consultants who informed the Project-specific Inuit Knowledge report are primarily Kitikmiut and/or representatives of Kitikmeot communities; community-based primary research interviewees are representatives of Yellowknife or Kitikmeot communities and organizations. Information obtained through these sources contributed to the selection of spatial boundaries. The Local Assessment Area (LAA) considers the five main Kitikmeot communities, recognizing Kitikmiut as the primary users of the project area. The LAA and Regional Assessment Area (RAA) also considers that Kitikmeot communities and Yellowknife are those most likely to experience direct and indirect socio-economic effects as a result of the Project and of other projects and activities that are expected to act cumulatively with the Project (as discussed in this assessment; see also Sections 25, 26, 28, and 29). Kitikmeot communities and Yellowknife are interested in procurement and employment opportunities that will result during and from the Project. Refer to Section 27.1.4.1.

27.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining Inuit-led and collaboratively gathered knowledge (including the Project-specific community-based primary research, Naonaiyaotit Traditional Knowledge project, and IAG workshops). This was complemented with relevant publicly available information from Indigenous groups, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies based on western scientific methods. Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered in this assessment and summarized in Section 27.2.2.1, Table 27.3. This includes desired employment and training opportunities that may result from the Project and associated recommendations to maximize benefits for communities (Refer to Section 27.2).

27.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities (e.g., clearing, blasting, etc.) and project infrastructure could affect socio-economic conditions within the Employment and Economy VC LAA. Through socio-economic interviews, community meetings, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities provided perspectives and values, which were considered and integrated into the assessment as appropriate.

For example, local interest in Inuit hiring and employment opportunities for youth (IAG 2025b; IRC 2022) has helped scope the assessment of education and training (Section 27.3.4.1). Feedback and literature regarding the need for educational and training opportunities (IRC 2022; GBRP 2017 2025), as well as feedback related to student attendance in the north and the need for students to finish school to secure jobs (GBPR 2025), helped scope the assessment and confirm effects pathways (Section 27.3.5.1) that could lead to changes in education and training (Section 27.3.5). Feedback regarding the need for additional business opportunities in the Kitikmeot Region (GBPR 2017 2025), as well increased economic opportunities from an all-season road (Tłı̨cho Government 2017) helped confirm effects pathways (Section 27.3.6.1) that could lead to changes in contracting and business opportunities (Section 27.3.6). Interest around other economic opportunities associated with the Project (GBRP 2017 2025), as well as the need for a more robust and diversified economy that offers increased business and employment opportunities while also preserving traditional Inuit lifestyles (NPC 2021) helped identify potential effects (Section 27.3.3.1) that could lead to changes in economic development and opportunities (Section 27.3.3). Concerns about the high cost of living in the north (GBRP 2025) and interest in the project potentially helping reduce the cost of living (IAG 2025b) helped inform effects pathways (Section 27.3.7.1) that could lead to changes in community resupply resilience (Section 27.3.7). Concerns around food security and increased cost of living contributing to the decline of traditional activities, as well as feedback about the need for financial resources to participate in traditional activities (GKP 2010; NSMA 2001) helped confirm effects pathways (Section 27.3.3.1) that could lead to changes in traditional economy (Section 27.3.3).

Feedback has been integrated into the assessment of project effects on employment and economic conditions, where applicable (see Section 27.3). Feedback also helped guide planning for the Project's adaptive management and monitoring.

27.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas, species, and practices as well as socio-economic conditions that may experience cumulative effects from the Project in combination with other projects and activities in the Project's RAAs.

WKR wove together Inuit, Indigenous, and Community perspectives with western science to develop a holistic view of how multiple changes could affect employment and economic conditions over time. The analysis recognizes the importance of long-term monitoring, where local, Inuit co-developed monitoring will track combined effects to inform adaptive management plans (see Section 27.4). For example, many Inuit of the Kitikmeot Region, other Indigenous groups, and other potentially affected communities expressed interest in the economic opportunities associated with the Project, including the economic viability of other projects in the region (GBRP 2017, 2025). In particular, during early project engagement, the Municipality of Cambridge Bay expressed interest in understanding if other projects in the area would be proceeding (GBRP 2017).

27.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed with consideration of the priorities and values identified through Inuit, Indigenous, and Community Knowledge (see Volume 3). This supported WKR's consideration of whether there will be a measurable (negative) change from current economic conditions that is attributable to the Project and cannot be managed by managed or mitigated through adjustments to programs, policies, plans, or other mitigation, or if there is reduction in annual gross domestic product (GDP) growth as a result of the Project. In addition, members of the IAG provided additional criteria to consider when identifying whether the project is likely to have significant, or unacceptable, effects (see Sections 27.1.6 and 27.5). These criteria emphasized priorities such as incorporating Inuit perspectives in project design, locating the Project where communities can benefit, protecting water and wildlife, providing hunters access to Grays Bay and Jericho for supplies, avoiding negative impacts on caribou harvesting and food security, creating employment opportunities, and providing training opportunities (IAG 2025b).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR is committed to implementing proactive socio-economic planning strategies and monitoring plans that prioritize local training, employment, and business opportunities.

- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).
- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

27.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce negative effects from the Project and enhance benefits were identified.

A number of proposed mitigation, management, and enhancement measures were discussed and reviewed with Inuit community representatives during IAG workshops with the intent of developing and implementing measures that consider both the biophysical and human environment. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b).

Input from Inuit, Indigenous, and Community Knowledge has reflected interest in employment opportunities across all Kitikmeot communities, as well as the prioritization of Inuit and youth training and employment, local and Inuit contracting and business opportunities (GBRP 2017 2025; Tłįcho Government 2017), and other local economic opportunities associated with the Project (GBRP 2017, 2025). In response to this feedback, mitigation, management, and enhancement measures were developed with the goal of enhancing positive effects to local and Inuit populations, as well as enabling access to positive effects for underrepresented populations (e.g., women+ and youth).

Information obtained through Inuit, Indigenous, and Community Knowledge emphasized the importance of some of the mitigation measures listed in Sections 27.3.3.2, 27.3.4.2, 27.3.5.2, 27.3.6.2, and 27.3.7.2. For example, WKR proposes the development a Labour Relations Strategy to enhance and retain local Inuit employment, that will include gender, equity and diversity policies that focus on hiring Inuit, other Indigenous persons, and women to increase project employment among underrepresented populations; a Training Strategy that will identify specific skill requirements for employment at the Project and enable collaboration with local and regional training and educational facilities to increase opportunities for local Inuit and youth employment; a Procurement Strategy to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment. Additionally, Inuit co-developed monitoring and

reporting are proposed to support ongoing involvement and accountability (Section 27.5.3). The project will apply adaptive management strategies (see Section 27.5.3), informed by the results of a Socio-Economic Monitoring Program that monitors the Project's socio-economic outcomes.

27.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

27.1.2 Regulatory and Policy Setting

The management of employment and economic conditions is subject to several statutes, policies, and frameworks, which have been considered in the assessment of this VC.

The following federal and territorial acts and regulations are applicable to employment and economic conditions:

- Nunavut Lands Claims Agreement (also known as the Nunavut Agreement) - Establishes the legal and institutional framework for evaluating environmental and socio-economic impacts of development projects. Article 10 mandates the creation of the NIRB and Article 12 establishes the NIRB's duty in reviewing socio-economic impacts of project proposals.
- Nunavut Planning and project Assessment Act, NIRB - Provides for the assessment of ecosystemic and socio-economic impacts of projects in the Nunavut Settlement Area, and for the monitoring of approved projects, under Article 12 of the Nunavut Agreement.
- Workers' Compensation Act, Workers' Compensation General Regulations - Administered by the Workers' Safety & Compensation Commission, this legislation governs workers' compensation in Nunavut, including compensation to injured or diseased workers.
- Nunavut Development Corporation Act, Nunavut Development Corporation (NDC) - Establishes the NDC's investment framework and reporting guidelines and provides the NDC's mandate of creating employment and income for residents of Nunavut, stimulating the growth of business in Nunavut, and promoting economic diversification and stability. NDC annual reports quantify job creation activities.
- Occupational Training Agreements, Government of Nunavut (GN) – The Act empowers the Minister to create, coordinate, and support programs aimed at enhancing occupational and other essential skills among residents of Nunavut. The Act authorizes the Minister to enter into formal training agreements with employers, institutions, or organizations to design and deliver these skill-building initiatives. The Act also outlines the Minister's authority to implement regulations, oversee funding and program delivery, and make administrative provisions necessary for effective training support (GN 2014).

- Apprenticeship, Trade and Occupations Certification Act, GN - The Act sets the rules for apprenticeship and certification in designated trades and occupations. It establishes a Supervisor to manage apprentice registration, contracts, training, and exams, and a Board to advise on trade designations, hear appeals, and certify competence. Apprentices must be at least 16 and work under approved contracts. The Minister can issue certificates, regulate fees, and provide financial support. The Act also enables local advisory committees, outlines penalties for non-compliance, and sets standards for training, certification, and inspections (GN 2020).
- Labour Standards Act, GN – The Act sets minimum employment standards for most territorial workplaces, covering wages, hours, overtime, holidays, leave, termination notice, and meal breaks. It enforces a minimum wage (currently $19.75/hour), requires collective agreements to meet or exceed these standards, and excludes certain workers like trappers, fishers, and some professionals. The Act is enforced by a Labour Standards Officer, with appeals handled by the Labour Standards Board, and federal employees remain under the Canada Labour Code (GN 2022).

The following guidance documents are applicable to employment and economic conditions:

- Guidelines for the Preparation of an Impact Assessment, NIRB (2025a) – The guidelines provide a structured and culturally grounded framework for assessing proposed projects in Nunavut. Rooted in the Nunavut Planning and project Assessment Act and the Nunavut Agreement, the guidelines emphasize principles such as Inuit Qaujimajatuqangit, public engagement, sustainable development, and the precautionary principle (NIRB 2025a).
- Gender-based Analysis Plus (2024) - Gender-based Analysis Plus guidance applies to employment and economic conditions through the examination of how different population subgroups and intersectional identities may be differently affected by the Project (GOC 2024).

In addition, the management of employment and economic conditions is guided by Inuit, Indigenous, and Community Knowledge. Inuit Knowledge may also be referred to as Inuit Qaujimaningit, which encompasses “Inuit traditional knowledge (and variations thereof or Inuit Qaujimajatuqangit), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2018). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as Inuit Qaujimajatuqangit principles (NIRB 2018; Pauktuutit 2006). For more detail see Volume 3. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the IS. WKR has adopted this terminology and understands Inuit Knowledge encompasses Inuit Qaujimajatuqangit principles, which have been incorporated into the assessment of effects on employment and economic conditions.

27.1.3 Potential Effects, Pathways, and Measurable Parameters

The potential effects of the Project on employment and economic conditions are identified in Table 27.1. For each effect, effect pathways and indicators/measurable parameters have been identified to facilitate the quantitative and/or qualitative measurement of change in project-specific and cumulative effects potentially caused by the Project.

Where possible, the assessment of potential effects on employment and economic conditions has used measurable parameters that are quantifiable (e.g., employment rate, employment income, gross domestic product, government revenue). However, not all effects can necessarily be quantified (e.g., extent to which vulnerable populations experience disproportionate effects). Therefore, some effects are predicted qualitatively through use of literature and professional judgment.

Table 27.1 Potential Effects, Effects Pathways and Measurable Parameters for Employment & Economy

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in economic development and opportunities	Project operation will support wider economic objectives for the Kitikmeot Region and Nunavut. project expenditure on labour, materials, equipment and services will result in increased economic activity, contributions to gross domestic product (GDP) and contributions to municipal, territorial and federal government revenues. project-related changes on the traditional economy including hunting and fishing.	GDP contribution (direct, indirect and induced) Municipal, territorial and federal government tax revenue contributions Support for long-term economic growth and diversification
Change in employment	Project demand for labour has the potential to result in changes to regional employment. project-related employment will provide labour income to employees. Project demand for labour, materials, equipment, and services could increase competition for workers. Project employment (e.g., rotational shiftwork) may reduce time available for workers to participate in the traditional economy. Salaries paid to project workers may enable greater participation in traditional activities.	Qualified labour supply (persons), employment rate, participation rate, wage levels, labour income Employment indicators of relevant sub-populations (identified through GBA+ (e.g., indigeneity, gender, other identity factors) Project workforce (average and peak number by phase) Estimates of direct, indirect and induced employment with reference to affected industries and occupations where applicable Unemployment rates Availability of construction workers Qualitative evaluation of opportunity (economic resources, time, and access) to participate in traditional economy

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in education and training	The project could create opportunities to develop and deliver education and training programs to establish a qualified local workforce that can fully operate the Project over the long term. The project could increase enrollment in education and training programs that support certification in skilled trades. The project's demand for labour may cause some students to leave school for work on the Project.	Levels of educational attainment Attendance rates Training programs offered and uptake of programs
Change in contracting and business opportunities	Project expenditures on materials, equipment, and services will create procurement opportunities for regional business.	Value of local and regional spending and procurement Availability of local businesses/ contractors
Change in community resupply resilience	The project could put pressure on existing community resupply capacity by increasing demand. The project could strengthen community resupply resilience by introducing new land and marine infrastructure to support community resupply.	Community resupply capacity via air freight, water and ground transportation.

27.1.4 Boundaries

27.1.4.1 Spatial Boundaries

The following describes the spatial boundaries used for the assessment of effects of the Project on employment and economic conditions.

Project Development Area

The project Development Area (PDA) encompasses the physical footprint of all project components and activities, including both permanent and temporary disturbances, as well as space to accommodate potential design changes based on ongoing studies and investigations. The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. See Volume 2, Section 2.6.1 and Volume 4, Section 9.2.4 for further details on the PDA.

Local Assessment Area

The LAA for the Employment and Economy VC (Figure 27.1) is comprised of the PDA and five main Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven.

Regional Assessment Area

The RAA for the Employment and Economy VC is the Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven; as well as the primarily seasonal settlements of Bathurst Inlet and Bay Chimo in the Kitikmeot Region; and part of the Northwest Territories, focusing on Yellowknife, since Yellowknife will serve as a logistics and staging location for the Project (Figure 27.1).

27.1.4.2 Temporal Boundaries

The following temporal boundaries were used in the assessment of the Employment and Economy VC:

- The Construction phase of the Project will take approximately 5 years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The Operations and Maintenance phase of the Project will start in 2035 and will continue in perpetuity.





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

- Local Assessment Area (LAA)
- Regional Assessment Area (RAA) (including Yellowknife)
- Grays Bay Port
- Grays Bay Road
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Ocean
- Watercourse
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

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NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2025-12-02
TR by SL on 2025-12-02

Client/Project
123514868_015

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
27.1

Title
Employment and Economy Assessment Area

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27.1.5 Residual Effects Characterization

Table 27.2 presents definitions and criteria that are used to characterize the residual effects on the Employment and Economy VC.

Table 27.2 Characterization of Residual Effects on Employment & Economy

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect	Positive – a residual effect that moves measurable parameters in a direction beneficial to employment and economic conditions relative to baseline. Adverse – a residual effect that moves measurable parameters in a direction detrimental to employment and economic conditions relative to baseline. Neutral – no net change in measurable parameters for the employment and economic conditions relative to baseline.
Magnitude	The extent of a change in measurable parameters or the VC from baseline conditions.	None / Negligible – effect cannot be distinguished from existing baseline conditions. Low – effect is detectable, without changing economic conditions. Moderate – effect would result in demonstrable change in economic conditions, but would not present a management challenge. High – effect would result in substantial change in economic conditions and presents a management challenge.
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	PDA – residual effects are restricted to the PDA LAA – residual effects extend beyond the PDA into the LAA RAA – residual effects extend beyond the LAA and interact with those of other projects in the RAA
Timing	Considers if residual effect is seasonal or sensitive to timing.	Not Applicable – seasonal aspects are unlikely to affect residual effect on employment and economic conditions. Applicable – seasonal aspects may affect residual effect on employment and economic conditions.
Duration	The time required until the measurable parameter or the VC returns to its existing condition, or the residual effect can no longer be measured or otherwise perceived.	Short-term – the residual effect is restricted to no more than the duration of the Construction phase (five years). Long-term – the residual effect extends beyond the Construction phase and into Operations and Maintenance.
Frequency	How often an effect is predicted to occur.	Single event Multiple irregular event – occurs at no set schedule Multiple regular event – occurs at regular intervals Continuous – occurs continuously
Reversibility	The degree to which a VC can be returned to baseline conditions or other established reference point after relevant activities have ceased.	Reversible – the residual effect is likely to be reversed Irreversible – the residual effect is unlikely to be reversed

27.1.6 Significance Definition

During the September 2025 IAG workshop, participants discussed what changes they considered acceptable or unacceptable to inform the determination of significance of effects. With respect to employment and economic conditions, feedback received from IAG members (IAG 2025b) identified the following priorities:

- That Inuit perspectives are considered and addressed in project design,
- That the Project is located where community members can benefit,
- That water and wildlife are protected,
- That the Project provides access to hunters and supplies for hunters at both Grays Bay and Jericho,
- That the Project does not negatively affect peoples' ability to harvest caribou and put food on the table,
- That the Project provides employment opportunities, and
- That the Project provides training opportunities.

Effects identified as positive are not assessed for significance. However, a significant adverse residual effect on employment and economic conditions is defined as one where:

- The project will create a measurable change from current conditions and trends at the community level that are attributable to the Project and cannot be managed or mitigated through adjustments to programs, policies, plans, or through other mitigation.
- The project will result in a reduction in annual GDP growth at the territorial level.

27.2 Baseline Conditions

27.2.1 Methods

To inform understanding of employment and economic baseline conditions, multiple sources of information were considered, including statistical data, academic literature, grey literature (e.g., reports and government documents), and Inuit, Indigenous, and Community Knowledge perspectives and values gathered through engagement and community-based primary research. Further information on methods is described in the Grays Bay Road and Port project People and Communities Baseline Report (Appendix 25A).

27.2.1.1 Literature Review and Secondary Data Sources

Quantitative and qualitative information on baseline conditions for employment and economic conditions for the LAA and RAA was obtained from the following sources:

- Government of Nunavut (GN)
- Government of Northwest Territories (GNWT)

- Inuit Tapiriit Kanatami (ITK)
- Municipal Governments
- Nunavut Tunngavik Incorporated
- Personal Communications
- Smart Property Institute
- Statistics Canada
- West Kitikmeot Resources
- Yellowknives Dene First Nation
- Yellowhead Chamber of Commerce
- Yellowhead Institute

Disaggregated data by territorial region and by community are not always available. In instances where regional- or community-specific data are not available, Nunavut and Northwest Territories (NT) data are assumed to broadly represent similar trends found in the Kitikmeot Region and communities and in NT and Yellowknife.

27.2.1.2 Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified.

Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to People and Communities in the Kitikmeot Region between October and November 2024. A social sciences research license was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

Interviews with community members and key informants in each Kitikmeot community were conducted to inform baseline conditions and identify issues of interest and concern related to People and Communities. Interviewees included, regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organization and general community members.

Yellowknife

Key person interviews were also undertaken with select government agencies, stakeholders, and community organizations in Yellowknife in May and June 2025. Research licenses were obtained from the GNWT Department of Education, Culture and Employment (License Number 5957 and 6135) and ethics approval was obtained from Aurora Research Institute (Approval Number AC-REC 24-09) to conduct research in Yellowknife.

27.2.1.3 Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded by written notes and audio recording, when consent was granted. Written notes and audio recordings were later typed and transcribed, respectively. Primary research underwent thematic analysis, which grouped findings into major themes that align with the various VCs presented in the People and Communities Baseline Report (Appendix 25A). Key findings of data analysis were integrated into the baseline report.

27.2.1.4 Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of the research program, the methods used, and the interpretation of information. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination that can occur based on gender, sexuality, Indigeneity and other identity factors. All members of the research team have taken unconscious bias training to address this. This is a 2-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be managed. In addition, this assessment has incorporated a Gender Based Analysis Plus (GBA Plus) framework to help further address this.

Gender Based Analysis Plus (GBA Plus)

The GBA Plus framework guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the inclusion of potential factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including the impact of colonialism.

In addition to the GBA Plus framework, Pauktuutit Inuit Women of Canada has produced an Inuit-Specific GBA Plus framework to reflect the unique needs, voice, and social experiences of Inuit women, girls, and gender-diverse populations (Pauktuutit 2025). Pauktuutit suggests that considering the whole person and all of their intersectional identities contributes to equity. Inuit cultural values, lifeways, and worldviews are the foundation of the Inuit-Specific GBA Plus framework.

Subpopulations for further assessment have been selected based on the GBA Plus and Inuit-Specific GBA Plus frameworks, feedback from engagement, through literature on socio--community impacts from industrial development projects, and on the professional experience and knowledge of the socio-economic technical team. Sub-populations that have been selected for consideration in the assessment and rationale for their inclusion are provided in Table 27.3.

Table 27.3 Gender Based Analysis Plus Sub-Populations

Sub-Population	Rationale for Inclusion
Inuit	Inuit are distinct from First Nations and Métis peoples and are the predominant Indigenous peoples in Kitikmeot communities. Inuit may experience systemic racism, intergenerational trauma, food insecurity, lower incomes and worse health outcomes more than the overall Canadian population.
Hunters and trappers	Hunters and trappers may experience differential effects of the Project as a result of their close connection to the land and water, should effects in those areas occur.
Other Indigenous peoples	Yellowknife is populated by First Nations and Métis peoples as well as Inuit. Indigenous peoples may experience systemic racism, intergenerational trauma, food insecurity, lower incomes and worse health outcomes more than the overall Canadian population.
Indigenous women and girls	Indigenous women and girls are a potentially vulnerable population and may experience differential effects due to the complex interrelationship between colonialism and intergenerational trauma, their gender identity, and the Project.
Women+[a]	Women+ are a distinct subpopulation and may experience differential effects due to the complex interrelationship between their gender identity, gender norms, and the Project.
Men+[a]	Men+ are a distinct subpopulation and may experience differential effects due to the complex interrelationship between their gender identity, gender norms, and the Project.
Low-income individuals and households	The Kitikmeot Region has a relatively high proportion of people living below the poverty line when compared to the overall population of Canada. Low-income individuals and households are a potentially vulnerable population and may experience differential effects due to pre-existing barriers to inclusion in the Project and limited social safety nets.
People with disabilities[b]	People with disabilities are a potentially vulnerable population and may experience differential effects due to pre-existing barriers to inclusion in the Project and limited social safety nets.
Lone parent families[b]	Lone parent families may experience differential effects due to pre-existing barriers to inclusion in the Project and limited social safety nets.
2SLGBTQQIA+ community	The Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Asexual, Other identities and orientations (2SLGBTQQIA+) community may experience differential effects due to the complex interrelationship between their gender identity, gender norms, and the Project.
Youth	The Kitikmeot Region has a relatively young population distribution when compared to the overall Canadian population. Youth may experience differential effects because the Project may have a larger impact over the longer course of their lifetime or due to opportunities for more training, waged employment, and/or potential erosion of the traditional economy and way of life due to waged employment.
Elders	Elders may experience differential effects because of distress caused by environmental change, due to potential barriers to inclusion in the Project, and/or limited social safety nets.

Notes:

a Where available, population data disaggregated by gender will be used to support the GBA Plus and sub-populations will be identified by gender identifiers, such as “women,” “men,” and “gender-diverse.” However, population data is not always disaggregated by gender. For example, prior to the 2021 Census, population data was disaggregated based on binary sex identifiers “female” and “male.” In these instances, population data disaggregated by sex will be used in the assessment.
Furthermore, per Statistics Canada (2022):
Given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided. In these cases, individuals in the category "non-binary persons" are distributed into the other two gender categories and are denoted by the "＋" symbol.
"Men＋" includes men (and/or boys), as well as some non-binary persons.
"Women＋" includes women (and/or girls), as well as some non-binary persons.

b Although disaggregated in this table, people with disabilities and lone parent families may also be low-income individuals and households, and disproportionate effects on these subgroups may be a result of limited employment and economic opportunities, resulting in low income.

27.2.2 Overview

Baseline employment and economic conditions are described for both the LAA, focused on the Kitikmeot Region, and the RAA, which includes Yellowknife, NT as a regional economic hub. The baseline focuses on six key areas relevant to potential project effects: territorial and regional economy, regional business activity, employment, education and training, cost of living, government finances and traditional economy.

To inform understanding of the employment and economic setting, multiple sources of information were considered, including Inuit, Indigenous, and Community Knowledge perspectives and engagement feedback.

27.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the Project-specific engagement program undertaken from 2016 to 2025, including community meetings, IAG workshops, community-based primary research, and through a review of publicly available traditional land, marine and resource use information, participants shared information, expressed concerns, and provided recommendations related to employment and economic conditions. This feedback has been considered and summarized in Table 27.4 and has been integrated into the assessment of potential effects on employment and economic conditions that follows.

Table 27.4 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback Related to Employment and Economy

Topic	Comment	WKR Response	Where Addressed
Economic Development and Opportunities	During project engagement, Taloyoak Elders expressed concern that the community would not benefit from the Project as they are not close to the Project location (GBRP 2025). During project engagement, Taloyoak residents expressed concern that the road would result in a lot of tourists from Yellowknife (GBRP 2025). During project engagement, the Hamlet of Gjoa Haven described the value of critical minerals to the local economy and wealth building (GBRP 2025). During early project engagement, the Municipality of Cambridge Bay inquired if other projects would proceed in the area (GBRP 2017). During engagement for a previous project, the Tłı̨cho Government shared that increased economic opportunities would be a positive outcome from an all-season road (Tłı̨cho Government 2017). During a public comment period for the NIRB, the Kugluktuk Hunters and Trappers Organization (HTO) commented that due to the many mines and exploration sites in the Kitikmeot Region, there was no local capacity to fill jobs for the Grays Bay Road and Port. The Kugluktuk HTO also added that the Project would not directly benefit communities since it would be a road to “nowhere” (NIRB 2024). During a public scoping meeting for the NIRB, community members in Inuvik expressed concern about induced development and potential effects to future business owners (NIRB 2025b).	The project’s potential effects on economic development and opportunities are assessed, including consideration of disproportionate effects to sub-populations. Mitigation and enhancement measures to promote and sustain regional and Inuit employment are proposed, including a Labour Relations Strategy and an Employee and Family Assistance Program. Mitigation and enhancement measures to facilitate regional and Inuit business involvement are proposed.	The project’s potential effects on economic development and opportunities are assessed in Section 27.3.3. Mitigation and enhancement measures to promote and sustain regional and Inuit employment are described in Section 27.3.4.2. Mitigation and enhancement measures to support education and training are described in Section 27.3.5.2. Mitigation and enhancement measures to support regional and Inuit procurement opportunities are described in Section 27.3.6.2.
Employment Opportunities	During project engagement, Kugluktuk and Taloyoak community members and the Kugaaruk hamlet and Municipality of Cambridge Bay inquired about economic and employment opportunities from the Project (GBRP 2017, 2025) During a public scoping meeting for the NIRB, community members in Kugaaruk and Taloyoak inquired if employment and training opportunities would be extended to other Kitikmeot communities besides Cambridge Bay and Kugluktuk (NIRB 2025b).	The project’s potential effects on employment are assessed, including consideration of disproportionate effects to sub-populations. The assessment of project-related effects to employment and economic conditions relies on estimates of the Statistics Canada Inter-provincial Input Output Model.	The project’s potential effects on employment are assessed in Section 27.3.4. Analytical assessment techniques, including the Statistics Canada Inter-provincial Input-Output Model, are described in Section 27.3.1. Mitigation and enhancement measures for employment are described in Section 27.3.4.2.

Topic	Comment	WKR Response	Where Addressed
Employment Opportunities (cont'd)	During project engagement, Gjoa Haven, Hamlet of Kugaaruk , Kugaruuk public, and Taloyoak community members and Hunters and Trappers Organization (HTO) representatives inquired whether all five communities would have equal employment opportunities (GBRP 2025). During project engagement, the Kugluktuk and Kugaaruk hamlets, and community members in Gjoa Haven commented that the Project would create employment for the youth (GBRP 2025). During a public scoping meeting for the NIRB, community members from Kugluktuk inquired on training and employment opportunities for Inuit (NIRB 2025b). During a public scoping meeting for the NIRB, community members from Kugluktuk expressed concerns regarding illegal workers (NIRB 2025b) IAG members recommended WKR prioritize hiring Inuit and finding employment pathways for youth (IAG 2025b). During project engagement, Gjoa Haven community members shared that Inuit need to be a priority for hiring (GBRP 2025). During early project engagement, the Gjoa Haven public stated that Inuit should be involved in project employment and road maintenance (GBRP 2017). During early project engagement, the Municipality of Cambridge Bay inquired if employment positions would be filled with local community members. They also inquired if economic modelling of the Project would be done (GBRP 2017). IAG members expressed concern that there would be unequal hiring opportunities (IAG 2025a). During early project engagement, the Tłı̨cho Government recommended that jobs should be available for local communities and local businesses that are tied to the Tłı̨cho Investment Corporation (GBRP 2017). During engagement for a previous project, North Slave Métis Alliance shared the importance of work and the belief that poor community health correlated to the absence of work (NSMA 2001). During engagement for a previous project, North Slave Métis Alliance expressed concern that an increase in income could be used negatively (i.e., to buy alcohol or drugs) (NSMA 2001). IAG members recommended an employee assistance program be developed to support individuals who are working on the Project (IAG 2025b).	Mitigation and enhancement measures to promote and sustain regional and Inuit employment are proposed, including a Labour Relations Strategy and an Employee and Family Assistance Program. Mitigation and enhancement measures to support youth participation in employment are proposed, including apprenticeship programs, internships, and seasonal employment.	Mitigation and enhancement measures for education and training are described in Section 27.3.5.2. Mitigation and enhancement measures to support regional and Inuit procurement opportunities are described in Section 27.3.6.2. See Section 26 (Assessment of Potential Effects on Community Health and Well-being) for information on how changes to social determinants of health (e.g., employment and income) can positively or adversely contribute to changes in mental and emotional health and health behaviors.

Topic	Comment	WKR Response	Where Addressed
Employment Opportunities (cont'd)	IAG members shared that the Project location is far away from some communities and inquired how people would get to work (IAG 2025a).		
Education and Training	During project engagement, the Hamlet of Kugluktuk shared that training is important for the youth and that they are developing a program to train future heavy equipment operators (GBRP 2025). During early project engagement, the Kugaaruk public inquired if Inuit would be trained and employed to clean up spills if they were to occur (GBRP 2017). During early project engagement, Gjoa Haven HTO and Hamlet of Kugaaruk inquired about training courses for the Project (GBRP 2017). During early project engagement, Gjoa Haven school attendees inquired about summer employment and training (GBRP 2017). During engagement on a previous project, the Hamlet of Gjoa Haven expressed interest in training opportunities for high school and college students (Hamlet of Gjoa Haven 2003). Through publicly available literature, Inuvialuit Regional Corporation shared the importance of developing educational and training opportunities for Inuvialuit. Inuvialuit Regional Corporation also shared that hiring locally would reduce the need for transient workers and help the community economically benefit short term and long term from projects (IRC 2022). During engagement for a previous project, the Tłı̨cho Government shared that increased education and opportunities would be a positive outcome from an all-season road (Tłı̨cho Government 2017). During project engagement, the Hamlet of Gjoa Haven shared that the students enrolled in school would be the workers for the Project. They also shared that students have a low attendance rate and they are looking for ways to increase the attendance rate. The Hamlet of Gjoa Haven emphasized that students need to finish school to secure employment (GBRP 2025). During a public scoping meeting for the NIRB, Gjoa Haven and Cambridge Bay community members inquired about training opportunities for youth (NIRB 2025b).	The project's potential effects on education and training are assessed, including consideration of disproportionate effects to sub-populations. Mitigation and enhancement measures to provide pre-employment training (in partnership with local educational institutions and Inuit organizations) for Nunavut Inuit and youth are proposed. Mitigation and enhancement measures to encourage completion of high school are proposed. Mitigation and enhancement measures to support youth participation in education and training opportunities are proposed, including apprenticeship programs, internships, and seasonal employment. Mitigation and enhancement measures to promote and sustain regional and Inuit employment are proposed, including a Labour Relations Strategy and an Employee and Family Assistance Program.	The project's potential effects on education and training are assessed in Section 27.3.5. Mitigation and enhancement measures for education and training are described in Section 27.3.5.2. Mitigation and enhancement measures for employment are described in Section 27.3.4.2.

Topic	Comment	WKR Response	Where Addressed
Contracting and Business Opportunities	During early project engagement, Cambridge Bay community members asked how the Project would benefit local businesses (GBRP 2017).	The project's potential effects on contracting and business opportunities are assessed, including consideration of disproportionate effects to sub-populations. Mitigation and enhancement measures to facilitate regional and Inuit business involvement are proposed.	The project's potential effects on contracting and business opportunities are assessed in Section 27.3.6. Mitigation and enhancement measures to support regional and Inuit procurement opportunities are described in Section 27.3.6.2.
Traditional Economy	During engagement for the project, community members confirmed the ongoing importance of the traditional economy to community health and well-being (RHA 2003; NPC 2021; GKP 2010). During engagement on a previous project, it was reported that the economy of Kitikmeot communities is typical of a mixed economy and composed of the wage economy, government transfer payments, and traditional activities. Some residents work in lodges as guides to tourists and hunters in the summer and fall and others are artists who sell work in the community and southern Canada (RHA 2003). During engagement on a previous project, it was reported that the traditional economy is important to many Yellowknife residents (RHA 2003). During a previous research project in the Kitikmeot Region, it was reported that participation in traditional activities has become challenging for those who do not have sufficient income (Prno et al. 2011). During engagement on previous projects, members of North Slave Métis Alliance reported that they continue to carry out their traditional practices of hunting, trapping, and fishing as well as participating in the wage economy. However, it appears that fewer North Slave Métis are hunting and trapping today than in the past. Members find it difficult to hunt as the cost of fuel and equipment is increasing (GKP 2010; NSMA 2001). During engagement for a previous project, Yellowknives Dene First Nation expressed concern that impacts to wildlife would affect their local hunting economy. Some members rely on income from trapping and hunting and shared concerns regarding the sustainability of the hunting/trapping economy if wildlife become affected by project activities (GNWT 2017).	The project's potential effects on participation in the traditional economy are assessed, including consideration of disproportionate effects to sub-populations. Mitigation and enhancement measures to support continued participation in traditional activities are proposed.	The project's potential effects on the traditional economy are assessed in Section 27.3.3 and Section 27.3.4. Mitigation and enhancement measures to support continued participation in traditional activities are described in Section 27.3.3.2 and 27.3.4.2. See Section 24 (Traditional Land, Marine, and Resource Use) for information on project-related change to traditional activities. See Section 25 (Food Security and Food Sovereignty) for information on project-related changes in the traditional food system.

Topic	Comment	WKR Response	Where Addressed
Community Resupply Resilience	During project engagement, Gjoa Haven residents expressed concern regarding cost of living (GBRP 2025). During project engagement, Taloyoak residents commented that the Project may help to reduce the cost of living once a road was built from Yellowknife to the Nunavut border (GBRP 2025). During project engagement, Cambridge Bay residents commented that cost of living improvements will primarily benefit those who are not receiving government subsidies (GBRP 2025). During project engagement, the Kugaaruk HTO commented that the road would make shipping fuel and dry goods to communities cheaper (GBRP 2025). IAG members highlighted the importance of ensuring the Project helps to reduce the cost of living (IAG 2025b). During project engagement, the Municipality of Cambridge Bay inquired if other projects would proceed in the area (GBRP 2025). During a public scoping meeting for the NIRB, Taloyoak, Cambridge Bay, and Gjoa Haven, community members inquired if food, price of materials would decrease (NIRB 2025b).	The project's potential effects on community resupply resilience are assessed, including consideration of disproportionate effects to sub-populations. Mitigation measures to reduce adverse effects to community resupply resilience are proposed.	The project's potential effects on community resupply resilience are assessed in Section 27.3.7. Mitigation measures to reduce adverse effects to community resupply resilience are described in Section 27.3.7.2. See Section 25 (Food Security and Food Sovereignty) for information on project-related changes in food security. See Section 28 (Infrastructure and Services) for information on project-related changes in community resupply.

27.2.2.2 Territorial Economy

Nunavut

The Nunavut economy is mixed, comprising both traditional and market economic systems. The traditional economy is largely based on subsistence land use and is connected to culturally important activities, including traditional harvesting and fishing, and the production of Inuit art and crafts. The market, or wage-based economy is supported by several key industries such as mining, public administration, and construction. Many Inuit participate in both the traditional and market economies and wage employment often supplements subsistence activities (and vice-versa). Wage employment may be seasonal or variable depending on harvesting seasonality, life stage of Inuit, and availability of wage employment.

In 2023, the total GDP of Nunavut was $3.9 billion. Of Canada's territories, Nunavut's GDP was greater than Yukon ($3.4 billion) and below Northwest Territories ($4.3 billion) (Statistics Canada 2024a). The industries that represented the largest contributions to GDP that year were mining, quarrying, and oil and gas extraction ($1.37 billion, or 35.3%), public administration ($689.9 million, or 17.8%), and construction ($287.1 million, or 7.4%) (Statistics Canada 2024b). Between 2022 to 2023, Nunavut reported the largest annual increase in GDP across Canada's provinces and territories at 3.4% with growth predominantly driven by the construction industry. This follows a longer-term trend of growth for the Nunavut economy, having seen growth of 52.8% in the decade between 2013 to 2023, and growth of 161.6% in the 20-years between 2003 to 2023 (Statistics Canada 2024a).

Kitikmeot Region

The Kitikmeot Region's community economies (beyond territory-level GDP figures) are not well-captured in available secondary data. Several community members noted that Cambridge Bay functions as a regional hub with retail, construction, and government offices, yet struggles with workforce shortages. Gjoa Haven similarly experiences high staff turnover and a limited pool of trained workers.

> Everybody—every single employer in town right now—is short staffed…It's very hard to find qualified people. Every store in town is looking for people…We can't get water and sewer delivery because the truck drivers aren't showing up for work. (Kitikmeot Community Futures Incorporated, Cambridge Bay, November 6, 2024, pers. comm.)

> There's lots of turnover in staff for jobs across the community [Gjoa Haven]. (Hamlet Staff, Gjoa Haven, November 14, 2024, pers. comm.)

> We have very high needs and the lowest school attendance rates in Nunavut…It is hard to find people who can do the work we need. People that have those skills sometimes seek work at mines…They come back with stronger work habits. (Hamlet Staff, Gjoa Haven, December 5, 2024, pers. comm.)

These observations indicate a small labour force with limited specialized training currently exists, which makes it challenging to quantify local economic sectors using traditional data. Primary research also suggests there are many unemployed people and that the persistent impacts of colonialism are related to unemployment rates, and that healing from intergenerational trauma may be required before some people are ready to become employed (Kitikmeot Inuit Association, Cambridge Bay, October 29, 2024, pers. comm.; Omingmak Centre, Men's Shelter, Cambridge Bay, November 5, 2024, pers. comm.). Many businesses—especially in Cambridge Bay—compete for the same pool of workers, while Gjoa Haven faces capacity shortfalls and a higher turnover. High living costs, a small population, and infrastructure gaps also limit growth.

Northwest Territories

In 2023, the Northwest Territories generated $4.3 billion in GDP, which was the largest of Canada's three territories (Statistics Canada 2024a). The industries that represented the largest contributions to GDP that year were public administration ($843.7 million, or 19.8%), mining, quarrying, and oil and gas extraction ($702.0 million, or 16.5%) and real estate and rental and leasing ($450.8 million, or 10.6%) (Statistics Canada 2024b).

Between 2022 and 2023, the Northwest Territories economy contracted slightly by 0.1%, primarily due to a 5.6% decrease in the mining sector, reflecting the vulnerability of the territorial economy to fluctuations in resource-based industries (Statistics Canada 2024a). Between 2003 to 2023, the Northwest Territories GDP declined by 12.2%. Over the 20-year period, GDP peaked at $5.3 billion in 2007, and was at its lowest level, in 2020 at $4.0 billion (Statistics Canada 2024b).

27.2.2.3 Traditional Economy

Traditional economic activities remain vital for Kitikmeot communities. Nunavut's traditional economy is historically based on Inuit traditional activities, which include subsistence land use and are connected to culturally important activities, including traditional harvesting and fishing, and the production of Inuit art and crafts (GN n.d.; Yellowhead Institute 2024). The practice of traditional economic activities creates jobs, markets, and economic opportunities (Yellowhead Institute 2024), while also producing substantial amounts of food. Many Inuit supplement traditional economic activities with wage-based employment (and vice-versa). Hunters and trappers maintain close ties to the land.

Traditional economic activities are reliant on the health of Arctic terrestrial and marine ecosystems. Harvesting Arctic animals provides meat for food, fur and skin for clothing, and bones for tools, games and art. For example, whales are a source of country food; whale teeth and bones, as well as narwhal tusks, are used for jewelry and carving. Caribou, seals and polar bears are another source of food and pelts, and muskox can be used as a source of food, pelts, horns, and clothing (Smart Prosperity Institute 2023; Yellowhead Institute 2024).

Dollar estimates of Nunavut's traditional harvesting economy vary across studies. In 2021, the Government of Nunavut cited a study that estimated the current traditional harvesting economy's worth at approximately $40 million annually (GN n.d.). In 2023, the Smart Prosperity Institute cited a different study which estimated "the replacement value of hunting, trapping, and fishing in Nunavut's country food economy at nearly $200 million a year" (Smart Prosperity Institute 2023).

The production of Inuit art plays a role in the economies of many of Nunavut's communities. It is estimated the arts and crafts sector contributes approximately $33 million to the territory's economy. Soapstone carvings and prints are produced in the communities of Cape Dorset and Baker Lake, with tapestries and weavings produced in Pangnirtung (GN n.d.). Vendors of Inuit art in the Kitikmeot Region include, but are not limited to, Taluq Designs in Taloyoak, the Visitors Centre in Kugluktuk, and the Nattilik Heritage Centre in Gjoa Haven.

Cost can be a barrier to traditional harvesting (ITK 2021). The cost of modern hunting equipment (e.g., tools, ammunition, campsite equipment, snowmobiles, all-terrain vehicles, and watercraft) is estimated between $20,000 and $30,000 for seasonal hunters, with an all-season hunting outfit valued over $70,000 (Smart Prosperity Institute 2023). Primary research affirms that participation in traditional harvesting is an expensive pursuit when considering equipment, gas, and maintenance (Community Elder, Kugaaruk, October 31, 2024, pers. comm.; Community Member, Cambridge Bay, November 3, 2024, pers. comm.). Wage employment, income, and education are associated with increased participation in traditional harvesting (Statistics Canada 2019).

During engagement, concerns regarding the protection of caribou (including the Dolphin and Union and Beverly herds), access to traditional lands, and food security were identified (Appendix 25A). These factors reflect the continued relevance of the traditional economy to Inuit and in the assessment of project effects.

27.2.2.4 Regional and Territorial Business Conditions

Nunavut

In December 2023, there were 1,347 businesses in Nunavut. The industries with the greatest number of businesses were real estate and rental and leasing (188 businesses), health care and social assistance (143 businesses), and public administration (118 businesses). Of the 1,347 businesses in Nunavut, 737 (55%) had employees and 610 (45%) had no employees (e.g., the business is a sole proprietorship or is a limited liability company) (Statistics Canada 2024c). Of the businesses in Nunavut, the majority were owned by men+ (61.3% in 2021) (Statistics Canada 2024f).

As of July 2024, Nunavut Tunngavik Incorporated's Inuit Firm Registry Database listed 104 Inuit-owned businesses in the Kitikmeot Region, of which 65 were in Cambridge Bay, 13 were in Gjoa Haven, 13 were in Kugluktuk, 12 were in Taloyoak, and one was in Kugaaruk (Nunavut Tunngavik Incorporated n.d.). In December 2023, the industries with the greatest number of businesses (with employees) in the Kitikmeot Region were public administration (14 businesses), retail trade (13 businesses), utilities (10 businesses), health care and social assistance (10 businesses), and accommodation and food services (10 businesses) (Statistics Canada 2024d).

Yellowknife

In December 2023, there were 827 businesses operating in Yellowknife. The industries with the greatest number of businesses were construction (102 businesses), professional, scientific and technical services (91 businesses) and retail trade (88 businesses) (Statistics Canada 2024d).

As of July 2024, the Yellowknife Chamber of Commerce business directory listed 18 Indigenous owned businesses in Yellowknife, the Yellowknives Dene business directory listed 41 organizations in Yellowknife, and Nunavut Tunngavik Incorporated's Inuit Firm Registry Database listed five Inuit-owned businesses located in Yellowknife (Yellowknife Chamber of Commerce n.d.; Yellowknives Dene First Nation n.d.; Nunavut Tunngavik Incorporated n.d.).

27.2.2.5 Labour Force and Employment

Nunavut

In 2021, the Nunavut labour force totalled 14,380 people (49.4% women+, 50.6% men+), of which 10,535 people identified as Indigenous (primarily Inuit) (50.3% women+, 49.7% men+). Of the total Nunavut labour force, 11,945 people were employed (48.7% employment rate) and 2,435 people were unemployed (16.9% unemployment rate) (Table 27.5; Statistics Canada 2022).

The total labour force of the five communities in the Kitikmeot Region in 2021 was 2,330 people (51.3% women+), of which 1,885 people identified as Indigenous (49.6% women+, 50.4% men+). Across the five communities in the Kitikmeot Region, there were 1,855 people employed and 440 people unemployed. The participation rate ranged from 37.7% in Taloyoak to 65.3% in Cambridge Bay. The employment rate ranged from 32.5% in Taloyoak, to 56.2% in Cambridge Bay and the unemployment rate ranged from 11.6% in Taloyoak to 27.5% in Kugluktuk (Statistics Canada 2022).

The most common occupations in Nunavut in 2021 were sales and service occupations (3,110 people, 21.6%), occupations in education, law and social, community and government services (2,950 people, 20.5%) and trades, transport and equipment operators and related occupations (2,610 people, 18.2%). Across the five communities in the Kitikmeot Region, the most common occupations matched those of the wider territory (Table 27.6) (Statistics Canada 2022).

In Nunavut, the industry sectors with the highest levels of employment in 2021 were public administration (4,215 people, 29.3%), retail trade (1,615 people, 11.2%), and educational services (1,525 people, 10.6%). Across the five communities in the Kitikmeot Region, public administration (610 people, 26.2%) and retail trade (270 people, 11.6%) also employed the most workers, followed closely by health care and social assistance (260, 11.2%) and educational services (250 people, 10.8%) (Table 27.7) (Statistics Canada 2022).

Table 27.5 Labour Force, Kitikmeot Communities, Nunavut, and Yellowknife, Total and Indigenous Population, 2021

Topic	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Total Population									
Total population aged 15 years & over	4,310	2,190	2,120	24,535	12,410	12,125	15,795	7,810	7,980
In the labour force	2,330	1,195	1,145	14,380	7,345	7,035	12,475	6,405	6,070
Employed	1,885	940	945	11,945	5,910	6,035	11,755	5,990	5,765
Unemployed	440	250	195	2,435	1,435	1,000	720	410	305
Not in the labour force	1,980	1,000	980	10,155	5,065	5,090	3,320	1,410	1,905
Participation rate	54.1%	54.6%	54.0%	58.6%	59.2%	58.0%	79%	82%	76.1%
Employment rate	43.7%	42.9%	44.6%	48.7%	47.6%	49.8%	74.4%	76.7%	72.2%
Unemployment rate	18.9%	20.9%	17.0%	16.9%	19.5%	14.2%	5.8%	6.4%	5%
Indigenous Population									
Total population aged 15 years & over	3,780	1,880	1,905	20,140	10,030	10,110	3,450	1,475	1,970
In the labour force	1,885	935	940	10,535	5,240	5,300	2,325	1,080	1,245
Employed	1,465	705	770	8,225	3,880	4,345	2,065	940	1,125
Unemployed	415	240	175	2,315	1,360	955	255	140	120
Not in the labour force	1,895	950	950	9,605	4,795	4,810	1,125	395	725
Participation rate	49.9%	49.7%	49.3%	52.3%	52.2%	52.4%	67.4%	73.2%	63.2%
Employment rate	38.8%	37.5%	40.4%	40.8%	38.7%	43.0%	59.9%	63.7%	57.1%
Unemployment rate	22.0%	25.7%	18.6%	22.0%	26.0%	18.0%	11%	13%	9.6%

Notes:

[1] Includes Kugaaruk, Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak

Source: Statistics Canada (2022)

Table 27.6 Employment by Occupation, Kitikmeot Communities, Nunavut, and Yellowknife, Total and Indigenous Population, 2021

Occupation	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Total Population									
Occupation - not applicable[2]	225	125	95	1,125	685	440	140	65	70
All occupations[3]	2,110	1,070	1,035	13,255	6,660	6,595	12,335	6,340	5,995
0 Legislative and senior management occupations	30	10	10	265	155	110	235	125	110
1 Business, finance and administration occupations	325	75	250	2,420	645	1,770	2,435	705	1,725
2 Natural and applied sciences and related occupations	90	65	10	480	365	110	1,070	745	325
3 Health occupations	95	10	85	540	85	450	770	195	580
4 Occupations in education, law and social, community and government services	455	130	320	2,955	970	1,980	2,695	1,145	1,550
5 Occupations in art, culture, recreation and sport	50	20	30	430	190	245	320	120	195
6 Sales and service occupations	530	245	275	3,110	1,420	1,690	2,485	1,205	1,275
7 Trades, transport and equipment operators and related occupations	475	455	20	2,610	2,430	185	1,940	1,765	170
8 Natural resources, agriculture and related production occupations	40	40	-	240	220	20	265	225	35
9 Occupations in manufacturing and utilities	55	40	20	210	175	35	130	105	30
Total[4]	2,325	1,185	1,135	14,380	7,345	7,035	12,475	6,400	6,075
Indigenous Population									
Occupation - not applicable[2]	210	115	90	1,105	665	435	60	25	40
All occupations[3]	1,670	820	850	9,435	4,575	4,860	2,265	1,060	1,205
0 Legislative and senior management occupations	10	-	-	135	75	55	40	25	20
1 Business, finance and administration occupations	275	55	220	1,715	370	1,345	510	125	385
2 Natural and applied sciences and related occupations	40	25	20	185	150	40	110	70	30
3 Health occupations	65	-	55	240	20	220	85	15	65

Occupation	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
4 Occupations in education, law and social, community and government services	300	55	250	1,675	365	1,310	445	140	305
5 Occupations in art, culture, recreation and sport	50	20	30	350	150	200	70	10	55
6 Sales and service occupations	450	185	245	2,550	1,065	1,480	475	225	250
7 Trades, transport and equipment operators and related occupations	425	405	20	2,180	2,020	160	390	335	60
8 Natural resources, agriculture and related production occupations	40	40	-	230	220	15	75	70	-
9 Occupations in manufacturing and utilities	55	40	20	170	140	30	55	40	15
Total[4]	1,885	935	950	10,540	5,235	5,300	2,325	1,080	1,240

Notes:

1 Includes Kugaaruk, Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak.

2 Includes unemployed persons aged 15 years and over who have never worked for pay or in self-employment or who had last worked prior to January 1, 2020.

3 Includes persons aged 15 years and over in the labour force who have worked at some point in time between January 1, 2020, and May 8, 2021.

4 Labour force aged 15 years and over by occupation - Broad category - National Occupational Classification 2021 - 25% sample data.

Source: Statistics Canada (2022)

Table 27.7 Employment by Industry, Kitikmeot Communities, Nunavut, and Yellowknife, Total and Indigenous Population, 2021

Industry (Sector)	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Total Population									
Industry - not applicable[2]	225	125	95	1,125	685	440	140	65	70
All industries[3]	2,110	1,070	1,035	13,255	6,660	6,595	12,335	6,340	5,995
11 Agriculture, forestry, fishing and hunting	30	30	-	155	135	20	50	35	10
21 Mining, quarrying, and oil and gas extraction	25	30	10	400	295	100	610	465	140
22 Utilities	65	55	-	335	285	45	70	65	10
23 Construction	135	125	20	625	535	90	565	505	60
31-33 Manufacturing	10	-	-	80	55	25	130	75	50
41 Wholesale trade	-	-	-	100	60	35	190	160	35
44-45 Retail trade	270	140	140	1,615	765	845	1,075	595	480
48-49 Transportation and warehousing	85	60	20	595	460	135	870	660	210
51 Information and cultural industries	10	-	-	145	70	75	270	160	110
52 Finance and insurance	30	10	20	105	35	70	215	75	145
53 Real estate and rental and leasing	80	70	30	410	300	110	110	55	55
54 Professional, scientific and technical services	45	25	20	325	160	165	695	405	295
55 Management of companies and enterprises	-	-	-	15	10	-	-	-	-
56 Administrative and support, waste management and remediation services	60	55	10	380	260	125	460	305	155
61 Educational services	250	70	185	1,525	415	1,110	805	200	600
62 Health care and social assistance	260	50	210	1,305	290	1,010	1,290	265	1,030
71 Arts, entertainment and recreation	20	10	10	250	150	100	185	95	95
72 Accommodation and food services	55	30	40	360	135	230	715	390	325

Industry (Sector)	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
81 Other services (except public administration)	50	10	40	315	170	150	355	185	170
91 Public administration	610	315	285	4,215	2,075	2,140	3,675	1,650	2,025
Total[4]	2,325	1,185	1,135	14,380	7,345	7,035	12,475	6,400	6,075
Indigenous Population									
Industry - not applicable[2]	210	115	90	1,105	665	435	60	25	40
All industries3	1,670	820	850	9,435	4,575	4,860	2,265	1,060	1,205
11 Agriculture, forestry, fishing and hunting	30	30	-	150	135	20	15	10	-
21 Mining, quarrying, and oil and gas extraction	25	30	10	395	290	105	255	180	70
22 Utilities	45	40	-	270	235	30	15	15	-
23 Construction	100	95	20	485	410	80	120	105	20
31-33 Manufacturing	10	-	-	65	45	20	20	15	-
41 Wholesale trade	-	-	-	70	45	25	45	45	-
44-45 Retail trade	235	105	125	1,340	595	745	160	110	45
48-49 Transportation and warehousing	65	50	20	430	330	95	95	50	40
51 Information and cultural industries	-	-	-	100	35	60	50	15	35
52 Finance and insurance	30	10	10	55	10	45	40	10	30
53 Real estate and rental and leasing	80	60	20	330	240	90	25	10	10
54 Professional, scientific and technical services	35	20	10	205	100	105	80	50	30
55 Management of companies and enterprises	-	-	-	15	10	10	-	-	-
56 Administrative and support, waste management and remediation services	50	45	10	285	185	100	85	75	10
61 Educational services	180	10	145	1,000	190	810	90	10	85
62 Health care and social assistance	205	40	185	890	170	720	195	20	170
71 Arts, entertainment and recreation	20	10	10	190	125	70	35	15	25
72 Accommodation and food services	50	20	30	265	80	185	155	70	90
81 Other services (except public administration)	30	10	30	210	110	100	70	25	40

Industry (Sector)	Kitikmeot Communities[1]			Nunavut			Yellowknife		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
91 Public administration	470	230	240	2,695	1,240	1,455	720	235	485
Total[4]	1,885	935	950	10,540	5,235	5,300	2,325	1,080	1,240

Notes:

1 Includes Kugaaruk, Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak.

2 Includes unemployed persons aged 15 years and over who have never worked for pay or in self-employment or who had last worked prior to January 1, 2020.

3 Includes persons aged 15 years and over in the labour force who have worked at some point in time between January 1 2020 and May 8, 2021.

4 Labour force aged 15 years and over by industry - Sectors - North American Industry Classification System 2017 - 25% sample data.

Source: Statistics Canada (2022)

Yellowknife

In 2021, the Yellowknife labour force totalled 12,475 people (50.5% women+), of which 2,325 people identified as Indigenous (53.5% women+). Of the total Yellowknife labour force, 11,755 people were employed (74.4% employment rate) and 720 people were unemployed (5.8% unemployment rate) (Table 27.5; Statistics Canada 2022).

The most common occupations in Yellowknife in 2021 were those in education, law, government, and business administration (2,695 employees, 21.6%), sales and service (2,485 employees, 19.9%) and business, finance and administration (2,435 employees, 19.5%) (Table 27.6). A further 1,940 people (15.6%) were employed in trades, transport and equipment operators and related occupations (Statistics Canada 2022). In the same year, the industry sectors with the highest levels of employment were public administration (3,675 people, 29.5%), retail trade (1,615 people, 12.9%), and health care and social assistance (1,290, 10.3%). A further 565 people (4.5%) were employed in construction and 870 people (7.0%) were employed in transportation and warehousing (Table 27.7; Statistics Canada 2022).

27.2.2.6 Education and Training

Nunavut

Overall, within the Kitikmeot Region, the majority of residents do not have a high school diploma. This is consistent among both men+ and women+. While the majority of the population does not have a high school diploma (52%) at the territorial level, a portion of the population has either a college diploma (13%) or a bachelor's degree (11%) with women+ having higher rates compared to men+ in both college diplomas (15% compared to 11%) and university degrees (13% compared to 9%). Conversely, more men+ have apprenticeships, trades certificates, or diplomas compared to women+ (8% compared to 2%). In general, educational attainment rates in the Kitikmeot Region are lower than or comparable to rates in Nunavut, and lower than rates in Canada (Table 27.8; Statistics Canada 2022).

Community engagement emphasized a need for training that supports meaningful employment, particularly for Inuit youth (Appendix 25A).

Yellowknife

Educational attainment levels for Yellowknife are high compared to the communities in the Kitikmeot Region. The most common category is residents having at least a bachelor's degree or higher (32%), which is higher among women+ (37%) compared to men+ (27%) (Table 27.8; Statistics Canada 2022).

Table 27.8 Highest Certificate, Diploma or Degree (Population Aged 15 Years and Older), 2021

Educational Attainment		No certificate, diploma or degree	High (secondary) school diploma or equivalency certificate	Apprenticeship or trades certificate or diploma	College, CEGEP or other non-university certificate or diploma	University certificate or diploma below bachelor level	Bachelor's degree or higher
Total Population							
Kugaaruk	Total	490	85	10	15	0	40
	Men+	265	35	10	10	0	20
	Women+	225	50	0	10	0	20
Kugluktuk	Total	565	160	70	80	20	45
	Men+	285	65	55	45	10	15
	Women+	270	90	15	45	15	30
Cambridge Bay	Total	585	235	100	235	35	140
	Men+	275	125	80	95	25	65
	Women+	310	105	20	140	15	75
Gjoa Haven	Total	560	115	35	80	0	40
	Men+	295	60	30	30	0	25
	Women+	265	55	10	50	0	20
Taloyoak	Total	410	75	25	25	0	20
	Men+	210	35	25	10	0	10
	Women+	205	40	0	20	10	20
Kitikmeot Communities[1]	Total	2,610	670	240	435	55	285
	Men+	1,330	320	200	190	35	135
	Women+	1,275	340	45	265	40	165
Nunavut	Total	12,740	4,540	1,235	3,080	335	2,605
	Men+	6,615	2,280	1,000	1,305	150	1,065
	Women+	6,125	2,260	240	1,780	185	1,540

Educational Attainment		No certificate, diploma or degree	High (secondary) school diploma or equivalency certificate	Apprenticeship or trades certificate or diploma	College, CEGEP or other non-university certificate or diploma	University certificate or diploma below bachelor level	Bachelor's degree or higher
Yellowknife	Total	2,240	4,265	1,040	2,635	530	5,085
	Men+	1,170	2,250	815	1,245	230	2,100
	Women+	1,070	2,010	225	1,385	305	2,985
Indigenous Population							
Kugaaruk	Total	470	75	10	10	0	20
	Men+	255	25	10	10	0	10
	Women+	215	50	0	0	0	10
Kugluktuk	Total	530	135	60	70	10	10
	Men+	270	55	50	35	0	0
	Women+	265	80	15	40	10	10
Cambridge Bay	Total	575	180	80	180	20	25
	Men+	265	95	60	65	10	10
	Women+	305	85	20	115	10	10
Gjoa Haven	Total	550	110	40	70	0	15
	Men+	295	55	25	25	0	0
	Women+	260	50	10	45	0	10
Taloyoak	Total	410	75	25	20	0	0
	Men+	210	30	25	0	0	0
	Women+	205	40	0	15	0	0
Kitikmeot Communities[1]	Total	2,535	575	215	350	30	70
	Men+	1,295	260	170	135	10	20
	Women+	1,250	305	45	215	20	40

Educational Attainment		No certificate, diploma or degree	High (secondary) school diploma or equivalency certificate	Apprenticeship or trades certificate or diploma	College, CEGEP or other non-university certificate or diploma	University certificate or diploma below bachelor level	Bachelor's degree or higher
Nunavut	Total	12,390	3,810	990	2,275	165	515
	Men+	6,390	1,820	785	865	65	110
	Women+	6,000	1,985	205	1405	105	405
Yellowknife	Total	1,090	1,060	230	550	90	430
	Men+	490	485	165	185	35	120
	Women+	600	580	65	365	55	310

Note:

[1] Includes Kugaaruk, Kugluktuk, Cambridge Bay, Gjoa Haven, and Taloyoak

Source: Statistics Canada (2022)

27.2.2.7 Income and Income Inequality

Nunavut

In 2020, median employment income in Nunavut was greater than across Canada, though median total income in Nunavut was less than across Canada (Table 27.9; Statistics Canada 2022). When comparing employment income for full-time employment, median employment income in Nunavut was approximately 50% greater than for Canada (Table 27.10; Statistics Canada 2022), suggesting the prevalence of high paying jobs in Nunavut.

Income disparities exist within Nunavut. The median total income and employment income for the Indigenous population was less than that for the total population. The median employment income was also lower for women+ compared to men+ for both the total and Indigenous population, however the median total income was lower for men+ compared to women+ for both the Indigenous and total population, indicating that women+ rely on other sources of income, such as government transfers, more than men+ (Table 27.9; Statistics Canada 2022).

Yellowknife

In 2020, the median employment income and median total income for the total population in Yellowknife was greater than that of the population of Canada overall, although the median employment income for the Indigenous population in Yellowknife was lower than for the Indigenous population of Canada overall. When comparing employment income for full-time employment, median employment income in Yellowknife was more than 50% greater than for Canada (Table 27.10; Statistics Canada 2022).

Income disparities were similar to those for Nunavut, with the exception of median total income for the total population, where this was greater for men+ compared to women+ (Table 27.9; Statistics Canada 2022).

Table 27.9 Median Individual Employment Income and Total Income (before tax), 2020

Communities / Territories / Canada		Median Employment Income[1]		Median Total Income	
		Total Population	Indigenous Population	Total Population	Indigenous Population
Kugaaruk	Total	$14,900	$8,900	$29,600	$28,600
	Men+	$20,000	$14,000	$26,800	$26,000
	Women+	$9,500	$7,300	$33,200	$32,400
Kugluktuk	Total	$21,800	$13,100	$27,800	$26,200
	Men+	$24,000	$16,400	$27,200	$24,200
	Women+	$18,800	$8,700	$29,200	$28,200
Cambridge Bay	Total	$45,600	$28,200	$41,200	$31,400
	Men+	$40,800	$24,000	$36,400	$26,400
	Women+	$50,800	$34,000	$46,000	$36,400
Gjoa Haven	Total	$20,600	$13,400	$33,600	$31,200
	Men+	$21,000	$16,000	$28,800	$26,200
	Women+	$20,200	$10,400	$38,400	$37,600
Taloyoak	Total	$12,800	$12,400	$30,400	$28,600
	Men+	$13,700	$14,500	$24,600	$24,000
	Women+	$11,400	$11,000	$38,800	$37,200
Nunavut	Total	$38,000	$23,600	$37,600	$30,800
	Men+	$38,400	$23,600	$33,200	$26,200
	Women+	$37,600	$23,600	$41,600	$35,600
Yellowknife	Total	$73,500	$28,600	$72,000	$55,200
	Men+	$79,000	$34,800	$76,500	$51,600
	Women+	$69,000	$25,400	$67,000	$56,000

Communities / Territories / Canada		Median Employment Income[1]		Median Total Income	
		Total Population	Indigenous Population	Total Population	Indigenous Population
Canada	Total	$37,200	$30,800	$41,200	$34,800
	Men+	$43,200	$34,400	$46,400	$36,000
	Women+	$32,000	$27,600	$36,800	$34,000

Notes:
[1] Median income is the mid-point in the income distribution of a population, with half the population earning more and half earning less.
Source: Statistics Canada (2022)

Table 27.10 Median Employment Income in 2020 ($), Full-time and Part-time Workers

Communities / Territories / Canada		Median Employment Income	
		Full-time Workers	Part-year or Part-time Workers
Kugaaruk	Total	$59,600	$11,500
	Men+	$65,000	$14,000
	Women+	$48,400	$7,800
Kugluktuk	Total	$93,000	$14,600
	Men+	$108,000	$16,400
	Women+	$92,000	$10,500
Cambridge Bay	Total	$105,000	$22,000
	Men+	$108,000	$22,000
	Women+	$102,000	$21,800
Gjoa Haven	Total	$56,000	$13,600
	Men+	$48,400	$18,400
	Women+	$72,000	$11,200
Taloyoak	Total	$66,000	$14,500
	Men+	$58,400	$17,000
	Women+	$66,000	$11,000
Nunavut	Total	$95,000	$17,600
	Men+	$94,000	$19,800
	Women+	$96,000	$16,000
Yellowknife	Total	$99,000	$29,400
	Men+	$103,000	$35,600
	Women+	$94,000	$27,400
Canada	Total	$63,600	$18,400
	Men+	$69,000	$21,000
	Women+	$58,000	$16,600

Notes:

[1] Median income is the mid-point in the income distribution of a population, with half the population earning more and half earning less.

[2] Average income of a specified group is calculated by dividing the aggregate income of that group by the number of units in that group. Average incomes of individuals are calculated for those with income (positive or negative).

Source: Statistics Canada (2022)

27.2.2.8 Government Finances

Government of Nunavut

In 2023, the GN had total revenue of $2.9 billion and total expenses of $2.8 billion, resulting in an annual surplus of $167.3 million (Table 27.11) (GN 2023). For 2024-2025 the GN projects their revenues at approximately $3.2 billion (GN 2024a).

The GN received 82% ($2.4 billion) of its total revenue in 2023 from federal government transfers (Table 27.11). Of the total federal government transfers, $1.9 billion was via Territorial Formula Financing, $322,145 via transfers under third-party funding agreements and $212,680 via other transfer payments (GN 2023).

Table 27.11 Government of Nunavut Revenues and Expenses, 2019-2023 ($ thousand)

Revenue and Expenses	2019	2020	2021	2022	2023	5-year Average
Revenue	2,426,722	2,460,403	2,679,588	2,816,745	2,934,467	2,663,585
Expenses	2,331,798	2,378,826	2,494,583	2,553,285	2,767,168	2,505,132
Surplus for the Year	94,924	81,577	185,005	263,460	167,299	158,453
Annual Revenue Growth	2.8%	1.4%	8.9%	5.1%	4.2%	4.5%
Annual Expense Growth	6.0%	2.0%	4.9%	2.4%	8.4%	4.7%

Source: GN (2023)

Municipal Government

Of the Kitikmeot Region communities, municipal government revenues and expenditures are publicly available only for Cambridge Bay (Table 27.12). In 2021, total revenue in Cambridge Bay was $15.6 million, total expenditure was $15.4 million, with final revenue over expenditure equalling $196,000. After accounting for other items, the total year-end accumulated surplus for the municipality was $50.6 million in 2021 (Municipality of Cambridge Bay 2021).

Table 27.12 Government Revenues and Expenditures ($ thousand)

	Financial Statement Year	Total Revenue	Total Expenditure	Revenue over Expenditure before Other Items	Other Items	Revenue over Expenditure after Other Items	Accumulated Surplus (Year End)
Territory							
Northwest Territories	2023	2,804,470	2,698,396	106,074	–	–	2,302,493
Nunavut	2023	2,934,467	2,767,168	167,299	–	–	3,347,109
Regional District							
Kitikmeot Region	–	–	–	–	–	–	–

	Financial Statement Year	Total Revenue	Total Expenditure	Revenue over Expenditure before Other Items	Other Items	Revenue over Expenditure after Other Items	Accumulated Surplus (Year End)
Municipalities / Communities							
Kugluktuk	–	–	–	–	–	–	–
Cambridge Bay	2021	15,603	15,407	196	4,999	5,195	50,610
Kugaaruk	–	–	–	–	–	–	–
Taloyoak	–	–	–	–	–	–	–
Gjoa Haven	–	–	–	–	–	–	–
Yellowknife	2023	80,480	85,465	(4,985)	30,403	25,418	388,211

Note:
Year end March 31st
Source: City of Yellowknife (2023), GNWT (2024), GN (2023), Municipality of Cambridge Bay (2021)

27.2.2.9 Cost of Living

Nunavut

Cost of living in Nunavut is high relative to the rest of Canada. The Market Basket Measure, the federal government's methodology to define the official poverty line, reflects the cost of a basket of goods and services required for a basic standard of living. The basket includes, food, clothing and footwear, shelter, transportation, communication services (e.g., phone and internet), and other expenses. In 2023, the cost of a basket of goods and services in the Kitikmeot Region is $103,944, compared to $73,613 in Yellowknife, or $65,089 in Whitehorse (Statistics Canada 2025d). Already high costs of living in the Kitikmeot Region indicates communities may be vulnerable to adverse changes in this area.

project engagement and publicly available literature also highlight concerns regarding the high cost of living in Nunavut and Yellowknife (GBRP 2025; IRC 2022), particularly in relation to the cost of food and food security. Further details regarding food security are provided in Section 25 (Food Security and Food Sovereignty).

The Consumer Price Index (CPI) is an indicator of the changes in consumer prices experienced by a target population (i.e., inflation). The CPI measures price change by comparing, through time, the cost of a fixed basket of commodities. The current basket is based on the expenditures of each target population for the 2002 reference period. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price movements.

As data are unavailable for other Nunavut communities, Iqaluit was used to examine CPI in Nunavut. The CPI for Iqaluit rose 2.5% on an annual average basis in 2023, lower than the national average of 3.9%. This follows a broader trend between 2002 to 2023, where the CPI for Iqaluit rose 41.9% compared to 57.1% nationally (Statistics Canada 2024e).

Northwest Territories

The CPI for Yellowknife rose 3.3% on an annual average basis in 2023, slightly lower than the national average of 3.9%. From 2002 to 2023, the CPI for Yellowknife rose 56.9% compared to 57.1% nationally (Statistics Canada 2024e).

Goods in Yellowknife experienced greater increases in prices compared to the national average during the period of 2002 to 2023. Prices of goods increased by 54.9% compared to 43.8% on average nationally. In contrast, services in Yellowknife experienced lower increases in prices compared to the national average over the same period. Prices of services increased 55.6% in Yellowknife, compared to 70.1% on average nationally (Statistics Canada 2024e).

27.2.3 Summary of Baseline Information on Key Sub-Populations for Gender Based Analysis Plus

Socio-economic conditions differ among identity groups across the five Kitikmeot communities and throughout Nunavut.

- Unemployment rates were greater for the Indigenous population compared to the total population, with men+ experiencing higher rates of unemployment than women+.
- The construction industry and trades, transport and equipment operators and related occupations are male dominated.
- In general, educational attainment rates in the Kitikmeot Region are lower than or comparable to rates in Nunavut, and lower than rates in Canada.
- More men+ have apprenticeships, trades certificates, or diplomas compared to women+. Women+ have higher rates in both college diplomas and university degrees compared to men+.
- The median total income and employment income for the Indigenous population was less than that for the total population.
- The median employment income was lower for women+ compared to men+ for both the total and Indigenous population, however the median total income was lower for men+ compared to women+ for both the Indigenous and total population, indicating that women+ rely on other sources of income, such as government transfers, more than men+.

The baseline establishes a nuanced picture of systemic disparities and economic dependencies that may affect the magnitude and distribution of project-related benefits and potential adverse effects.

27.3 Assessment of Project Effects on Employment and Economy

27.3.1 Analytical Assessment Techniques

The assessment of project-related effects on employment and economy, including the assessment of residual effects and cumulative effects, was conducted according to the methods set out in the Effects Assessment Methodology (Volume 4). The assessment has been informed by relevant Inuit, other Indigenous, and other potentially affected communities and government stakeholder perspectives (e.g., engagement with affected Kitikmiut, other Indigenous groups, other communities, interested persons, government agencies and stakeholders), available information from other existing and proposed projects in Nunavut, and primary interviews with key-informants.

The assessment involves both quantitative and qualitative methods. For example, the assessment relies on quantitative estimates of project-related economic effects. The assessment also involves qualitative description of pathways and residual effects that may arise from the Project based on available information.

The assessment draws on conclusions from other pertinent VCs and uses analytical assessment techniques identified in Traditional Land, Marine, and Resource Use (Section 24), Food Security and Food Sovereignty (Section 25), and Infrastructure and Services (Section 28).

There are some uncertainties associated with the availability of information, data analyses, and interpretation of data and these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an adverse effect and understating a positive effect.

27.3.1.1 Statistics Canada Inter-Provincial Input-Output Model

The assessment relies on the estimates of the Statistics Canada Inter-Provincial Input Output Model (SCIPIOM).

An input-output model utilises the expenditure patterns for the Project (often referred to as a “shock”) to depict the impact those expenditures will have on an economy. The model tracks the value-added component of every round of transactions that occur along the supply chain when a shock or change is introduced to the economy. The model also traces trade flows between Canada’s provinces and territories as well as international imports and exports.

Model Outputs

The SCIPIOM estimates project-related effects on economic activity, including output, GDP, employment, and government tax revenues:

- Output is the total gross value of goods and services produced by a given company or industry measured by the price paid to the producer. This is the broadest measure of economic activity.

- GDP, or value added, refers to the additional value of a good or service over the cost of inputs used to produce it from the previous stage of production. Thus, GDP is equal to the unduplicated value of the goods and services produced.
- Employment is the number of jobs created. Employment is measured in terms of full-time equivalents (FTE). One FTE is equivalent to one person working full-time for one year or one person-year of employment. Further, employment opportunities are assessed by location and residency, distinguishing between where jobs are performed and where workers live (e.g., fly-in fly-out arrangements).
- Government tax revenues are the total amount of revenues generated for federal, territorial / provincial, and municipal government and Indigenous tax contributions. The SCIPIOM estimates consumption taxes, including taxes on products and production. Employment income taxes are not estimated by the SCIPIOM and have been estimated separately.

Economic effects are estimated at the direct, indirect, and induced levels:

- Direct effects are those that are directly attributable to the Project, including the resulting employment, income, GDP and tax revenue generated by industries directly contracted to supply the on-site goods and services used by the Project;
- Indirect effects are those associated with all industries that supplies the goods and services used by the industries directly supplying the Project, and includes all transactions to the beginning of the supply chain (excluding direct on-site suppliers to the Project and the Project itself); and
- Induced effects are economic activity because of workers spending their incomes on goods and services, including those directly and indirectly employed because of the Project.

Economic effects are estimated for the following project phases and timelines:

- The Construction phase of the Project will take approximately 5 years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The Operations and Maintenance phase of the Project will start in 2035 and will continue in perpetuity.

Economic effects are also estimated for reasonably foreseeable induced projects, including the Hackett River project, the High Lake Mine, and the Izok Lake Mine, for the following project phases and timelines:

- Construction impacts are assessed over nine-year period between 2031-2035 (Izok and High Lake) and 2037-2040 (Hackett River).
- Operations and Maintenance impacts are assessed for 2040 when Izok, High Lake, and Hackett River are operational.

Economic effects are presented for Nunavut, other provinces and territories in Canada, and Canada as a whole.

Model Inputs

The input data for the SCIPIOM was provided directly by WKR. These inputs included capital and operating expenditure estimates for the Grays Bay Road and Port project as well as for reasonably foreseeable induced projects, including the Hackett River project, the Izok Corridor project (which includes the High Lake Mine and the Izok Lake Mine). The expenditure estimates were developed using an integrated approach that considers all major project components and anticipated activities. Estimates for reasonably foreseeable projects were obtained from publicly available studies released by those projects.

These expenditures were mapped to Statistics Canada industry and product codes using Supply and Use Tables. Allocations were developed in collaboration with Statistics Canada, informed by WKR, Nunavut's existing economic activity, and monitoring data for other Nunavut based projects. The SCIPIOM used the interprovincial structure of Nunavut industries to allocate subsequent activities between Canada's provinces and territories as well as international imports and exports.

27.3.1.2 Economic Model Limitations

The SCIPIOM is based on a simplified representation of connections that exist in the economy, and consequently, there are some limitations that should be considered when reviewing the model results:

- Input Output models are linear. They assume that a given change in the demand for the outputs of a given industry will translate into a proportional change in production.
- Input Output models do not consider the amount of time required for impacts to be realized. Economic adjustments resulting from a change in demand are assumed to happen immediately.
- It is assumed there are no capacity constraints and that an increase in the demand for labour will result in an increase in economic activities.
- Input Output models do not account for substitution effects. Increases in employment do not consider the possibility of workers moving from other jobs.
- Input Output models are based on statistical information about the flow of goods and services among various industries at a point in time. It is assumed the relationship between industries is generally stable over time. Over time, those relationships may change due to changes in technology and productivity.
- The model estimates the extent of project-related employment opportunities that will be located in Nunavut.
- The Input Output model is supported by preliminary cost estimates from WKR which may change as project design progresses.
- Economic effects are subject to wider uncertainty related to external influences, such as preferences and choices, changes in global markets, political decisions, consumer behaviours, and unforeseen events (e.g., natural disasters or pandemics). Given the inherent limitations associated with Input Output models, and wider economic uncertainties, a degree of variability should be considered when reviewing model results. However, they remain one of the best tools we have available for estimating project effects.

27.3.1.3 Data Interpretation and Adjustments

Economic model results should be interpreted in the context of current economic conditions, as these influence how impacts may materialize. To gauge how impacts will unfold in the Nunavut economy, results are assessed alongside baseline data, primary research, and lessons learned from other projects in the region.

For instance, in the case of employment, the model estimates the extent of project-related employment opportunities that will be located in Nunavut. In Nunavut, where approximately half of the workforce are non-residents (e.g., fly-in/fly-out workers), it is incorrect to assume that all economic activity from this employment will take place in the territory. Employment estimates from the SCIPIOM have been adjusted to reflect the expected residency of the workforce based on WKR targets, existing economic conditions, and lessons learned from other projects in the region. This allows for a more accurate depiction of the employment that is expected to accrue to Nunavummiut and the subsequent economic activity that will take place in Nunavut.

Further, adjustments have been made to estimates of induced economic activity from the SCIPIOM results, to depict residency of direct and indirect project-related employment. Induced effects reflect economic activity generated when households spend the income earned by those directly and indirectly employed. It would be incorrect to assume that all direct and indirect workers will spend their income in Nunavut, when there are non-resident workers (e.g., fly-in/fly-out workers) who reside outside of the territory. This limitation is recognised when applying input-output modelling to northern economies (GNWT 2006). Adjustments reflect the induced activity associated with household spend by Nunavummiut workers. This allows for a more accurate depiction of the induced economic activity that will take place in Nunavut.

Adjustments have been made to the Project-related related SCIPIOM results. No adjustments have been made to the SCIPIOM results for the reasonably foreseeable induced projects given the uncertainty associated with residency of workers for these activities.

27.3.2 Project Interactions with Employment and Economy

Table 27.13 identifies, for each potential effect, the Project activities that might interact with the VC and result in the identified effect. These interactions are indicated by a check mark or a dash (where no interaction is anticipated) and are discussed in detail in the following sections in the context of effects pathways, standard and project-specific mitigation measures, and residual effects.

The potential interactions between project activities and employment and economic conditions were considered for the Construction phase and the Operations and Maintenance phase of the Project. The identification of project activities and their potential interactions was informed by Inuit, Indigenous, and Community Knowledge, the professional judgment of socio-economic impact assessment practitioners involved in the assessment, and a review of known existing conditions. The selection of interactions is also informed by the potential effects and effects pathways for each VC, as described in Section 27.1.3. Interactions are discussed in the Project residual effects and cumulative residual effects assessments that follow.

A summary of key feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities relevant to employment and economic conditions and available at the time of filing is consolidated in Table 27.3 and has been integrated into this assessment where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into project planning, as appropriate.

Table 27.13 Project Interactions with Employment & Economy

Project Activities	Effects				
	Change in economic development and opportunities	**Change in employment**	**Change in education and training**	**Change in contracting and business opportunities**	**Change in community resupply resilience**
Construction					
Mobilization/demobilization of machinery /equipment, vehicles, materials, and fuel (e.g., by barge, sea lift, boat, or road)	-	-	-	-	-
Staging and storage of materials, fuel, equipment and prefabricated components	-	-	-	-	-
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-	-
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	-	-	-	-	-
Machinery/equipment and vehicle refuelling / fuel storage handling	-	-	-	-	-
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	-	-	-	-	-
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	-	-	-	-	-
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	-	-	-	-	-
Water withdrawal to support construction activities (e.g., winter road construction, dust control, material compaction)	-	-	-	-	-

Project Activities	Effects				
	Change in economic development and opportunities	**Change in employment**	**Change in education and training**	**Change in contracting and business opportunities**	**Change in community resupply resilience**
Watercourse crossing construction (e.g., bridge and culvert installation)	-	-	-	-	-
Ground based transportation (e.g., workforce, materials, supplies)	-	-	-	-	-
Air transport (e.g., personnel transport, resupply)	-	-	-	-	-
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	-	-	-	-	-
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refuelling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	-	-	-	-	-
Procurement of goods and services; employment of workers	✓	✓	✓	✓	✓
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	-	-	-	-	-
Operations and Maintenance					
Port landside operations (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operation and maintenance).	-	-	-	-	-

Project Activities	Effects				
	Change in economic development and opportunities	**Change in employment**	**Change in education and training**	**Change in contracting and business opportunities**	**Change in community resupply resilience**
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	-	✓	-	-	✓
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	-	-	-	-	-
Desalinization operation and wastewater treatment (e.g., marine water use and effluent discharge)	-	-	-	-	-
Water withdrawal / use (e.g., potable water, dust control, maintenance)	-	-	-	-	-
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	✓	✓	✓	✓	✓
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	-	-	-	-	-
Vessel Fuel Line / Refuelling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	-	-	-	-	-
Equipment maintenance	-	-	-	-	-
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-	-
Winter road construction and use (e.g., annual winter road construction and maintenance)	✓	✓	✓	✓	✓
Air transport (e.g., personnel transport, resupply)	-	-	-	-	-
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	-	-	-	-	-

Project Activities	Effects				
	Change in economic development and opportunities	**Change in employment**	**Change in education and training**	**Change in contracting and business opportunities**	**Change in community resupply resilience**
Procurement of goods and services; employment of workers	✓	✓	✓	✓	✓

Notes:

✓ = Potential interaction

– = No interaction

27.3.3 Change in Economic Development and Opportunities

Feedback shared through project-specific engagement and Inuit, Indigenous, and Community Knowledge has informed the assessment of changes in economic development and opportunities and the design of mitigation, management and enhancement measures (Table 27.6). Many Inuit of the Kitikmeot Region, other Indigenous groups, and other potentially affected communities expressed interest in the economic opportunities associated with the Project, including the economic viability of other projects in the region (GBRP 2017, 2025). Information gathered during engagement for a previous project indicated a hope that an all-season road would bring increased economic opportunities (Tłı̨cho Government 2017).

It was also reported that “increased investment in northern mineral exploration and development as a result of sustained commodity prices, coupled with longer ice and snow-free seasons and the opening of the North-west Passage, could greatly increase employment opportunities for, and the wealth of, certain residents of Kugluktuk” (Prno et al. 2011).

Information regarding accessibility and removal of barriers for tourism, traveling, fishing, hunting/trapping and other activities is provided in Section 29 (Non-Traditional Land, Marine, and Resource Use).

27.3.3.1 Project Effects Pathways

Project activities and expenditure on materials, equipment and services will result in increased economic activity, contributions to GDP, and contributions to municipal, territorial and federal government revenues.

Project operations and maintenance will support wider economic objectives for the Kitikmeot Region and Nunavut, as described further below.

Project-related changes on traditional activities, such as hunting and fishing, can result in changes to the traditional economy.

27.3.3.2 Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures applicable to changes in economic development and opportunities include:

- A Labour Relations Strategy will be developed and implemented to enhance and retain local Inuit employment, with a focus on preferential Inuit hiring. The Labour Relations Strategy will detail skills and entrance requirements, employee benefits, employee communication, work rotation schedules, employee orientation programs and ongoing support for project workers during employment.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs.

- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, and subsequent regional and local Inuit employment. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.
- WKR will consider hiring a Kitikmeot community liaison officer in a full or part-time capacity to communicate and coordinate project-related matters.
- Establish a community feedback tool or process to receive and address community suggestions, concerns and complaints.
- Maintain ongoing engagement with Kitikmiut, other Indigenous groups, other potentially affected communities, the GN and other stakeholders throughout the Project lifecycle, including during design and planning phases, to address potential effects and ensure meaningful participation.
- Implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project, including training, employment and procurement. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on employment and economic conditions are identified.
- Develop and implement a Road Management Plan for the Project (including traffic and access management). Access management will include prior approval (permit) for harvesters from the Kitikmeot Inuit Association and the Hunters and Trappers Association.
- Results of pertinent management and monitoring programs will be communicated to local communities.

27.3.3.3 Project Residual Effect

Support for Long-term Economic Growth and Diversification

Project operations and maintenance will support wider economic objectives for the Kitikmeot Region and Nunavut including enabling access to mineral resources and supporting long term economic growth.

Mineral Resource Access Benefits

The project will facilitate access to the mineral-rich Slave Geological Province, an area with high potential for critical mineral development that spans the Nunavut-Northwest Territories border. By connecting these areas to transportation infrastructure, the Project directly supports the Nunavut Agreement's vision of generating long-term economic benefits for Inuit through responsible development of known deposits and prospects. See Section 1.6 (Project Purpose and Need) for further information.

Supply Chain Benefits

WKR believes the Project will provide new opportunities and long-term benefit for the people, communities, and economy of the Kitikmeot Region, as well as for Nunavut and Canada more broadly.

The project is expected to deliver socio-economic benefits by creating an additional access point to the western Arctic, reducing reliance on Mackenzie River barging and eastern Canada sealifts. It will stimulate demand for local businesses and workers in construction, operations, and maintenance, while

potentially fostering new enterprises such as barging services, mineral exploration, tourism, and regional logistics. Kitikmeot communities will see growth in support businesses, including professional services, alongside increased personal income from employment and contracting, which can improve housing, health, food security, and overall well-being. Longer-term job opportunities will enhance training outcomes and encourage greater investment in human resource development. The Grays Bay Road will enable ground transportation of goods from Yellowknife to Grays Bay Port via the Tibbitt to Contwoyto Winter Road (TCWR). Construction of the Arctic Economic and Security Corridor, a reasonably foreseeable project, would provide year-round access to the Northwest Territories–Nunavut border and seasonal access to the Grays Bay Road via the TCWR. See Section 1.6 (Project Purpose and Need) for further information.

Long-term Economic Growth and Diversification

The project is consistent with the ongoing territorial and federal strategies – released from the early 2000s to present – that supports the need for infrastructure development, increased defence presence, and critical mineral access in the north (EDT 2007, 2009; NTI 2020; NRCan 2022; DND 2024).

The project is one of four key projects in Nunavut's Nation Building Priorities that are identified to "strengthen economic resilience, enhance Arctic sovereignty, and improve national connectivity, delivering long-term benefits for both Nunavut and Canada". The project is anticipated to enhance economic development by opening pathways for investment in mining and trade, particularly in strategic minerals required for Canada's energy transition and national security (GN 2025). The project will support the Canadian Northern Economic Development Agency departmental plan for 2025-2026, through economic development and economic diversification (Canadian Northern Economic Development Agency 2025).

The project aligns with the Nunavut Economic Development Strategy by supporting youth employment, education and training, Inuit and small business development, sector growth, and global market access (The Sivummut Economic Development Strategy Group 2003). The project aligns with the goals of the Yellowknives Dene First Nation and the City of Yellowknife's Joint Economic Development Strategy in two of their strategic directions: local business and entrepreneurship support and workforce development (Yellowknives Dene First Nation and City of Yellowknife 2020).

Gross Domestic Product

Construction

The project will be a major source of employment and contracting and procurement opportunities in Nunavut for the construction industry and industries that supply goods and services to the construction industry, such as room and boarding services, wholesale trade, air transportation, truck transportation, legal, accounting and related services, and utilities (Statistics Canada 2025a). Project-related economic activity in these industries will contribute to territorial GDP.

Over the five-year construction phase, total project-related GDP effects (direct, indirect, and induced) in Nunavut are estimated to total $74.8 million annually, of which $46.6 million will be associated with direct project activity, $23.3 million with indirect project activity, and $5.0 million with induced project activity (Table 27.14; Statistics Canada 2025a).

The annual GDP effects in Nunavut during construction ($74.8 million) would represent 18.8% of Nunavut's construction industry's contributions to GDP in 2024 ($398.2 million) and 1.8% of Nunavut's total GDP in 2024 ($4,154.9 million) (Statistics Canada 2025b).

Table 27.14 Annual Gross Domestic Product ($ million), Construction

	Nunavut	Other Canada	Total Canada
Direct impact	46.6	0.0	46.6
Indirect impact	23.3	86.7	109.9
Induced impact1	5.0	41.8	46.8
Total	74.8	128.5	203.3

Note:
[1] SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Source: Statistics Canada 2025a; Stantec calculations

Project-related activities during construction are expected to increase the size of construction industry GDP contributions to the Nunavut economy during this five-year period. Given the limited time period associated with project construction, the benefits are anticipated to be temporary, with activity in the construction industry and supporting industries either transitioning to operations and maintenance phase opportunities or returning to normal trends once construction ceases.

Operations and Maintenance

The project will continue to be a source of employment, contracting, and procurement opportunities for the Nunavut economy during Operations and Maintenance, albeit on a smaller scale. Contracting and procurement opportunities are expected in the transportation and warehousing industry, and industries that supply goods and services to the Project, such as room and boarding services, wholesale trade, air transportation, truck transportation, legal, accounting and related services, and utilities (Statistics Canada 2025a). Project-related economic activity will contribute to territorial GDP.

Over the operations and maintenance phase, project-related GDP effects (direct, indirect, and induced) in Nunavut are estimated to total $21.1 million annually. Of the total GDP effects in Nunavut, $10.7 million annually will be associated with direct economic activity, $8.2 million annually will be associated with indirect economic activity, and $2.2 million annually will be associated with induced economic activity (Table 27.15; Statistics Canada 2025a).

The total annual GDP effects in Nunavut during operations and maintenance ($21.1 million) would represent 22.9% of the total contribution the transportation and warehousing industry made to GDP ($92.1 million) and 0.5% of Nunavut's total GDP in 2024 ($4,154.9 million) (Statistics Canada 2025b).

Table 27.15 Annual Gross Domestic Product ($ million), Operations and Maintenance

Annual	Nunavut	Other Canada	Total Canada
Direct impact	10.7	0.0	10.7
Indirect impact	8.2	11.0	19.7
Induced impact1	2.2	7.2	9.4
Total	21.1	18.8	39.9

Notes:
[1] SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Source: Statistics Canada 2025a; Stantec calculations

Government Revenues

Construction

Project expenditure on labour, materials, equipment and services will result in increased economic activity and consumption tax contributions to federal, territorial and municipal government revenues. Project-related employment opportunities will result in increased personal income tax contributions to federal and territorial government revenues.

Consumption Taxes

Consumption taxes for project construction are estimated for taxes on products and taxes on production:

- Taxes on products are taxes payable per unit of some good or service sold. The tax may be a specific amount of money per unit or it may be calculated as a specified percentage of the goods and services sold (Statistics Canada 2014).
- Taxes on factors of production are paid by enterprises and are related to operations. Such taxes are collected regardless of the level of goods and services production. They must be paid even in the absence of production (Statistics Canada 2014).

During the five-year construction phase, total consumption tax contributions in Nunavut (direct, indirect and induced) are estimated to total $3.4 million annually, of which $2.4 million annually will be associated with direct and indirect economic activity, and $1.0 million annually will be associated with induced economic activity.

Federal contributions are estimated to total $2.1 million annually, territorial contributions are estimated to total $1.0 million annually, and municipal contributions are estimated to total $0.3 million annually (Table 27.16; Statistics Canada 2025a). Annual territorial consumption tax contributions of $1.0 million would represent 0.2% of the total revenues generated by the GN (excluding territorial formula financing and federal government transfers) in 2024 ($639.9 million) (GN 2024b).

Table 27.16 Annual Consumption Tax Contributions ($ million), Construction

Total Construction	Nunavut	Other Canada	Total
Direct and Indirect			
Total federal	1.6	0.7	2.3
Total territorial/provincial	0.6	1.9	2.5
Total municipal	0.2	1.6	1.8
Total direct and indirect	2.4	4.2	6.6
Induced1			
Total federal	0.5	2.6	3.1
Total territorial/provincial	0.4	3.2	3.6
Total municipal	0.1	1.6	1.8
Total induced	1.0	7.4	8.5
Total			
Total federal	2.1	3.3	5.4
Total territorial/provincial	1	5.1	6.1
Total municipal	0.3	3.2	3.6
Total	3.4	11.6	15.1

Note:
[1] SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Source: Statistics Canada 2025a; Stantec calculations

Personal Income Taxes

During the five-year construction phase, personal income tax contributions in Nunavut (direct, indirect and induced) are estimated to total $14.1 million annually, of which $10.6 million would be associated with federal contributions, and $3.5 million would be associated with territorial contributions (Table 27.17). Annual territorial contributions of $3.5 million would represent 0.5% of the total revenues generated by the GN (excluding territorial formula financing and federal government transfers) in 2024 ($639.9 million) (GN 2024b).

Table 27.17 Total Personal Income Tax Contributions ($ million), Construction (Five Years)

Total Construction	Nunavut
Federal	
Direct	8.1
Indirect	2.3
Induced1	0.2
Total Federal	10.6

Total Construction	Nunavut
Territorial / Provincial	
Direct	2.8
Indirect	0.7
Induced1	0.06
Total Territorial / Provincial	3.5
Total	
Total	14.1

Notes:
1 SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Sum of direct, indirect, and induced values may not be equal to total values due to rounding.
Source: Statistics Canada 2025a; Stantec calculations

Operations and Maintenance

Consumption Taxes

Consumption taxes for project operations and maintenance are estimated for taxes on products and taxes on production. During operations and maintenance, annual consumption tax contributions in Nunavut (direct, indirect and induced) are estimated to total $1.2 million annually, of which $0.7 million will be associated with direct and indirect economic activity, and $0.5 million will be associated with induced economic activity.

Federal contributions are estimated to total $0.7 million annually, territorial contributions are estimated to total $0.3 million annually, and municipal contributions are estimated to total $0.2 million annually (Table 27.18; Statistics Canada 2025a). Annual territorial consumption tax contributions of $0.3 million would represent a small proportion of the total revenues generated by the GN (excluding territorial formula financing and federal government transfers) in 2024 ($639.9 million) (GN 2024b).

Table 27.18 Total Consumption Tax Contributions ($ million), Operations and Maintenance (Annual)

Total Construction	Nunavut	Other Canada	Total
Direct and Indirect			
Total federal	0.5	0.1	0.5
Total territorial/provincial	0.2	0.3	0.4
Total municipal	0.1	0.2	0.4
Total direct and indirect	0.7	0.6	1.3
Induced[1]			
Total federal	0.2	0.4	0.7
Total territorial/provincial	0.2	0.5	0.7
Total municipal	0.1	0.3	0.3
Total induced	0.5	1.2	1.7

Total Construction	Nunavut	Other Canada	Total
Total			
Total federal	0.7	0.5	1.2
Total territorial/provincial	0.3	0.8	1.1
Total municipal	0.2	0.5	0.7
Total	1.2	1.8	3.0

Notes:
[1] SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Source: Statistics Canada 2025a; Stantec calculations

Personal Income Taxes

During operations and maintenance, personal income tax contributions in Nunavut (direct, indirect and induced) are estimated to total $2.8 million annually, of which $2.2 million annually would be associated with federal contributions, and $0.6 million annually would be associated with territorial contributions (Table 27.19). Annual territorial contributions of $0.6 million would represent 0.1% of the total revenues generated by the GN (excluding territorial formula financing and federal government transfers) in 2024 ($639.9 million) (GN 2024b).

Table 27.19 Total Personal Income Tax Contributions ($ million), Operations and Maintenance (Annual)

Total Construction	Nunavut
Federal	
Direct	1.3
Indirect	0.8
Induced1	0.1
Total Federal	2.2
Territorial / Provincial	
Direct	0.4
Indirect	0.2
Induced1	0.02
Total Territorial / Provincial	0.6
Total	
Total	2.8

Notes:
[1] SCIPIOM induced estimates adjusted based on direct and indirect annual employment by Nunavut residency.
Sum of direct, indirect, and induced values may not be equal to total values due to rounding.
Source: Statistics Canada 2025a; Stantec calculations

Traditional Economy

Changes in food security and harvesting that may result from the Project could also be a driver for changes to the traditional economy. The results of the traditional land, marine, and resource use section (Section 24) and food security and food sovereignty section (Section 25) have been integrated into the employment and economy section, below.

Hunting

Wildlife harvesting is an important component of the traditional economy, as wildlife are a key source of food, and materials for clothing, tools, and traditional art objects. Hunting and sharing food are considered one of the core aspects of Inuit culture. Key resources supporting the traditional diet of Kitikmiut and other Indigenous groups (Inuvialuit, First Nations, and Métis) may include caribou, muskox, bears, whales, seals, birds, Arctic char, and shellfish.

The project may result in changes to caribou movement, range, habitat, and mortality risk, which in turn will result in changes to the quality, quantity, or distribution of caribou for Kitikmiut and other potentially affected Indigenous groups. Caribou, as discussed in Section 24.2.2, is an important species and is essential to Kitikmiut sustenance (Banci and Spicker 2024).

The project may result in changes to the quality, quantity, or distribution of birds, including species of importance for Kitikmiut and other potentially affected Indigenous groups such as passerines, waterbirds/shorebirds, and cliff-nesting raptors (see also Section 24.2.3.1).

The project has the potential to interact with other important wildlife species such as muskox (omingmak), moose (tuktukvak), grizzly bear (akhak), and wolverine (kalvik), which may affect the quality, quantity, and distribution of those wildlife species.

To avoid or reduce habitat loss, clearing will be limited to areas required for construction and safe operations and maintenance (i.e., to the width of the Road PDA). Quarries will not be situated on sensitive habitat features where possible. Additionally, wildlife sweeps will be completed to identify wildlife sensitivities (i.e., active nests, dens, other wildlife features) ahead of construction activities. No-disturbance buffers will be established around sensitives identified. If disturbance within a no-disturbance buffer is unavoidable, site-specific protection measures will be developed in accordance with the Wildlife Mitigation and Monitoring Plan (Volume 11, Appendix 34B).

During the Construction and Operations and Maintenance phases, project infrastructure will create increased access to the Kitikmeot Region (see Volume 9, Section 28). The introduction of a road, port, and new air transportation infrastructure is expected to result in increased access to traditional resources, sites, or areas by Kitikmiut, other potentially affected Indigenous groups, and non-Indigenous people. These changes may result in both positive and adverse residual effects for Kitikmiut and other potentially affected Indigenous groups. Positive effects include the increased accessibility to areas that were otherwise previously challenging to access or required additional resources to access. Additionally, direct or indirect employment from the Project has the potential to both increase and decrease opportunities to participate in traditional economies due to increased income and reduced time from potential rotational shiftwork, resulting in both positive and adverse effects.

Plant Harvesting

A variety of vegetation species contribute to the traditional economy of Kitikmeot communities, either as sources of food, medicines, and fabrication materials. Vegetation and vegetation communities also contributes to habitat values for wildlife of traditional economic importance. Project activities could result in changes to the abundance and diversity of native vegetation communities and wetlands directly through clearing for site development, or indirectly from dust deposition, changes to soil conditions, changes to water quantity, and the potential introduction and proliferation of non-native and invasive plant species. During the Project's Construction phase, direct habitat loss caused by vegetation clearing and topsoil stripping is assumed to occur throughout the PDA, resulting in a loss of 4,971.7 hectares (9.6% of the LAA) of natural landcover within the LAA (see Volume 6, Section 15.3.2.4, Table 15.9). The project has also been designed to minimize its footprint within the PDA to reduce the loss of habitat and habitat effectiveness. Other mitigation, management, and enhancement measures will also prevent or reduce further effects on vegetation, including protocols to clean equipment before its arrival at the PDA to reduce the risk of introducing invasive species. During the Operations and Maintenance phase, management of non-native and invasive species will be undertaken, as needed. Additionally, during the Operations and Maintenance phase, indirect effects on wetlands in the LAA may occur due to dust deposition, potential establishment of non-native and invasive plant species, and changes to permafrost and drainage.

Fishing and Marine Harvesting

Traditionally, fish have been a staple in the Kitikmiut diet, most notably in times while waiting for caribou to arrive. People fished where they camped and travelled throughout the Kitikmeot Region (Banci and Spicker 2024). Harvested species include Arctic cod, Arctic char (iqalukpiit), Arctic cisco (kapihillik), burbot (tiktalik), jackfish (hiulik), eels (akuhaauk), whitefish, Arctic grayling (ihulukpaukkait), saffron cod, broad whitefish (anakheek), lake trout (ihuuqit), and sucker. Inuit primarily fish during the spring and fall, timed with spawning runs. In the past, fishing was also integral for feeding dog teams (Banci and Spicker 2024).

Most of the watercourses crossed by the Project are small or have intermittent flow, and fish species found in these watercourses are predominately forage fish (e.g., slimy sculpin, ninespine stickleback). Some larger rivers are also crossed by the road (e.g., James River, Hood River). While increased fishing pressure is expected to occur during the open water season (June-October) of the Construction and Operations and Maintenance phases, effects are expected to be limited to larger watercourses and waterbodies.

To reduce potential effects, the Project will implement a no-harvesting policy to project personnel while housed at work camps for the Project. Fishing pressure may further be reduced by avoiding constructing pullouts or laydown areas near watercourses containing large-bodied fish and educating users of the road on the importance of maintaining healthy fish stocks. Additionally, the Project will implement a Road Management Plan that will only allow access to the project area to Inuit and other authorized users. It is expected that this will limit public access to most of the watercourses and waterbodies that contain large-bodied fish, avoiding or reducing increased fishing pressure in the Fish and Fish Habitat LAA (see Volume 7, Section 20).

Project activities may result in increased risk of mortality and/or injury to marine mammals. Changes to marine mammal behaviour (due to sensory disturbances from underwater noises and artificial lighting, and changes to water quality), risk of mortality or injury (due to increased frequency of vessel strikes), and potential risks associated with vessel refueling are anticipated to occur throughout the Construction and Operations and Maintenance phases. To reduce mortality and/or injury risks to marine mammals, a Wildlife Mitigation and Monitoring Plan will be developed so that all project vessels follow established navigational routes, speeds, and protocols (see Volume 8, Section 23). To reduce the chance of accidental spills, Port staff handling fuel transfers from resupply barges or regular fueling operations on site will receive training and management plans such as the Hazardous Materials Management Plan, Spill Contingency Plan, and the Fuel Management Plan. Additional mitigation measures to prevent or avoid potential spills are further described in Volume 8, Section 23.

Summary

Project related changes in economic development and opportunities are expected to be positive. Project construction will generate moderate, short-term, contributions to the Nunavut GDP, while project operations and maintenance will generate low magnitude, longer-term, contributions to Nunavut GDP. Project construction will generate moderate, short-term, contributions to territorial government revenues, while project operations and maintenance will generate low magnitude, longer-term, contributions to territorial government revenues. Further, the Project will support wider economic objectives for the territorial and federal governments. Project mitigation and enhancement measures are expected to enhance Kitikmeot and Nunavut participation in project employment and procurement opportunities which will enhance local and territorial economic activity. Positive residual effects are not characterized further.

To assess the effectiveness of mitigation measures, a Socio-economic Monitoring Program will establish a framework for monitoring project employment and training opportunities, business procurement, and other socio-economic indicators as well as the development of annual monitoring reports. WKR is committed to engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project. Additionally, a community feedback tool or process will be developed to receive and address community suggestions, concerns, and complaints.

27.3.3.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Some sub-populations of the LAA may experience project effects on economic development and opportunities differentially. The ability of certain labour market groups and businesses (e.g., businesses that support the construction industry) to benefit from project related opportunities will be a function of their capacity and capability as well as the success of mitigation measures for the Project. See Sections 27.3.4 (Change in Employment), 27.3.5 (Change in Education and Training) and 27.3.6 (Change in Contracting and Business Opportunities) for more details.

Economic opportunities for employment and businesses are expected to be concentrated in specific sectors. During project construction, activity is anticipated to be focused primarily on the construction industry and associated support services. These sectors have historically exhibited higher representation of men. As a result, increased participation in these industries may disproportionately affect men's

involvement in traditional economic activities. See Section 27.3.4 (Change in Employment) for further details.

Economic opportunities for employment and businesses are expected to be concentrated in certain industries. For example, activity will be concentrated in the construction industry and support services during project construction.

Residual effects on sub-populations through changes to government revenues will be dependent on how territorial and municipal governments choose to spend their revenues. Given the uncertainty associated with these decisions, differential effects on sub-populations are not assessed.

27.3.4 Change in Employment

Feedback shared during project-specific engagement and through Inuit, Indigenous and Community Knowledge has informed the assessment of changes in employment and the design of mitigation, management, and enhancement measures (Table 27.4). Parties regularly expressed the need for employment opportunities across all Kitikmeot communities. The need for Inuit employment, especially with the youth population, now and in the future, was raised in almost all engagement sessions. Others raised concerns about the capacity to fill project-related jobs, as many mines and exploration sites are already operating in the region.

IAG members recommended the Project prioritize Inuit hiring and employment opportunities for youth, as well as developing an employee assistance program to support individuals employed by the Project (IAG 2025b). The availability of jobs for local communities tied to the Tłı̨cho Investment Corporation was raised by the Tłı̨cho Government in early engagement (GBRP 2017). A review of publicly available literature highlighted the importance of local hiring to reduce the need for transient workers and enhance short- and long-term economic benefits to local communities (IRC 2022).

Information gathered during engagement for a previous project has indicated hopes that an all-season road would bring increased economic opportunities (Tłı̨cho Government 2017). It was reported that men and women from Gjoa Haven have previously worked as field assistants, environmental technicians, and geotechnical assistants on the Jericho project (Hamlet of Gjoa Haven 2003). In an oral history interview, the importance of work was reported, and lack of employment believed to be the cause of poor community health today (NSMA 2001).

Food security was identified as a concern across all communities (Section 25 [Food Security and Food Sovereignty]). Further, the increasing cost of living has been cited as a factor contributing to the decline of traditional activities practiced by previous generations (GKP 2010; NSMA 2001). During engagement for a previous project, the Yellowknives Dene First Nation shared that some members rely on income from trapping and hunting and expressed concern that impacts to wildlife would affect their local hunting and trapping economy (GNWT 2017).

Traditional activities make an important contribution to the economy (RHA 2003). It was reported that subsistence harvesting significantly enhances the economic well-being of communities by lessening the financial strain on households for food, clothing, and for various services (NPC 2023). It was also reported that participation in traditional activities can be prohibitive for those with lower incomes

(Prno et al. 2011). Further, many North Slave Métis and other Indigenous people face challenges in hunting regularly, as staying connected to the land often involves significant financial costs. North Slave Métis members continue to engage in traditional activities such as hunting, trapping, and fishing, while also taking part in the wage-based economy (NSMA 2001).

Information regarding traditional, land, marine, and resource use is provided in Section 24 (Traditional Land, Marine, and Resource Use) and information regarding food security is provided in Section 25 (Food Security and Food Sovereignty).

27.3.4.1 Project Effects Pathways

Project demand for labour, materials, equipment, and services could increase local and regional employment opportunities. Employment opportunities will occur through both direct project employment, as well as indirect and induced employment resulting from project expenditures and purchases of goods and services.

Project-related employment during all project phases will provide labour income to employees. Labour income will be paid to direct project employees, as well as to those engaged in indirect and induced employment resulting from project expenditures and purchases of goods and services.

Project demand for labour, materials, equipment, and services could also increase competition for workers.

Project employment may reduce time available for workers to participate in the traditional economy and opportunities for knowledge transfer.

However, income paid to project workers may also enable greater participation in traditional activities as additional financial resources have the potential to increase access to tools, materials, and technology that support participation in traditional activities and knowledge transfer.

27.3.4.2 Mitigation, Enhancement, and Management Measures

WKR will implement programs, plans and policies to manage potential adverse effects of the Project on employment and to enhance potential local benefits. Mitigation, management and enhancement measures applicable to changes in employment include:

- A Labour Relations Strategy will be developed and implemented to enhance and retain local Inuit employment, with a focus on preferential Inuit hiring. The Labour Relations Strategy will detail skills and entrance requirements, employee benefits, employee communication, work rotation schedules, employee orientation programs and ongoing support for project workers during employment. This includes:

- Gender, equity and diversity policies that focuses on hiring Inuit, other Indigenous persons, and women to increase project employment among underrepresented populations.
  - Information related to employment and contracting opportunities will be made accessible to local Inuit.
  - Community engagement tours including resume writing support, career presentations, and open forums to connect residents with job opportunities.
  - Support services for employees, including transportation assistance, accommodation, and wellness programs to help employees succeed in their roles.
- Cultural awareness and sensitivity training policy.
- An Employee Code of Conduct that includes a no-discrimination, bullying, or harassment in the workplace policy and relevant training.
- Anti-harassment and violence in the workplace policies, procedures and training.
- Access to on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness.
- Flexibility in work schedules to enable continued participation of Inuit workers in traditional and cultural activities. Priority consideration will be given to Inuit workers who request time off for cultural or harvesting purposes.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs.
- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement. The Procurement Strategy will prioritize the use of local construction equipment to increase local revenues and reduce the need to transport equipment from outside of the region. Procurement packages will also be tailored to local businesses where possible (e.g., smaller packages).
- WKR will consider hiring a Kitikmeot community liaison officer in a full or part-time capacity to communicate and coordinate project-related matters.
- Establish a community feedback tool or process to receive and address community suggestions, concerns and complaints.
- Maintain ongoing engagement with Kitikmiut, other Indigenous groups, other potentially affected communities, the GN and other stakeholders throughout its lifecycle, including during design and planning phases, to address potential effects and ensure meaningful participation.
- Implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on employment and economic conditions are identified.
- Results of pertinent management and monitoring programs will be communicated to local communities.

27.3.4.3 Project Residual Effect

Employment

Construction

Project construction is anticipated to create employment opportunities in the Kitikmeot Region, Nunavut and the rest of Canada. Employment opportunities will occur through both direct project employment, as well as indirect and induced employment resulting from project expenditures and purchases of goods and services:

- Direct Employment – This includes WKR employees (project direct) and jobs generated by direct suppliers to project (Other direct) (e.g., support services for the construction industry, such as manufacturing and wholesale trade, professional, scientific and technical services, transportation and warehousing, finance and insurance, utilities and accommodation and food services).
- Indirect Employment – This includes employment generated by indirect suppliers to the Project (i.e., supply chain suppliers).
- Induced Employment – This includes employment generated by direct and indirect workers spending their salaries.

Further, employment opportunities are assessed by location and residency, distinguishing between where jobs are performed and where workers live (e.g., fly-in fly-out arrangements). Between 2017 and 2021, the latest available data, incoming inter-jurisdictional employees to Nunavut represented approximately half of the workforce in Nunavut (Statistics Canada 2025c).

Over the five-year construction phase, project-related employment opportunities (direct, indirect, and induced) located in Nunavut are estimated to total 675 FTEs annually, consisting of 291 FTEs of direct employment opportunities, 281 FTEs of indirect employment opportunities, and 103 FTEs of induced employment opportunities (Table 27.20; Statistics Canada 2025a).

Table 27.20 Annual Employment (FTE), Construction

	Nunavut	Other Canada	Total Canada
Annual Employment by Location (FTE)			
Direct impact	291	0	291
Indirect impact	281	459	788
Induced impact	103	172	281
Total	675	631	1,360

	Nunavut	Other Canada	Total Canada
Annual Employment by Residency (FTE)			
Direct impact1	44	247	291
Indirect impact2	141	647	788
Induced impact3	7	274	281
Total	192	1,168	1,360

Notes:

1 It is assumed that 15% of the direct FTE employment opportunities located in Nunavut will be filled by Nunavummiut

2 It is assumed that 50% of the indirect FTE employment opportunities located in Nunavut will be filled by Nunavummiut, representing approximately 18% of all indirect FTE employment opportunities across Canada

3 Induced employment estimates have been adjusted based on direct and indirect annual employment by Nunavut residency

Source: Statistics Canada 2025a; Stantec estimates

Direct Employment

Direct project employment opportunities are expected to be in the construction industry and trades, transport and equipment operators and related occupations. Roles are anticipated to include a range of skilled (e.g., specialized port construction contractors/workers) and unskilled positions (e.g., general labourers). These jobs are expected to be approximately 10% management, 50% skilled, and 40% unskilled workforce (Section 2.5.5).

The project workforce requirements are expected to exceed the capacity of the available skilled labour force in the Kitikmeot Region and Nunavut. The direct project workforce would represent 216% of 2021 employment in the construction industry across the Kitikmeot communities and 46% across Nunavut, or 68% of employment in ‘trades, transport and equipment operators and related occupations’ across the Kitikmeot communities, and 13% across Nunavut (Statistics Canada 2022, 2025a).

It is expected that the Project workforce will be hired from the Kitikmeot Region, Nunavut, and the rest of Canada. WKR anticipates that approximately 15% of the construction workforce will comprise Nunavummiut, with the rest of the workforce from outside the Kitikmeot Region and Nunavut. This would represent approximately 44 direct FTE employment opportunities for Nunavummiut. This expectation is driven by the scale of workforce requirements relative to the existing labour force in Nunavut, the short-term nature of the construction phase, specialized skill requirements, and the experience of other major projects in Nunavut. The extent to which project employment opportunities result in local benefits is also dependent on the interest and extent to which local workers seek employment with the Project.

Other existing major projects in Nunavut provide benchmarks for the expected proportion of local and territorial employment. The Back River project, operated by B2Gold Nunavut is a gold mining operation located in the Kitikmeot Region of Nunavut. In 2023, annual monitoring indicated that the project employed 1,379 construction personnel (609 construction and operations and maintenance employees and 770 contractors), of which 167 personnel were Inuit (12.1%). Of the Inuit workforce, 158 personnel were from the Kitikmeot Region, and nine personnel were from outside Nunavut. All non-Inuit personnel originated from outside of Nunavut (B2Gold Nunavut 2024). In 2024, the Back River project employed

3,221 construction personnel. Of these, 233 were Inuit (7.2%), and Inuit employees accounted for 12.8% of total hours worked (B2Gold Nunavut 2025).

Skilled positions are expected to primarily be sourced from outside of the Kitikmeot Region and Nunavut. Skilled workers in Nunavut are assumed to largely already be employed by existing developments in the territory but could be available if existing projects end before project construction begins. In addition, Nunavut's young population will also continue to produce individuals entering the workforce in different areas. In 2021, there were 135 construction industry workers in the Kitikmeot communities, with 630 construction industry workers across Nunavut. There were 425 'trades, transport and equipment operators and related occupations' workers in the Kitikmeot communities and 2,180 workers across Nunavut (ref).

Unskilled positions provide an opportunity to integrate un- or under-employed individuals from the Kitikmeot Region and Nunavut into the Project workforce by offering targeted training programs. The five Kitikmeot communities and Nunavut have high rates of unemployment relative to the national average and in 2021, there were 440 people unemployed across Kitikmeot communities and 3,435 unemployed in Nunavut (Statistics Canada 2022). While the number of unemployed persons in Kitikmeot communities and Nunavut suggests there is capacity to support project direct employment, the monitoring information from the Back River project indicates that most positions will be sourced from outside of Nunavut. There are likely many reasons for this, including the current readiness, willingness, and ability of the local workforce to participate in remote work.

Project design and mitigation measures will aim to enhance local and territorial employment opportunities. Regular chartered flights will be provided for employees from designated pick-up points in Cambridge Bay, Kugluktuk, and Yellowknife to the Project site. Employees from other communities may be required to travel via commercial air carriers, at WKR's expense, to one of these pick-up points. Additional charter flights may be provided based on the number of employees living in other communities and the availability of commercial air service for those employees.

Mitigation measures (Section 27.3.4.2) will aim to enhance local and territorial employment benefits. These measures include a Labour Relations Strategy to enhance and retain local and Inuit hiring initiatives, a Training Strategy, a Procurement Strategy, as well as establishing avenues for communication and engagement around regional and Inuit employment needs. With the implementation of these measures, local and territorial employment benefits are expected to be enhanced.

Indirect and Induced Employment

Indirect employment opportunities in Nunavut are anticipated in support services for project construction where Nunavut has established industry presence, including room and boarding services, air transportation, truck transportation, wholesale trade (e.g., supply of building materials and equipment), and legal, accounting and related services (Statistics Canada 2025a).

It is expected that indirect employment opportunities will be hired from the Kitikmeot Region, Nunavut, and the rest of Canada. It is estimated that approximately 281 indirect FTE employment opportunities will be created in Nunavut, with about half expected to be filled by Nunavummiut. This assumption is based on the composition of Nunavut's workforce, where, between 2017 and 2021 (the most recent period for

which data is available) incoming inter-jurisdictional workers accounted for roughly 50% of resident employment (Statistics Canada 2025c). Nunavummiut indirect employment would account for roughly 18% of all indirect FTE employment opportunities generated across Canada (Table 27.20).

Induced employment opportunities in Nunavut, generated by direct and indirect workers spending their salaries, are anticipated in retail trade, other municipal government services, rooming and boarding services, other territorial government services and real estate (Statistics Canada 2025a). Based on the extent of direct and indirect employment opportunities by Nunavummiut, induced employment opportunities in Nunavut are estimated to total 7 FTEs (Table 27.20; Statistics Canada 2025a; Stantec estimates).

Operations and Maintenance

Project operations and maintenance is anticipated to create a smaller number of employment opportunities relative to project construction.

During operations and maintenance, project-related employment opportunities located in Nunavut are estimated to total 257 FTEs annually, of which 120 FTEs will be directly employed by the Project. A further 109 FTEs of indirect employment opportunities and 28 FTEs of induced employment opportunities are estimated to be located in Nunavut each year as a result of project-related expenditure on goods and services (Table 27.21; Statistics Canada 2025a).

Table 27.21 Employment (FTE), Operations and Maintenance

	Nunavut	Other Canada	Total Canada
Annual Employment by Location (FTE)			
Direct impact	120	0	120
Project Direct1	54	0	54
Other Direct	66	0	66
Indirect impact	109	60	171
Induced impact	28	29	58
Total	257	89	349
Annual Employment by Residency (FTE)			
Direct impact2	60	60	120
Project Direct	27	27	54
Other Direct	33	33	66
Indirect impact3	55	116	171
Induced impact4	14	44	58

	Nunavut	Other Canada	Total Canada
Total	129	275	349

Notes:

1 WKR expects to directly employ 20 personnel at the port site, 22 personnel for road operations, and 12 personnel at Jericho Station.

2 It is assumed that 50% of the direct FTE employment opportunities during operations located in Nunavut will be filled by Nunavummiut

3 It is assumed that 50% of the indirect FTE employment opportunities located in Nunavut will be filled by Nunavummiut

4 Induced employment estimates have been adjusted based on direct and indirect annual employment by Nunavut residency.

Source: Statistics Canada (2025a); Stantec estimates

Direct Employment

Direct project employment opportunities for the port site, road operations and Jericho Station are expected to comprise managerial, skilled and unskilled positions. The total operational workforce employed by WKR will include approximately 20 personnel at the port site, 22 personnel for road operations and maintenance, and a permanent workforce of 12 personnel at Jericho Station. Approximately 5% of operational personnel will be managerial positions, 50% will be skilled positions and 45% will be unskilled positions (Table 27.22; West Kitikmeot Resources n.d.). In addition to the 54 personnel directly employed by WKR, there is estimated to be a further 66 jobs generated by direct suppliers to project.

Table 27.22 WKR Operations and Maintenance Positions and Salaries, 2030

Position	Proportion of expected positions (%)	# expected project direct personnel	Estimated Average Annual Salary in 2030 ($)[1]
Managerial	5	3	253,144
Skilled	50	27	203,730
Unskilled	45	24	141,755
Total	100	54	–

Note:

1 WKR estimates reflect salaries in 2030, which have been adjusted for inflation.

Source: West Kitikmeot Resources (n.d.)

It is expected that the Project workforce will be hired from the Kitikmeot Region, Nunavut, and the rest of Canada. WKR targets 50% of the initial operations and maintenance direct workforce to be Nunavummiut, representing approximately 27 project direct FTE employment opportunities. WKR's aspirational objective is to transition the operations and maintenance workforce to be entirely composed of Nunavummiut over time, or as close to that goal as possible. This aspiration is driven by the scale of workforce requirements relative to the existing workforce, some of the construction workforce transitioning to operational employment, the longer-term nature of the operations and maintenance phase, the implementation of targeted training measures, and the experience of other major projects in Nunavut.

Other existing major projects in Nunavut provide insight into potential local and territorial employment. The Mary River project, operated by Baffinland Iron Mines Corporation, is an iron ore mining operation located in the Oikiqtani Region of Nunavut. In 2024, annual monitoring indicated the project employed 1,484 FTEs during operations, of which 262 FTEs personnel were Inuit (17.7%). Between 2013 and 2024, the FTE Inuit workforce has ranged from a low of 68 personnel in 2013 (total workforce of 342 personnel) to a high of 288 personnel in 2019 (total workforce of 1,871 personnel). The large number of employees from outside of Nunavut is partly attributed to a skills and education gap within the territory (Baffinland 2025). Because the Project offers fewer direct jobs than the Mary River project, and a larger proportion of project-related employment opportunities are expected in unskilled positions, a larger share of the operations workforce could be local and Inuit. The extent to which project employment opportunities result in local benefits is partially dependent on the abilities, interest and extent to which local workers seek employment with the Project.

Most skilled positions are expected to initially be sourced from outside of the Kitikmeot Region and Nunavut. Skilled workers in Nunavut are assumed to largely already be employed by existing developments in the territory. In 2021, the Kitikmeot communities had 85 workers in transportation and warehousing and 425 in trades, transport, and equipment operations, compared to 595 and 2,180 respectively across Nunavut. The project's direct workforce would equal 141% of the Kitikmeot community's transportation and warehousing employment and 20.2% of Nunavut's, or 28.2% of the Kitikmeot community's trades-related employment and 5.5% of Nunavut's (Statistics Canada 2022). Through targeted training, the Project aims to increase the number of Nunavummiut in skilled operations and maintenance roles over time. In addition, Nunavut's young population will also continue to produce individuals entering the workforce in different areas; this will be a particularly important source of employees for long-term developments such as the Project.

Unskilled positions provide an opportunity to integrate un- or under-employed individuals from the Kitikmeot Region and Nunavut into the Project workforce by offering targeted training programs. Unemployment rates in the Kitikmeot communities and Nunavut are high relative the national average (see Section 27.2.2.5).

Mitigation measures (Section 27.3.4.2) will aim to enhance local and territorial employment benefits. These measures include local and Inuit hiring initiatives, a training strategy, a procurement strategy, as well as establishing avenues for communication and engagement around regional and Inuit employment needs. With the implementation of these measures, local and territorial employment benefits are expected to be enhanced.

Indirect and Induced Employment

Indirect employment opportunities are anticipated in support services for project operations and maintenance where Nunavut has established industry presence, including room and boarding services, construction, air transportation, and truck transportation (Statistics Canada 2025a).

Project-related expenditure on goods and services is estimated to create 109 FTEs of indirect employment in Nunavut, with about half expected to be filled by Nunavummiut. This assumption is informed by the proportion of incoming inter-jurisdictional employees that comprise the Nunavut workforce (Statistics Canada 2025c). Nunavummiut employment would account for roughly 32% of all

indirect FTE employment opportunities generated across Canada (Table 27.21; Statistics Canada 2025a).

Induced employment opportunities in Nunavut, generated by direct and indirect workers spending their salaries, are anticipated in retail trade, other municipal government services, room and board services, real estate, and other territorial government services (Statistics Canada 2025a). Based on the extent of direct and indirect employment opportunities by Nunavummiut, induced employment opportunities in Nunavut are estimated to total 14 FTEs (Table 27.20; Statistics Canada 2025a; Stantec estimates).

Employment Income

Construction

Project-related employment opportunities will provide employment income to workers during construction. Average annual incomes are estimated to total approximately $160,000 for direct workers, $72,000 for indirect workers, and $61,000 for induced workers in Nunavut. Aggregate average annual income for Nunavummiut workers is estimated to total approximately $18 million, of which $7 million would be associated with direct employment, $10 million would be associated with indirect employment, and $0.4 million would be associated with induced employment each year (Table 27.23; Statistics Canada 2025a).

Table 27.23 Employment Income, Construction

	Average Annual Income1 ($)	Nunavummiut Employment (FTE)	Aggregate Average Annual Income ($ million)
Direct impact	160,000	44	7.1
Indirect impacts	72,000	141	10.2
Induced impact	61,000	7	0.4
Total	-	192	17.7

Note:

1 Average annual income estimated from SCIOPM estimates. Aggregated average annual income estimates divided by employment estimates and rounded to nearest $ thousand

Source: Statistics Canada 2025a; Stantec estimates

Direct Employment Income

Estimated average annual income for direct employment ($160,000) is greater than existing median individual employment incomes in the LAA. In 2020, median individual employment incomes for full-time workers across the five Kitikmeot communities ranged from $56,000 in Gjoa Haven to $105,000 in Cambridge Bay, and $95,000 in Nunavut as a whole (Table 27.10; Statistics Canada 2022, 2025b). Project-related employment income could contribute to increased individual and household income for employed personnel.

As discussed in the previous section, project design and mitigation measures will aim to enhance local and territorial employment opportunities and thereby enhance employment income to local and territorial workers. With the implementation of these measures, local and territorial employment income benefits are expected to be enhanced.

Indirect and Induced Employment Income

Estimated average annual incomes for indirect and induced employment opportunities related to the Project ($72,000 and $61,000) are estimated to be greater than median individual employment incomes for full-time workers in Gjoa Haven ($56,000), and Kugaaruk ($59,600), but lower than Kugluktuk ($93,000), Cambridge Bay ($105,000) and Nunavut as a whole ($95,000) in 2020. Median individual employment incomes for full-time workers in Taloyoak ($66,000) are greater than estimated salaries for induced employment, but lower than estimated salaries for indirect employment (Table 27.10; Statistics Canada 2022, 2025b).

Operations and Maintenance

Project-related employment opportunities will provide salaries to workers during operations and maintenance. WKR estimates that, by 2030, inflation adjusted average annual incomes for Project Direct workers will range from approximately $142,000 for unskilled positions to $253,000 for managerial positions. Average annual incomes are estimated to total approximately $89,000 for other direct workers, $69,000 for indirect workers and $61,000 for induced workers (Statistics Canada 2025a; Stantec estimates). Aggregate average annual income for Nunavummiut workers is estimated to total approximately $12 million, of which $8 million would be associated with direct employment, $4 million would be associated with indirect employment, and $1 million would be associated with induced employment each year (Table 27.24; Statistics Canada 2025a).

Table 27.24 Estimated Employment Income, Operations and Maintenance

	Average Annual Income in 2030 ($)	Nunavummiut Employment (FTE)	Aggregate Average Annual Income ($ million)
Direct impact			
Project Direct2	142,000 to 253,000	27	4.8
Other Direct1	89,000	33	2.9
Indirect impacts1	69,000	55	3.8
Induced impact1	61,000	14	0.9
Total	-	129	12.4

Notes:

1 Average annual income estimated from SCIOPM estimates. Aggregated average annual income estimates divided by employment estimates and rounded to nearest $ thousand.

2 WKR estimates reflect salaries in 2030, which have been adjusted for inflation. WKR anticipates that salaries for managerial positions will average $253,000, salaries for skilled positions will average 203,730 and salaries for unskilled positions will average $142,000.

Source: Statistics Canada (2025a); Stantec estimates

Direct Employment Income

Average annual incomes for WKR employees are expected to range from $142,000 for unskilled positions to $253,000 for managerial positions (Table 27.15; West Kitikmeot Resources n.d.). Average annual incomes for all direct employment (i.e., WKR employees and Other Direct) are estimated to total $89,000.

Project-related operations and maintenance incomes for WKR employees are anticipated to be greater than existing median individual employment incomes for full-time workers in the LAA. Average annual income for all direct employment is lower than existing median individual employment incomes for Gjoa Haven ($56,000), Kugaruuk ($59,600), and Taloyoak ($66,000), but lower than Kugluktuk ($59,600), Cambridge Bay ($105,000), and Nunavut as a whole ($95,000) in 2020 (Table 27.10; Statistics Canada 2022, 2025b).

As discussed in the previous section, project design and mitigation measures will aim to enhance local employment opportunities. With the implementation of these measures, local and territorial employment income benefits are expected to be enhanced.

Indirect and Induced Employment Income

Average annual incomes for indirect and induced employment ($69,000 and $61,000) are estimated to be greater than median individual employment incomes for full-time workers in Gjoa Haven ($56,000), and Kugaaruk ($59,600), but lower than Kugluktuk ($93,000), Cambridge Bay ($105,000) and Nunavut as a whole ($95,000) in 2020. Median individual employment incomes for full-time workers in Taloyoak ($66,000) are greater than estimated salaries for induced employment, but lower than estimated salaries for indirect employment (Table 27.10; Statistics Canada 2022, 2025b).

Competition for Workers

Construction

Project-related labour demand during construction could increase competition for workers in the Kitikmeot Region. This demand will stem from direct hiring for the Project as well as indirect and induced employment generated through spending on materials, equipment, and services. Greater competition for workers in Kitikmeot communities may create challenges for some local businesses/organizations in meeting their labour needs. Engagement specific to the Project has highlighted concerns about the region's capacity to fill these new jobs, particularly given that several mines and exploration sites are already operating in the area. Existing projects in Nunavut suggest there may be increasing competition for local labour. Monitoring data from the Mary River project in 2023 indicate that the Project may be contributing to this dynamic. Specifically, 10 Inuit survey respondents reported leaving a previous job to work for Baffinland or one of its contractors. Several respondents noted that their former employment was with government or other local employers (Baffinland 2025)

Direct Employment

Given the scale of workforce requirements compared to the existing labour market, competition for qualified workers in Kitikmeot communities may occur during construction. However, this impact is anticipated to be limited because the majority of project employees will be sourced from outside the Kitikmeot communities and Nunavut. WKR anticipates approximately 15% of the construction workforce will comprise Nunavummiut, representing approximately 44 direct FTE employment opportunities for Nunavummiut annually (Table 27.20; Statistics Canada 2025a; Stantec estimates). This would represent approximately 1.9% of the existing labour force in the five Kitikmeot communities (2,330 people in 2021) and a small proportion of the total Nunavut labour force (14,380 people in 2021) (Statistics Canada 2022). This direct workforce would be expected to comprise residents from the Kitikmeot communities and the rest of Nunavut.

The project will prioritize the employment of currently un- or under-employed individuals from the Kitikmeot Region and Nunavut, supported through targeted training initiatives. Unemployment rates in the Kitikmeot communities and Nunavut are high relative the national average (see Section 27.2.2.5). These factors, in addition to the short-term nature of construction, are expected to limit adverse effects to competition for workers in the Kitikmeot communities to a low magnitude.

Mitigation, management, and enhancement measures will promote education and training for local and Inuit workers, especially youth, to support the creation of new employment rather than compete for those currently employed. See Sections 27.3.4.2 and 27.3.5.2 for mitigation, management and enhancement measures related to change in employment and change in education and training.

Indirect and Induced Employment

It is estimated that approximately 281 indirect FTE employment opportunities will be created in Nunavut, with about half expected to be filled by Nunavummiut. This assumption is informed by the proportion of incoming inter-jurisdictional employees that comprise the Nunavut workforce (Statistics Canada 2025c). Nunavummiut employment would account for roughly 18% of all indirect FTE employment opportunities generated across Canada (Table 27.20; Statistics Canada 2025a; Stantec estimates). A further seven induced employment opportunities are estimated as a result of direct and indirect workers spending their salaries in Nunavut. Collectively, indirect and induced employment by Nunavut residency would represent approximately 6.4% of the labour force in the five Kitikmeot communities (2,330 people in 2021) and approximately 1% of the total Nunavut labour force (14,380 people in 2021) (Statistics Canada 2022). This indirect and induced workforce would be expected to comprise residents from the Kitikmeot communities and the rest of Nunavut. There could be low magnitude adverse effects to competition for workers in the Kitikmeot communities, but at the territory level effects would be negligible.

Operations and Maintenance

During operations and maintenance, project-related workforce requirements will be lower than during construction. Lower workforce demands are expected to reduce pressure on competition for workers.

Direct Employment

WKR targets 50% of the initial operations and maintenance direct workforce will comprise Nunavummiut, with the aspirational goal of transitioning to a fully Nunavut-resident workforce over time. The initial workforce would represent approximately 60 direct FTE employment opportunities annually for Nunavummiut (Table 27.21; Statistics Canada 2025a; Stantec estimates). This would represent approximately 2.6% of the existing labour force in the five Kitikmeot communities (2,330 people in 2021) and a small proportion of the total Nunavut labour force (14,380 people in 2021) (Statistics Canada 2022).

The project will prioritize the employment of currently un- and under-employed individuals from the Kitikmeot Region and Nunavut, supported through targeted training initiatives. Unemployment rates in the Kitikmeot communities and Nunavut are high relative the national average (see Section 27.2.2.5). In addition, normal turnover within the project workforce may provide opportunities for newly trained/experienced workers to return to other positions in their home communities. These factors are expected to limit adverse effects to competition for workers in Kitikmeot communities to a low magnitude.

Mitigation, management, and enhancement measures will promote education and training for local and Inuit workers, especially youth, to support the creation of new employment rather than compete for those currently employed. See Sections 27.3.4.2 and 27.3.5.2 for mitigation, management and enhancement measures related to change in employment and change in education and training.

Indirect and Induced Employment

Project-related expenditure on goods and services is estimated to create 109 FTEs of indirect employment in Nunavut, with about half expected to be filled by Nunavummiut (Table 27.21; Statistics Canada 2025a; Stantec estimates). A further 14 induced employment opportunities are estimated as a result of direct and indirect workers spending their salaries in Nunavut. Collectively, indirect and induced employment by Nunavummiut would represent approximately 3.0% of the existing labour force in the five Kitikmeot communities (2,330 people in 2021) and approximately 0.5% of the total Nunavut labour force (14,380 people in 2021) (Statistics Canada 2022). This indirect and induced workforce would be expected to comprise residents from the Kitikmeot communities and the rest of Nunavut. There could be low magnitude adverse effects to competition for workers in the Kitikmeot communities, but at the territory level effects would be negligible.

Participation in the Traditional Economy

Project employment could both disrupt and enhance participation in the traditional economy and associated knowledge transfer of traditional activities. Project-related employment may limit individuals' time to engage in traditional activities such as hunting, trapping, arts and crafts, and fishing, with workers residing in camps during their shifts rather than in Kitikmeot communities. One full-time hunter noted that being able to consistently engage in traditional hunting meant that the "quality of equipment, preparation, time on the land, and maintaining knowledge and skills" increased (Yellowhead Institute 2024). Effects may be amplified if work schedules conflict with seasonal harvesting periods. Furthermore, if youth are drawn to project employment, they could miss opportunities to learn traditional skills from Elders, potentially weakening intergenerational knowledge transfer. Similarly, knowledge holders engaged in project employment could miss opportunities to transfer traditional knowledge to other community

members. WKR will establish flexibility in work schedules to enable continued participation of Inuit workers in traditional and cultural activities.

Any adverse effects to the traditional economy are limited by the scale of project-related employment of Nunavummiut' relative to the total size of the Inuit population in Nunavut (Section 27.3.4). WKR will provide opportunities for on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness.

On the other hand, new employment income associated with the Project could provide financial resources to support greater participation in traditional activities, and associated opportunities for knowledge transfer. The cost of modern hunting equipment is estimated between $20,000 and $30,000 for seasonal hunters; an all-season hunting outfit can cost over $70,000 (Smart Prosperity Institute 2023), which represents approximately 2.3 times the median total income reported by Nunavut's Indigenous population in 2020 (Table 27.9). Given the high costs of engaging in hunting, employment income could be used to purchase equipment (e.g., snowmobiles, boats, equipment, fuel) that support participation in traditional harvesting activities. In addition, the project's infrastructure will create new access to a land base that is otherwise remote and potentially difficult for Inuit harvesters to use. This, combined with WKR's comprehensive documentation of Inuit Knowledge specific to the project area will further support the traditional economy.

Summary

Project related change in employment and employment income is expected to be positive. Project construction, operations and maintenance, will create employment opportunities and employment income for workers residing in the Kitikmeot Region, Nunavut and the rest of Canada. Further indirect and induced employment opportunities will be created through project-related expenditure on goods and services. Project design and mitigation measures are expected to enhance Kitikmeot and Nunavummiut participation in project employment opportunities. Per the IS's established methodology, positive residual effects are not characterized further.

Adverse project related effects on competition for workers in the Kitikmeot communities are expected to be low magnitude. The project will prioritize hiring un- and under-employed residents from Kitikmeot communities and Nunavut through targeted training, and given high regional unemployment rates, these measures should help limit adverse effects. With these measures, adverse effects on competition for qualified workers will be low magnitude during construction and operations and maintenance. Residual adverse effects are expected to extend to the RAA, be long-term, continuous and reversible as the labour market adjusts to this change (e.g., increased training programs and upskilling efforts, and/or reallocation of workers across industries, and/or increased use of fly-in-fly-out workers).

Project related change in participation in traditional economy is expected to be both positive and adverse. Project-related employment could limit workers' time to engage in traditional activities, while project-related employment income will also provide financial resources that could support participation in traditional activities. WKR will provide flexibility in work schedules to enable continued participation of Inuit workers in traditional and cultural activities. With mitigation measures, residual adverse effects on change in participation in the traditional economy are expected to be low in magnitude, long-term in duration, seasonal, continuous, and reversible.

To assess the effectiveness of mitigation measures, a Socio-economic Monitoring Program will establish a framework for monitoring project employment, training and other socio-economic indicators as well as the development of annual monitoring reports. WKR is committed to engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project. Additionally, a community feedback tool or process will be developed to receive and address community suggestions, concerns, and complaints.

27.3.4.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Positive change in employment and employment income may disproportionately affect certain sub-populations in the LAA and RAA.

The project workforce will be hired from the Kitikmeot Region, Nunavut, and the rest of Canada. If hires from the Kitikmeot Region and Nunavut are representative of existing labour market conditions, then workers would predominantly be Inuit and men+. Women+ are underrepresented in those industries and occupations where project employment opportunities are expected to be concentrated (Section 27.2.2.5). Families of workers will also benefit from project employment opportunities from any increase in household income and spend.

Unemployment rates in the Kitikmeot Region and Nunavut are higher for the Indigenous and men+ labour force. In 2021, Indigenous unemployment rates were higher than the total population in the five Kitikmeot communities (22.0% compared to 18.9%) and Nunavut (22.0% compared to 16.9%). Unemployment rates were also greater for men+ than women+ in the five Kitikmeot communities (20.9% compared to 17.0%) and Nunavut (19.5% compared to 14.2%) (Statistics Canada 2022). Given that project employment opportunities are expected in industries dominated by Inuit and men+ workers, it may help reduce unemployment rates among these groups.

Salaries associated with direct FTE employment opportunities are largely expected to be greater than existing median individual employment incomes in the Kitikmeot Region and Nunavut. If hires from the Kitikmeot Region and Nunavut are representative of existing labour market conditions, then workers receiving employment income would predominantly be Inuit and men+.

The Inuit population employed on the Project may experience greater salary uplift from project-related salaries than the non-Indigenous population. Similarly, women+ employed on the Project may experience greater salary uplift from project-related salaries than men+ (Section 27.2.2.7).

Elders and youth may experience more pronounced impacts from change in the traditional economy. Elders, who play a vital role in cultural transmission and mentoring younger harvesters, may be disproportionately affected by changes in participation in traditional activities. Barriers to participation can limit these opportunities and contribute to feelings of loss or exclusion. Youth and emerging harvesters may also face diminished exposure to traditional practices if local harvesting opportunities decline.

Lower-income households in small communities are more likely to experience healthy food and housing affordability challenges (Smart Prosperity Institute 2023). This may make them particularly vulnerable to altered traditional food access, as they may rely more heavily on these foods to offset high market food costs and may have fewer alternatives if traditional sources become less accessible.

Mitigation measures (Section 27.3.4.2) have been developed with the goal of enhancing local and Inuit employment and equitable participation in project employment opportunities. A Labour Relations Strategy will be developed to enhance and retain local Inuit employment, and a Procurement Strategy will be created to facilitate regional and Inuit business involvement. An Inuit-focused Employee and Family Assistance Program will be developed, in addition to making written support resources available on site. The project will provide full-time and seasonal employment opportunities to enable Inuit participation in traditional activities. A Training Strategy will be developed to identify worker skill requirements, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and provide on-the-job training and apprenticeship programs, which will aim to increase opportunities for local Inuit employment, particularly among youth. For unskilled positions, targeted training measures will be provided, and practical experience will be considered in lieu of educational attainment where appropriate. Further, information relating to employment and contracting opportunities will be provided in Inuinnaqtun and Inuktitut for local Inuit to enable equitable access to employment and contracting opportunities across Kitikmeot communities. A community engagement liaison position would be established to support engagement within the Kitikmeot Region.

27.3.5 Change in Education and Training

Feedback shared during project-specific engagement and Inuit, Indigenous, and Community Knowledge has informed the assessment of changes in education and training and the design of mitigation, management and enhancement measures (Table 27.6). Many Inuit of the Kitikmeot Region, other Indigenous groups, other potentially affected communities, and the publicly available literature raised the need for education and training opportunities at the project (IRC 2022; GBRP 2017, 2025) to take advantage of anticipated employment opportunities. In particular, opportunities for youth to participate in training programs were often highlighted (GBRP 2025; Hamlet of Gjoa Haven 2003). Suggestions included funding for high school students to attend training courses and summer employment (GBRP 2017). Parties also expressed the need for training opportunities across all Kitikmeot communities. Others raised concerns regarding student attendance in the north, and the need for students to finish school to be able to hold meaningful jobs (GBRP 2025).

27.3.5.1 Project Effects Pathways

The project could create opportunities to develop and deliver education and training programs to establish a qualified local workforce that can operate the Project over the long term.

The project could increase enrollment in education and training programs, for example those that support certification in skilled trades.

The project's demand for labour may cause some students to leave school for work on the Project.

27.3.5.2 Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures applicable to education and training include:

- A Labour Relations Strategy will be developed and implemented to enhance and retain local Inuit employment, with a focus on preferential Inuit hiring. The Labour Relations Strategy will detail skills and entrance requirements, employee benefits, employee communication, work rotation schedules, employee orientation programs and ongoing support for project employees.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations), and to implement on-the-job training and apprenticeship programs using existing community-based training centres or mobile training units.
- Pre-employment training for Nunavut Inuit and youth, in partnership with local educational institutions and Inuit organisations.
- Use of existing community-based training centres or mobile training units.
- Apprenticeship programs targeted at Nunavut Inuit youth, in partnership with local educational institutions and Inuit organisations, enabling practical experience while working towards certification in trades or technical fields.
  - Internships or summer employment for Nunavut Inuit youth. Provision of flexible employment pathways will allow youth to work part-time or seasonally without compromising education.
  - Career fairs and school outreach programs to inform youth about employment opportunities and required qualifications.
  - Partnering with schools to deliver career awareness programs that emphasize the importance of finishing school before entering the workforce.
- Youth employment is conditional on candidates completing high school prior to eligibility for future work or internship opportunities.
  - Supporting youth mentorship programs that connect students with Inuit professionals.
- WKR will consider hiring a Kitikmeot community liaison officer in a full or part-time capacity to communicate and coordinate project-related matters.
- Establish a community feedback tool or process to receive and address community suggestions, concerns and complaints.
- Maintain ongoing engagement with Kitikmiut, other Indigenous groups, other potentially affected communities, the GN and other stakeholders throughout the project's lifecycle, including during design and planning phases, to address potential effects and ensure meaningful participation.
- Implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on education and training are identified.
- Results of pertinent management and monitoring programs will be communicated to local communities.

27.3.5.3 Project Residual Effect

Education and Training Opportunities

Project-related employment is expected to lead to changes in education and training opportunities during construction and operations and maintenance. With a range of skilled and unskilled positions available during project construction and operations and maintenance, the Project will provide employment opportunities for local and territorial workers with a range of education levels (Section 27.3.4.3). On the job training and experience is also anticipated to build the capacity of the local labour force over time.

During project construction, skilled positions are expected to primarily be sourced from outside of the Kitikmeot Region and Nunavut given the short-term nature of these positions. Further, it is assumed that most skilled workers in Nunavut will already be employed by existing projects in the territory. WKR will offer apprenticeship programs, internships and summer employment, targeted at Inuit youth, to enable practical experience while working towards certification in trades or technical fields. Unskilled positions could present a more immediate opportunity to employ workers from the Kitikmeot Region and Nunavut through the implementation of targeted training measures. WKR will implement short-term pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations). Pre-employment training will be provided in existing community-based training centres or mobile training units. With implementation of training and local employment strategies, employment for Nunavummiut is predicted to reach 15% of the direct construction workforce (Section 27.3.4.3).

During project operations and maintenance, skilled positions are expected to primarily be sourced from outside of the Kitikmeot Region and Nunavut in the short-term. WKR targets 50% of the initial operations and maintenance workforce will comprise Nunavummiut (27 project Direct FTEs). WKR's aspirational objective is to transition the direct operations and maintenance workforce to be entirely composed of Nunavummiut over time. WKR will offer, starting in construction, apprenticeship programs and on-the-job training so staff can work towards certification in trades or technical fields. For unskilled positions, WKR will provide short-term pre-employment training for Inuit and youth (in partnership with local educational institutions and Inuit organizations). Additional career development opportunities for Inuit employees will also be considered where appropriate. It is expected that some of the construction workforce will transition to operational employment.

Enrollment in Education and Training Programs

The project will offer a range of education and training opportunities during construction and operations and maintenance. Education and training opportunities will be offered in partnership with local education institutions and Inuit organisations, including apprenticeship programs and short-term pre-employment training for Inuit and youth.

Nunavummiut are estimated to fill 44 direct FTE positions during project construction and 60 direct FTE positions during project operations and maintenance comprising both skilled and unskilled positions (Section 27.3.4). Offering apprenticeship programs and short-term pre-employment training for some of these positions could result in a small increase in enrollment for local education and training programs. It is anticipated that local educational institutions and Inuit organisations in the Kitikmeot Region and Nunavut will have capability and capacity to support project demand.

Post-secondary education in Nunavut is delivered by Nunavut Arctic College (NAC), which operates five campuses, including the Kitikmeot Campus in Cambridge Bay. An estimated 35 to 50 students were enrolled at the Kitikmeot Campus during the 2024–2025 school year. NAC offers university transfer, certificate, diploma, and trades training programs, along with educational assessment and counselling. Degree programs are delivered through partnerships with institutions in other Canadian jurisdictions (Nunavut Arctic College 2024). NAC also operates Community Learning Centres, which are located in all 25 communities of Nunavut. Each Community Learning Centre is staffed by an Adult Educator who can provide information and guidance to anyone seeking further education (Nunavut Arctic College 2024).

The Kitikmeot Inuit Association and other community-driven programs offer programing for community members to advance their skills and training. For example, the Kitikmeot Inuit Association offers workplace readiness programs, which provide skills training to access employment, and the Kitikmeot Friendship Society offers computer literacy programming in all five Kitikmeot communities (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm., Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

WKR is hopeful that additional positive effects on school enrollment may occur over time. This may result from effective role-modelling behaviour by local project employees towards youth and other individuals. More specifically, residents may increasingly connect the importance of educational attainment with meaningful employment as project benefits continue to be realized and observed within communities.

School Completion

The project's demand for labour may cause some students to leave school for work on the Project. The Hamlet of Gjoa Haven shared that their students have a low attendance rate and they are looking for ways to increase it. The Hamlet of Gjoa Haven also emphasized that students need to finish school to secure meaningful employment (GBRP 2025).

WKR will implement measures to encourage school completion by partnering with schools to deliver career awareness programs that highlight opportunities for educated individuals and the importance of graduating before entering the workforce. Youth employment opportunities at the project will be contingent upon candidates obtaining a high school diploma. Additionally, WKR will support mentorship initiatives that connect students with Inuit professionals. As a result, no adverse changes in school completion rates are expected.

Summary

Project related changes in education and training are expected to be positive. Project construction and operations and maintenance will offer education and training opportunities to local and Inuit workers. WKR will provide apprenticeships, internships, and summer jobs for Inuit youth to gain practical experience while pursuing trade or technical certifications. The company will also deliver short-term pre-employment training (in partnership with local educational institutions and Inuit organizations), using community-based or mobile training facilities. Project-related education and training offerings may increase enrollment in local programs, but institutions and Inuit organizations in Kitikmeot and Nunavut are expected to have sufficient capacity to meet project needs. Any adverse effects on school completion

rates are expected to be negligible. WKR will promote graduation through career awareness programs, conditional hiring requirements, and mentorship opportunities with Inuit professionals.

To assess the effectiveness of mitigation/enhancement measures, a Socio-economic Monitoring Program will establish a framework for monitoring project employment (e.g., number of employees by total, origin and ethnicity), employment income (e.g., employee payroll amounts by total, origin, and ethnicity), training and education (e.g., hours of training completed by total, type and ethnicity; Inuit apprenticeships; secondary school graduation rate; post-secondary education enrollment) and other socio-economic indicators as well as the development of annual monitoring reports. WKR is committed to engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project. Additionally, a community feedback tool or process will be developed to receive and address community suggestions, concerns, and complaints.

27.3.5.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Positive changes to education and training may benefit certain sub-populations in the LAA and RAA. The Kitikmeot Region has low levels of educational attainment relative to the rest of Canada. This trend is more pronounced among the Inuit population compared to the total population, and men+ compared to women+. Across the five communities, Kugaaruk has a greater proportion of the population with no certificate, diploma or degree (Section 27.2.2.6).

Education, training, and associated benefits are expected to be realized by men more than women, reflecting existing employment patterns in Nunavut (Section 27.3.4.4). Women+ are underrepresented in those industries and occupations where project employment opportunities are expected to be concentrated (Section 27.2.2.5). Enhancement measures (Section 27.3.5.2) have been developed with the goal of enhancing positive effects to local Inuit by providing education and training opportunities, as well as avenues for communication, feedback and engagement around local Inuit education and training needs. A Training Strategy will be developed to identify specific skill requirements for employment on the Project and to work with local and regional training and educational facilities to increase opportunities for local Inuit employment, and to implement on-the-job training and apprenticeship programs. Further, workplace policies will support inclusive hiring, retention, and advancement of Inuit employees. These policies will be detailed in the Human Resources Plan, included in Volume 11: Environmental Management Plans.

27.3.6 Change in Contracting and Business Opportunities

Feedback shared during project-specific engagement has informed the assessment of changes in contracting and business opportunities and the design of mitigation, management, and enhancement measures (Table 27.3). Kitikmiut, expressed an interest in Inuit business opportunities arising from the Project, including transportation related opportunities (GBRP 2017, 2025), with parties also expressing the need for new business opportunities across all Kitikmeot communities. The availability of jobs for local businesses tied to the Tłı̨cho Investment Corporation was raised by the Tłı̨cho Government in early engagement (GBRP 2017). Information gathered during engagement for a previous project indicated a hope that an all-season road would bring increased economic opportunities (Tłı̨cho Government 2017).

27.3.6.1 Project Effects Pathways

Project expenditures on materials, equipment and services will create procurement opportunities for regional business.

27.3.6.2 Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures applicable to changes in contracting and business opportunities include:

- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement. The Procurement Strategy will prioritize the use of local construction equipment to increase local revenues and reduce the need to transport equipment from outside of the region. Procurement packages will be tailored to local businesses where practical (e.g., smaller packages).
- WKR will consider hiring a Kitikmeot community liaison officer in a full or part-time capacity to communicate and coordinate project-related matters.
- Establish a community feedback tool or process to receive and address community suggestions, concerns and complaints.
- Maintain ongoing engagement with Kitikmiut, other Indigenous groups, other potentially affected communities, the GN and other stakeholders throughout the project's lifecycle, including during design and planning phases, to address potential effects and ensure meaningful participation.
- Implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on contracting and business opportunities are identified.
- Results of pertinent management and monitoring programs will be communicated to local communities.

27.3.6.3 Project Residual Effect

Procurement Opportunities

Construction

Project expenditures on materials, equipment, and services during construction will increase demand for local, territorial and Canadian contractors and businesses in the construction industry and those that provide goods and services for the construction industry.

Construction of the Project is expected to occur over a five-year duration with total capital expenditure of $1.2 billion, including costs associated with port construction, road construction and construction mobilization. The project will create procurement opportunities for Kitikmeot and Nunavut businesses, though most goods, materials and services are expected to be sourced outside of Nunavut. During construction, SCIPIOPM estimates indicate that approximately 20% of project expenditure on goods and

services in supply chains will occur in Nunavut, totalling approximately $200 million over the five years of construction (Statistics Canada 2025a). This expectation is consistent with other existing major projects in Nunavut. In 2023, the Back River construction expenditure totalled $481 million made to 745 businesses. Of the total expenditures, $131 million (27.3%) were made to 91 northern businesses (including Nunavut) and $104 million (21.7%) were made to 22 Kitikmeot businesses (B2Gold Nunavut 2024). In 2024, the Back River project construction expenditure totalled $770.5 million made to 761 businesses. Of the total expenditures, $319.1 million (41.4%) were made to 118 northern businesses (including Nunavut) and $204.6 million (26.5%) were made to 17 Kitikmeot businesses (B2Gold Nunavut 2025).

Procurement opportunities for Kitikmeot and Nunavut businesses, including Inuit-owned enterprises, are expected to include provision of construction services, wholesale trade, equipment and machinery rental and leasing, truck transportation, air transportation, room and boarding services, legal, accounting and related services, engineering services, and utilities (Statistics Canada 2025a). Inuit owned businesses currently supply all these services within the Kitikmeot Region (Section 27.2.2.4; Statistics Canada 2024d).

As of December 2023, Nunavut had a total of 1,347 businesses, with 93 businesses in the construction industry and 99 businesses in transportation and warehousing. Businesses ranged from independent contractors (with no employees) to a small number of large enterprises with 100 or more employees (Statistics Canada 2024c). Across the communities in the Kitikmeot Region in December 2023, Cambridge Bay had the largest number of businesses (48 businesses), followed by Kugluktuk (15 businesses), Gjoa Haven (14 businesses), and Taloyoak (12 businesses) (Statistics Canada 2024d). Businesses in the Kitikmeot Region cover a range of industries, including construction, engineering, health services, hospitality, industrial, logistics, mining, and professional services (Kitikmeot Corporation n.d.).

Businesses in the Kitikmeot Region are well positioned to benefit from project procurement opportunities during construction. As of July 2024, Nunavut Tunngavik Incorporated's Inuit Firm Registry Database listed 104 Inuit-owned businesses in the Kitikmeot Region, of which 65 were in Cambridge Bay (Nunavut Tunngavik Incorporated n.d.). Inuit-owned businesses currently supply a range of relevant services within the Kitikmeot Region, including air charter and contracting services, blasting services, camp management, construction goods and services, engineering and professional services, general contracting, heavy equipment, hospitality, logistics, marine transport, medical services, and vehicle rental (Nunavut Tunngavik Incorporated n.d.).

Mitigation and enhancement measures (Section 27.3.6.2) have been developed with the goal of enhancing positive effects to local businesses, as well as avenues for communication, feedback and engagement around local business needs and opportunities. Information relating to employment and contracting opportunities will be provided in Inuinnaqtun and Inuktitut to enable equitable access to business opportunities across Kitikmeot communities. A community engagement liaison position will be established to support engagement on this and other topics within the Kitikmeot Region. A Procurement Strategy will prioritize regional and Inuit participation in project business opportunities, by providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will also prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.

Operations and Maintenance

Project expenditures on materials, equipment, and services during operations and maintenance will increase demand for local and territorial contractors and businesses that support port and road operation.

During project operations and maintenance, annual operating expenditure is estimated to total $38.2 million, including costs associated with the operations and maintenance of the port and road. Contracts during operations and maintenance will be smaller scale and may be more accessible to new and/or growing Inuit-owned businesses. During operations and maintenance, SCIPIOPM estimates indicate that approximately 49% of project expenditures on goods and services in supply chains will occur in Nunavut, totalling approximately $18 million. Approximately 39% of expenditure on goods and services in supply chains will represent interprovincial imports, and 13% will represent international imports (Statistics Canada 2025a). This expectation is consistent with other existing major projects in Nunavut. In 2024, the Mary River project awarded contracts totalling $382 million, with $167 million to Inuit firms (44%) (Baffinland 2025).

Project operations and maintenance are anticipated to create opportunities for Kitikmeot and Nunavut businesses, including Inuit-owned enterprises. Procurement opportunities for Nunavut based businesses are expected to include transportation support services, repair construction, air transportation, truck transportation, room and boarding services, telecommunications and other information systems, retail trade and utilities (Statistics Canada 2025a). Inuit owned businesses currently supply all these services within the Kitikmeot Region.

As outlined in the previous section, businesses in the Kitikmeot Region are well positioned to benefit from project procurement opportunities during operations and maintenance.

Mitigation and enhancement measures (Section 27.3.6.2) have been developed with the goal of enhancing positive effects to contracting and business opportunities, as well as providing avenues for communication, feedback and engagement around businesses' needs and opportunities. A community engagement liaison position will be established to support engagement within the Kitikmeot Region. A Procurement Strategy will prioritize participation in project business opportunities by providing first opportunity to regional businesses, where competitive. The Procurement Strategy will also prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.

Summary

Project related changes in contracting and business opportunities are expected to be positive. Project construction and operations and maintenance will create procurement opportunities for businesses in the Kitikmeot Region, Nunavut and the rest of Canada through expenditure on goods and services. Project mitigation and enhancement measures are expected to enhance Kitikmeot and Nunavut participation in project procurement opportunities. Per the established IS methodology, positive residual effects are not characterized further (e.g., for significance).

To assess the effectiveness of mitigation and enhancement measures, a Socio-economic Monitoring Program will establish a framework for monitoring project business procurement (e.g., number and value of business contracts by business type and location), and other socio-economic indicators as well as the

development of annual monitoring reports. WKR is committed to engagement with Kitikmiut, other Indigenous groups, and other potentially affect communities throughout the lifetime of the Project. Additionally, a community feedback tool or process will be developed to receive and address community suggestions, concerns, and complaints.

27.3.6.4 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

Positive change in contracting and business opportunities may benefit Inuit businesses in the LAA and RAA.

The local economy of Cambridge Bay is best positioned to benefit from project-related procurement opportunities in the Kitikmeot Region given its existing business base (48 businesses in December 2023), with smaller business presence in Kugluktuk (15 businesses), Gjoa Haven (14 businesses), and Taloyoak (12 businesses) (Statistics Canada 2024d).

Business opportunities are expected to be realized disproportionately by men, reflecting prevailing business ownership patterns in Nunavut. In 2021, the most recent year for which data are available, men+ owned the majority of businesses in the territory (61.3%) (Section 27.2.2.4; Statistics Canada 2024f).

Mitigation and enhancement measures (Section 27.3.6.2) have been developed with the goal of enhancing positive effects to regional Inuit businesses, as well as providing avenues for communication, feedback, and engagement around businesses' needs and opportunities. Information relating to employment and contracting opportunities will be provided in Innuinaqtun and Inuktitut to facilitate access to business opportunities across Kitikmeot communities. A community engagement liaison position will be established to support engagement within the Kitikmeot Region. A Procurement Strategy will prioritize regional and Inuit participation in project business opportunities by providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will also prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.

27.3.7 Change in Community Resupply Resilience

Feedback shared during project-specific engagement has informed the assessment of change in community resupply resilience and the design of mitigation, management and enhancement measures (Table 27.6).

Rising cost of living was highlighted, particularly in Gjoa Haven and Taloyoak (GBRP 2025). IAG members highlighted the importance of the Project potentially helping reduce the cost of living (IAG 2025b). Cost of living concerns were linked to concerns related to food security and community resupply.

Information regarding food security is provided in Section 25 (Food Security and Food Sovereignty) and information regarding community resupply is provided in Section 28 (Infrastructure and Services). This section focuses on change in community resupply resilience by assessing potential project effects on

existing community resupply services and routes to Kitikmeot communities, as well as potential effects on community resupply from the introduction of new land and marine infrastructure in the Kitikmeot Region.

27.3.7.1 Project Effects Pathways

Construction and operation of the Project could put pressure on existing community resupply capacity to Kitikmeot communities by increasing demand for marine and air transportation operators. The project will require transporting equipment and supplies to the site. Increased project-related demand on existing community resupply services and routes could strain capacity if additional supply is not provided. More users vying for limited transport capacity/slots could lead to scheduling conflicts, higher costs, or a reduction in capacity for existing users of resupply services.

The project could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. If there are means to transport goods and materials from the Grays Bay Road and Port to the Kitikmeot communities, the port and road could serve as an additional access point to Kitikmeot communities and improve regional connectivity that could support resupply. This added flexibility could help mitigate increases in the cost of transportation of goods if disruptions occur to other community resupply routes.

27.3.7.2 Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures applicable to change in community resupply resilience include:

- A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement, including providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.
- WKR will transport equipment and supplies from outside of the region to the Project site using barges, sea-lift, aircraft, and/or trucks contracted specifically for the Project.
- WKR will work with local and territorial governments to minimize interference with each other's deliveries and if possible, coordinate joint resupply efforts.
- WKR will work with local and territorial governments and regional businesses to reduce interference on the Tibbitt to Contwoyto Winter Road and, if possible, coordinate joint supply efforts.
- WKR will consider hiring a Kitikmeot community liaison officer in a full or part-time capacity to communicate and coordinate project-related matters.
- Establish a community feedback tool or process to receive and address community suggestions, concerns and complaints.
- Maintain ongoing engagement with Kitikmiut, other Indigenous groups, other potentially affected communities, the GN and other stakeholders throughout the project’s lifecycle, including during design and planning phases, to address potential effects and ensure meaningful participation.

- Implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project. The results of this program will inform adaptive management and allow for timely responses if unanticipated pressures on employment and economic conditions are identified.
- Results of pertinent management and monitoring programs will be communicated to local communities.

27.3.7.3 Project Residual Effect

Community Resupply

Construction

Community resupply to Kitikmeot communities is currently accomplished through sea-lift once or twice per year and through regular air freight.

Project construction will require mobilizing equipment and supplies to the site, including machinery, vehicles, materials, and fuel. Through its Procurement Strategy, WKR will prioritize the use of local construction equipment from Kitikmeot communities to reduce the need to transport equipment from outside of the region. Locally sourced equipment will be delivered by barge, while equipment and supplies from outside the region will be transported to Grays Bay Port via sea-lift during the open water season, and to Jericho Station via the Tibbitt to Contwoyto Winter Road during winter. WKR will contract dedicated sea-lifts to transport equipment and supplies to the Project site, which will avoid affecting the ability and capacity of existing commercial sea-lift operations to service communities. WKR will coordinate with local and territorial governments to reduce potential interference of sea-lift delivery. If additional sea-lift trips are required for the Project, WKR will coordinate joint resupply efforts with local and territorial governments, which would increase opportunity for community resupply in the LAA.

Construction of the Project will require transport of certain goods and materials (e.g., consumables) to the Project site using air freight. For example, resupply of goods such as fresh and other perishable food items to construction and operations camps will require air transport. Resupply using air freight will be accomplished using charter airlines from Yellowknife directly to the Project site. No commercial airlines will be used for project resupply. Further, goods to resupply the Co-op and Northern grocery stores are currently flown into the Kitikmeot Region from Manitoba. The project is, therefore, not anticipated to affect the capacity of existing air freight operators to deliver goods such as fresh and other perishable food items to the Kitikmeot communities.

Operations and Maintenance

Project operations and maintenance will continue to source goods such as fresh and other perishable food items using existing air freight operators. Air freight for resupply will continue via charter airlines from Yellowknife directly to the Project site. Co-op and Northern stores will remain served by flights from Manitoba. The project is not anticipated to affect the capacity of existing air freight operators to deliver goods such as fresh and other perishable food items to the Kitikmeot communities.

New Land and Marine Infrastructure

The project could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. The Grays Bay Port will provide an additional access point to the Kitikmeot Region via sea-lift during the open water season. The Grays Bay Road will allow for ground-based transportation of goods and materials to the Kitikmeot Region from Yellowknife during the winter road season. Port landside facilities would also allow for warehousing of goods and materials at the Grays Bay Port year-round. If there are means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities, the port would serve as an additional resupply option, diversifying access points to Kitikmeot communities and improving regional connectivity. This added flexibility could help mitigate increases in the cost of transportation of goods if disruptions occur to other community resupply routes. The remoteness of northern communities make them particularly vulnerable to supply chain disruption. For example, record-low water levels in Norman Wells, Northwest Territories in 2024 halted barge shipments, driving sharp increases in fuel and other goods prices (Cross Border Network 2024).

Engagement participants stated that ground-based transportation could be a cost-effective solution to the high cost of community resupply (GBRP 2025). The Koomiut Co-op manager in Kugaaruk stated that ground-based transportation of supplies would lower the cost of resupply compared to transporting goods by air freight:

> It [would provide] an outlet to buy goods and not pay $3.35/ pound to fly it in. [It would] take some pressure off the cost, because you see, it's expensive (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.).

Any increase in community resupply as a result of the new land and marine infrastructure will be dependent on available means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities. Community members shared various means that could be employed to transport goods and materials to the Kitikmeot communities, including by air, land, and sea. The development of project infrastructure could induce business development in the Kitikmeot communities, such as the establishment of local barging services. In the absence of this infrastructure, any changes to community resupply, and community resupply resilience are expected to be negligible in the short term. However, this could change in the longer term if new means of transport are developed.

Summary

The project is expected to strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. If there are means to transport goods and materials from the Grays Bay Road and Port to the Kitikmeot communities, the port and road would serve as an additional resupply option, diversifying access points to Kitikmeot communities and improving regional connectivity. Per the established methodology for the IS, positive residual effects are not characterized further (e.g., for significance).

The project is not anticipated to affect existing sea-lift and air freight capacity used for community resupply to Kitikmeot communities. While the Project will require mobilizing equipment and supplies to the site, WKR will contract dedicated sea-lifts to the Project site during construction, and charter air freight to

the Project site during construction and operation. The project is, therefore, not anticipated to affect the capacity of existing sea-lift and air freight operators to deliver goods to Kitikmeot communities.

Mitigation measures (Section 27.3.7.2) will aim to improve community resupply resilience. WKR will collaborate with local and territorial governments to minimize interference with each other's deliveries and if possible, coordinate joint resupply efforts. Measures also include establishing avenues for communication and engagement for the Project to be able to respond to community resupply concerns as they emerge, including considering hiring a Kitikmeot community liaison officer in a full or part-time capacity to support engagement within the Kitikmeot Region and the development of a community feedback tool or process to receive and address community suggestions, concerns, and complaints.

To assess the effectiveness of mitigation measures, a Socio-economic Monitoring Program will establish a framework for monitoring socio-economic indicators as well as the development of annual monitoring reports. WKR is committed to engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project.

27.3.7.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Change in community resupply resilience may disproportionately affect certain sub-populations in the LAA and RAA. Low-income individuals and households, youth, Elders, lone-parent families, and people with disabilities, could be more vulnerable to changes in community resupply resilience. Low-income individuals and households that have limited disposable income are more likely to spend a higher proportion of their income on necessities. Youth may be un- or under-employed, be in entry-level employment with low income or face education related expenses. Elders often live on fixed incomes (e.g., pensions or social assistance) and may face healthcare related expenses. Lone-parent families typically have one income, higher caregiving responsibilities and may face childcare expenses. People with disabilities may have additional expenses related to healthcare, mobility or specialist services. These population groups may face greater challenges in absorbing price increases for essential goods and services, such as food, housing, transportation, and utilities as a result of disruption to community resupply.

In 2020, the Kitikmeot Region had lower median total and employment income levels relative to the rest of Canada, and income disparities within Nunavut indicate lower median total and employment incomes for the Indigenous (primarily Inuit) population relative to the total population. For both the total and Indigenous population, median employment income was lower for women+ and median total income was lower for men+ compared to women+. Of the Kitikmeot communities in the LAA, the lowest median total and employment incomes were reported in Taloyoak among the total population and in Kugaaruk among the Indigenous population. In the same year, median total, and employment incomes for the total population in Yellowknife were higher than Canadian values. However, income disparity trends were generally aligned with those for Nunavut, apart from median total income for the total population, which was greater for men+ compared to women+ (Table 27.9; Statistics Canada 2022).

Further, changes in community resupply resilience may affect Inuit in the Kitikmeot communities disproportionately depending on community location. During community-based research, community members identified that increased infrastructure in the RAA and the potential transport of goods and

materials from the Grays Bay Port to the Kitikmeot communities may benefit Cambridge Bay and Kugluktuk more than the communities in the eastern part of the Kitikmeot Region because of their proximity to the Project. For example, a staff member of the Kitikmeot Inuit Association felt the Project would improve community resupply for all Kitikmeot communities except Kugaaruk due to its distant location and the challenges of transporting goods and materials by land and sea from the Port to this community (Kitikmeot Inuit Association, Kugaaruk, October 29, 2024, pers. comm.).

27.3.8 Summary of Project Residual Effects

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on employment and economy are anticipated to be both positive and adverse. Positive residual effects are not characterized further (e.g., for significance). Table 27.25 summarizes project residual effects on Employment & Economy.

Table 27.25 Project Interactions with Employment & Economy

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in economic development and opportunities	C, O	P	N/A	N/A	N/A	N/A	N/A	N/A
Change in employment	C, O	P*, A	L-M	LAA, RAA	A, N/A	LT	C	R
Change in education and training	C, O	P*, A	N	LAA	N/A	LT	C	R
Change in contracting and business opportunities	C, O	P	N/A	N/A	N/A	N/A	N/A	N/A
Change in community resupply resilience	C, O	P	N/A	N/A	N/A	N/A	N/A	N/A

Key:
See Table 27.2 for detailed definitions

Project Phase:
C: Construction
O: Operation and Maintenance

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: None / Negligible
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not applicable
A: Applicable

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:
* Positive residual effects are not characterized further.

Change in Economic Development and Economy

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in economic development and economy are anticipated to be positive. Project operations and maintenance will support wider economic objectives for the Kitikmeot Region and Nunavut including enabling access to mineral resources and supporting long term economic growth. Project construction will generate moderate, short-term, contributions to the Nunavut GDP and territorial government revenues, while project operations and maintenance will generate low magnitude, longer-term, contributions to Nunavut GDP and territorial government revenues. Positive residual effects are not characterized further.

Change in Employment

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in employment are anticipated to be both positive and adverse. Project construction, and operations and maintenance, will create employment opportunities and employment income for workers residing in the Kitikmeot Region, Nunavut and the rest of Canada. Further indirect and induced employment opportunities and employment income will be created through project-related expenditure on goods and services.

The project is anticipated to have both positive and adverse residual effects on participation in the traditional economy. Project-related employment may limit some individuals' time and ability to engage in traditional activities such as hunting, trapping, arts and crafts, and fishing, with workers residing in camps during their shifts rather than in Kitikmeot communities. On the other hand, employment income associated with the Project could provide financial resources to support greater participation in traditional activities, and associated opportunities for knowledge transfer.

Project-related labour demand during construction could increase competition for workers in the Kitikmeot Region and across Nunavut. Adverse residual effects will be long-term in duration as employment will occur through both construction and operations and maintenance, will be low magnitude, extend to the RAA, occur continuously and be reversible as the labour force is expected to adjust to this change.

Change in Education and Training

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in education and training are anticipated to be positive. Project construction and operations and maintenance will offer education and training opportunities to local and Inuit workers. Project-related education and training offerings may increase enrollment in local programs, but institutions and Inuit organizations in the Kitikmeot Region and Nunavut are expected to have sufficient capacity to meet project needs. Positive residual effects are not characterized further. Any adverse effects on school completion rates are expected to be negligible. Adverse residual effects will be long-term in duration as they will occur during construction and operations and maintenance, in the LAA, will occur continuously and be reversible. Timing is not applicable.

Change in Contracting and Business Opportunities

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in contracting and business opportunities are anticipated to be positive. Project construction and operations and maintenance will create procurement opportunities for businesses in the Kitikmeot Region, Nunavut and the rest of Canada through expenditure on goods and services. Positive residual effects are not characterized further.

Change in Community Resupply Resilience

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on community resupply resilience are anticipated to be positive. The project is expected to strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. If there are means to transport goods and materials from the Grays Bay Road and Port to the Kitikmeot communities, the port would serve as an additional access point to Kitikmeot communities and improve regional connectivity. Positive residual effects are not characterized further.

27.3.9 Transboundary Effects

An assessment of the potential for transboundary effects on employment and economy is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

27.3.10 Effects of Climate Change on Employment and Economy

Climate change is anticipated to affect certain employment and economic conditions. As discussed in Volume 5, Section 12.3.2, the annual mean and maximum temperatures are projected to increase over time in the western Kitikmeot Region, as is annual precipitation. Kitikmiut and other potentially affected Indigenous groups have shared details about changes to employment and economic conditions they anticipate relating to climate. In Kugluktuk, for example:

> ...increased investment in northern mineral exploration and development as a result of sustained commodity prices, coupled with longer ice and snow-free seasons and the opening of the North-west Passage, could greatly increase employment opportunities for, and the wealth of, certain residents of Kugluktuk. While this constitutes an opportunity for some, it may also generate social ills such as alcoholism, augment class disparities and further lessen interest in traditional knowledge and lifestyles. In turn, this might result in seemingly simple adaptations to changing climatic conditions becoming highly improbable or even impossible. Potential environmental repercussions and impacts to wildlife from mining could also further hinder harvesting-related adaptive responses. Alternatively, this increased industrial development scenario could entail the negotiation of progressive and effective IBAs that offer communities like Kugluktuk tangible benefits such as improved infrastructure and education resources and enable support for traditional subsistence activities and the transmission of traditional knowledge and languages from Elders to youth. Under this scenario, community adaptive capacity to manage future climatic or other changes could instead be enhanced. (Prno et al. 2011)

Additional information was provided on climate-related changes to traditional land, marine, and resource use activities (that affect the traditional economy), as observed or experienced by the Kitikmiut and other potentially affected Indigenous groups. See Section 24 (Traditional Land, Marine, and Resource Use) for more information.

Climate change has the potential to affect traditional land, marine, and resource use activities by changing the quality, quantity, or distribution of harvested resources, changes to specific areas of cultural importance, changes in access to traditional resources, and changes to cultural practices, language, intergenerational knowledge transfer and governance systems. Changes to traditional resources could lead to changes in traditional economy. See Section 24 (Traditional Land, Marine, and Resource Use) for more information.

Changing climate conditions could result in increased annual average temperature and precipitation and changes to permafrost, which could affect ground and air transportation infrastructure, affecting the distribution of market foods to the Kitikmeot Region (see the Climate Change Risk Assessment in Volume 5, Appendix 12B). Changes to the availability of market foods in the Kitikmeot Region could lead to changes in community resupply resilience. See Section 25 (Food Security and Food Sovereignty) and Section 28 (Infrastructure and Services) for more information.

Climate change could also result in a longer open water season, which would allow sea-lifts to deliver goods to the Kitikmeot Region more frequently. This could improve the timing, reliability, and frequency of community resupply to the region. See Section 28 (Infrastructure and Services) for more information.

Climate change could impact residual effects on employment and economy through physical changes to the environment (e.g., alteration in temperature, extreme precipitation) that affect project infrastructure and disrupt project construction and/or operations and maintenance. This could result in changes to project costs, if project infrastructure is damaged and requires repair, or if transport of supplies or labour are disrupted. Further, any disruption in construction or operations and maintenance could result to temporary layoffs or pauses in contracting and procurement. Project design will take climate change into consideration to maintain the stability of supply chain infrastructure in differing climate scenarios. The project has also considered contingency costs to account for unexpected expenditures.

Mitigation, management, and enhancement measures will be factored into the project design to reduce or avoid effects on climate-sensitive landforms such as permafrost. See Volume 5, Section 12: Climate and Volume 6, Section 14: Terrain, Soils, and Permafrost for additional information.

The effects of climate change could change the quantitative estimates of effects to employment and economic conditions (e.g., employment, employment income, GDP, government revenues); however, with the development and implementation of appropriate mitigation, management, and enhancement measures, climate change is unlikely to change the overall characterization of residual effects on employment and economic conditions.

27.4 Assessment of Cumulative Effects

27.4.1 Project Residual Effects Likely to Interact Cumulatively

Table 27.26 presents the Project inclusion list which identifies other projects and physical activities that might act cumulatively with the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 27.26), a cumulative effects assessment is carried out.

Table 27.26 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects				
	Change in Economic Development and Opportunities	**Change in Employment**	**Change in Education and Training**	**Change in Contracting and Business Opportunities**	**Change in Community Resupply Resilience**
Past					
Bathurst Inlet	-	-	-	-	-
Omingmaktok	-	-	-	-	-
Snap Lake Mine	-	-	-	-	-
Present					
Arcadia Bay project	-	-	-	-	-
B2Gold George Property	-	-	-	-	-
B2Gold Marine Laydown Area	-	-	-	-	-
Bulk Carriers	-	-	-	-	-
Cambridge Bay	-	-	-	-	-
Chuk and Fire Shear Blocks	-	-	-	-	-
Commercial Cargo	-	-	-	-	-
Commercial and Domestic Harvesting	-	-	-	-	-
Coppermine project	-	-	-	-	-
Coppermine River project	-	-	-	-	-
Diavik Diamond Mine	-	-	-	-	-
Ekati Diamond Mine	-	-	-	-	-
Epworth project	-	-	-	-	-
Fishing Vessels	-	-	-	-	-
Gahcho Kué Diamond Mine	-	-	-	-	-
Goose Mine	-	-	-	-	-
Hackett River project	-	-	-	-	-
High Lake (Izok Corridor project)	-	-	-	-	-
High Lake East	-	-	-	-	-

Physical Activities	Effects				
	Change in Economic Development and Opportunities	**Change in Employment**	**Change in Education and Training**	**Change in Contracting and Business Opportunities**	**Change in Community Resupply Resilience**
Hood River Gold project	-	-	-	-	-
Hope Bay project	-	-	-	-	-
Hydroelectric	-	-	-	-	-
Icebreakers	-	-	-	-	-
Itchen Lake Property	-	-	-	-	-
Izok Lake (Izok Corridor project)	-	-	-	-	-
Jericho Mine	-	-	-	-	-
Kennady North - Exploration	-	-	-	-	-
Kugluktuk	-	-	-	-	-
Lupin Mine	-	-	-	-	-
Muskox Nickel Property	-	-	-	-	-
Nunavut Community Infrastructure	-	-	-	-	-
NT Community Infrastructure	-	-	-	-	-
Overflights	-	-	-	-	-
Passenger Ships and Pleasure Craft	-	-	-	-	-
Pistol Lake project	-	-	-	-	-
Rae Copper Exploration Project	-	-	-	-	-
Rockinghorse (Koamaogaktok) Project	-	-	-	-	-
Roma project	-	-	-	-	-
Scientific Research	-	-	-	-	-
South Kitikmeot Gold Project	-	-	-	-	-
Tanker Ships	-	-	-	-	-
Tibbitt to Contwoyto Winter Road	-	-	-	-	-
Tourism	-	-	-	-	-
Tree River Lodge	-	-	-	-	-
TTMG project	-	-	-	-	-
Tugs/Barges	-	-	-	-	-
Ulu Gold project	-	-	-	-	-
Wolf/Mistake Lake Property	-	-	-	-	-
Yellowknife City Gold Project	-	-	-	-	-

Physical Activities	Effects				
	Change in Economic Development and Opportunities	**Change in Employment**	**Change in Education and Training**	**Change in Contracting and Business Opportunities**	**Change in Community Resupply Resilience**
Past, and Reasonably Foreseeable					
Indin Lake Gold Project	✓	✓	✓	✓	-
Mon Mine	✓	✓	✓	✓	✓
Yellowknife Gold Project	✓	✓	✓	✓	-
Project-Related Physical Activities					
Reasonably Foreseeable					
Arctic Economic and Security Corridor	✓	✓	✓	✓	✓
Courageous Lake Mine	✓	✓	✓	✓	✓
NICO	✓	✓	✓	✓	-
Reasonably Foreseeable Induced					
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	✓	✓	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion: Jericho	✓	✓	✓	✓	✓
Grays Bay Road and Port: Airstrip Expansion	✓	✓	✓	✓	✓
Grays Bay Road and Port: Road Traffic	✓	✓	✓	✓	-
Grays Bay Road and Port: Port Traffic	✓	✓	✓	✓	-
Grays Bay Road and Port: Air Traffic	✓	✓	✓	✓	✓
Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border	✓	✓	✓	✓	✓
Hackett River project	✓	✓	✓	✓	✓
Hackett and Back River Access Road	✓	✓	✓	✓	✓
High Lake Mine (Izok Corridor project)	✓	✓	✓	✓	✓
Izok Lake Mine (Izok Corridor project)	✓	✓	✓	✓	✓
Izok Lake Access Road	✓	✓	✓	✓	✓

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

The assessment of cumulative effects on employment and economic conditions, including consideration of adverse and positive cumulative effects, was conducted according to the methods set out in the Impact Assessment Methodology (Volume 4).

The assessment of cumulative effects focuses on those reasonably foreseeable and reasonably foreseeable induced projects that are in proximity to the Grays Bay Road and Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border which would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round.

The assessment of cumulative effects on employment and the economy incorporates both quantitative and qualitative approaches. Qualitative assessment describes the pathways and nature of cumulative effects associated with reasonably foreseeable projects, including the Indin Lake Gold project, Mon Mine, Yellowknife Gold project, Arctic Economic Security Corridor, Courageous Lake Mine and NICO.

Quantitative estimates of cumulative effects are provided for those reasonably foreseeable induced projects where there is sufficient publicly available data on project costs, including the Hackett River project, High Lake Mine and Izok Lake Mine.

Effects identified in Table 27.5 as not likely to interact cumulatively with residual effects of other projects and physical activities (no check mark) are briefly discussed below. The assessment of the cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

The following other projects and physical activities were not identified as having an interaction between the residual effects of other projects and residual effects of the Project:

- Past projects and activities already considered in existing baseline conditions.

The contributions of past and ongoing projects and physical activities to employment and economic conditions are implicitly reflected in the assessment of residual project effects, as they have shaped current economic baseline conditions.

27.4.2 Change in Economic Development and Opportunities

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in economic development and opportunities.

27.4.2.1 Cumulative Effect Pathways

Expenditure on materials, equipment and services associated with other projects and physical activities, beyond the expenditure of the Project, will result in increased economic activity, contributions to GDP, and contributions to municipal, territorial and federal government revenues.

Other projects and physical activities could support wider economic objectives for the Kitikmeot Region and Nunavut.

27.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of mitigation, management and enhancement measures outlined in Section 27.3.3.2 (Mitigation, Management, and Enhancement Measures) are considered adequate. Project related residual effects in change in economic development and opportunities are expected to be positive. Project mitigation and enhancement measures are expected to enhance the Kitikmeot Region's and Nunavut's participation in project employment and procurement opportunities which will enhance local and territorial economic activity. It is anticipated that other projects and physical activities would implement similar measures.

27.4.2.3 Cumulative Effects

Support for Long-term Economic Growth and Diversification

Other projects and physical activities could support wider economic objectives for the Kitikmeot Region and Nunavut. Reasonably foreseeable and reasonably foreseeable induced projects and physical activities, including infrastructure and resource development projects, could enhance economic contributions to Nunavut's economy and economic diversification which align with territorial and federal strategies.

The project is a component of the broader Arctic Economic and Security Corridor, a nation-building initiative focused on enhancing northern connectivity and long-term prosperity. The Corridor envisions a critical transportation link connecting communities and regions across the NT into Nunavut, with access to an Arctic Ocean port via the Grays Bay Road and Port (GBRP). By linking the NT transportation infrastructure to Arctic Ocean tidewater and to southern national road and rail networks, the Corridor would establish a continuous, multimodal connection between the heart of the North and global markets (GNWT n.d.).

The Arctic Economic and Security Corridor would unlock access to significant critical mineral resources essential to the global clean energy transition, reduce transportation and energy costs for northern industries, and generate new opportunities for Indigenous and northern employment and business participation (GNWT n.d.).

Gross Domestic Product

Reasonably foreseeable and reasonably foreseeable induced projects and physical activities and associated expenditure on materials, equipment and services would result in increased economic activity, and contributions to GDP in Nunavut. These projects and physical activities may further enhance contributions to Nunavut's GDP through employment and procurement opportunities.

Reasonably Foreseeable Induced Projects

Cumulative impacts on GDP from reasonably foreseeable induced projects are based on estimates by the SCIPIOM described in Section 27.3.1.1. If reasonably foreseeable induced projects proceed, they would contribute to GDP in Nunavut. The construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are estimated to collectively contribute approximately $840 million to GDP in Nunavut over nine years from direct and indirect economic activity (Table 27.27; Statistics Canada 2025b).

Table 27.27 Reasonably Foreseeable Induced Projects, Nunavut GDP Contribution Estimates ($ million)

	Direct and Indirect	Induced	Total
Construction (2031-2035 & 2037-2040) – Total Phase	840	180	1,020
Operation (2040) – Annual	610	140	750

Note:

Estimates for reasonably foreseeable induced projects include the Izok Lake Mine, High Lake Mine and Hackett River project.

Totals may not sum due to rounding.

Source: Statistics Canada (2025a)

Further induced economic activity will occur when direct and indirect workers spend their incomes on goods and services. Induced economic activity is estimated to contribute up to approximately $180 million to GDP in Nunavut over nine years (Table 27.27; Statistics Canada 2025a). The estimates of induced economic activity are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

When operational in 2040, the Izok Lake Mine, High Lake Mine, and Hackett River project are estimated to collectively contribute approximately $610 million in GDP in Nunavut, as a result of direct and indirect economic activity (Table 27.27; Statistics Canada 2025a). These annual GDP contributions associated with direct and indirect economic activity would represent approximately 15% of Nunavut's total GDP in 2024 ($4,154.9 million) (Statistics Canada 2025b).

Induced economic activity is estimated to contribute up to approximately $140 million to GDP in Nunavut in 2040 (Table 27.27; Statistics Canada 2025a). The estimates of induced economic activity are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

Government Revenues

Expenditure on materials, equipment and services associated with other projects and physical activities would result in increased economic activity, and contributions to government revenues in Nunavut. Reasonably foreseeable and reasonably foreseeable induced projects and physical activities may further enhance contributions to Nunavut government revenues through consumption taxes, personal income taxes and royalties.

Reasonably Foreseeable Induced Projects

Consumption Taxes

Cumulative impacts on government revenues from reasonably foreseeable induced projects are based on estimates by the SCIPIOM described in Section 27.3.1.1. Consumption taxes are estimated for taxes on products and taxes on production.

If reasonably foreseeable induced projects proceed, they would contribute to consumption tax revenues in Nunavut. The construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are estimated to collectively contribute approximately $40 million in total consumption tax revenue from direct and indirect economic activity. Induced economic activity is estimated to contribute up to approximately $37 million to consumption tax revenue in Nunavut over nine years (Table 27.28; Statistics Canada 2025a). The estimates of induced consumption tax contributions are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers. Annual territorial consumption tax contributions would represent a small proportion of the GN total revenues in 2024 ($3.3 billion) (GN 2024b).

Table 27.28 Reasonably Foreseeable Induced Projects, Nunavut Consumption Tax Contribution Estimates ($ million)

	Direct and Indirect	Induced	Total
Construction (2031-2035 & 2037-2040) – Total Phase	40	37	77
Operation (2040) – Annual	20	28	48

Note:
Estimates for reasonably foreseeable induced projects include the Izok Lake Mine, High Lake Mine and Hackett River project.
Totals may not sum due to rounding.
Source: Statistics Canada (2025a)

When operational in 2040, the Izok Lake Mine, High Lake Mine, and Hackett River project are estimated to collectively contribute approximately $20 million annually in consumption tax contributions in Nunavut from direct and indirect economic activity. Induced economic activity is estimated to contribute up to approximately $28 million annually to consumption tax revenue (Table 27.28; Statistics Canada 2025a). The estimates of induced consumption tax contributions are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

Other Sources of Government Revenues

In addition, if reasonably foreseeable projects proceed, employees in Nunavut, and other provinces and territories in Canada, would contribute personal income taxes to federal and territorial / provincial government revenues. Further, mines operating on Crown Land would pay royalties under Nunavut Mining Regulations. Each fiscal year, the owner or operator would contribute royalties on the value of the mines output during that fiscal year (GOC 2025).

On January 18, 2024, the Government of Canada, the GN, and Nunavut Tunngavik Incorporated signed the Nunavut Lands and Resources Devolution Agreement. The agreement sets out the transfer of administration and control over public (Crown) lands, waters, and mineral resources, including mining royalties, to the Government of Nunavut, effective April 1, 2027 (Government of Canada et al. 2024), therefore government revenues for Government of Nunavut are likely to be higher as devolution proceeds.

Other sources of government revenues have not been estimated given data limitations and uncertainty.

27.4.3 Change in Employment

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in employment.

Consideration of cumulative effects regarding traditional, land, marine, and resource use is provided in Section 24 (Traditional Land, Marine, and Resource Use) and cumulative effects regarding food security are discussed in Section 25 (Food Security and Food Sovereignty).

27.4.3.1 Cumulative Effect Pathways

Demand for labour, materials, equipment, and services from other projects and physical activities, beyond the demands of the Project, could increase local and regional employment opportunities. Employment opportunities would occur through both direct employment, as well as indirect and induced employment resulting from expenditures and purchases of goods and services.

Employment from other projects and physical activities, beyond the Project, would provide labour income to employees. Labour income would be paid to directly employed workers, as well as through indirect and induced employment resulting from expenditures and purchases of goods and services.

Demand for labour, materials, equipment, and services from other projects and physical activities, in addition to the Project, could increase competition for workers.

Employment opportunities provided by other projects and physical activities, in addition to the Project, may reduce time available for workers to participate in the traditional economy and opportunities for knowledge transfer.

Salaries paid to workers of other projects and physical activities, beyond the Project, may enable greater participation in traditional activities as additional financial resources have the potential to increase access to tools, materials, and technology that support participation in traditional activities and knowledge transfer.

27.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of mitigation, management and enhancement measures outlined in Section 27.3.4.2 (Mitigation, Enhancement and Management Measures) are anticipated to reduce the Project's contributions to adverse cumulative effects on employment. It is anticipated that other projects and physical activities would implement similar measures.

27.4.3.3 Cumulative Effects

Employment

Cumulative effects to employment will occur through the generation of new employment opportunities in the Kitikmeot Region, Nunavut and the Northwest Territories from other projects and physical activities. Reasonably foreseeable and reasonably foreseeable induced projects and physical activities may further enhance employment opportunities in the Kitikmeot Region, Nunavut and the Northwest Territories by generating demand for labour and stimulating indirect and induced employment opportunities through project-related spending. The cumulative effects to employment and employment income are expected to be positive.

The number of employment opportunities that will accrue to the Kitikmeot Region, Nunavut and Northwest Territories labour force through cumulative effects is a function of the labour force capacity of these communities (e.g., labour force conditions, educational attainment) to engage directly and competitively with other projects and physical activities or elements in the associated value chain. The extent to which project employment opportunities result in local benefits is also dependent on the interest, abilities, and availability/extent to which local workers seek employment with the Project.

Reasonably Foreseeable Induced Projects

By providing new infrastructure to access the mineral-rich Slave Geological Province, the Project could spur additional economic activity, including reasonably foreseeable induced projects. While the viability of other projects and physical activities depends on numerous factors such as resource and technical feasibility, economic returns, regulatory compliance, environmental and social impacts, and market conditions, the proposed infrastructure will enhance accessibility and lower transportation costs contributing to feasibility decisions. Reasonably foreseeable induced developments identified include Goose Mine, Hackett River project, Izok Lake Mine and High Lake Mine (Table 27.26).

Cumulative impacts on employment from reasonably foreseeable induced projects are based on estimates by the SCIPIOM described in Section 27.3.1.1. If reasonably foreseeable induced projects proceed, they will create additional employment opportunities in Nunavut. The construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are estimated to collectively contribute approximately 6,800 FTE employment opportunities in Nunavut over nine years from direct and indirect economic activity, equivalent to an annual average of approximately 800 FTE employment opportunities (Table 27.29; Statistics Canada 2025a). Annual employment opportunities associated with direct and indirect economic activity would represent approximately 6% of Nunavut's existing labour force of 14,380 people in 2021 (Statistics Canada 2022). Induced economic activity is

estimated to contribute up to approximately 1,100 FTE employment opportunities in Nunavut over nine years (approximately 100 FTE employment opportunities annually) (Table 27.29; Statistics Canada 2025a). The estimates of induced employment are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

Table 27.29 Reasonably Foreseeable Induced Projects, Annual Nunavut Employment Estimates (FTE)

	Direct and Indirect	Induced	Total
Construction (2031-2035 & 2037-2040) – Total Phase	6,800	1,100	7,900
Operation (2040) - Annual	4,900	860	5,750

Note:

Estimates for reasonably foreseeable induced projects include the Izok Lake Mine, High Lake Mine and Hackett River project.

Totals may not sum due to rounding.

Source: Statistics Canada (2025a)

When operational in 2040, the Izok Lake Mine, High Lake Mine, and Hackett River project are estimated to collectively contribute approximately 4,900 FTE employment opportunities in Nunavut from direct and indirect economic activity (Table 27.29; Statistics Canada 2025a). Annual employment opportunities associated with direct and indirect economic activity would represent approximately 34% of Nunavut's existing labour force of 14,380 people in 2021 (Statistics Canada 2022). Induced economic activity is estimated to contribute up to approximately 860 FTE employment opportunities in Nunavut (Table 27.29; Statistics Canada 2025a). The estimates of induced employment are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

Employment Income

Employment from other projects and physical activities will provide employment income to employees. Reasonably foreseeable and reasonably foreseeable induced projects and physical activities may further enhance employment income levels in the Kitikmeot Region, Nunavut and Northwest Territories by generating demand for labour and stimulating indirect and induced employment income through project-related spending.

As with cumulative effects to employment, the extent to which employment income will accrue to the Kitikmeot Region, Nunavut and Northwest Territories labour force is a function of the capacity of these groups (e.g., labour force conditions, educational attainment) to engage directly and competitively with other projects and physical activities or elements in the associated value chain. The extent to which project employment opportunities result in local benefits is also dependent on the interest, abilities, and availability/extent to which local workers seek employment with the Project.

Reasonably Foreseeable Induced Projects

Cumulative impacts on employment income from reasonably foreseeable induced projects and physical activities are based on estimates by the SCIPIOM described in Section 27.3.1.1. Reasonably foreseeable induced projects and physical activities would create additional employment income in Nunavut. The construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are estimated to collectively contribute approximately $730 million in aggregated employment income in Nunavut over nine years ($80 million annually) from direct and indirect economic activity. Induced economic activity is estimated to contribute up to approximately $70 million in aggregated employment income in Nunavut over nine years (approximately $8 million annually) (Statistics Canada 2025a). The estimates of induced economic activity are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

If operational in 2040, the Izok Lake Mine, High Lake Mine, and Hackett River project are estimated to collectively contribute approximately $560 million in employment income in Nunavut from direct and indirect economic activity. Induced economic activity is estimated to contribute up to approximately $50 million to employment income in Nunavut in 2040 (Statistics Canada 2025a). The estimates of induced economic activity are expected to represent an upper boundary of these effects as they do not consider the residency of Nunavut based workers.

Competition for Workers

Demand for labour, materials, equipment, and services from other projects and physical activities could increase competition for workers in the Kitikmeot Region, Nunavut and Northwest Territories. Reasonably foreseeable physical activities and reasonably foreseeable induced projects could increase demand for labour in the Kitikmeot Region, Nunavut and Northwest Territories.

Reasonably foreseeable and reasonably foreseeable induced projects and physical activities will compete for a limited labour force across Kitikmeot communities and Nunavut. Competition for workers will be most prevalent when there are overlapping timelines, overlapping skill requirements, and large workforce requirements. Adverse effects from competition for workers could include increased labour costs for businesses, as employers raise wages or salaries to attract or retain workers, skills shortages, particularly in skilled positions, and workforce instability, as a result of higher turnover rates if employees move to better paying positions.

Reasonably Foreseeable Induced Projects

Reasonably foreseeable induced projects and physical activities will require sizable workforces that would increase competition for workers across the Kitikmeot communities and Nunavut. The construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are estimated to collectively contribute approximately 800 FTE employment opportunities in Nunavut annually over a nine-year period. It is expected that mine construction would take place in parallel with project construction, so reasonably foreseeable induced projects could begin operation as soon as the GBRP is operational. Given the size of labour demands for the reasonably foreseeable induced projects, as well as

the foreseeable projects not quantified, the cumulative effects on demand for labour, and competition for workers, are likely to be sizable at the Kitikmeot level.

When operational in 2040, the Izok Lake Mine, High Lake Mine, and Hackett River project are estimated to collectively contribute approximately 4,900 FTE employment opportunities in Nunavut from direct and indirect economic activity. While it could be expected that a large proportion of workers needed to construct and operate these projects would be recruited from outside the region, and work on a fly-in-fly out basis given the scale of labour requirements associated with reasonably foreseeable induced projects, as well as additional foreseeable projects that have not been quantified, cumulative effects on labour demand and competition for workers are expected at both the Kitikmeot regional and territorial levels. By way of context, the labour force in the Kitikmeot communities totalled approximately 2,330 individuals in 2021, compared to 14,380 individuals across Nunavut as a whole (Statistics Canada 2022).

The above being said, competition effects are also likely to be tempered by several factors over time. Foremost, Nunavut's young and growing population will continue to require new employment opportunities as they begin entering the workforce. The territory also continues to experience high unemployment rates compared to Canadian averages, which further suggests new employment opportunities are needed. Evidence from existing developments in Nunavut also suggests remote, fly-in/fly-out, work is not desirable for all individuals, and many people choose instead to remain in their communities and close to family. Normal turnover associated with these developments also means newly trained and/or experienced workers may become available to help fill community-based roles. Out-of-territory workers will additionally continue to remain an option to help fill local roles that may be experiencing high competition. For example, non-Inuit personnel accounted for 87.2% of hours worked at the Back River project operations in 2024, while non-Inuit personnel accounted for 82.3% of the Mary River project workforce in the same year (B2Gold Nunavut 2025; Baffinland 2025).

Given these considerations adverse cumulative effects have the potential to be of moderate to high magnitude. The extent of magnitude will be dependent on the effectiveness of mitigation and management measures implemented by other proponents as well as the overall uptake of employment opportunities by Inuit.

Participation in the Traditional Economy

Positive and adverse effects are anticipated for participation in the traditional economy. Employment opportunities provided by other projects and physical activities could limit time to engage in traditional activities, while employment income provided by these employment opportunities will also provide financial resources that could support participation in traditional activities.

27.4.4 Change in Education and Training

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in education and training.

27.4.4.1 Cumulative Effect Pathways

Other projects and physical activities, beyond the Project, could create opportunities to develop and deliver education and training programs.

Other projects and physical activities, beyond the Project, could increase enrollment in education and training programs; for example, those that support certification in skilled trades.

Demand for labour from the Project, other projects and physical activities may cause some students to leave school early for employment opportunities.

27.4.4.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of mitigation, management and enhancement measures outlined in Section 27.3.5.2 (Mitigation, Management, and Enhancement Measures) are considered adequate.

27.4.4.3 Cumulative Effects

Education and Training Opportunities

Cumulative effects to education and training will occur through the generation of new employment opportunities in the Kitikmeot Region and Nunavut from other projects and physical activities. Employment associated with other projects and physical activities could provide education and training opportunities that will enhance levels of educational attainment and work-related experience in the Kitikmeot Region and Nunavut.

Reasonably foreseeable and reasonably foreseeable induced projects and physical activities may enhance education levels in the Kitikmeot Region and Nunavut through provision of education and training opportunities. These projects and physical activities include infrastructure and resource development projects which would be expected to include a range of skilled and unskilled employment opportunities. While the degree of education and training intentions for these activities are unknown, some degree of education and training opportunities would be expected. Provision of these education and training opportunities is expected to be positive.

Enrollment in Education and Training Programs

Reasonably foreseeable and reasonably foreseeable induced projects and physical activities could stimulate enrollment in education and training programs in local educational institutions. Adverse effects to these services could occur if demand exceeds capacity, such as overcrowding, strained resources, inability to access programs, or lower quality services. WKR will implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project, including

use of local educational institutions and training programs. It is assumed that other projects and physical activities will implement similar monitoring programs. The results of these programs will inform adaptive management and allow for timely responses if unanticipated pressures on local educational institutions and training organisations are identified.

School Completion

Adverse effects could occur if employment opportunities from reasonably foreseeable and reasonably foreseeable induced projects and physical activities lead to students leaving high school prior to graduation. WKR will implement a Socio-economic Monitoring Program that will track a range of socio-economic indicators to monitor outcomes of the Project, including school graduation rates. It is assumed that other projects and physical activities will implement similar monitoring programs. The results of these programs will inform adaptive management and allow for timely responses if school graduation rates in the Kitikmeot Region and Nunavut decline.

27.4.5 Change in Contracting and Business Opportunities

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in contracting and business opportunities.

27.4.5.1 Cumulative Effect Pathways

Expenditures on materials, equipment and services from other projects and physical activities, beyond those of the Project, will create procurement opportunities for regional business.

27.4.5.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Project related residual effects in change in contracting and business opportunities are expected to be positive. The implementation of mitigation, management and enhancement measures outlined in Section 27.3.6.2 (Mitigation, Management, and Enhancement Measures) are considered adequate.

27.4.5.3 Cumulative Effects

Expenditure on goods and services by other projects and physical activities will create procurement opportunities for businesses in the Kitikmeot Region, Nunavut and the rest of Canada. Looking ahead, reasonably foreseeable and reasonably foreseeable induced projects and physical activities will create procurement opportunities through expenditure on materials, equipment, and services during construction and operation.

The extent to which procurement from other projects and physical activities will benefit Kitikmeot and Nunavut businesses depends on the capacity and capability of businesses to meet procurement needs. Mining and construction are key industries for the Nunavut economy with established business presence to support these industries. The Kitikmeot Region and Nunavut therefore have a base of regional and Inuit businesses that are well positioned to benefit from project procurement opportunities. Despite this

presence, most goods and services are expected to be sourced outside of Nunavut. This expectation is consistent with the other existing major projects in Nunavut (B2Gold Nunavut 2024; Baffinland 2025).

Reasonably Foreseeable Induced Projects

Reasonably foreseeable induced projects are expected to provide substantial procurement and business opportunities. Capital costs associated with the construction of the Izok Lake Mine and High Lake Mine (2031-2035) and Hackett River project (2037-2040) are collectively estimated to total approximately $3.3 billion (West Kitikmeot Resources n.d.). Annual operating costs for the Izok Lake Mine, High Lake Mine and Hackett River project in 2040 are collectively estimated to total approximately $1.4 billion (West Kitikmeot Resources n.d.). Most goods and services will likely be sourced outside of Nunavut due to limited supplier and manufacturing capacity, though construction and operations could still create substantial opportunities for Kitikmeot and Nunavut businesses, including Inuit-owned enterprises.

27.4.6 Change in Community Resupply Resilience

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in community resupply resilience.

Consideration of cumulative effects regarding food security is provided in Section 25 (Food Security and Food Sovereignty) and consideration of cumulative effects regarding community resupply is provided in Section 28 (Infrastructure and Services). This section focuses on change in community resupply resilience by assessing project, other projects and physical activities effects on existing community resupply services and routes to Kitikmeot communities, as well as effects on community resupply from the introduction of new land and marine infrastructure in the Kitikmeot Region.

27.4.6.1 Cumulative Effect Pathways

The project, other projects and physical activities could put pressure on existing community resupply services to Kitikmeot communities by increasing demand for marine and air transportation operators. Increased demand on existing community resupply services and routes could strain capacity if additional supply is not provided. More users vying for limited transport capacity/slots could lead to scheduling conflicts, higher costs, or a reduction in capacity for existing users of resupply services.

The project, other projects and physical activities could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. If there are means to transport goods and materials from the Grays Bay Road and Port to the Kitikmeot communities, the port and road could serve as an additional access point for Kitikmeot communities and improve regional connectivity that could support resupply. This added flexibility could help mitigate increases in the cost of transportation of goods if disruptions occur to other community resupply routes.

27.4.6.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Project related residual effects to change in community resupply resilience are expected to be positive. The implementation of mitigation, management and enhancement measures outlined in Section 27.4.6.2 (Mitigation, Enhancement and Management Measures) are considered adequate.

27.4.6.3 Cumulative Effects

Cumulative effects on community resupply resilience are anticipated to be positive. Positive effects on community resupply resilience could occur through the delivery of new infrastructure that could increase timing, reliability, and frequency of resupply. The project, other projects and physical activities are not anticipated to affect existing sea-lift and air freight capacity used for community resupply to Kitikmeot communities.

Community Resupply

Community resupply to Kitikmeot communities is currently accomplished through sea-lift once or twice per year and air freight. Mobilizing equipment, materials, and supplies for the Project is not expected to increase demand on existing resupply capacity, as WKR will contract dedicated sea-lifts for construction and charter air freight for both construction and operations and maintenance.

The mobilization of equipment, materials and supplies for reasonably foreseeable projects may use ground-based transportation via the current ice road network between Yellowknife and project sites. This would not interact cumulatively with community resupply for Kitikmeot communities, which relies on sea-lift and air freight. No change in community resupply is thus anticipated.

Reasonably foreseeable projects may also mobilize equipment, materials and supplies using sea-lift. Proponents, including the Project, are expected to contract dedicated sea-lifts and coordinate with local and territorial governments, and possibly each other, to limit demand on existing sea-lift capacity for community resupply. These measures are anticipated to avoid increased demand on existing sea-lift capacity for Kitikmeot community resupply. No change in community resupply resilience in this area is thus anticipated.

Construction and operation of reasonably foreseeable projects, could require periodic air freight resupply to project sites and worker camps. For projects in the Kitikmeot Region, goods will likely be staged from Yellowknife and transported via chartered planes for direct delivery to project sites. No change in community resupply resilience in this area is thus anticipated.

Proponents of reasonably foreseeable projects, including the Project, are expected to communicate their resupply requirements with local communities and service operators, such as commercial/charter airlines, if they require use of existing community resupply operators that serve the Kitikmeot communities. They are also expected to monitor and respond to unexpected pressures on employment and economic conditions through a Socio-economic Monitoring Program.

New Land and Marine Infrastructure

The project could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. The Grays Bay Port will provide an additional access point to the Kitikmeot Region via sea-lift during the open water season. If there are means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities, the port would serve as an additional access point to Kitikmeot communities and improve regional connectivity. This added flexibility could help mitigate increases in the cost of transportation of goods if disruptions occur to other community resupply routes.

The Grays Bay Road will enable ground transportation of goods from Yellowknife to Grays Bay Port via the TCWR. Construction of the Arctic Economic and Security Corridor, a reasonably foreseeable project, would provide year-round access to the Northwest Territories–Nunavut border and seasonal access to the Grays Bay Road via the TCWR. This would allow goods to be mobilized from Yellowknife to Grays Bay during the winter road season. From Grays Bay warehouses, goods could then potentially be delivered to Kitikmeot communities and regional projects by ice roads in winter, barges in the open-water season, and via air transportation. Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round (see next section).

All-season road connections (Grays Bay Road and Arctic Economic and Security Corridor) and the TCWR from Yellowknife to Grays Bay Port could improve the frequency and reliability of community resupply, though limited to the winter road season until an all-season connector is built. Proponents of reasonably foreseeable projects, including the Project, may also procure services to transport goods and materials between Grays Bay Port and project sites, as well as to Kitikmeot communities. New businesses may also be established to provide these services.

Reasonably Foreseeable Induced

Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round. From warehouses at Grays Bay Port, goods could be delivered to Kitikmeot communities as well as to reasonably foreseeable induced projects in the RAA via ice roads in the winter road season, barges in the open water season, and air transport. An all-season road from Yellowknife to Grays Bay Port could strengthen community resupply resilience in the Kitikmeot Region by introducing new land and marine infrastructure to support community resupply. Any increase in community resupply as a result of the new transportation infrastructure will be dependent on available means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities.

27.4.7 Summary of Cumulative Effects

Table 27.30 summarizes cumulative effects on employment & economy.

Table 27.30 Residual Cumulative Effects on Employment & Economy

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in economic development and opportunities	P	N/A	N/A	N/A	N/A	N/A	N/A
Contribution from the Project to residual cumulative change in economic development and opportunities	Residual cumulative effects to change in economic development and opportunities is expected to be positive. The project and other projects and physical activities and their expenditures on materials, equipment and services will result in increased economic activity, contributions to GDP, and contributions to municipal, territorial and federal government revenues. The project and other projects and physical activities could also support wider economic objectives for the Kitikmeot Region and Nunavut.						
Change in employment	P* / A	M-H	RAA	A, N/A	LT	C	R
Contribution from the Project to residual cumulative change in employment	Residual cumulative effects to change in employment are expected to be both positive and adverse. Positive effects are expected from changes in employment and employment income. Demand for labour, materials, equipment, and services from the Project and other projects and physical activities is expected to generate direct, indirect, and induced employment opportunities and employment income in the RAA. Adverse effects are expected from changes to competition for workers. Demand for labour, materials, equipment, and services from the Project and other projects and physical activities is expected to increase competition for workers in the Kitikmeot Region and Nunavut. Effects to participation in the traditional economy are expected to be both positive and adverse. Employment opportunities provided by the Project and other projects and physical activities could limit time to engage in traditional activities, while employment income provided by these employment opportunities will provide financial resources that could support participation in traditional activities.						
Change in education and training	P* / A	M	RAA	N/A	LT	C	R
Contribution from the Project to residual cumulative change in education and training	Residual cumulative effects to change in education and training is expected to be both positive and adverse. Employment opportunities generated by the Project and other projects and physical activities are expected to provide education and training opportunities that may enhance levels of educational attainment and enrollment in education and training programs in the Kitikmeot Region and Nunavut. Adverse effects to these services could occur if demand exceeds capacity, such as overcrowding, strained resources, inability to access programs, or lower quality services. Demand for employment opportunities generated by the Project and other projects and physical activities could prompt some students to leave school early for employment.						
Change in contracting and business opportunities	P	N/A	N/A	N/A	N/A	N/A	N/A

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Contribution from the Project to residual cumulative change in contracting and business opportunities	Residual cumulative effects to change in contracting and business opportunities is expected to be positive. Expenditures on materials, equipment and services from the Project and other projects and physical activities will create procurement opportunities for businesses in the RAA.						
Change in community resupply resilience	P	N/A	N/A	N/A	N/A	N/A	N/A
Contribution from the Project to residual cumulative change in community resupply resilience	Residual cumulative effects to change in community resupply resilience are expected to be positive. The project and reasonably foreseeable induced projects are expected to strengthen community resupply resilience by introducing new land and marine infrastructure to support community resupply. The project, other projects and physical activities are not anticipated to affect existing sea-lift and air freight capacity used for community resupply to Kitikmeot communities.						

Key:
See Table 27.2 for detailed definitions

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
N: None / Negligible Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not applicable
A: Applicable

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:

* Positive residual effects are not characterized further.

Change in Economic Development and Business Opportunities

With the implementation of mitigation, enhancement and management measures, cumulative effects on economic development and business opportunities are anticipated to be positive. Expenditure on materials, equipment and services associated with reasonably foreseeable and reasonably foreseeable induced projects and physical activities, beyond the expenditure of the Project, will result in increased economic activity, contributions to GDP, and contributions to municipal, territorial and federal government revenues. Further, other projects and physical activities are expected to support wider economic objectives for the Kitikmeot Region and Nunavut. Positive residual effects are not characterized further (e.g., for significance).

Change in Employment

With the implementation of mitigation, enhancement, and management measures, cumulative effects on employment are anticipated to be both positive and adverse. The project, reasonably foreseeable, and reasonably foreseeable induced projects and physical activities are expected to increase employment opportunities and employment income in the RAA. Positive residual effects are not characterized further (e.g., for significance).

Both positive and adverse cumulative effects on participation in the traditional economy are expected.

Adverse cumulative effects are expected from reduced time for traditional activities due to employment from the Project and other developments. However, employment income provided by these employment opportunities will provide financial resources that could support participation in traditional activities. Adverse cumulative effects on participation in the traditional economy have the potential to be moderate in magnitude, applicable across the RAA, long-term in duration, seasonal, continuous and reversible.

Adverse cumulative effects are anticipated to occur through competition for workers. Demand for labour, materials, equipment, and services from the Project and other projects and physical activities is expected to increase competition for workers in the Kitikmeot Region and Nunavut. That said, competitive effects are likely to be moderated over time by several factors. Notably, Nunavut's young and growing population will continue to require substantial new employment opportunities as more individuals enter the workforce, particularly given the territory's persistently high unemployment relative to national levels. Experience from existing developments also indicates that remote fly-in/fly-out work is not attractive to everyone, with many individuals preferring to remain in their home communities near family. In addition, normal workforce turnover at major projects means that newly trained or experienced workers may become available for community-based positions. Finally, out-of-territory workers will remain an option for filling local roles where labour competition is high. Adverse cumulative effects on demand for labour, and competition for workers, have the potential to be moderate to high magnitude, applicable across the RAA, long-term in duration, will occur continuously and be reversible as the labour market adjusts to this change (e.g., increased training programs and upskilling efforts, and/or reallocation of workers across industries, and/or increased use of fly-in-fly-out workers). Timing is not applicable.

Change in Education and Training

With the implementation of mitigation, enhancement, and management measures, cumulative effects on education and training are anticipated to be both positive and adverse. The project, reasonably foreseeable, and reasonably foreseeable induced projects are expected to increase the provision of education and training opportunities across the RAA. Positive residual effects are not characterized further (e.g., for significance).

Employment opportunities associated with the Project, reasonably foreseeable, and reasonably foreseeable induced projects, may increase enrollment in education and training programs in the Kitikmeot Region and Nunavut. Adverse effects to these services could occur if demand exceeds capacity, such as overcrowding, strained resources, inability to access programs, or lower quality services. Demand for employment opportunities generated by the Project, reasonably foreseeable, and reasonably foreseeable induced projects, could also prompt some students to leave school early for

employment. Given the size of labour demands for the reasonably foreseeable induced projects, as well as the foreseeable projects not quantified, adverse cumulative effects have the potential to be moderate in magnitude, extend across the RAA, long-term in duration, will occur continuously and be reversible as education providers respond to changes in demand. Timing is not applicable.

Any substantial increases in long-term educational demand will likely be responded to by education providers (e.g., NAC) through additional capacity, course offerings, and/or other strategies. It is anticipated that regional project developers, including WKR, will work closely with the Government of Nunavut's Department of Education and other providers to identify future needs and resources in this area.

Change in Contracting and Business Opportunities

With the implementation of mitigation, enhancement, and management measures, cumulative effects on contracting and business opportunities are anticipated to be positive. Expenditures on materials, equipment and services from reasonably foreseeable, and reasonably foreseeable projects and other physical activities, beyond those of the Project, will create procurement opportunities for regional business. Positive residual effects are not characterized further (e.g., for significance).

Change in Community Resupply Resilience

With the implementation of mitigation, enhancement, and management measures, cumulative effects on community resupply resilience are anticipated to be positive. Positive residual effects are not characterized further (e.g., for significance).

The project, reasonably foreseeable, and reasonably foreseeable induced projects will strengthen community resupply resilience in the RAA by introducing new land and marine infrastructure to support community resupply. The Grays Bay Port will provide an additional access point to the Kitikmeot Region via sea-lift during the open water season. The Grays Bay Road will enable ground transportation of goods from Yellowknife to Grays Bay Port via the TCWR. Construction of the Arctic Economic and Security Corridor, a reasonably foreseeable project, would provide year-round access to the Northwest Territories–Nunavut border and seasonal access to the Grays Bay Road via the TCWR. This added flexibility could help mitigate increases in the cost of transportation of goods if disruptions occur to other community resupply routes. Any increase in community resupply as a result of the new transportation infrastructure will be dependent on available means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities.

The project, reasonably foreseeable and reasonably foreseeable induced projects are not anticipated to affect existing sea-lift and air freight capacity used for community resupply to Kitikmeot communities.

27.5 Significance of Effects

27.5.1 Significance of Project Residual Effects

Based on the assessment provided above, the Project is predicted to have substantial positive residual effects, during construction and operations and maintenance. With the implementation of mitigation, enhancement, and management measures, residual adverse effects of the Project on employment and economic conditions in the LAA and RAA are predicted to be not significant because they do not create a measurable adverse change from current conditions and trends that cannot be managed or mitigated, and, the Project will not result in a reduction in annual GDP growth at the territory level.

27.5.2 Significance of Cumulative Effects

Based on the assessment provided above, other projects and physical activities, and the Project, are predicted to have substantial positive residual effects, during construction and operations and maintenance. With the implementation of mitigation, enhancement, and management measures, adverse residual cumulative effects on employment and economic conditions in the LAA and RAA are predicted to be not significant because while the project, in combination with past, current, reasonably foreseeable, and reasonably foreseeable induced developments, is expected to result in certain measurable adverse changes from existing conditions and trends (e.g., competition for workers), such effects are anticipated to be effectively managed through adjustments to programs, policies, and plans, as well as through the implementation of additional mitigation measures. Further, the project in combination with past, current, reasonably foreseeable, and reasonably foreseeable induced projects and physical activities will not result in a reduction in annual GDP growth at the territory level.

27.5.3 Summary of Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures are expected to reduce adverse residual and cumulative effects and enhance positive residual and cumulative effects.

WKR will provide transportation for project workers from Kitikmeot communities. Regular chartered flights will be provided for employees from designated pick-up points in Cambridge Bay, Kugluktuk, and Yellowknife to the Project site. Employees from other communities may be required to travel via commercial air carriers to one of these pick-up points. Additional charter flights may be provided based on the number of employees living in other communities and the availability of commercial air service for those employees.

Measures will enhance positive effects to local and Inuit populations. A Labour Relations Strategy will be developed and implemented to enhance and retain local Inuit employment (e.g., priority recruitment) and provide equitable participation in project employment and training opportunities for underrepresented populations. The strategy will commit WKR to make details of employment and contracting opportunities accessible to local Inuit, and provide resume writing support, career presentations, and open forums to connect Kitikmeot Region residents with job opportunities. The strategy will detail support services for employees, including transportation assistance, accommodation, and wellness programs to help employees succeed in their roles. The strategy will outline a cultural awareness and sensitivity training

policy, an Employee Code of Conduct, and anti-harassment and violence in the workplace policies, procedures and training.

A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project, provide pre-employment training for Inuit and youth, and implement on-the-job training and apprenticeship programs. Education and training programs will be delivered in partnership with local educational institutions and Inuit organizations, in existing community-based training centres, or mobile training units. The strategy will detail WKR's participation in career fairs and school outreach programs to inform youth about employment opportunities and required qualifications. The strategy will also detail eligibility requirements for future work or internship opportunities, including completion of high school.

A Procurement Strategy, focused on Inuit contracting opportunities, will be developed and implemented to facilitate regional and Inuit business involvement. The Procurement Strategy will prioritize the use of local construction equipment to increase local revenues and reduce the need to transport equipment from outside of the region. The strategy will also establish that procurement packages are tailored to local businesses where practical (e.g., smaller packages).

Measures will reduce adverse effects on participation in traditional activities for Inuit populations. A Labour Relations Strategy will provide flexibility in work schedules (i.e., full-time and seasonal employment opportunities) to enable continued Inuit participation in traditional and cultural activities. WKR will provide opportunities for access to on-site virtual or telephone communication tools for calling family members or for Elder communication which could enhance family connectedness.

Measures will reduce adverse effects on community resupply resilience. WKR will transport equipment and supplies from outside of the region to the Project site using barges, sea-lift, aircraft, and/or trucks contracted specifically for the Project. WKR will work with local and territorial governments to minimize interference with each other's deliveries and if possible, coordinate joint resupply efforts.

To assess the effectiveness of mitigation measures, a Socio-economic Monitoring Program will establish a framework for monitoring project employment, training, and other socio-economic indicators as well as the development of annual monitoring reports. To support WKR's engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities throughout the lifetime of the Project a community feedback tool or process will be developed to receive and address community suggestions, concerns, and complaints. As well, WKR will consider hiring a community engagement liaison to support engagement within the Kitikmeot Region.

27.6 Prediction Confidence and Uncertainty

Confidence in the characterization of residual effects and the determination of significance of project residual and cumulative effects is considered to be moderate.

As described in Section 27.3.1, there are some uncertainties associated with the availability of information, data analyses, and interpretation of data; these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an effect.

Assessment results and conclusions are supported by the use of qualitative and quantitative tools and techniques. For quantitative predictions, the assessment of project related effects to employment and economic conditions relies on the estimates of the SCIPIOM and preliminary cost estimates for the Project, based on current expectations, and cost estimates for reasonably foreseeable induced projects, based on publicly available information.

Input-output models are based on a simplified representation of connections that exist in the economy, and consequently, there are limitations that should be considered when reviewing the model results (Section 27.3.1.1). Given the inherent limitations associated with Input-output models, and wider economic uncertainties, model results should be interpreted with some caution. Further, model results should be interpreted in the context of baseline economic conditions, which will influence how impacts will ultimately materialize. Results are assessed alongside baseline economic conditions, community research and perspectives, and lessons from other major projects in Nunavut to gauge how impacts could materialize in Nunavut.

The prediction confidence in the conclusions for project residual effects and residual cumulative effects for employment and economic conditions is also based on:

- Uncertainty regarding the extent to which project employment will be realized by Kitikmeot Region and Nunavummiut.
- Effectiveness of mitigation and management plans.
- Uncertainty regarding external influences, such as preferences and choices, changes in global markets, political decisions, consumer behaviours, and unforeseen events (e.g., natural disasters or pandemics).
- Changes regarding the status of other reasonably foreseeable and reasonably foreseeable induced projects in the region that are outside the control of the Project.

27.7 Follow-up and Monitoring

WKR will establish a program to monitor the socio-economic effects of the Project, including effects on employment and economic conditions. A Socio-Economic Monitoring Program will be one of the key strategies to guide the implementation of mitigation and management measures, measure the effectiveness of mitigation and management measures, measure how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of new/emerging socio-economic effects.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into project planning, including adaptive management and monitoring, as appropriate. WKR will also develop "Guidance for Incorporating Community Perspectives and Inuit, Indigenous, and Community Knowledge" in the Project's Monitoring Programs, to ensure this valued information and knowledge continues to be meaningfully incorporated into project operations moving forward.

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28 Assessment of Potential Effects on Infrastructure and Services

Kitikmeot community members recognize that building and maintaining Northern infrastructure is a substantial challenge due to the harsh environment, high costs, short construction season, remoteness of communities, lack of building resources, and changing climate conditions. Today, much of Nunavut's infrastructure is operating close to or beyond its projected useful lifespan, and there is a significant need for housing in Nunavut (Nunavut Housing Corporation 2023a,b). Communities in Nunavut are typically separated by large distances and are not connected to each other or to the rest of Canada by all-season roads or rail links. The delivery of supplies can be infrequent, expensive, and unreliable and community members have an interest in improved transportation and more frequent community resupply (Cambridge Bay Housing Association 2024, pers. comm).

Infrastructure and Services has been identified as a valued component (VC) to be assessed for the Grays Bay Road and Port Project (Project). The Project may affect infrastructure and services both positively and adversely through a change in community infrastructure and access to public services or utilities, a change in accommodations and housing availability, a change in ground-based and air transportation infrastructure and services, and a change in community resupply.

The assessment of community infrastructure and services draws on conclusions from other VCs including Traditional Land, Marine, and Resource Use (Section 24), Food Security and Food Sovereignty (Section 25), Community Health and Well-being (Section 26), Employment and Economy (Section 27), and Non-Traditional Land, Marine, and Resource Use (Section 29).

This report conforms with requirements outlined in the Nunavut Impact Review Board's (NIRB; File 24XN038) Guidelines for the Preparation of an Impact Statement for the Project issued January 2026.

28.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on the VC.

28.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities about the Project. Through early meetings, workshops, and direct conversations, WKR listened to the cultural, environmental, and social priorities shared by engaged groups. These have been considered in the IS and project design. A summary of engagement activities conducted from 2016 into 2026 is presented in Volume 3, Section 6 (Public Engagement). An Inuit Advisory Group (IAG) was established to advise WKR on potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to,

baseline conditions, significance determination, and consideration and integration of Inuit and Community Knowledge. IAG members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and water in the Project area.

To further inform the project design, a Project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the Naonaiyaotit Traditional Knowledge Project (NTKP), was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

In addition to the engagement activities and knowledge gathering initiatives described, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay (*Ekaluktutiak*), Gjoa Haven (*Ursuqtuq*), Kugaaruk, Kugluktuk, and Taloyoak, along with organizations in Yellowknife. Community-based primary research was conducted in the Kitikmeot Region in October and November 2024 and with Yellowknife organizations in May and June 2025. Applicable feedback identified during project engagement activities and through shared Inuit, Indigenous, and Community Knowledge (see Volume 3) has been integrated into the summary of baseline conditions for Infrastructure and Services and integrated into the assessment, where applicable.

As well, publicly available sources of Inuit and Indigenous Knowledge were reviewed to provide further context about baseline conditions and how conditions are changing, as well as potential mitigation measures recommended on previous projects that could be considered for the Project. Results from monitoring studies and other community-based research were also reviewed.

Through the Project-specific engagement program and community-based primary research, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations specifically related to socio-economic topics, including infrastructure and services. Through reviewing the information, Inuit, Indigenous, and Community Knowledge has influenced key components of this assessment, as described in Section 28.1.1.1.

WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of project design, planning, and monitoring and throughout the life of the Project. Continued engagement through the NIRB process will support issues identification and mitigation measures to address them.

28.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge was reviewed with consideration to the proposed spatial boundaries. IAG members and NTKP consultants who informed the Project-specific Inuit Knowledge report are primarily Kitikmiut and/or representatives of Kitikmeot communities; community-based primary research interviewees are representatives of Yellowknife or Kitikmeot communities and organizations. Information obtained through these sources contributed to the selection of spatial boundaries.
The Local Assessment Area (LAA) considers the five main Kitikmeot communities, recognizing Kitikmiut as the primary users of the project area. It also includes Yellowknife, Northwest Territories (NT).

The LAA and Regional Assessment Area (RAA) also considers that Kitikmeot communities and Yellowknife are those most likely to experience direct and indirect socio-economic effects as a result of the Project and of other projects and activities that are expected to act cumulatively with the Project (as discussed in this assessment; see also Sections 25-27, and 29).

28.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining Inuit-led and collaborative knowledge gathering (including the Project-specific community-based primary research, NTKP, and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies based on western scientific methods. . Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered and summarized in Section 28.2.2.1 Table 28.4. This includes recommendations about needed services that may result from the Project (see Section 28.2).

28.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities (e.g., clearing, blasting, etc.) and project infrastructure could affect socio-economic conditions within the Infrastructure and Services LAA. Through Project-specific community-based primary research, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities provided perspectives and values, which were considered and integrated into the potential effects to be considered in this assessment. For example, change in community resupply was identified as a concern for many residents in the Kitikmeot Region. As a result, it was included as a potential effect in the Infrastructure and Services VC assessment. Change in search and rescue infrastructure and services, including the potential for construction of new infrastructure, was also identified as a concern for several residents in the Kitikmeot Region. Evaluation of potential effects on Coast Guard, Coast Guard Auxiliary, and search and rescue infrastructure and services was therefore added to the VC assessment.

Feedback also helped guide planning for the Project's mitigation and adaptive management measures. Feedback has been integrated into the assessment of project effects on infrastructure and services, where applicable (see Section 28.3).

28.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas, species, and practices, as well as socio-economic conditions that may be affected by combined effects from the Project and other projects and activities in the Project's RAAs.

WKR considered Inuit, Indigenous, and Community Knowledge perspectives with western science to develop a holistic view of how multiple changes could affect community infrastructure and services over time. The analysis recognizes the importance of long-term monitoring, where local, Inuit co-developed monitoring will track combined effects to inform adaptive management plans (see Section 28.4). For example, WKR will develop and implement a Socio-Economic Monitoring Program (SEMP) to monitor socio-economic effects, including effects on community infrastructure and services. The SEMP will guide the implementation of mitigation and management measures, measure the effectiveness of measures, measure how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of potential new/emerging socio-economic effects.

28.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed with input from Inuit, Indigenous, and Community Knowledge. Inuit, Indigenous, and Community values and perspectives (see Volume 3) supported WKR's consideration of whether there may be an exceedance in available capacity or decrease in service quality. Members of the IAG also provided additional criteria to consider when identifying whether the Project is likely to have significant, or unacceptable, effects (see Sections 28.1.6 and 28.5).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR is committed to implementing proactive socio-economic planning strategies that will include avoiding pressures on workforce and infrastructure and services capacity needs.
- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).
- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

28.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce negative effects and enhance benefits of the Project were identified.

Many proposed mitigation, management, and enhancement measures were discussed and reviewed with Inuit community representatives during community meetings and IAG workshops to confirm they align with community priorities. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Adjustments were made, as appropriate, based on advice from IAG members and the Kitikmeot Inuit Association, in addition to Indigenous groups and other potentially affected communities through engagement. Community members emphasized the need for emergency services and shelters along the road corridor and search and rescue capacity to reduce additional demand on limited regional emergency response services. Community members also emphasized the need to maintain existing infrastructure used for search and rescue, including a cabin located near the Project. Information obtained through Inuit, Indigenous, and Community Knowledge emphasized the importance of some of the mitigation measures listed in Sections 28.3.3.2, 28.3.4.2, 28.3.5.2, and 28.3.6.2. Inuit co-developed monitoring and reporting were incorporated to support ongoing involvement and accountability. WKR proposes to implement a Road Management Plan, Port Management Plan, and Risk Management and Emergency Response Plan to address issues related to use of the road, small craft harbour, and port facilities, safe transit in the marine environment, and emergency response capacity. The Project will apply adaptive management strategies (see Section 28.5.3).

28.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

28.1.2 Regulatory and Policy Setting

The management of infrastructure and services is subject to several statutes, regulations, policies, and agreements. Table 28.1 provides a description of the federal and territorial acts and regulations that are applicable to infrastructure and services.

Table 28.1 Summary of Key Legislation, Policy, and Regulatory Guidance Documents for Infrastructure and Services

Regulation or Policy	Description
Federal	
Nunavut Land Claims Agreement Act (Nunavut Agreement)	The Nunavut Agreement delegates the responsibility of land and resource management on Inuit Owned Land (IOL) to Nunavut Tunngavik Incorporated (NTI); surface land management further delegated to the Kitikmeot Inuit Association; access to IOL for drilling, fuel storage, camp operation, quarry, research, and road construction subject to KIA approval; long-term use of land for quarrying and the road subject to issuance of a lease.
Canada Shipping Act 2001	Legislates shipping in all Canadian waters to protect human health and safety and the marine environment during navigation and shipping activities.
Marine Liability Act	Establishes owners and/or operators of vessels as responsible and liable for their vessels and operations.
Marine Transportation Security Act	Provides for the security of marine transportation for ships and marine facilities in Canada.
Canadian Navigable Waters Act	Protects the public's right to navigate through the regulation of activities that may hinder navigation.
Arctic Waters Pollution Prevention Act and Arctic Waters Pollution Prevention Regulations	Provide measures to prevent pollution and deposit of waste into Arctic waters during shipping and regulations regarding the construction and operation of navigating in the Arctic, including the need for ice navigators.
Aeronautics Act	Legislates civil aviation in Canada and establishes regulations and agencies such as the Canadian Transportation Agency, which manages air carriers.
Canadian Aviation Regulations	Establish standards for civil aviation, including aircraft safety, air operations, personnel licensing, and commercial operations.
Canada Transportation Act	Legislates the national transportation system in Canada, including safety and security standards. Provides that "the best use of all modes of transportation at the lowest total cost is essential to serve the needs of its users, advance the well-being of Canadians and enable competitiveness and economic growth in both urban and rural areas throughout Canada".
Canada Shipping Act 2001	Legislates shipping in all Canadian waters to protect human health and safety and the marine environment during navigation and shipping activities.
Marine Liability Act	*E*stablishes owners and/or operators of vessels as responsible and liable for their vessels and operations
Marine Transportation Security Act	Provides for the security of marine transportation for ships and marine facilities in Canada.
Canadian Navigable Waters Act	Protects the public's right to navigate through the regulation of activities that may hinder navigation.
Territorial	
Nunavut Planning Commission (NPC)	The NPC is responsible for developing and administering land use plans that set out where different land uses may occur in the Nunavut Settlement Area based on environmental, socio-economic, and cultural needs.

Regulation or Policy	Description
Draft Nunavut Land Use Plan (NPC, 2021)	A draft NLUP was prepared for consideration under Article 11.5.1 of the Nunavut Agreement and Part 2 of the Nunavut Planning and Project Assessment Act to guide and direct short-term and long-term development in the Nunavut Settlement Area and reflect the priorities and values of residents (currently the draft is not approved).
Safety Act, Occupational Health and Safety (OHS) Regulations	Administered by the Workers' Safety & Compensation Commission, this legislation governs workplace health and safety in Nunavut, including the identification and control of health and safety hazards to maintain the health and safety of workers.
Camp Set Up and Management Code of Practice	Administered by the Workers' Safety & Compensation Commission, this code of practice outlines regulations, hazards, and risks to be considered for the set up and management of workcamps.
Nunavut Camp Sanitation Regulations	Establishes measures for the operation of workcamps in sanitary conditions.

The management of infrastructure and services is also guided by Inuit, Indigenous, and Community Knowledge. Inuit Knowledge may also be referred to as Inuit *Qaujimaningit* which encompasses "Inuit traditional knowledge (and variations thereof or *Inuit Qaujimajatuqangit*), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)" (NIRB 2018). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as *Inuit Qaujimajatuqangit* principles (NIRB 2018; Pauktuutit 2006). For more detail see Volume 3. The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the Impact Statement (IS). WKR has adopted this terminology and understands Inuit Knowledge encompasses *Inuit Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on infrastructure and services.

28.1.3 Potential Effects, Pathways, and Measurable Parameters

The potential effects of the Project on Infrastructure and Services are identified in Table 28.2. For each effect, effect pathways and indicators/measurable parameters have been identified to facilitate the quantitative and/or qualitative measurement of change in potential Project-specific and cumulative effects.

Where practical, the assessment of potential effects on Infrastructure and Services used measurable parameters that are quantifiable (e.g., capacity of daycares and waitlists for social housing). However, not all effects pathways can necessarily be quantified (e.g., extent to which vulnerable populations experience disproportionate effects). Therefore, some effects are predicted qualitatively through use of literature, Inuit, Indigenous, and Community Knowledge, and professional judgment.

Table 28.2 Potential Effects, Effects Pathways and Measurable Parameters for Infrastructure and Services

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in community infrastructure and access to public services or utilities	• Demand for infrastructure and services may be affected by Project activities. • Project construction and Operations and Maintenance will increase access to shipping and land- and marine-based travel, which may increase demand on Coast Guard, Coast Guard Auxiliary, and search and rescue services. • Project construction will increase land- and marine-based infrastructure available for use by Coast Guard, Coast Guard Auxiliary, and search and rescue services.	• Project workforce (average and peak number) • Relevant sub-populations (e.g., age, gender, Indigeneity, other identity factors) identified through Gender Based Analysis Plus (GBA+) • Parameters based on affected infrastructure and services (e.g., wastewater treatment capacity, caseload/officer, emergency services call volumes) • Parameters based on Project infrastructure and services (e.g., safety features [e.g., lighting, shelters] associated with the road and port; small craft harbour)
Change in accommodation and housing availability	• Demand for more temporary and permanent accommodation construction may be affected by Project activities. • Project construction will increase land- and marine-based infrastructure available for use for community resupply, including delivery of building materials.	• Availability of accommodations (vacancy rates, inventory levels) • Project workforce (average and peak number) • Cost of accommodation ($) • Core housing need by relevant sub-populations • Shelter-to-income ratio by relevant sub-populations
Change in transportation infrastructure	• Demand for transportation infrastructure may be affected by project activities. • Project construction will increase land- and marine-based infrastructure available for use.	• Road volume (vehicles/day) • Air traffic volumes • Passenger volume (persons/year) • Large and small craft vessel volumes
Change in community resupply	• Project construction and operation may affect capacity and frequency of community resupply due to increased shipping, air freight, and trucking to the Project area. • Project construction will increase land- and marine-based infrastructure available for use for community resupply.	• Area available on resupply vessels to service communities • Number of resupply vessels/year to service communities • Area available on cargo planes to service communities • Number of resupply cargo planes/year to service communities • Number of resupply trucks/year to service communities • Availability of resupply infrastructure • Number of resupply businesses

28.1.4 Boundaries

28.1.4.1 Spatial Boundaries

The following subsections describe the spatial boundaries used for the assessment of effects of the Project on Infrastructure and Services. As noted in Section 28.1.1.1, the spatial boundaries reflect and considered information shared through engagement to support the understanding of perspectives and values with respect to the Project.

Project Development Area

The Project Development Area (PDA) encompasses the physical footprint of all Project components and activities, including both permanent and temporary disturbances, as well as space to accommodate potential design changes based on ongoing studies and investigations. The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. See Volume 2, Section 2.6.1 and Volume 4, Section 9.2.4 for further details on the PDA.

Local Assessment Area

The LAA is the area where direct and indirect effects on the infrastructure and services of local communities are likely to be most pronounced. The LAA for the Infrastructure and Services VC (Figure 28.1) is comprised of the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven, as well as Yellowknife, NT, since Yellowknife will serve as a logistics and staging location for the Project.

Regional Assessment Area

The RAA for the Infrastructure and Services VC is the Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven; as well as the primarily seasonal settlements of Bathurst Inlet and Bay Chimo in the Kitikmeot Region; and part of the NT, focusing on Yellowknife (Figure 28.1).

28.1.4.2 Temporal Boundaries

The following temporal boundaries were used in the assessment of the Infrastructure and Services VC:

- The **Construction phase** of the Project will take approximately five years to complete (both pre-construction and construction) with a proposed starting date in December 2029.
- The **Operations and Maintenance phase** of the Project will start in 2035 and will continue in perpetuity.





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

- Local Assessment Area (LAA)
- Regional Assessment Area (RAA) (including Yellowknife)
- Grays Bay Port
- Grays Bay Road
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Ocean
- Watercourse
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2025-12-02
TR by SL on 2025-12-02

Client/Project
123514868_015

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
28.1

Title
Infrastructure and Services Assessment Area

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

28.1.5 Residual Effects Characterization

Table 28.3 presents definitions and criteria that are used to characterize the adverse residual effects on Infrastructure and Services.

Table 28.3 Characterization of Residual Effects on Infrastructure and Services

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect.	Positive – a residual effect that moves measurable parameters in a direction beneficial to Infrastructure and Services relative to baseline. Adverse – a residual effect that moves measurable parameters in a direction detrimental to Infrastructure and Services relative to baseline. Neutral – no net change in measurable parameters for Infrastructure and Services relative to baseline.
Magnitude	The extent of a change in measurable parameters or the VC from baseline conditions.	No Measurable Change – no measurable change in capacity of Infrastructure and Services can be noted. Low – capacity of Infrastructure and Services will be at or near to baseline conditions. Moderate – demand for Infrastructure and Services approaches current capacity, standard or threshold but will not result in a reduction in standards of service. High – demand for Infrastructure and Services exceeds current capacity, standard or threshold that result in a reduction in standards of service.
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	PDA – residual effects are restricted to the PDA. LAA – residual effects extend into the LAA. RAA – residual effects interact with those of other projects in the RAA.
Timing	Considers when an effect is predicted to occur, where relevant to the VC.	Not Applicable – seasonal aspects are unlikely to affect residual effects on Infrastructure and Services. Applicable – seasonal aspects may affect residual effects on Infrastructure and Services.
Duration	The time required until the measurable parameter or the VC returns to its existing condition, or the residual effect can no longer be measured or otherwise perceived.	Short-term – the residual effect is restricted to no more than the duration of the Construction phase (five years). Long-term – the residual effect extends beyond the Construction phase and into Operations and Maintenance.
Frequency	How often an effect is predicted to occur.	Single event Multiple irregular event – occurs at no set schedule Multiple regular event – occurs at regular intervals Continuous – occurs continuously
Reversibility	The degree to which a VC can be returned to baseline conditions or other established reference point after relevant activities have ceased.	Reversible – the residual effect is likely to be reversed. Irreversible – the residual effect is unlikely to be reversed.

28.1.6 Significance Definition

A significant adverse residual effect on infrastructure and services occurs when there is an exceedance of available capacity, or a substantial decrease in the quality of a service provided, on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

During the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to infrastructure and services, feedback received from IAG members (IAG 2025b) identified the following priorities, when considering unacceptable changes as a result of the Project:

- That Inuit perspectives are considered and addressed in Project design
- That the Project is located where community members can benefit
- That the Project provides access to hunters and supplies for hunters at both Grays Bay and Jericho
- That the Project reduces cost of living

28.2 Baseline Conditions

28.2.1 Methods

To better inform understanding of infrastructure and services baseline conditions, multiple sources of information were considered, including Inuit, Indigenous, and Community Knowledge perspectives and values gathered through engagement and community-based primary research, statistical data, academic literature, and grey literature (e.g., reports government documents). Further information on methods is described in the People and Communities Baseline Report (Appendix 25A).

28.2.1.1 Literature Review and Secondary Data Collection

Quantitative and qualitative information on baseline conditions for community infrastructure and services for the LAA and RAA was obtained from the following sources:

- Government of Canada
- Government of Nunavut (GN)
- Government of Northwest Territories (GNWT)
- Municipal Governments
- Economic Development Corporations
- Statistics Canada
- Nunavut Bureau of Statistics

- Canadian Mortgage and Housing Corporation
- Nunavut Housing Corporation
- Inuit Tapiriit Kanatami (ITK)
- Nunavut Tunngavik Incorporated
- Pauktuutit Inuit Women of Canada
- Other environmental assessment reports
- Published literature and “grey” literature

Disaggregated data by territorial region and by community are not always available. In instances where regional- or community-specific data are not available, Nunavut and NT data are assumed to broadly represent similar trends found in the Kitikmeot Region and communities and in NT and Yellowknife.

28.2.1.2 Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified.

28.2.1.3 Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to People and Communities in the Kitikmeot Region in October and November 2024. A social sciences research license, which included ethics approval, was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

As described in the People and Communities Baseline Report (Appendix 25A), a total of 61 interviews were conducted with 70 community members in-person and virtually over Microsoft Teams. In-person interviews were conducted in the communities of Kugaaruk, Cambridge Bay, Kugluktuk, Gjoa Haven and Taloyoak. Interview participants included regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

28.2.1.4 Yellowknife

Key person interviews were also undertaken with seven government agencies, stakeholders, and community organizations in Yellowknife virtually over Microsoft Teams in May and June 2025. A research license was obtained from the GNWT Department of Education, Culture and Employment (License Number 5957 and 6135) and ethics approval was obtained from Aurora Research Institute (Approval Number AC-REC 24-09) to conduct research in Yellowknife.

28.2.1.5 Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded by written notes and audio recording, when consent was granted. Written notes and audio recordings were later typed and transcribed, respectively. Primary research underwent thematic analysis, which grouped findings into major themes that align with the various VCs presented in the People and Communities Baseline Report (Appendix 25A). Key findings of data analysis were integrated into the baseline report.

28.2.1.6 Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of the research program, the methods used, and the interpretation of information in some instances. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination based on gender, sexuality, Indigeneity and other identity factors. All members of the research team have taken unconscious bias training, a two-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be effectively managed.

28.2.1.7 Gender Based Analysis Plus (GBA Plus)

The Gender-Based Analysis Plus (GBA Plus) framework guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the consideration of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including the impact of colonialism.

In addition to the GBA Plus framework, Pauktuutit Inuit Women of Canada has produced an Inuit-Specific GBA Plus framework to reflect the unique needs, voice, and social experiences of Inuit women, girls, and gender-diverse populations (Pauktuutit 2025). Pauktuutit suggests that considering the whole person and all of their intersectional identities contributes to equity. Inuit cultural values, lifeways, and worldviews are the foundation of Inuit Specific GBA Plus framework.

Key subpopulations have been selected based on the GBA Plus and Inuit-Specific GBA Plus frameworks, feedback from engagement and community-based primary research, through literature on socio-community impacts from industrial development Projects, and on the professional experience and knowledge of the socioeconomic technical team. Sub-populations that have been selected for consideration in the Infrastructure and Services VC assessment and rationale for their inclusion are provided in the People and Communities Baseline Report (Appendix 25A).

In addition to consideration of differential effects on identified sub-populations, effects may be experienced differentially based on geography, such as territory, region, and community location. The GBA Plus framework includes consideration of differential effect based on geography.

28.2.2 Overview

This section summarizes the data sources and existing (baseline) conditions for infrastructure and services in the Kitikmeot Region and Yellowknife, including: housing, shelters, and temporary accommodation; transportation and community resupply; emergency services; marine infrastructure and services including Coast Guard and community search and rescue infrastructure and services, and small craft harbours; utilities, recreation, and telecommunications and internet. Existing conditions for health infrastructure and services is discussed in Chapter 26: Community Health and Well-being.

There exists a substantial infrastructure gap between Nunavut and the rest of Canada (Nunavut Tunngavik Incorporated 2020). Building and maintaining Northern infrastructure is a significant challenge due to the harsh environment, short construction season, remoteness of communities, lack of building resources, and changing climate conditions (National Aboriginal Economic Development Board 2016). The lack of adequate infrastructure in the North is also linked to colonial interference in the mid-20th century, which resulted in Inuit communities being relocated to permanent settlements with infrastructure that was not appropriate for Inuit lifestyle or the northern climate (Nunavut Tunngavik Incorporated 2020). Today, much of Nunavut's infrastructure is operating close to or beyond its projected useful lifespan (Nunavut Tunngavik Incorporated 2020). ITK estimates it would cost $75.1 billion to close the infrastructure gap in Inuit Nunangat, the traditional northern Inuit homeland encompassing 51 communities and four regions, including Nunavut (Forester 2024).

28.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the project-specific engagement program delivered from 2016 into 2026, including community meetings, Inuit Advisory Group workshops, community-based primary research, the project-specific Inuit Knowledge report compiled from the NTKP database, and through a review of publicly available information, participants shared information, expressed concerns, and provided recommendations related to infrastructure and services. This feedback has been considered and summarized in Table 28.4 and has been integrated into the summary of baseline conditions and assessment of potential effects on infrastructure and services that follows.

Table 28.4 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Comment	Source	WKR Response	Where Addressed
During project engagement, a community member in Gjoa Haven inquired whether search and rescue services will be made available. IAG members recommended that search and rescue infrastructure and support be made available at the Project site.	GBRP 2025; IAG 2025b	A WKR representative discussed that the port will be maintained all year round for Operations and Maintenance; vessels will arrive only during open water. Discussions are taking place with security users to understand how search and rescue will work.	For a summary of baseline information on search and rescue, see Section 28.2.2.5. The effects of the Project on community infrastructure and access to public services or utilities, including Project infrastructure and services (e.g., safety features [e.g., lighting, shelters] associated with the road and port; small craft harbour) and mitigation, enhancement, and management measures related to community infrastructure and access are assessed in Section 28.3.2.
During project engagement, a community member in Gjoa Haven stated that there are always searches, and people can be lost on the land. The community member asked if it is possible to build a shelter where people go on the land?	GBRP 2025	A WKR representative noted that shelters would be built along the road and at the port.	
IAG members recommended navigational aids and communication systems be developed.	IAG 2025b	The Project's potential positive and adverse effects, on community infrastructure and services, including search and rescue infrastructure and services, were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided.	
A member recommended heated shelters be made available for hunters and monitors, water transport be provided for hunters without boats to support community members gaining access to the port, and suggested marked trails for safe winter travel to the port could be an option to consider. It was further suggested that the Project could act as a 'safe haven' for travelers in the region, including those travelling between Kugluktuk and Cambridge Bay.	IAG 2025b	WKR will work with relevant communities to support these initiatives, should they be desired.	The effects of the Project on transportation infrastructure, including Project infrastructure (e.g., shelters associated with the road and port; small craft harbour) and mitigation, enhancement, and management measures related to transportation infrastructure are assessed in Section 28.3.5.
During project engagement in Gjoa Haven, community members expressed concern for increased marine traffic and that the road would be used to transport toxic materials and heavy loads.	GBRP 2025	The Project's potential effects, including on community infrastructure and services were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided. Measures include development and implementation of a Shipping Management Plan, Risk Management and Emergency Response Plan, and Oil Pollution Emergency Plan.	The effects of the Project on community infrastructure and services, including mitigation, enhancement, and management measures related to community resupply, are assessed in Section 28.3.3.

Comment	Source	WKR Response	Where Addressed
During project engagement, the Municipality of Cambridge Bay and Hamlet of Gjoa Haven stated that the Kitikmeot needs to have more supplies brought into the port. They discussed the possibility of stockpiling supplies in the event barges for community supply do not arrive on schedule. Participants stated the road may result in a cost-effect solution for community resupply of needed items, such as water trucks appropriate for Arctic weather.	GBRP 2025	The Project's potential positive and adverse effects on community resupply were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided.	For a summary of baseline information on community resupply, see Section 28.2.2.3. The effects of the Project on community resupply, including mitigation, enhancement, and management measures related to community resupply, are assessed in Section 28.3.5.
During project engagement in Cambridge Bay, hamlet representatives asked about the transportation of commercial goods and supplies. They expressed interest in being able to bring heavy equipment to the north, including water and sewage trucks to support the community.	GBRP 2025		
During early project engagement, attendees at a Project engagement session at Arviligruaq Ilinniarvik school in Kugaaruk inquired if the port would impact the resupplying of communities.	GBRP 2017		
During the March 2025 IAG workshop, Kitikmeot Inuit Association representatives expressed interest in creating economic development for Inuit and if the route was connected into the NT, this could allow supplies to be transported north all year round, and also lower costs of goods in the north for people.	IAG 2025a		

Comment	Source	WKR Response	Where Addressed
During the March 2025 IAG workshop, Kitikmeot Inuit Association representatives suggested that in the long-term a community could potentially be created near the port to address housing needs.	IAG 2025a	The Project's potential positive and adverse effects on housing and accommodation were described. Mitigation measures to limit or avoid (when possible) adverse effects were provided.	The effects of the Project on accommodation and housing availability, including mitigation, enhancement, and management measures related to accommodation and housing availability, are assessed in Section 28.3.3.
During a public scoping meeting for the NIRB, community members in Inuvik commented that the Project would bring a lot of people into the Inuvialuit Settlement Region, which already lacks existing housing and infrastructure to meet current demands. They expressed concern about further pressure on Inuvialuit communities and resources.	NIRB 2025a		
IAG members suggested fuel be provided to land users at Grays Bay and Jericho.	IAG 2025b	During IAG meetings, WKR offered to provide resources, shelter, fuel, etc. in support of hunters who provide predator control, but noted additional engagement with relevant stakeholders and agencies would be needed to advance this initiative. The Project's potential effects, including on Coast Guard, Coast Guard Auxiliary, and search and rescue services were described. Mitigation measures to limit or avoid (when possible) adverse effects and enhance positive benefits were provided. Measures include use of Project camps and shelters along Grays Bay Road for emergencies.	For a summary of baseline information on Coast Guard, Coast Guard Auxiliary, and search and rescue services, see Section 28.2.2.5. The effects of the Project on community infrastructure and access to public services or utilities, including Project infrastructure and services (e.g., safety features [e.g., lighting, shelters] associated with the road and port; small craft harbour) and mitigation, enhancement, and management measures related to community infrastructure and access are assessed in Section 28.3.2.
IAG members requested WKR provide fuel, food, and shelter to hunters who provide predator control.	IAG 2025b		

Comment	Source	WKR Response	Where Addressed
Kitikmeot Inuit Association previously identified Cambridge Bay as the "transportation centre for Nunavut."	RHA 2003	Cambridge Bay, Kugluktuk, and Yellowknife have been assumed as collection points for workers hired from the Kitikmeot Region. Yellowknife has been assumed as a transportation hub to supply the Project and for workers hired from outside of the Kitikmeot Region.	Assumptions for the assessment are outlined in Section 28.3.1.1
During a public scoping meeting for the NIRB, members of Gjoa Haven community inquired about what would happen with the Project once it is no longer in operation.	NIRB 2025a	The Project will be in operation in perpetuity.	Temporal boundaries are described in Section 28.1.4.2.

28.2.2.2 Housing

Housing Stock

A significant portion of housing stock in Nunavut is managed by the Nunavut Housing Corporation (NHC). Specifically, NHC is responsible for the provision of public[1], GN staff housing[2], and some private[3] housing within the territory. Housing associations in each community manage NHC housing at the local level. NHS is the primary entity for both building and managing housing, including developing new affordable and market-rate units (Nunavut Housing Corporation 2023a).

Nunavut's housing stock is dominated by publicly funded public and staff housing. As of March 31, 2023, there were 5,916 public housing units in Nunavut communities. Through the GN Staff Housing Program, the NHC provides support for the management of 1,728 staff housing units (Nunavut Housing Corporation 2023a). Table 28.5 provides the number of private dwellings in communities in the Kitikmeot Region from 2001-2021.

Table 28.5 Housing Stock (Private Dwellings) in the Kitikmeot Region 2001–2021

Year	Overall Kitikmeot Region	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
2001	1060	315	310	160	140	135
2011	1600	540	430	230	220	170
2016	1663	542	430	284	231	176
2021	1675	570	400	290	200	215
Percent Change (2016-2021)	1%	5%	-7%	2%	-13%	22%

In the Kitikmeot Region, the largest number of privately owned homes in 2021 were in Cambridge Bay (570) and the smallest number was in Kugaaruk (215). However, between 2016 and 2021, Kugaaruk saw the greatest increase (22%) in the number of privately owned homes within the Kitikmeot Region (Statistics Canada 2021). Local community members have expressed frustration when houses become available and are often purchased by businesses and used to house staff (Kitikmeot Inuit Association, Cambridge Bay, October 29, 2024, pers. comm.). This situation can make it even more difficult for community residents to acquire housing, even if they have the funds to purchase a home.

According to the 2022-2023 NHC Annual Report, there remains a substantial need for housing in Nunavut (Nunavut Housing Corporation 2023a). Members of communities in the Kitikmeot Region and other observers have indicated that there is a housing crisis. Construction of new housing is slowed down by the cost of materials, lack of local labour, the climate, and the remote location of the territory. The remoteness and climate of the Kitikmeot Region mean that the delivery of supplies can be infrequent and expensive (Kugluktuk Housing Association, Kugluktuk, November 8, 2024, pers. comm.; Kikitak Housing

[1] Public housing is government-subsidized, affordable rental housing managed by the Nunavut Housing Corporation (NHC)
[2] Staff housing is subsidized rental housing provided by NHC to term and indeterminate employees to assist in the recruitment and retention of staff and to facilitate the provision of programs and services to Nunavummiut
[3] Private housing is owned and sold or rented on the open market and it is very limited and expensive in Nunavut.

Association, Gjoa Haven, November 15, 2024, pers. comm.). These factors result in very short construction seasons and a requirement to plan housing construction and order supplies very far in advance.

In 2021, Nunavut had the highest incidence of core housing need amongst provinces and territories in Canada at 32.9% (CMHC 2024a). A household is in core housing need if its housing does not meet one or more of the adequacy, suitability or affordability standards and it would have to spend 30% or more of its before-tax income to access acceptable local housing. Overcrowding is a notable problem in Inuit communities. In 2016, over half (51.7%) of Inuit in Inuit Nunangat lived in crowded housing compared to 8.5% percent of non-Indigenous Canadians (Inuit-Crown Partnership Committee 2019). As of March 31, 2022, there were 3,021 applicants on the waitlist for public housing across Nunavut (Nunavut Housing Corporation 2023b).

In 2022, NHC launched Nunavut 3000, where they entered into a partnership with NCC Development Limited with a goal to deliver 3,000 new units across the territory over the next eight years (Nunavut Housing Corporation 2023a). As of December 31, 2023, 541 new housing units were started or completed and the work plan for 2024 included: construction of 80 new public and GN staff housing; 50 new supported housing units; 50 new affordable housing units; 50 new market units; and 300 new building permits each year across Nunavut (Nunavut Housing Corporation 2023b).

Residential construction in Yellowknife is challenging due to existing land titles and protections, which limit the usable land within the city. Housing development is made more difficult by environmental conditions, including rock outcrops, permafrost and unstable soil, as well as high construction costs and a short construction season (CMHC 2024b). Housing is expensive but considered relatively stable in comparison to other Canadian cities. In the second quarter of 2023, the average home price in Yellowknife rose to $505,286; an increase of 3.8% from the previous year but lower than the national average of $678,288 in 2023.

In October 2022, Yellowknife's vacancy rate for all rental units nearly doubled from the previous year from 1.8% to 3.5%. This is likely due to the high flow of migrants into and out of Yellowknife and the varying housing needs of these residents. Alternatively, a cause for the increase in vacancy rate could be the addition of 40 newly acquired condominium apartments that were not previously accounted for in the Canadian Mortgage and Housing Corporation (CMHC) dataset. Despite higher vacancy rates in 2022 compared to 2021, the overall vacancy rate was comparable to those observed over the last decade. The number of private apartments for rent in Yellowknife increased from 1,702 units in 2022 to 1,802 in October 2023 (CMHC 2024b). As of June 2023, there were 70 rental apartment units under construction. Upon completion, these units will increase the stock of rental apartments by roughly 4.1% (CMHC 2024b).

In 2021, 10.2% of total private households in Yellowknife were in core housing need. Core housing need is most prevalent among renters in Yellowknife and the main contributing factor to core housing need in 2021 was affordability (CMHC 2024c). According to CMHC, core housing need is highest amongst lone parent households, seniors, and Indigenous peoples (CMHC 2024b).

The housing needs of Yellowknife's senior population is an ongoing concern, as this demographic continues to grow. To help meet these needs, an additional 102 units of seniors' housing are being constructed as part of the Avens seniors' facility expansion. The new units were to begin accepting residents in October 2024.

Indigenous organizations indicate there is not enough housing for employees seeking to work, and that paying individuals to stay in hotels can be cost prohibitive. Individuals on-site will often live in camps at the property. High costs associated with hotels in Yellowknife have led organizations like the Tłı̨chǫ Investment Corporation to build temporary housing in Behchokǫ̀ and 250-bed facility in Yellowknife with a partner to address the housing shortage for its members (Tłı̨chǫ Investment Corporation, May 23 2025, pers. comm.). North Slave Métis Alliance is also constructing its own temporary accommodations for its members in Yellowknife (North Slave Métis Alliance, May 23, 2025, pers. comm.).

Emergency Shelters

Between 2020 and 2022, the number of emergency shelters (permanent facilities that provide temporary, short-term accommodation (typically less than three months in duration) for homeless individuals and families) in Nunavut increased from three to six. Four of the six shelters served men, one served families, and one served youth. As of 2022, there were 93 beds at Nunavut emergency shelters, 76% of which were designated for men (Infrastructure Canada 2024).

Kugluktuk and Kugaaruk each have one family domestic violence shelter for women and children. The shelter in Kugaaruk can accommodate three families and clients can stay for a maximum of six weeks (Tammaaquik Women's Centre, Kugaaruk, October 29, 2024, pers. comm.). Community members in Kitikmeot communities may be accommodated at shelters outside of their home communities if there are no shelters or beds available in their home communities; costs to travel to shelters outside of their home communities is paid for by the GN (Tammaaquik Women's Centre, Kugaaruk, October 29, 2024, pers. comm.).

As of 2025, additional shelter options were available in the Kitikmeot Region, including in Cambridge Bay and Gjoa Haven. In Cambridge Bay, the Kitikmeot Friendship Society operates a 14-bed shelter for women and children fleeing domestic violence and/or are challenged with homelessness. It also manages a transitional housing unit for single women. Use of these shelters has been consistent, but Friendship Centre staff typically see an increase in demand for service during the winter (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

The Omingmak Centre is a men's shelter in Cambridge Bay. It is the only men's shelter in the Kitikmeot Region, and it is funded primarily by the municipality. It opened in 2016 and has 14 permanent beds and two emergency beds. There have been times when the shelter has been at capacity and has had to turn clients away, particularly during winter months. During the warmer summer months, it is common for people experiencing homelessness to sleep in tents and cabins (Omingmak Centre, Men's Shelter, Cambridge Bay, November 5, 2024, pers. comm.).

Cambridge Bay also has a youth shelter for 12- to 20-year-olds (Cambridge Bay Wellness Centre, Cambridge Bay, November 5, 2024, pers. comm.).

Two shelters were opened in Gjoa Haven by the Kitikmeot Friendship Society in March 2025: one for men and one for women (CBC 2025). Hidden homelessness, referring to unhoused people who are not represented in homelessness statistics due to living with friends or relatives is common in Gjoa Haven and other Kitikmeot communities, particularly for men. Residents are hopeful that additional shelters and the Nunavut 3000 housing plan will alleviate homelessness in the Region (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

Temporary Accommodation

Temporary accommodations, such as hotels and motels, are limited in the Kitikmeot Region. As of July 2024, there were 13 hotels in the Kitikmeot communities with more than 100 rooms. Seven of these hotels were in Cambridge Bay and Kugluktuk. Yellowknife has approximately six hotels, two motels, six apartment hotels, and an estimated several dozen bed and breakfasts(City of Yellowknife 2024). Between 2022 and 2023, the number of private apartments for rent in Yellowknife increased from 1,702 units to 1,802, and in 2022, Yellowknife's vacancy rate was 3.5% (CMHC 2024b). The Visitor's Centre operates a tourism website "Extraordinary YK" which produces a visitors guide. The organization estimates the City has capacity for over 1,000 visitors at once (City of Yellowknife 2024). The peak tourism period for Yellowknife is during winter when tourists often travel to see the Aurora Borealis (Det'on Cho, May 22, 2025, pers. comm,).

28.2.2.3 Transportation and Community Resupply

Communities in Nunavut are typically separated by large distances and are not connected to each other or to the rest of Canada by all-season roads or rail links. Nunavut communities obtain their annual resupply of goods and materials primarily by ship (sealift) and plane. Several winter roads help supply mining projects in the Kitikmeot; however, there are no operating winter roads that supply Kitikmeot communities or that are open to the public in the Kitikmeot Region.

Marine Transportation and Sealift

Prior to creation of the jurisdiction of Nunavut, the Canadian Coast Guard provided organizational and logistical support in meeting Nunavut's dry cargo and bulk fuel requirements through a variety of carriers. The GN's Department of Community and Government Services is now responsible for annual dry cargo resupply, and the Petroleum Products Division is responsible for bulk fuel resupply.

Goods ranging from construction materials, vehicles, heavy equipment, house wares and non-perishable food items are typically shipped from Montreal or Hay River to communities in the Kitikmeot Region once or twice a year during the ice-free summer months. Many northern communities receive only one sealift per year, and orders must be made about a year in advance for anything required the following season, including heavy equipment, construction materials, dry goods, fuel, and vehicles (Transport Canada 2021).

Community resupply by ship typically occurs between late June and late October each year. Delivery schedules are published but are prone to changes, delays, and cancellations depending on weather, water levels, and port operations. Community members say they may wait months or years for some items, such as cars and building supplies. Sometimes, to retrieve an item they're expecting on the sealift, community members have had to travel to other communities and use qamutiiks (traditional Inuit sleds) to tow them by snowmobile to their own community.

The GNWT operates Marine Transportation Services (MTS) for marine resupply by barge along the Mackenzie River. MTS originates in Hay River and provides community resupply to communities in the Western Arctic in NT and the Kitikmeot communities of Cambridge Bay and Kugluktuk. However, the resupply of communities via MTS from Hay River has been challenged in recent years. For example, the 2018 barge resupply to Cambridge Bay and Kugluktuk from Hay River was cancelled as a result of impassable ice and bad fuel, resulting in the need to airlift goods and fuel into the communities for $4 million (ITK 2021a; Cabin Radio 2024). The 2023 and 2024 barging seasons to Cambridge Bay and Kugluktuk from Hay River were also disrupted by low water levels in the Mackenzie River (Cabin Radio 2024).

Air Service

Air service and related aviation infrastructure are essential lifelines for Inuit communities, and act as the sole year-round method of transportation for communities. With the exception of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo), all Kitikmeot communities are served by small, Transport Canada certified or registered airports. There are also several special purpose or private airstrips developed to serve resource projects located in isolated areas. There is only one commercial airline, Canadian North, that operates throughout Nunavut and the costs of air travel are high. The airline operates ATR-42 aircraft which can carry up to 42 passengers per flight. The airstrips are unpaved with gravel in the Kitikmeot Region. The Cambridge Bay and Kugluktuk airports previously supported jet aircraft that could land on the gravel airstrip, however Canadian North retired their larger aircraft serving the airports that were gravel equipped. (Hamlet Staff, Cambridge Bay, November 5, 2024, pers. comm.). The region is also serviced by several charter aircraft companies, primarily based in Yellowknife.

The total number of aircraft movements at airports in the Kitikmeot Region in 2018 was 13,162, up 12% from 11,710 in 2014 (Statistics Canada 2020a).

It has been reported that air transportation infrastructure in Inuit Nunangat is aging and inadequate, and often includes short, gravel airstrips, poor airstrip lighting, older fuel-inefficient jets, and lack of basic weather and navigation aids (ITK 2021b). It is also very expensive to resupply communities via air freight rather than relying on sealift (or roads, if they existed). If there are weather delays or airplanes can't arrive in communities on time, then perishables may no longer be fit for consumption. Further details regarding the availability and cost of store-bought food are presented in Section 10.4 in the People and Communities Baseline Report (Appendix 25A).

The City of Yellowknife considers itself a supply and transportation hub for the northern region of Canada. The Government of the Northwest Territories operates the Yellowknife Airport with regular commercial aircraft connections (e.g., Air Canada, West Jet, Canadian North, Air Tindi) as well use by other charter and cargo aircraft. The Yellowknife Airport is a full-service airport that supports commercial, corporate,

and general aviation. It is the central hub for the NT airport system and provides regularly scheduled air service to local communities, western Nunavut, and southern Canada. Fixed wing aircraft and helicopter charters operating out of Yellowknife or Inuvik operate in the study area within Nunavut. Charters may operate for construction, tourism and other operations in the area around Yellowknife and the Kitikmeot Region.

Aircraft movements at the Yellowknife Airport – total itinerant and local movements- for the period from 2019 to 2024 shows that aircraft movements in the year prior to the COVID-19 pandemic were 50,146 movements and fell to 35,348 aircraft movements in 2020. In the years since, aircraft movements have steadily recovered, first rising to 43,677 in 2021 and reached 53,519 in 2023. Aircraft movements were lower in 2024 at 51,251 (Statistics Canada 2025).

The number of passenger movements at the Yellowknife Airport has been growing. Between 2022 and 2023, passenger numbers increased 15%. The airport passenger volume increased 18% since 2023 reaching 604,000 passengers. The Government of Northwest Territories attributes the growth to increased regional travel, expanded airline routes, more travel frequencies, and heightened interest in tourism (GNWT 2025).

The Yellowknife Airport is developing a new terminal building in conjunction with funding partners such as GNWT. The airport is also working with the federal Department of National Defence to determine its interests in expansion within the airport area. An interview with the Regional Airport Manager also indicated that cargo airlines are also interested in expansion plans since storage space or hangers can be a limitation on deliveries. A timeline for expansion of the terminal or other infrastructure is not confirmed as it depends on funding and other NT transportation priorities (Yellowknife Airport, May 5, 2025, pers. comm.). The Yellowknife Airport is a logistics hub for resource projects in the region (Yellowknife Airport, Yellowknife, May 5 2025, pers. comm.).

Local Transportation

Local transportation within Kitikmeot communities is characterized by use of snowmobiles, all terrain vehicles, and personal boats. Cars and trucks are present within communities, although snowmobiles and all terrain vehicles are more commonly used. Personal boats, snowmobiles, and all-terrain vehicles are also used for hunting, fishing, visits to camps, and inter-community travel.

The City of Yellowknife is connected to the Canadian road network through NT Highway 3 which connects to southern locations. The closest major Canadian city to Yellowknife is Edmonton, which is approximately 1,450 kilometres (km) to the south, or approximately 14 hours direct drive.

NT Highway 4 is known locally as the Ingraham Trail. The approximately 70 km all-season highway serves as a connection to territorial parks, an all-season road access to the community of Dettah, and some dispersed properties to the east. In the winter, an ice road connects Yellowknife to the community of Dettah across Yellowknife Bay.

The Tibbitt to Contwoyto Winter Road (TCWR) is a major ice highway that starts at the northern terminus of NT Highway 4 / Ingram Trail and traverses about 400 km before terminating at the Ekati diamond mine. When the Jericho Mine in Nunavut was operating, the winter road extended another 195 km north of the

Ekati diamond mine. At present, the road is licensed under a 30-year license of occupation (LOC), which authorizes the TCWR to Lupin Mine, held under LOC 075M/11-01 – Tibbitt to the Nunavut/Northwest Territories (NU/NT) border, and LOC 02RN037 – NU/NT border to Lupin Mine. Since the Lupin Mine closed, this portion of the winter road has only been open sporadically. The TCWR provides resupply or equipment and material to the Ekati and Diavik diamond mines, which are otherwise dependent on air-freight for resupply. The winter road is operated by the Joint Venture Management Committee (JVMC) consisting of the Ekati and Diavik diamond mines. Construction begins in mid-December and the TCWR is open from approximately February to March each year, although the timeline varies by condition. Access to the TCWR is restricted to drivers who have completed the JVMC safety orientation and the road is patrolled 24 hours a day during operations. Use of the TCWR is governed by speed limits and vehicle spacing requirements (JVTC Winter Road 2025).

The TCWR is approved to transport 12,000 trucks annually. Historical winter road statistics indicate that an average of 6,605 northbound truckloads and 549 southbound backhauls used the TCWR from 2002-2012. Use of the TCWR reached 10,922 northbound truckloads in 2007. The lowest number of northbound truckloads was 3,508 northbound truckloads in 2010 (JVTC Winter Road 2025).

There are no rail services that connect to Yellowknife and none within the Kitikmeot Region.

28.2.2.4 Emergency Services

The GN's Nunavut Emergency Management (NEM) division is responsible for safety and emergency preparedness in Nunavut. NEM oversees the provisions of search and rescue operations and emergency preparedness. Emergency services (i.e., ambulance, policing and fire services) within Kitikmeot communities are provided either by the agencies and departments of the GN (e.g., Health and Social Services, Community and Government Services), or by the local (hamlet) municipal governments. Emergency call centres that are dialed using 9-1-1 are not available in Nunavut; rather, people contact emergency services using a specific toll-free emergency number from the GN's Nunavut Emergency Management (GN n.d.).

All Kitikmeot communities have access to an on-call air ambulance service to transport people requiring emergency health care to facilities in Yellowknife or further south. Terrestrial ambulance services are available in Cambridge Bay, Taloyoak, and Kugaaruk, serving their local health centres with refurbished ambulances having been supplied by southern Emergency Medical Services (EMS) (Canadian Press 2020; Taylor 2023). Each of the five Kitikmeot communities has a Royal Canadian Mounted Police (RCMP) detachment and a firefighting service provided by a volunteer force (Department of Community and Government Services 2023; RCMP 2025).

Policing

The RCMP, in collaboration with the GN, is responsible for the safety and security of the residents of Nunavut. The RCMP 'V' Division is headquartered in Iqaluit and operates 25 detachments in communities throughout the territory. The Kitikmeot Region has an RCMP detachment in each of its communities, except for the seasonal communities of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) (RCMP 2025).

Between 2019 and 2023, the number of police officers in Nunavut increased from 162 to 176. In 2023, the number of police officers per 100,000 population was 344.2, down from 347.6 in 2019. The Crime Severity Index (CSI), which tracks changes in the severity of police-reported crime in Canada, was 379.68 in 2023 compared to 371.82 in 2019. The CSI in Nunavut was much higher than the national CSI in 2023 of 78.10 (Statistics Canada 2023, 2024).

Between 2015 and 2018, the total number of criminal violations in the Kitikmeot Region increased from 1,963 to 2,671. Cambridge Bay had the highest number of total violations in the Region, followed by Kugluktuk (Statistics Canada 2020b).

There are 21 RCMP detachments in NT, 11 of which are in fly-in remote communities. There is one detachment in Yellowknife.

In 2022, NT had the highest overall police-reported crime, property crime, and 'other' Criminal Code offenses rates across Canada, along with the second-highest rate of violent crime offenses. Property crime constitutes the greater part of the NT's crime rate. The comparatively high reported crime rate in NT is influenced in part by the small population and the high ratio of police per capita (the highest of all provinces and territories) which likely contributes to a higher level of reporting (GNWT 2023). In 2023, the rates of all criminal code violations (per 100,000) were 7.3 times greater in Yellowknife compared to Canada overall. On a per capita basis, violent criminal code violations are five times more prevalent in Yellowknife; sexual assault is three times more prevalent in Yellowknife; and sexual violations against children is over two times as prevalent in Yellowknife compared to the national rates per 100,000 persons.

Between 2019 and 2023, the number of police officers in NT increased slightly from 194 to 195 and the police-civilian ratio increased from 1:2.3 to 1:2.6. The number of police officers per 100,000 population in NT was 436.5 in 2019 and 433.6 in 2023. The Crime Severity Index increased from 389 in 2019 to 437 in 2023 (Statistics Canada 2023).

Fire Services

Fire protection services in Nunavut are governed by the *Nunavut Fire Prevention Act* and managed by the GN Department of Community and Government Services. The Department consists of three regional offices that work with the Office of the Fire Marshal, Emergency Measures Organizations, and building technical standards/safety inspectors to manage fire protection in the territory (Department of Community and Government Services 2023).

More than half of Nunavut communities have identified a need for new fire halls or major renovations to existing fire halls. Some fire halls have no running water and/or lack adequate space for equipment and personnel. Nunavut's limited water supply also presents challenges when fighting fires (Nunavut Tunngavik Incorporated 2020). In 2023, there were 140 fires in Nunavut communities, 16 of which occurred in the Kitikmeot Region (Department of Community and Government Services 2023).

Yellowknife Fire Division (YKFD) provides fire, rescue and EMS to the residents of Yellowknife. It is staffed by a full-time complement of personnel who are trained in fire/rescue and EMS. These include 28 operational staff, 20 paid-on-call volunteer positions and four volunteer public educators. The dispatch

unit has a staff of four dispatchers and a dispatch supervisor. The YKFD receives approximately 5,000 calls per year for emergency medical assistance, motor vehicle incidents, fire alarm investigation, fires, hazmat (dangerous goods), rescue and miscellaneous calls for assistance with explosions, and smoke odors, among others. Most calls are for emergency medical response (ambulance) (Behr Energy Services Ltd. 2016).

Five-year average call volumes (January to December 2019-2023) indicate average call volumes of 5,157 per year, of which 4,035 were for EMS (City of Yellowknife Fire Services 2024).

28.2.2.5 Education and Childcare

Nunavut Early Learning and Child Care promotes early childhood development and early learning for children 0 to 6 years of age. It provides guidance and support to licensed childcare facilities to comply with the *Child Day Care Act* and regulations. In Nunavut in 2018-2019, there were 55 licensed childcare facilities operating in 21 communities with 1,144 spaces (Department of Education 2019). During the 2022-2023 school year, the number of childcare centres in Nunavut increased to 60 with 1,243 childcare spaces. Of these, 215 were in Kitikmeot communities (Representative for Children and Youth's Office 2023). In 2023, there were 10 licenced childcare centres in the Kitikmeot Region (GN 2025).

It has been reported that Nunavut has among the most significant shortages of childcare spaces in Canada (Nunavut Tunngavik 2020). In Iqaluit in 2018, it was estimated there was a two-year waitlist for licensed childcare spaces. In smaller Nunavut communities, there can be issues finding and retaining employees to staff childcare facilities (Nunavut Tunngavik 2020).

In Nunavut, including the Kitikmeot Region, the provision of kindergarten through to post-secondary schooling is the responsibility of the GN. The GN Department of Education is responsible for 45 schools with nearly 11,000 students and 827 teachers, and 10 offices across Nunavut. Kindergarten to grade 12 schooling is available in each Kitikmeot community. In 2021, there were eight schools in the Kitikmeot Region with a total of 2,025 students (Department of Education 2021).

In the 2018-2019 school year, Nunavut schools saw an increase in full-time student enrolment of 2.9% over the previous year; however, schools in the Kitikmeot Region saw a decrease in enrolment of 0.2%. In Kugaaruk, for example, the student population was estimated at around 500 students; due to absenteeism, the actual number may vary and class attendance is often half the student population (Community Member, Kugaaruk, October 30, 2024, pers. comm.). Absenteeism is very high across the Kitikmeot Region (Netsilik Ilihakvik, Taloyoak, November 19, 2024, pers. comm.).

Some Nunavut schools are not fully staffed or lack administrators. Communities with limited staff housing have often experienced challenges in recruiting educators. During the 2018-2019 school year, though, the number of teaching positions increased by 5.0% (Department of Education 2019).

Post-secondary education in Nunavut is offered through Nunavut Arctic College (NAC) which has five campuses, one of which is in Cambridge Bay. NAC provides university-level transfer, certificate, and diploma programs. NAC also provides trades training, educational assessment, and counselling. Degree programs are currently offered through partnerships with educational institutions in other Canadian jurisdictions.

There were an estimated 35 to 50 students enrolled at the NAC Kitikmeot Campus in Cambridge Bay in the 2024-2025 school year. Enrollment in courses at the campus is limited by the availability of student housing in the community. In general, there is low attrition among courses offered at the Kitikmeot Campus (Nunavut Arctic College, Cambridge Bay, December 16, 2024, pers. comm.).

NAC also operates Community Learning Centres (CLC), which are in all 25 communities of Nunavut. Each CLC is staffed by an Adult Educator who can provide information and guidance to anyone seeking further education (NAC 2024) (Nunavut Arctic College, Taloyoak, November 19, 2024, pers. comm.).

In Yellowknife, there are 66 operating licensed childcare centres, 48 of which participate in the Child Care Fee Reduction Subsidy program. Five of the 66 centres are also classified as Family Day Home programs (GNWT n.d.).

Yellowknife Education District No.1 is the public school board for Yellowknife. The district has six elementary schools (including K'àlemì Dene School), one middle school, and one high school. Other schools fall under the Yellowknife Catholic Schools board, which operates two schools and one high school (Yellowknife District No.1 2024; Yellowknife Catholic Schools 2024).

Aurora College's North Slave Campus is in Yellowknife. This post-secondary institution provides literacy and career, university, and college preparation programs. Other programs include early learning and childcare, adult education, office administration, Northern Leadership Development Program, and nursing programs, including a B.Sc. in Nursing, Practical Nurse, Personal Support Worker, and Community Health Representative (NAC 2024). Not all post-secondary programs are available in Yellowknife; Aurora College has skilled trades programs in Fort Smith, and some people travel to Alberta for college or university (Deton'cho Corporation, Yellowknife, May 22, 2025, pers. comm.).

28.2.2.6 Marine Infrastructure and Services

Marine infrastructure such as ports and harbours is limited in Nunavut. Nunavut opened its first deepwater port in 2023 in Iqaluit which enables direct cargo transfer to shore. All other cargo or cruise ships must be offloaded from ships to barges or smaller craft to enter communities (APTN News 2023). Operational challenges also include a lack of navigational charts for some areas of the territory.

Coast Guard and Coast Guard Auxiliary

The Canadian Coast Guard (CCG) is responsible for providing search and rescue service within the Arctic region of Canada. The CCG Arctic Region serves the Kitikmeot Region and is based in Yellowknife. A Marine Communications and Traffic Services office is in Iqaluit, while the Kitikmeot Region is served by the Arctic Marine Response Station in Rankin Inlet which is a seasonal base of operations. Seasonal stations are open typically from April to December, based on weather and ice conditions (Canadian Coast Guard 2025). There are currently no response bases in the Kitikmeot Region. There is a limited number of Canadian Coast Guard staff present in Cambridge Bay to provide operational and logistic support for operations (Canadian Coast Guard, Cambridge Bay, December 3, 2024, pers. comm.).

The Coast Guard Auxiliary is a volunteer organization that partners with the CCG to provide local guidance, community information, and search and rescue support. The Canadian Coast Guard Auxiliary Central & Arctic was established in 1978 to provide voluntary maritime Search and Rescue (SAR) and the promotion of safety in a support role to the CCG (Canadian Coast Guard Auxiliary 2025). The Cambridge Bay Auxiliary is a non-profit organization that consists of a 12-14-person unit with a 28-foot Silver Dolphin boat, a building and gear. One additional personal boat is also available, if required. The volunteers are on stand-by during the ice-free months, and they run training activities.

Search and Rescue

SAR capabilities are provided by a range of organizations in Nunavut, including community-based Ground Search and Rescue teams, CCG, CCG Auxiliary units, Marine SAR societies, Civil Air SAR Association members, and the Canadian Rangers (Kikkert et al. 2021). Each community has its own volunteer SAR team that is tasked by NEM, which has jurisdiction over SAR in the territory. NEM provides funding for fuel, food, and equipment repairs. The department offers a Nunavut-based SAR training program where groups receive GPS and InReach GPS and beacon devices once completed. A local volunteer-based SAR system is seen as beneficial given the great distances, lack of federal and territorial resources, and due to the intimate local knowledge that volunteers have of local geography and sea and ice conditions (Kikkert et al. 2021).

The GN Emergency Measures Office provides coordination and resources (e.g., courses, equipment) to SAR organizations in Nunavut. The organization also has plans in place for emergencies with cruise ships (e.g., oil spill, passengers needing to disembark for emergency).

The Cambridge Bay Auxiliary is a non-profit organization that consists of a 12-14-person unit with a 28 foot Silver Dolphin boat, a building and gear. One additional personal boat is also available, if required. The unit supports the Coast Guard if they need individuals to help with search and rescue during ice-free months. The Auxiliary may also support land-based operations when others are not available (Cambridge Bay Coast Guard Auxiliary member, November 5, 2024, pers. comm.).

The Kugluktuk SAR organization maintains readiness in case of an emergency request for assistance. The organization identified that as more individuals explore the Northwest Passage in individual boats, or are exploring the land (e.g., canoeing down the Coppermine River, hiking south on the land), the potential for calls increases (Canadian Coast Guard Auxiliary, Kugluktuk, November 8, 2024, pers. comm.). An organization member identified that they use a cabin at the Wentzel River to stage SAR and as a landmark along the coast. Individuals also use the cabin if they are lost and need SAR to find them (Canadian Coast Guard Auxiliary, Kugluktuk, November 8, 2024, pers. comm.).

Historically the Kugluktuk SAR was run by volunteers with snowmachines and availability; however, over time the group began to receive GN funding support. Currently, there are approximately six to eight people who volunteer with Kugluktuk SAR (Canadian Coast Guard Auxiliary, Kugluktuk, November 8, 2024, pers. comm.).

Table 28.6 provides an overview of SAR cases in the Kitikmeot Region based on annual reports from 2015-2019 (Kikkert et al. 2021)

Table 28.6 Public SAR cases in the Kitikmeot Region by community. Nunavut Emergency Management, Annual Reports 2015-2019

	2015	2016	2017	2018	2019
Cambridge Bay	4	1	2	2	2
Kugluktuk	2	0	0	1	6
Kugaaruk	4	6	11	5	7
Taloyoak	17	11	14	11	27
Gjoa Haven	22	33	22	20	24

Source: Kikkert et al. (2021)

Canadian Rangers

The Canadian Rangers, a sub-component of the Canadian Army Reserve, also have a presence in the Kitikmeot Region (GOC 2023). Members in Kitikmeot communities operate jointly with other Canadian Rangers in Nunavut and participate in patrols and monitoring functions in Northern Canada. The Rangers may also support search and rescue operations if requested (GOC 2023; Community Elders, Cambridge Bay, November 3, 2024, pers. comm.).

Deep Water Ports

There are no deep water ports in the Kitikmeot Region. Annual sealifts for community resupply anchor offshore and barge goods, including heavy equipment and seacans, to barge landings in the Kitikmeot communities (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.).

Small Craft Harbours

There are no small craft harbours in the Kitikmeot communities, although some exist in other Nunavut communities. Private boats are typically moored offshore or hauled out of the water when not in use, and brought on shore during the winter months.

28.2.2.7 Utilities

Hamlets for each community in the Kitikmeot Region and the City of Yellowknife supply utilities such as water, sewage, and solid waste management for community members. Communities are being challenged by increasing populations and demand for services.

Water and Sewage

Despite having freshwater resources, Nunavut has limited access to clean drinking water due to geographic, economic, and infrastructure challenges. The cold climate means that communities must rely on surface water, rather than groundwater, which is subject to seasonal melting.

Every community in the Kitikmeot Region has a water treatment plant to treat freshwater for household consumption. Approximately 85% of water treatment infrastructure throughout Nunavut is aged and in poor condition, although the age of water treatment plants varies (Nunavut Tunngavik Incorporated 2020).

Nunavut is largely reliant on trucked water and only 14% of Nunavut residents are served by piped water (Nunavut Tunngavik Incorporated 2020). Water services in Kitikmeot communities are similarly reliant on truck delivery; the Hamlet of Cambridge Bay is the only Kitikmeot community with buried water pipes that connect the water treatment plant to certain buildings in the community, including the schools, and the health centre (Hamlet Staff, Cambridge Bay, November 5, 2024, pers. comm.). The rest of Cambridge Bay and the other Kitikmeot communities depend on trucked water delivery, which often struggles to keep up with growing demand.

The delivery of water services can also be challenged by labour shortages, as the lack of water truck drivers leads to delays and inconsistencies in delivery. Overcrowding in homes and inadequate housing construction can present additional barriers to drinking water access. Households relying on trucked water are vulnerable to running out of water before water tanks are refilled (ITK 2020).

Every community in the Kitikmeot Region relies on trucked wastewater conveyance systems, whereby stored sewage is picked up from users by vehicle and taken to a treatment facility, and a sewage lagoon from which effluent is discharged through the surrounding landscape (Nunavut Tunngavik Incorporated 2020).

Water and wastewater services are provided by the City of Yellowknife through the Public Works and Engineering Department. Water is obtained from surface water sources at Yellowknife Bay on Great Slave Lake and the Yellowknife River, based on demand (City of Yellowknife 2024). Most water and wastewater services in Yellowknife are directly provided to homes through underground infrastructure.

Certain neighbourhoods and commercial buildings at the Yellowknife Airport and along Old Airport Road receive truck water delivery and sewage pump out. Approximately 680 residents (4%) of the community and 1,600 individuals at commercial/industrial businesses receive truck water delivery and sewage pump out.

Solid Waste

Solid Waste Management in Nunavut is the joint responsibility of the Department of Environment and the Department of Community and Government Services. There are 25 landfills operating in Nunavut and each Kitikmeot community has its own landfill, which are fenced-in above ground dumps (Gogolek 2020). More than half of dumps in Nunavut are in poor or very poor condition and beyond their design capacity (Nunavut Tunngavik Incorporated 2020).

Yellowknife's waste management system includes a solid waste facility, as well as programs for recycling and organics. The landfill began accepting waste in 1974. At the time of writing Yellowknife's 2018 Strategic Waste Management Plan, it was estimated there was 10 years of capacity remaining at the current disposal rate (City of Yellowknife 2018). In the spring of 2024, the City of Yellowknife began a $6.7 million pan to extend the landfill's lifespan by ten years.

Fuel

Fuel, including transportation fuel such as diesel, fuel for community electricity generation, and heating fuel for homes is shipped to Kitikmeot communities during annual resupply and stored at tank farms in the communities. Heating fuel is delivered to homes by truck by the contract holder. In Kugaaruk, this

contract is held by the Koomiut Co-op, which shared that fuel storage and delivery may be challenged by equipment breakdowns, fuel leaks, and unexpected costs (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.).

Electrical generation in Yellowknife is provided by Northwest Territories Power Corporation at the hydroelectric dam on Jackfish Lake. Local electricity distribution is provided through Nak Power (Yellowknife) Ltd. – Northland Utilities.

28.2.2.8 Community Programs and Recreation

The GN's Sports and Recreation Division is responsible for implementing the Nualiit Aulajut Framework, which was designed to reflect Inuit way of life, culture, and societal values (GN 2024). The framework is deeply rooted in Inuit societal values and promotes hunting, hockey, sewing, soccer, dancing, drumming, badminton and berry picking, which are common activities enjoyed by many Inuit living in Nunavut (GN 2024).

Community Programs

Community programs in the Kitikmeot Region play an important role in supporting residents' well-being, offering services to youth, Elders, mothers, and other potentially vulnerable populations. Hamlets manage recreation spaces such as community halls and ice rinks/arenas and provide programming, including community festivals, recreation activities, and events; counselling and addictions services; food security programs such as soup kitchens and regular lunches; and Elders- and youth-specific programming (Hamlet Staff, Cambridge Bay, November 5, 2024, pers. comm.; Hamlet Staff, Taloyoak, November 19, 2024, pers. comm.; Hamlet Staff, Gjoa Haven, November 14, 2024, pers. comm.; Hamlet Staff, Kugaaruk, October 31, 2024, pers. comm.).

The Hamlet of Kugluktuk Department of Healthy Living also provides a range of programs, including "Elder programming, youth programming, prenatal programming, [and] alcohol and drug programming" (Hamlet Staff, Kugluktuk, November 7, 2024, pers. comm.). Programs like the Elder's cabin provide a dedicated space outside the community for Elders to gather, fostering intergenerational connections with youth: "Some of the funding we've attached to that has been around Elders and youth interactions" (Hamlet Staff, Kugluktuk, November 7, 2024, pers. comm.).

Other community-driven programs focus on wellness and social support. The Kitikmeot Friendship Society, a non-profit organization whose mission is "to create a healthy community where residents feel supported and have access to a variety of services, programs and skills that will help to enhance their lives", operates programs in all five Kitikmeot communities. These programs include shelters and transitional housing for women and children, healing programs, resource centres, and programming for youth and for girls in Cambridge Bay. Funding constraints pose a challenge to sustaining and expanding community programs. While organizations like the Kitikmeot Friendship Society provide important community services, securing consistent financial support remains an ongoing struggle (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.). Some initiatives, such as the Elder's cabin project in Kugluktuk, rely heavily on fundraising (Hamlet Staff, Kugluktuk, November 7, 2024, pers. comm.).

Recreation Programs and Facilities

The Kitikmeot communities each have basic recreation facilities, including gymnasiums, community halls, and ice rinks/arenas. However, one of the biggest challenges for community programming in the Kitikmeot Region is the lack of adequate facilities and spaces for activities. For example, there is only one gym in Cambridge Bay that serves over 2,800 people (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.) and it also does not currently have a youth centre.

In Kugaaruk, several community facilities, including the school, were destroyed in a fire in February 2017, although the school has since been rebuilt. School buildings may also serve as additional recreational spaces, but their use is limited to out of school hours. The demand for recreation space has outpaced supply in Kitikmeot communities.

Accessibility to recreation facilities is a concern in Kitikmeot communities, especially for individuals with disabilities. Many community spaces remain inaccessible to those with mobility impairments, and there is a lack of services for residents with visual or hearing impairments (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).

28.2.2.9 Telecommunications and Internet

Nunavut is the only Canadian province or territory without access to broadband delivered by fibre cable, although the Canadian Radio-television and Telecommunications Commission proposed building a fibre optic cable to deliver high-speed Internet to Nunavut communities in 2023 (GOC 2024). GEO satellite is one way Nunavut residents can connect to the Internet, despite it being significantly slower and less reliable than fibre-delivered internet. As of 2018, the fastest possible speed available in Nunavut (15 Megabits per second (Mbps)) is eight times slower than the Canada-wide average. As of 2022, Starlink became available to Nunavut with download speeds between 95-170 Mbps, although the cost to purchase Starlink may be a barrier to some (Zafar 2022).

28.2.3 Summary of Baseline Information on Sub-Populations for Gender Based Analysis Plus

The impacts of colonialism and other factors have contributed to poor socio-economic conditions in Nunavut and Kitikmeot communities, including an infrastructure gap when compared to the rest of Canada. The infrastructure deficit in the Kitikmeot Region affects all Kitikmeot residents. In particular, a shortage of housing, substandard housing conditions, and overcrowding affects many Kitikmeot residents. Some sub populations may be affected by a lack of community infrastructure and services disproportionately:

- Women+ who experience gender-based violence, domestic violence, and housing insecurity may experience challenges seeking emergency shelters in the Kitikmeot Region due to limited number of shelters and beds and the potential need to travel to other communities to access these services. Inuit women are more likely to experience gender-based violence or violent crime than the average Canadian woman (Pauktuutit 2020). Women+ may also be affected by insufficient capacity of RCMP officers in some Kitikmeot communities to respond to calls regarding gender-based and domestic violence.

- Men+ who experience housing insecurity may experience challenges seeking emergency shelters in the Kitikmeot Region due to limited numbers of shelters and beds. The Omingmak Centre in Cambridge Bay is the only men's shelter in the Kitikmeot Region and is often at capacity.
- A large proportion of people in the Kitikmeot live below the poverty line in crowded households. Public housing is subsidized based on income; however, low income-individuals may struggle to pay rent and bills to operate the household.
- Accessibility to recreation facilities is a concern in Kitikmeot communities, especially for individuals with disabilities. Many community spaces remain inaccessible to those with mobility impairments, and there is a lack of services for residents with visual or hearing impairments (Kitikmeot Friendship Society, Cambridge Bay, November 14, 2024, pers. comm.).
- Hamlets provide specific services for Elders and youth, including specific programming and facilities, and a youth council in certain communities. Recreational facilities for youth are limited in Kitikmeot communities. For example, there is currently no youth centre in Cambridge Bay.

28.3 Assessment of Project Effects on Infrastructure and Services

28.3.1 Analytical Assessment Techniques

The assessment of effects on infrastructure and services, including the assessment of Project-related effects and cumulative effects, was conducted in accordance with the methods set out in Volume 4, Section 9: Effects Assessment Methodology. As described in Section 28.1.2, the assessment on community infrastructure and services is informed by Inuit, Indigenous, and Community Knowledge and engagement feedback. Disproportionate effects on key subsets of the population have been assessed through a GBA Plus approach further described in Section 28.2.2.1.

The assessment on infrastructure and services involves both quantitative and qualitative methods. Potential effects are estimated by calculating additional demand associated with direct Project requirements (e.g., Project demand for landfills as a result of waste generated onsite, Project demand for accommodation and housing, number of trucks using the TCWR to supply the Project). This additional demand is then compared to available capacity, in consideration of relevant standards. The assessment also involves qualitative description of pathways and residual effects that may arise from the Project based on available information.

The assessment of effects on community infrastructure and services draws on conclusions from other VCs and uses analytical assessment techniques identified in Traditional Land, Marine, and Resource Use (Section 24), Food Security and Food Sovereignty (Section 25), Community Health and Well-being (Section 26), Employment and Economy (Section 27), and Non-Traditional Land, Marine, and Resource Use (Section 29).

There are some uncertainties associated with the availability of information, data analyses, and interpretation of data that exist and these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an adverse effect and understating a positive effect.

28.3.1.1 Assumptions

The following assumptions have been made to support the assessment on community infrastructure and services:

- The Project is anticipated to directly employ approximately 200 to 500 people per year during the five-year Construction phase. Construction phase workers will be employed on a fly-in/fly-out rotational schedule. During Construction, there will be four temporary mobile camps and two stationary camps, one at Grays Bay port and the other at Jericho Station. Each stationary camp will accommodate up to approximately 80 people and each mobile camp will accommodate up to approximately 40 people, including construction, supervisory, and technical personnel.
- The total operational workforce based at the port site will include approximately 20 personnel for port operations, approximately 22 personnel for road operations, and approximately 12 personnel for Jericho operations. Operations and Maintenance phase workers will be employed on a fly-in/fly-out rotational schedule. During Operations and Maintenance, there will be permanent camps at Grays Bay Port and Jericho Station. The Grays Bay Port will have accommodations capacity of up to 80 people with additional short-term capacity for up to around 150 persons and Jericho Station will have accommodations capacity of up to 40 people.
- It is also expected there will be indirect employment associated with Project Construction and Operations and Maintenance phases.
- The workforce will be hired from the Kitikmeot Region and NT, where practical, and from southern Canada. ***Non-resident*** Project workers will use commercial airlines to mobilize to Yellowknife and will stay there in the short term (e.g., one night) and transit to and from Project Site using charter aircrafts. Therefore, it is assumed that non-resident workers will not transit through Kitikmeot communities.

  Resident Project workers will use commercial airlines to mobilize to collection points in the Kitikmeot communities of Cambridge Bay and Kugluktuk, or travel to Yellowknife, where they will stay there in the short-term (e.g., one night) and transit to and from Project Site using chartered aircrafts.
- It is anticipated that most direct labour during Construction will likely come from outside the five Kitikmeot communities (approximately 15% of the Construction workforce is expected to comprise Nunavut residents). This is driven by large Project labour demands relative to existing employment in ‘trades, transport and equipment operators and related occupations’ across the Kitikmeot communities, as well as the specialized nature of port construction and expectation that some skilled trades will not be present in the region. Most Operations and Maintenance workers are anticipated to be residents of Kitikmeot communities, over time (approximately 50-100% of the Operations and Maintenance workforce is expected to comprise Nunavut residents). Some skilled workers (e.g., engineers, heavy equipment operators) may have to be sourced from outside the Kitikmeot communities.

- It is assumed that out-of-region workers and their families will not relocate to the LAA during Construction because it is short-term work. It is anticipated that most Operations and Maintenance workers will be residents of Kitikmeot communities, and therefore the Project will not depend on a substantial out-of-region workforce to meet Project demands. If an out-of-region workforce is required during Operations and Maintenance, it is assumed that the majority of these workers and their families will not relocate to the LAA during Operations and Maintenance. During Construction and Operations and Maintenance, non-resident workers will be accommodated during shifts at existing work camps in the PDA through fly-in/fly-out rotations.
- Operations and Maintenance of the Grays Bay Road will consist of Project-related ground transportation between the port and areas of the road for maintenance, security and environmental monitoring. Resupply will also occur for the maintenance camps along the road route. Potable water and fuel required at Jericho Station may be trucked from the port weekly or as required. Based on anticipated demand, one to two trips per week are anticipated on the Grays Bay Road.
- The road and port (including the small craft harbour) will be accessible for local and regional use. Access to the road will be controlled.

28.3.2 Project Interactions with Infrastructure and Services

Table 28.7 identifies, for each potential effect, the Project activities that might interact with the VC and result in the identified effect. These interactions are indicated by a check mark (anticipated effect) or a dash (no anticipated effect) and are discussed in detail in the following sections, in the context of effects pathways, standard and Project-specific mitigation measures, and residual effects.

Table 28.7 Project Interactions with Infrastructure and Services

Project Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Construction				
Mobilization/demobilization of machinery /equipment, vehicles, materials, and fuel (e.g., by barge, sealift, boat, or road)	-	-	✓	✓
Staging and storage of materials, fuel, equipment and prefabricated components	-	-	-	-
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓	✓	-	-

Project Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Machinery/equipment and vehicle refuelling / fuel storage handling	-	-	-	-
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	-	-	-	-
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	-	-	✓	✓
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	-	-	-	-
Water withdrawal to support Construction activities (e.g., winter road Construction, dust control, material compaction)	-	-	-	-
Watercourse crossing construction (e.g., bridge and culvert installation)	-	-	-	-
Ground based transportation (e.g., workforce, materials, supplies)	-	-	✓	✓
Air transport (e.g., personnel transport, resupply)	-	-	✓	✓
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	-	-	-
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refuelling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	-	-	✓	✓
Procurement of goods and services; employment of workers	✓	✓	✓	✓

Project Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	-	-	-	-
Operations and Maintenance				
Port landside operations (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operation and maintenance).	-	✓	✓	✓
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	-	✓	✓	✓
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	-	-	-	-
Desalination operation and wastewater treatment (e.g., marine water use and effluent discharge)	-	-	-	-
Water withdrawal / use (e.g., potable water, dust control, maintenance)	-	-	-	-
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	✓	✓	✓	✓
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	-	-	-	-
Vessel Fuel Line / Refuelling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	-	-	-	-
Equipment maintenance	-	-	-	-
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-

Project Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Winter road construction and use (e.g., annual winter road construction and maintenance)		-	✓	✓
Air transport (e.g., personnel transport, resupply)	✓	✓	✓	✓
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓		-	-
Procurement of goods and services; employment of workers	✓	✓	✓	✓

Notes:
✓ = Potential interaction
– = No interaction

The potential interactions between Project activities and infrastructure and services were considered for the Construction phase and the Operations and Maintenance phase of the Project. The identification of Project activities and their potential interactions was based on Inuit, Indigenous, and Community Knowledge, the professional judgment of socio-economic impact assessment practitioners involved in the assessment, and a review of known existing conditions. The selection of interactions is also informed by the potential effects and effects pathways for each VC, as described in Section 28.1.3. Interactions are discussed in the Project residual effects and cumulative residual effects assessments that follow.

Project activities that are not anticipated to interact with Infrastructure and Services are those that do not result in an increase in demand on infrastructure and services in the LAA. Activities for each Project phase will have labour requirements, which could affect community services and infrastructure. However, it is not possible to isolate the effects of individual activities related to local spend Therefore, these effects are addressed collectively as part of the “procurement of goods, and services; employment of workers” activity for each phase.

A summary of key feedback shared by Kitikmiut and other potentially affected communities relevant to infrastructure and services and available at the time of filing is consolidated in Table 28.4 and has been integrated into this assessment where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

28.3.3 Change in Community Infrastructure and Access to Public Services or Utilities

28.3.3.1 Project Effects Pathways

Project activities during Construction and Operations and Maintenance may increase demand on community infrastructure and access to public services or utilities for populations in the LAA.

Utilities

Project activities such as the establishment and operation of work camps, water withdrawal to support construction activities, and the operation of Grays Bay Port and Jericho Station will require water, power, and wastewater management. Due to the location of the Project (i.e., 180 km from the nearest Kitikmeot community and 420 km from Yellowknife) and through Project design (i.e., the Project will draw water from freshwater lakes near the PDA and have on-site water treatment and wastewater systems, the Project will have diesel power plants to provide power at Grays Bay Port and Jericho Station), Project activities will not draw on the existing water, wastewater management, and power generation infrastructure in the LAA communities. Increased demand on water, wastewater, and power generation infrastructure and capacity is therefore not assessed further.

Non-local project workers are unlikely to move permanently to the LAA, including Yellowknife, for short-term construction work or during the Operations and Maintenance phase. Some workers may transit through Yellowknife and the Kitikmeot communities of Cambridge Bay and Kugluktuk on their way to and from work camps and are not expected to be in these locations for an extended period. However, they may increase demand on community infrastructure and public services or utilities, including water and wastewater services, while staying at temporary accommodations during transit. Change in accommodation and housing availability is discussed in Section 28.3.4.

Project-related employment may affect the capacity of public services or utilities in the LAA. Individuals in skilled positions in the LAA communities, such as wastewater or water management positions, may choose to leave these positions to pursue Project employment. This could result in gaps in the provision of some services in LAA communities, such as water delivery and wastewater conveyance by truck.

During Construction and Operations and Maintenance, the Project will generate hazardous and non-hazardous solid waste. Solid waste will be stored, incinerated and/or transferred to facilities for disposal. Transfer of waste to facilities will increase demand on these facilities.

Emergency Services

The Project workforce could increase demand on emergency services, including ambulance and police services, in the LAA in the event of medical emergency requiring evacuation from site or during transit to site. As needed, Project workers may be evacuated to medical facilities in Yellowknife, which may place additional demands on emergency services, including ambulances, in Yellowknife. Increased demand on health and medical infrastructure and services and air transportation infrastructure and services, which may affect medical travel for Kitikmeot community members, is addressed in Volume 9, Section 26: Community Health and Well-being.

Volume 9, Section 26: Community Health and Well-being also assesses how Project-related employment and income could increase harmful coping mechanisms (e.g., substance use) for community members in the LAA. This may in turn increase demand on police services in Kitikmeot communities and Yellowknife if project-related income is spent on drugs and alcohol or through undesirable social interactions between residents of the LAA and out-of-region workers during transit. Due to the Project location, community-based fire services are not anticipated to be drawn upon in the event of a fire at site.

Education and Childcare

Non-local project workers are unlikely to move permanently to the LAA, including Yellowknife, for short-term construction work or during the Operations and Maintenance phase. Therefore, it is unlikely that the Project will result in Project-related population growth and associated increases in demand on local schools or daycare facilities. Residents of the LAA who obtain employment on the Project may require the use of daycare for their children, which would increase demand on daycare spaces in LAA communities.

Community Programs and Recreation Facilities

During short-term transit (i.e., for one night) through Yellowknife and the Kitikmeot communities of Cambridge Bay and Kugluktuk on their way to and from work camps, there is the potential for Project workers to use community programs and recreation facilities.

Coast Guard and Search and Rescue

Project construction will result in new land- and marine-based infrastructure in the RAA, which may increase the number of commercial ships, community members, Project workers, and visitors to the Kitikmeot Region traveling through the land and marine environment. In turn, this may increase demand on Coast Guard, Coast Guard Auxiliary, and search and rescue services in the event that travelers require assistance in unfamiliar terrain or during adverse weather events. New land- and marine-based infrastructure will be available for use by Coast Guard, Coast Guard Auxiliary, and search and rescue services, which may improve SAR services.

28.3.3.2 Mitigation, Management, and Enhancement Measures

The Project has been designed to reduce demand on community infrastructure and public services or utilities in the LAA. During Construction and Operations and Maintenance, project workers will reside in temporary and permanent accommodation camps that are remote from existing communities, while working fly-in/fly-out rotations. This will reduce the demand on community infrastructure and public services or utilities by the out-of-region workforce.

Project design includes solid waste storage (i.e., non-hazardous landfill), incineration, and transfer (i.e., hazardous waste) facilities. These areas will have sufficient space for safe handling of the volume and type of material anticipated, including contingencies for additional storage space where transfer, treatment, or disposal may be interrupted or delayed. Where waste is transferred, it is likely that solid waste will be transported to waste management facilities in either Yellowknife or Quebec. WKR will not transport solid waste to landfills in the Kitikmeot communities in the LAA.

The following mitigation, enhancement, and management measures will be implemented to reduce the effects of the Project on community infrastructure and access to public services or utilities in the LAA during Construction and Operations and Maintenance:

- A Waste Management Plan will be developed and implemented for Construction and Operations and Maintenance.
- Details of management and operation of incinerators will be included in the Waste Management Plan.
- Establish a Human Resources Plan and provide updates within the annual socio-economic report (topics such as employment/training annual survey, employee housing (voluntary survey results), cross-cultural awareness training results to eliminate barriers on site and make training available to employees and on-site contractors).
- The Human Resources Plan will include:
  - WKR will develop and implement a Travel Policy in the event that personnel transiting to/from the Project site are overnighting, or are weathered-in, in a community. The Travel Policy will describe Company expectations of personnel and consequences of improper actions while travelling, and include plans for accommodation, meals, use of community medical services, and other needs for personnel during potential travel delays.
  - WKR will implement a No Drug and Alcohol Policy which will apply to all personnel and contractors on-Site, at work camps, and during transit through communities.
  - WKR will develop and implement a Health, Safety, Security, and Environment (HSSE) plan. The HSSE plan will include:
    - safety training requirements for personnel
    - security procedures
    - response procedures
- WKR will develop and implement a Health and Medical Services Plan, which will include:
  - prevention and management measures for injuries, infection, and disease.
  - a description of medical and first aid services available to personnel at Site, including first-aid/medical staff and a medical clinic
  - medical emergencies response, including medical emergencies requiring evacuation
  - workplace health promotion program, including an Employee and Family Assistance Program (EFAP) and an Inuit Employee Assistance Program (IEAP) where appropriate resources exist
- The Labour Relations Strategy will increase local Inuit and youth employment to reduce the need to transport personnel from outside of the region.
- A Training Strategy will be developed and implemented to identify specific skill requirements for employment on the Project and to work with local and regional training and educational facilities to increase opportunities for local Inuit employment, and to implement on-the-job training and apprenticeship programs.
- WKR will consider providing on-site recreation opportunities to employees.

- Safe travel facilities will be provided and maintained at the port and at Jericho Station.
- WKR will provide emergency services and shelters along the road. Permanent and Temporary Camps will also serve as emergency shelters.
- A Risk Management and Emergency Response Plan for all phases of the Project will be developed and implemented.
- WKR will be as self-sufficient as reasonably practicable for Search and Rescue (SAR) operations and response to environmental emergencies as it relates to Project activities, and will inform relevant authorities as needed to inform and coordinate responses as required.
- WKR will indicate in the Risk Management and Emergency Response Plan any notification protocols with local search and rescue community groups and the CCG or CCG Auxiliary, including protocols or compensation requirements for utilizing these resources for Project-related searches, if required.
- A Socio-economic Monitoring Program (SEMP) will be developed and implemented. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

28.3.3.3 Project Residual Effect

The Project may result in some positive residual effects on community infrastructure and public services or utilities from project-related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests, including community infrastructure and public services or utilities. Additional information on project-related revenue, taxes, and funding is discussed in Volume 9, Section 27: Employment and Economy.

Utilities

The Project may contribute to increased demand on waste facilities in the LAA. Solid waste will be transported to waste management facilities in either Yellowknife or Quebec, which would increase demand on waste facilities in the LAA community of Yellowknife. WKR will not transport solid waste to landfills in the Kitikmeot communities in the LAA, so there will be no increased demand on these facilities as a result of the Project. In 2018, it was estimated that Yellowknife's landfill had the capacity to accept waste for 10 more years at the current disposal rate and the City of Yellowknife is currently expanding the facility to extend its lifespan to 2034 (Lamberink 2024). The Project may therefore increase demand on the Yellowknife landfill; however, it is not anticipated to exceed available capacity for waste disposal.

An assessment of the effects of the Project on competition for workers is included in Volume 9, Section 27, Employment and Economy. In the context of public services and utilities in the LAA, the Project could contribute to capacity issues through recruitment of workers from communities in the LAA. Kitikmeot communities are already challenged by staffing issues to provide services such as water delivery and wastewater conveyance to/from homes by truck (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.). Individuals in skilled positions in the LAA communities, such as water and wastewater truck drivers, may choose to leave these positions to pursue Project employment. As Kitikmeot communities are largely reliant on truck deliveries for water and sewage

services, this could exacerbate gaps in the provision of some services in LAA communities. During primary research, one community member described how recruitment of skilled workers in the communities affects the provision of public services and utilities:

> *"You have the hamlet running around trying to find operators and drivers to get water and sewer done [...] [One community member who works at B2Gold] makes almost $300,000 a year for six months […] His father, who was our fuel man in town, he saw what his son was making. He left the fuel, gone to the mine. Now we have unreliable fuel delivery service at times, because you can't find people who want to work" (Kikiak Contracting, Kugluktuk, November 9, 2024, pers. comm.).*

Another community member stated:

> *"I think it's possible that we would experience a brain drain because of a project like this" (Kikitak Housing Association, Gjoa Haven, November 15, 2024, pers. comm.).*

While the Project will aim to enhance the local and Inuit workforce, it is expected that most of the construction workforce will be sourced from outside of Nunavut, which will ease pressure on the Kitikmeot and Nunavut labour force. Further, high unemployment levels in the Kitikmeot Region relative to territorial and national averages indicate that Project-related competition for workers and subsequent effects on wage inflation are anticipated to be limited through employment and training opportunities for those currently unemployed. Mitigation, management, and enhancement measures will promote education and training for local and Inuit workers, especially youth, to support the creation of new employment rather than compete for those currently employed.

Emergency Services

Potential effects of the Project on access to health services and facilities, including effects on medical travel, are assessed in Section 26 (Community Health and Well-Being).

Potential effects on emergency services (i.e., police services) in communities in the LAA will be reduced by having the Project labour force residing at project camps during shifts rather than in the Kitikmeot communities or Yellowknife. Out-of-region project workers will transit through Yellowknife, and Kitikmeot workers may transit through Cambridge Bay, Kugluktuk, or Yellowknife on their way to and from the camps and workers are not expected to be in these communities for an extended period of time. As a result, it is unlikely that workers will rely on emergency services while in transit, unless under exceptional circumstances.

The Project workforce may increase demand on police services in the Kitikmeot communities and Yellowknife if employees purchase and consume drugs and alcohol and interact with residents of the LAA improperly during transit to and from the Project site. Improper behaviour related to consumption of substances such as alcohol during transit and while off-shift could require police response, as alcohol is a primary driver behind call volume for the RCMP (RCMP, Cambridge Bay, November 4, 2024, pers. comm.; RCMP, Kugluktuk, November 8, 2024, pers. comm.; RCMP, Gjoa Haven, November 14, 2024, pers. comm.; RCMP, Taloyoak, November 18, 2024, pers. comm.; RCMP, Kugaaruk, October 29, 2024, pers. comm.). Currently, RCMP detachments in some communities in the

LAA are operating at or beyond their capacity. For instance, increasing call volume and vacant positions at RCMP detachments in Cambridge Bay and Kugluktuk are straining the capacity of these detachments to manage calls for service (Department of Community and Government Services 2023; RCMP 2025; RCMP, Cambridge Bay, November 4, 2024, pers. comm.; RCMP, Kugluktuk, November 8, 2024, pers. comm.). WKR will implement a Drug and Alcohol Policy which will apply to all personnel and contractors on-Site, at work camps, and during transit through communities. Implementation of the Drug and Alcohol Policy will reduce demand on police services as a result of potential substance use by workers who are transiting through Yellowknife, Cambridge Bay, and Kugluktuk. WKR will also develop and implement a Travel Policy if personnel transiting to/from the Project site are weathered in in a community. Implementation of the Travel Policy will govern personnel behaviour in LAA communities during travel delays, including acceptable social interactions with residents.

Due to the relative sizes of the Construction workforce and Operations and Maintenance workforce, demand on police services as a result of the Project may be greater during the Construction phase. However, incremental increases in demand are still likely to occur during the Operations and Maintenance phase.

Education and Childcare

Residents of the LAA who obtain employment on the Project may require long-term childcare while they are on shift. Local Project employees are likely to rely on family members for long-term childcare; however, families may require daycare for children during weekdays. This would increase demand on limited daycare spaces in LAA communities. Due to the relative sizes of the Construction workforce and Operations and Maintenance workforce, demand on daycare spaces because of the Project is likely to be greater during the Construction phase. However, incremental increases in demand are still likely to occur during the Operations and Maintenance phase.

Community Programs and Recreation Facilities

During transit through Yellowknife and the Kitikmeot communities of Cambridge Bay and Kugluktuk on their way to and from work camps, the Project workforce may increase demand on community programs and recreation facilities. However, workers are not expected to be in these locations for an extended period and increased demand on these programs and facilities is anticipated to be negligible compared to current use.

Due to the relative sizes of the Construction workforce and Operations and Maintenance workforce, demand on community programs and recreational facilities because of the Project is likely to be greater during the Construction phase. However, incremental increases in demand are still likely to occur during the Operations and Maintenance phase.

WKR will consider providing on-site recreation opportunities to employees.

Coast Guard, Coast Guard Auxiliary and Community Search and Rescue Services

The construction of new land- and marine-based infrastructure in the RAA may increase the number the of commercial ships, community members, Project workers, and visitors to the Kitikmeot Region traveling through the land and marine environment. An increase in marine shipping could increase demand on CCG and CCG Auxiliary services for navigational support, icebreaking, and SAR.

WKR will provide emergency services and shelters along the road corridor and at temporary and permanent camps at the Grays Bay Port and Jericho Station. The recommendation to include emergency refuge locations along the road and at the port was suggested during 2024-2025 EIS engagement by an individual in Gjoa Haven to support search and rescue operations (GBRP 2025). The existing cabin at Wentzel River (approximately 12 km east of Grays Bay Port) is used as a shelter by community SAR organizations and community members who require SAR assistance (Canadian Coast Guard Auxiliary, Kugluktuk, November 8, 2024, pers. comm.) and will not be affected by the Project.

To reduce dependency on CCG and SAR services by Project workers, WKR will implement an Emergency Response Plan and will be as self-sufficient as reasonably practicable for SAR operations and response to potential environmental emergencies as it relates to Project activities. WKR will also inform relevant authorities to inform and coordinate responses as required.

Project Operations and Maintenance will also increase land- and marine-based infrastructure available for use by Coast Guard, Coast Guard Auxiliary, and search and rescue services during SAR events. During community-based primary research, individuals saw potential benefits for usage of the port and road for search and rescue purposes:

> *“Well, I'm thinking, like, obviously, if there's a port, there's going to be resources and food and probably shelter and a hot building and hot water. So if they [SAR providers] have to go all the way, let's say, to Bathurst Inlet and they don't go by plane, and they go by skidoo or whatever else, or boat, I think having a port there won't hurt because it’s just one more pit stop that they can go to to refuel, sleep, or whatever it is” (RCMP, Kugluktuk, November 8, 2024, pers. comm.).*

Land-based port infrastructure, including lights at port facilities, will improve wayfinding along the Grays Bay coast. A member of the CCG Auxiliary in Cambridge Bay described how the port can aid in navigation during SAR events:

> *“On a personal level, it could be a pit stop location. Just even a place with lighting makes a big difference when you are out in the middle of nowhere and you know where that is, right? I see nothing but positive if this thing goes through. Even if there is street lights or buildings – at Hope Bay they have lights. You can see those lights when it is dark 150 kilometres away. ‘Hey, there is Hope Bay, I know there is something there.’ It reinforces that – I’m not 200 kilometres from my community anymore, I am 80 kilometres from something” (Canadian Coast Guard, Cambridge Bay, December 3, 2024, pers. comm.).*

28.3.3.4 Residual Effects on Sub-populations identified through Gender-Based Analysis Plus

The Project is not anticipated to increase demand on utilities, emergency services, and community programs and recreation facilities for key sub-populations identified through GBA Plus disproportionately. However, limited daycare spaces in LAA communities may present a barrier for residents of the LAA in accessing employment on the Project. This barrier is likely to be experienced disproportionately by women+.

The Project may affect some community members in the LAA disproportionately depending on community location. As out-of-region workers may transit through Yellowknife, and Kitikmeot workers may transit through Cambridge Bay, Kugluktuk, or Yellowknife, increased demand on police services and community programs and recreation facilities are more likely to occur in these communities than in the eastern Kitikmeot communities. Through recruitment of workers from communities in the LAA, the Project may contribute to capacity issues of public services and utilities in the LAA. Effects on capacity to provide public services and utilities would affect the Kitikmeot communities more than Yellowknife, as Kitikmeot communities are almost entirely reliant on trucked water delivery and wastewater conveyance and already experience staffing issues (Judy Hill Memorial Health Centre, Taloyoak, November 20, 2024, pers. comm.).

Positive and adverse effects on Coast Guard and SAR services may affect hunters and trappers and men+ disproportionately. Hunters and trappers are more likely to be on the land than other community members and may benefit from increased infrastructure to facilitate SAR services. They may also be adversely affected by increased demand on these services. Hunters and trappers are more likely to be men+ than women+.

28.3.4 Change in Accommodation and Housing Availability

28.3.4.1 Project Effects Pathways

Construction of the Project will increase land- and marine-based infrastructure available in the RAA for use for community resupply, including delivery of building materials. This infrastructure may facilitate delivery of construction materials, which in turn may support the construction of additional housing and accommodations in the LAA. Currently, the Kitikmeot Region experiences housing shortages due in part to the challenges of acquiring materials to build additional homes as well as the Region’s short construction season. The Project would further extend the construction season in the Kitikmeot Region by enabling mobilization at the start of the ice-out period in July, rather than waiting for the annual sealift around September when the weather conditions begin to deteriorate, potentially saving a year in a typical construction schedule. Operation of the Grays Bay Road and land-based port infrastructure including buildings for supply storage would create new infrastructure for transporting goods and materials to the LAA via ground-based transportation.

Project activities during Construction and Operations and Maintenance may increase demand on temporary accommodations in the LAA. This effects pathway is associated with the use of temporary accommodations (i.e., hotels, motels) in communities through which workers transit on their way to and from the Project and project work camps.

It is not anticipated that out-of-region workers will relocate to communities in the LAA during Construction and Operations and Maintenance phases of the Project. Project-related population growth due to in-migration and associated increases in demand on permanent accommodation are therefore not anticipated to occur.

28.3.4.2 Mitigation, Management, and Enhancement Measures

The Project has been designed to reduce demand on accommodation and housing availability in the LAA. During Construction, there will be four temporary mobile construction camps and two permanent accommodations, one at the port in Grays Bay and the other at Jericho Station. Considering the work rotation schedule, the capacity of these six camps is anticipated to accommodate all workers during each phase of construction. Operations and Maintenance phase workers will also be employed on a rotational schedule. This will eliminate the Project-related need for housing accommodations in LAA communities.

WKR will develop and implement a Travel Policy in the event that personnel transiting to and from the Project site are weathered in in a community. The Travel Policy will include plans for accommodation, meals, use of medical services, and other needs for personnel.

WKR will develop and implement a SEMP. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

28.3.4.3 Project Residual Effect

All Project Construction workers will be accommodated at the work camps. During Operations and Maintenance, the workforce will likely not exceed 20 persons and will also be accommodated at the camps. The provision of camps will reduce effects on the existing supply of accommodation and housing in the LAA, which is already not meeting the demand for housing in the Kitikmeot Region.

There is a substantial need for housing in Nunavut to address overcrowding and core housing needs (Nunavut Housing Corporation 2023a). The Nunavut Housing Corporation is constructing additional housing through the Nunavut 3000 program, which is expected to add 3,000 new housing units in the territory over the next eight years.

During community-based primary research, community members shared that construction of new homes takes approximately two years to complete due to the time it takes to order and transport building supplies and the short construction season (Nunavut Housing Corporation, Cambridge Bay, November 6, 2024, pers. comm.). Construction of the Project will increase land- and marine-based infrastructure available in the RAA for use for community resupply (see Section 28.3.6), including delivery of building materials for housing construction This could expedite the construction of new homes and aligns with the objectives of Nunavut 3000. Community members shared that, through the construction of

new infrastructure and improved supply routes, the Project could shorten the length of time it takes to construct new homes:

> *"Right now you have to get your building supplies this September in order to build next summer. So if you could speed up that process and get building supplies in June, July, you'd have a jump on the season, right? Because it's very short construction season." (Kitikmeot Community Futures Incorporated, Cambridge Bay, November 6, 2024, pers. comm.)*

> *"If we had permanent sealift services at Grays Bay, it would really just cut down on [time to get supplies] to the communities. We'd have more sailings into the communities, and especially with the communities growing now, and that prime example is the public housing program, building 3000 units supposed to be by 2030 […]So [if] we're able to have our own sealift service out of there, it would drastically cut down on wait times and the cost" (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.).*

The Project may result in some positive residual effects on accommodation and housing availability as a result of Project-related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests, including accommodation and housing in Kitikmeot communities.

The Project may require temporary accommodations in communities through which project workers transit on their way to and from the Project and project work camps. Temporary accommodations, such as hotels and motels, are limited (13 hotels) in the Kitikmeot Region. During the Construction phase, personnel will be mobilized to and from the Project worksites via air charter from select local airports. Project employees and contractors in the Kitikmeot communities will be mobilizing from their home communities on commercial airlines and gathering at a staging airport for their charter to the construction camps. These staging communities will likely be Cambridge Bay, Kugluktuk, as well as Yellowknife, which has 14 hotels and motels and an estimated several dozen bed and breakfasts. Temporary accommodations in these staging communities may see heightened demand during regularly scheduled shift rotations and if workers are weathered in in a community.

The Project is anticipated to directly employ approximately 200 to 500 people per year on a rotational schedule during the Construction phase. It is anticipated that most of the direct labour during Construction will likely come from outside the five Kitikmeot communities. Out-of-region workers are anticipated to transit through and spend one night in Yellowknife. There would therefore be a greater increase in demand on temporary accommodations in Yellowknife than the communities in the western Kitikmeot Region during the Construction phase.

The operational workforce will also be employed on fly-in/fly-out a rotational schedule and will include approximately 54 personnel. Most Operations and Maintenance workers are anticipated to be residents of Kitikmeot communities, who may transit through Cambridge Bay and Kugluktuk on their way to site. This may result in a greater increase in demand on temporary accommodations in the communities in the western Kitikmeot Region than Yellowknife during the Operations and Maintenance phase, although the increase in demand will be less than during the Construction phase based on workforce requirements.

WKR will implement a Travel Policy to mitigate adverse effects on temporary accommodations in the LAA if personnel transiting to and from the Project site are weathered in in a community. The Travel Policy will include plans for accommodation, meals, use of medical services, and other needs for personnel.

28.3.4.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

There is a recognized housing crisis in Nunavut and an existing shortage of housing, substandard housing conditions, and overcrowding affects many Kitikmeot residents. Positive residual effects of the Project on accommodation and housing availability through improvements to transportation infrastructure and community resupply, which may facilitate construction of new housing in the LAA will benefit all Inuit and community members in the Kitikmeot Region. This may specifically benefit vulnerable sub-populations who are challenged in obtaining adequate housing, including low-income families, youth, and Elders who experience the greatest housing needs. Project-related income may also contribute to the ability of Kitikmeot residents to purchase a home in the LAA.

The Project is not anticipated to affect availability of temporary accommodations for key sub-populations identified through GBA Plus disproportionately. However, it may affect community members in the LAA disproportionately depending on community location. During community-based research, community members identified that increased infrastructure in the RAA and the potential transport of goods and materials from the Grays Bay Port to the Kitikmeot communities may benefit Cambridge Bay and Kugluktuk more than the communities in the eastern part of the Kitikmeot Region because of their proximity to the Project. For example, the manager of the Taloyoak Housing Authority was skeptical that the Project would improve community resupply in Taloyoak (Taloyoak Housing Authority, Taloyoak, November 18, 2024, pers. comm.).

As out-of-region workers may transit through Yellowknife, and Kitikmeot workers may transit through Cambridge Bay, and Kugluktuk, increased demand on temporary accommodations is more likely to occur in these communities than in the eastern Kitikmeot communities. As most of the direct labour during Construction will likely come from outside the five Kitikmeot communities and out-of-region workers will transit through Yellowknife, increased demand on temporary accommodations is more likely to occur in Yellowknife than the communities in the western Kitikmeot Region during the Construction phase.

28.3.5 Change in Transportation Infrastructure

28.3.5.1 Project Effects Pathways

Project activities may increase demand on existing transportation infrastructure. During Construction, Operations and Maintenance, equipment and materials will be transported to the port area by sealift and/or barge on a yearly basis in summer/fall. Currently, there are no deep water ports in the Kitikmeot Region. Annual sealifts for community resupply anchor offshore and barge goods, including heavy equipment and seacans, to barge landings in the Kitikmeot communities (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.). As barge landing and laydown areas will be established for offloading and storage of equipment and materials at the port area, use of barge landings in the Kitikmeot communities will not be required. Potential effects of the Project on sealift capacity for community

resupply are assessed in Section 28.3.6. Potential effects of the Project on change in marine access and navigation in the Kitikmeot Region are considered in Section 29: Non-Traditional Land, Marine, and Resource Use.

Starting in Year 2 of Construction, equipment and materials will be mobilized from Yellowknife to Jericho Station using the TCWR and construction of a new winter road that connects Jericho Station to the TCWR. Equipment and materials will be mobilized as required using the TCWR and new winter road during the Operations and Maintenance phase. Mobilization of equipment and materials to Jericho Station will increase demand on the TCWR during Construction and Operations and Maintenance. Vehicle traffic including heavy vehicles and transport trucks that are traveling on the Grays Bay Road from Yellowknife will increase demand on the TCWR during Operations and Maintenance. Due to the Project's location, increased demand on community road infrastructure in the LAA is not anticipated to occur.

Mobilization of personnel and goods and materials (i.e., consumables) to resupply the Project, including construction and operations camps, will increase demand on existing air transportation infrastructure. Personnel hired from the Kitikmeot Region will mobilize to designated pick-up points in Cambridge Bay, Kugluktuk, and Yellowknife using commercial air carriers and will be transported to the Project site using charter flights. Personnel hired from outside of the Kitikmeot Region will mobilize to Yellowknife using commercial air carriers and will be transported to the Project site using charter flights. Goods to resupply the Project via air freight will be staged out of Yellowknife and delivered directly to the Project site using the aerodrome at Grays Bay Port or Jericho Station. Potential effects of the Project on air freight capacity for community resupply are assessed in Section 28.3.6. Project Construction will increase land- and marine-based infrastructure available for use in the RAA. Construction of marine-based port infrastructure including large and medium vessel wharves, barge landing area, and small craft harbour, Grays Bay Road, and aerodrome would create new transportation infrastructure in the Kitikmeot Region. This new transportation infrastructure would be connected to Yellowknife through annual construction of a winter road that connects Jericho Station to the TCWR.

28.3.5.2 Mitigation, Management, and Enhancement Measures

The Project has been designed to reduce increased demand on transportation infrastructure in the LAA. Grays Bay Road will be a controlled access, multi-user, multi-use private road. WKR will control and monitor access to the Grays Bay Road at both the Grays Bay Port and Jericho Station. Access will be monitored through use of sign-in and radio check-in to promote safety of all users.

The following mitigation, enhancement, and management measures will be implemented to reduce the effects of the Project on transportation infrastructure in the RAA during Construction and Operations and Maintenance:

- Construction activities will be scheduled to reduce disruption to public and commercial vehicle access on winter roads where practical.
- Efficient project planning will be used to reduce haul distances and the number of trips required to move road construction materials.
- Speed limits will be posted on the road.

- WKR will develop and implement a Road Management Plan through engagement with the Kitikmeot Inuit Association, Hunters and Trappers Organizations, and Government of Nunavut. As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local Inuit populations. These plans will include provisions for access to the road, airstrip, and associated facilities. Clear access protocols, developed in consultation with the Kitikmeot Inuit Association, are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by harvesters.
- The Road Management Plan will include spill kit requirements, refueling procedures and training requirements for road users.
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.
- WKR will work with local and territorial governments and regional businesses to reduce interference on the TCWR and, if possible, coordinate joint supply efforts
- WKR will prioritize flying community members hired from the Kitikmeot Region to a central hub, such as Cambridge Bay or Kugluktuk, and then flying them to the site where practical.
- WKR will provide transportation for its workforce from designated points of hire directly to the site, wherever feasible.
- A SEMP will be developed and implemented. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

28.3.5.3 Project Residual Effect

The mobilization of equipment and materials from Yellowknife to Jericho Station via the TCWR and new winter road will increase demand on the TCWR during Construction and Operations and Maintenance. Currently, the TCWR is open for approximately two months per year to resupply the Ekati and Diavik diamond mines. Starting in Year 2 of Construction, the Project will require approximately 1,000 trucks to transport construction materials, fuel, and equipment to Jericho Station during each winter road season.

During the Operations and Maintenance phase, the Project will require approximately 28 trucks to transport equipment and materials to Jericho Station during each winter road season. Vehicle traffic including heavy vehicles and transport trucks (e.g., for community resupply) that are traveling on Grays Bay Road from Yellowknife will increase demand on the TCWR during Operations and Maintenance. This will increase the number of vehicles/day using the TCWR. However, Project traffic on the TCWR during the Construction and Operations and Maintenance phases represents approximately 15% and 0.4%, respectively, of average annual traffic on the TCWR and is within the total number of trucks that the TCWR is approved to transport (see Section 28.2.2.3).

WKR will work with local and territorial governments and regional businesses to reduce interference on the TCWR. Construction activities will be scheduled to reduce disruption to public and commercial vehicle access on the TCWR, where practical, and the Project will be planned to reduce haul distances and the number of trips required to move road construction materials. During the Operations and Maintenance

phase, access to the Grays Bay Road at Jericho Station will be controlled, which may limit the type of vehicles (e.g., transport trucks vs personal vehicles) and reduce the number of vehicles travelling on the TCWR to access the Grays Bay Road. Access to the TCWR is restricted to drivers who have completed the JVMC safety orientation and use is governed by speed limits and vehicle spacing requirements. Similarly, speed limits will be posted on the Grays Bay Road and the Road Management Plan will include training requirements for road users. Access will also be monitored through use of sign-in and radio check-in the promote safety of all users.

The mobilization of personnel and goods and materials (e.g., consumables) to resupply the Project using air transportation will increase demand on air transportation infrastructure in the LAA. Air transportation infrastructure is limited in the Kitikmeot Region. WKR will implement measures to reduce potential effects on air transportation infrastructure in communities in the Kitikmeot Region. Personnel hired from the Kitikmeot Region will mobilize to designated pick-up points in Cambridge Bay, Kugluktuk, and Yellowknife using commercial air carriers and will be transported to the Project site using charter flights. The mobilization of personnel hired from the Kitikmeot Region to the Project may increase the number of aircraft that use air transportation infrastructure in Cambridge Bay and Kugluktuk beyond current conditions, depending on the frequency with which aircraft transit through these communities.

Prioritizing flying community members hired from the Kitikmeot Region to a central hub will limit increased demand on air transportation infrastructure in communities in the eastern Kitikmeot Region. However, additional charter flights to transport personnel hired from communities in the eastern Kitikmeot Region directly to site may be provided based on the number of employees living in other Kitikmeot communities and the suitability of commercial air service for those employees.

Personnel hired from outside of the Kitikmeot Region will mobilize to Yellowknife using commercial air carriers and will be transported to the Project site using charter flights. Goods to resupply the Project via air freight will be staged out of Yellowknife and delivered directly to the Project site using the aerodrome at Grays Bay Port or Jericho Station. During Construction, the Project will require approximately 26 small aircraft (e.g., Twin Otter) at peak from Years 0-3 and 48 medium aircraft (e.g., Dash 7) at peak from Years 3-5 to resupply the Project. During Operations and Maintenance, the Project will require six small aircraft and 26 medium aircraft to resupply the Project. Mobilization of out-of-region workers and goods to resupply the Project from Yellowknife to the Project site directly will avoid use of air transportation infrastructure in the Kitikmeot Region. However, this will increase demand on air transportation services in Yellowknife.

The Yellowknife Airport serves as a logistics hub for commercial, corporate, and general aviation in the western Arctic and has paved airstrips. The number of aircraft movements and number of passenger movements at the Yellowknife Airport have increased in general since 2019. Aircraft movements reached 53,519 in 2023 and decreased to 51,251 in 2024 (Statistics Canada 2025). The Yellowknife Airport is developing a new terminal building and considering an expansion of its infrastructure. The mobilization of personnel and goods and materials to the Project will increase the number of aircraft that use air transportation infrastructure in Yellowknife beyond current conditions; however, increased demand is expected to be within the current capacity of the Yellowknife Airport as the airport previously operated at a higher volume in 2023 and based on aircraft movements and planned expansion of its infrastructure.

Project Construction will increase land- and marine-based infrastructure available for use in the RAA. Construction of marine-based port infrastructure including large and medium vessel wharves, barge landing area, and small craft harbour, Grays Bay Road, and aerodrome would create new transportation infrastructure in the Kitikmeot Region. This new infrastructure would not be connected to any communities in the Kitikmeot Region; however, community members may travel to the Project site to use this infrastructure (e.g., small craft harbour, Grays Bay Road). Grays Bay Road would be connected to Yellowknife through annual construction of a winter road that connects Jericho Station to the TCWR. Access to Grays Bay Road from Yellowknife would be limited to the winter road season.

IAG members recommended heated shelters be made available for hunters and monitors, water transport be provided for hunters without boats to support community members gaining access to the port, and suggested marked trails for safe winter travel to the port could be an option to consider (IAG 2025b). WKR indicated they could work with the community to support these initiatives. It was further suggested that the Project could act as a 'safe haven' for travellers in the region, including those travelling between Kugluktuk and Cambridge Bay.

The Project may result in some positive residual effects on transportation infrastructure as a result of project-related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests, including transportation infrastructure in Kitikmeot communities. For example, lengthening and paving the runway in Cambridge Bay to accommodate larger aircraft is a priority for the hamlet (Hamlet Staff, Cambridge Bay, November 5, 2024, pers. comm.).

28.3.5.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

The Project is not anticipated to affect transportation infrastructure for key sub-populations identified through GBA Plus disproportionately. However, it may affect Inuit in the Kitikmeot communities disproportionately depending on community location. Mobilization of personnel will be accomplished using commercial airlines that transit Yellowknife and Kitikmeot communities close to the Project (e.g., Cambridge Bay or Kugluktuk). Therefore, Inuit in these communities may be disproportionately affected by changes to air transportation infrastructure.

28.3.6 Change in Community Resupply

28.3.6.1 Project Effects Pathways

Project Construction and Operations and Maintenance may change community resupply for the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak, and Gjoa Haven. Project Construction and Operations and Maintenance are not anticipated to affect community resupply for Yellowknife; therefore, Yellowknife is not considered further. Community resupply to Kitikmeot communities is currently accomplished through sealift once or twice per year and through air freight on a regular basis. During Construction, equipment and materials will be transported to the port area by sealift or barge on a yearly basis. As barge landing and laydown areas will be established for offloading and

storage of equipment and materials at the port area, use of this infrastructure in the Kitikmeot communities will not be required.

During Construction, mobilization of equipment and supplies for the Project could increase demand on existing sealift capacity, which could decrease the capacity of existing sealifts to deliver goods and materials to the Kitikmeot communities.

During Construction and Operations and Maintenance, air transport of goods and materials (e.g., consumables) to resupply the Project, including construction and operations camps, could increase demand on existing air freight capacity, which could decrease the capacity of existing airfreight to deliver goods and materials to the Kitikmeot communities.

Construction of marine-based port infrastructure including large and medium vessel wharves, barge landing area, and small craft harbour, would increase the infrastructure available in the RAA for community resupply via sealift, which could improve the timing, reliability, and frequency of resupply.

Construction of the Grays Bay Road and land-based port infrastructure including buildings for supply storage would create new infrastructure for transporting goods and materials to the LAA via ground-based transportation. Operation of the marine-based port infrastructure and aerodrome would increase the infrastructure available in the RAA for community resupply from Grays Bay Port. During both Construction and Operations and Maintenance, procurement of goods and services, including use of new and/or existing transportation and hauling businesses could provide transport of goods and materials between the Project and the Kitikmeot communities, facilitating community resupply.

28.3.6.2 Mitigation, Management, and Enhancement Measures

The following mitigation, enhancement, and management measures will be implemented to reduce the effects of the Project on community resupply in the LAA during Construction and Operations and Maintenance:

- A Procurement Strategy will be developed and implemented to facilitate regional and Inuit business involvement, including providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region.
- WKR will develop and implement a Road Management Plan through engagement with the Kitikmeot Inuit Association, Hunters and Trappers Organizations, and Government of Nunavut. As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to ensure that consistent access to land and marine areas is maintained throughout all phases of the Project for local Inuit populations. These plans will include provisions for access to the road, airstrip, and associated facilities. Clear access protocols, developed in consultation with the Kitikmeot Inuit Association, are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by harvesters.
- WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project.

- WKR will work with local and territorial governments to reduce interference with each other's deliveries and if possible, coordinate joint resupply efforts.
- WKR will work with local and territorial governments and regional businesses to reduce interference on the TCWR and, if possible, coordinate joint supply efforts.
- A SEMP will be developed and implemented. The SEMP will include annual monitoring reports. Reports will be submitted to NIRB, as required.

28.3.6.3 Project Residual Effect

Construction of the Project will require the mobilization of equipment and supplies such as machinery, vehicles, materials, and fuel to the Project site. Construction equipment and supplies will be sourced from outside of the Kitikmeot Region and will be transported to the Grays Bay Port site by sealift during the open water season and to the Jericho Station site by trucks via the TCWR during winter during each year of Construction. WKR will specifically contract sealifts to transport equipment and supplies to the Project site, which will avoid affecting the ability and capacity of existing commercial sealift operations to service communities. WKR will coordinate with local and territorial governments to reduce interference of sealift delivery. If possible, WKR will coordinate joint resupply efforts with local and territorial governments, which may increase opportunity for community resupply in the LAA. WKR will also specifically contract trucks to transport Construction equipment and supplies to the Project site, reducing the need to use sealifts to supply equipment for the entire Project.

Construction and Operations and Maintenance of the Project will require transport of certain goods and materials (e.g., consumables) to the Project site using air freight. For example, resupply of goods such as fresh and other perishable food items to construction and operations camps will require air transport. Resupply using air freight will be accomplished using supply planes contracted specifically to deliver goods staged from Yellowknife directly to the Project site. Furthermore, goods to resupply the Co-op and Northern grocery stores are flown into the Kitikmeot Region from Manitoba. The Project is, therefore, not anticipated to decrease the capacity of existing air freight providers to deliver goods such as fresh and other perishable food items to the Kitikmeot communities.

Construction of the Project will increase land- and marine-based infrastructure available in the RAA for use for community resupply. During community-based primary research, community members from all Kitikmeot communities shared that they want to see more infrastructure in the region to support community resupply. For example, community members from Cambridge Bay and Kugaaruk shared their perspectives:

> *I think it's about time like, I really think it's needed. Something has to change. We need more options to get our materials up here (Cambridge Bay Housing Association, Cambridge Bay, November 5, 2024, pers. comm.).*

> *[The Project is] a good way to bring infrastructure. You say it's a road directly from Yellowknife all the way up to Nunavut, right? That's kind of a dream for a lot of people (Community Member, Kugaaruk, November 1, 2024, pers. comm.).*

Operation of marine-based infrastructure would increase the infrastructure available in the RAA for community resupply using sealift. The Kikitak Housing Association manager in Gjoa Haven felt the Grays Bay Port would be beneficial for community resupply as it would allow for increased sealift operations in the region:

> *Because of the extra port, there's going to be more drop off points over the year, right? So [we'd] have some in the regular areas already, and then more in the newer areas. So I think it [the Project] will help for transportation and logistics, because sealift is huge here (Kikitak Housing Association, Gjoa Haven, November 15, 2024, pers. comm.).*

Operation of marine-based infrastructure may also increase the frequency of community resupply using sealift. A community member in Kugaaruk felt that increased sealift infrastructure would increase the frequency of community resupply using sealift:

> *You'd have a few chances to order stuff in throughout the year, instead of just one month out of the year (Community Member, Kugaaruk, November 1, 2024, pers. comm.).*

However, as is the case with existing resupply vessels, additional sealifts that use the Grays Bay Port would be limited to the open-water season. Nonetheless, operation of marine-based infrastructure could extend the period during which community resupply is accomplished using sealift from approximately September only to approximately three months from after the ice-out period (e.g., July) to September when weather conditions begin to deteriorate. Community members were hopeful that increased sealift infrastructure in the RAA would result in delivery of goods and materials earlier in the year. For example, one community member shared:

> *Right now you have to get your building supplies in September in order to build next summer. So, if you could speed up that process and get building supplies in June, July, you'd have a jump on the season, right? (Kitikmeot Community Futures Incorporated, Cambridge Bay, November 6, 2024, pers. comm.)*

The Project would also create a new pathway for transporting goods and materials to the RAA using ground-based transportation. Operation of the Grays Bay Road would allow for the transportation of goods and materials from Yellowknife to the Grays Bay Port via the TCWR. Ground-based transportation from Yellowknife, which is connected by all-season road to southern Canada, to Grays Bay Port using the Grays Bay Road and TCWR would be limited to the winter road season, although operation of port landside facilities including buildings would also allow for warehousing of goods and materials at the Grays Bay Port year-round. During 2024-2025 EIS engagement in Gjoa Haven, participants felt the Project would allow for goods to be transported from Yellowknife to the Grays Bay Port, which could be used as a stockpile location. This could include the transport of heavy equipment and machinery, such as water and sewage trucks, that are appropriate for use in the Arctic (GBRP 2025).

Engagement participants also stated that ground-based transportation via the Grays Bay Road could be a cost-effective solution to the high cost of community resupply (GBRP 2025). A community member in Taloyoak thought the Project could reduce the cost of transporting goods to the RAA via the all-season road instead of air freight:

> *We only have one airline and there's no competition there, especially for commercial flights. For freight, maybe big items can come in with this road (Two Oceans Outfitting, Taloyoak, November 20, 2024, pers. comm.).*

The Koomiut Co-op manager in Kugaaruk agreed that ground-based transportation of supplies would lower the cost of resupply compared to transporting goods by air freight:

> *It [would provide] an outlet to buy goods and not pay $3.35/ pound to fly it in. [It would] take some pressure off the cost, because you see, it's expensive (Koomiut Co-op, Kugaaruk, October 31, 2024, pers. comm.).*

Increased resupply of goods and materials to the RAA using sealift and ground-based transportation and warehousing would nevertheless require advanced planning by community members. The manager of the Cambridge Bay Housing Association felt the Project would not change supply of goods and materials to the community on an ad hoc basis or in the event of short timelines for delivery:

> *Parts, like, it's always hard for us to get parts […] We have a sealift; we do our parts during the year. We don't know what we need till we need it. And then you fly it in if we don't have it (Cambridge Bay Housing Association, Cambridge Bay, November 5, 2024, pers. comm.).*

Sealift and ground-based transportation and warehousing are not suitable transportation options for certain goods such as fresh and other perishable food items. These items would still need to be delivered to communities using existing air freight providers.

Increased resupply of goods and materials to the RAA using sealift and ground-based transportation and warehousing would only improve community resupply, including timing, reliability, and frequency of community resupply, if there are means to transport goods and materials from the Grays Bay Port to the Kitikmeot communities. Community members shared various means that could be employed to transport goods and materials to the Kitikmeot communities, including by air, land, and sea. For example, the aerodrome at Grays Bay Port could be used to transport freight from the Port to the Kitikmeot communities via air freight. This method was identified by members of the Taloyoak HTO (Taloyoak Hunters & Trappers, Taloyoak, November 19, 2024, pers. comm.), among other community members.

Other community members shared that goods and materials could be transported from the Grays Bay Port to the Kitikmeot communities using qamutiiks, snow machines, trucks, and heavy equipment on ice roads in winter and small crafts or barges during open-water season. For example:

> *I think it would be nice to be able to get say, "Oh, well, darn, I forgot this for the sealift. Let's get it up this winter". [People…] may truck a boat there and then drag it over by skidoo. They may [...] have Challengers with big sleds and go and do shuttle runs like, I mean, it's not that far […] A Challenger or Snowcat is probably only a 14-hour run and you can haul a lot of stuff with those pieces of gear. Ice conditions, obviously are – it's all dependent on that (Kikiak Contracting, Kugluktuk, November 9, 2024, pers. comm.).*

In winter, depending on economic feasibility and future community needs, it was also suggested that an ice-road network radiating from the port could support the overland resupply of bulk and perishable goods, although this is beyond the scope of this project proposal. Ice roads and the small--craft harbour could also facilitate personal travel from Kitikmeot communities to Grays Bay and on to Yellowknife for resupply on an individual basis:

> *If there's an ice road between here [Cambridge Bay] and Grays Bay, I can drive to Grays Bay, refuel, drive down to Yellowknife, get my supplies and come back up. So that's a potential [benefit], right there (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.).*

During Construction and Operations and Maintenance, procurement of goods and services, for example through transportation and hauling businesses could provide transport of goods and materials between the Project and the Kitikmeot communities, facilitating community resupply. The need to transport goods and materials from the Port to the communities could also induce business development in the Kitikmeot communities, such as the establishment of local barging services:

> *Once that Project goes through, we can avail to our own sealift services, right? Barges and tugs stationed down there [at the Port]. Everything would be brought up on the road, marshalled there, and then once the ocean is safe and free of ice, we can start ferrying into our communities (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.).*

The establishment of new local businesses (or expansion of existing ones) to support community resupply would support the Kitikmeot Inuit Association's desire to create economic development for Inuit and to support more frequent and less expensive community resupply (IAG 2025a). Through its Procurement Strategy, WKR may also procure such services to transport equipment between the Project and the Kitikmeot communities during Construction and Operations and Maintenance, facilitating economic development.

28.3.6.4 Residual Effects on Sub-populations Identified Through Gender Based Analysis Plus

Through improved community resupply, the Project may affect key sub-populations identified through GBA Plus disproportionately. For example, improved community resupply and lower cost of goods and supplies will benefit community members in the LAA, including low-income individuals and households.

The Project may affect Inuit in the Kitikmeot communities disproportionately depending on community location. During community-based research, community members identified that increased infrastructure in the RAA and the potential transport of goods and materials from the Grays Bay Port to the Kitikmeot communities may benefit Cambridge Bay and Kugluktuk more than the communities in the eastern part of the Kitikmeot Region because of their proximity to the Project. For example, a staff member of the Kitikmeot Inuit Association felt the Project would improve community resupply for all Kitikmeot communities except Kugaaruk due to its location and the challenges of transporting goods and materials by land and sea from the Port to this community (Kitikmeot Inuit Association, Kugaaruk, October 29, 2024, pers. comm.).

28.3.7 Summary of Project Residual Effects

Project residual effects were informed by Inuit, Indigenous, and Community Knowledge, perspectives, and values, serving to understand current conditions and potential changes that may be experienced on the infrastructure and services relied upon by Kitikmiut, other Indigenous groups, and other potentially affected communities. With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on Infrastructure and Services are anticipated to be both positive and adverse. Positive residual effects are not characterized further. Table 28.8 summarizes adverse residual effects of the Project on Infrastructure and Services.

Table 28.8 Project Interactions with Infrastructure and Services

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in community infrastructure and access to public services or utilities	C, O	P*/A	L	LAA/RAA	N/A	LT	IR	I
Change in accommodation and housing availability	C, O	P*/A	L	LAA	A	LT	R, IR	I
Change in transportation infrastructure	C, O	P*/ A	L	LAA/RAA	A, N/A	LT	IR	I
Change in community resupply	C, O	P*	N/A	N/A	N/A	N/A	N/A	N/A

Key:

See Table 28.3 for detailed definitions

Project Phase:
C: Construction
O: Operation and Maintenance

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not Applicable
A: Applicable

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:

* Positive residual effects are not characterized further. Characterizations are provided for adverse residual effects.

Change in Community Infrastructure and Access to Public Services or Utilities:

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on change in community infrastructure and access to public services or utilities are anticipated to be both positive and adverse. The Project will increase land- and marine-based infrastructure in the LAA that can be used by the CCG and for SAR activities and to improve wayfinding in the land and marine environments. LAA residents may also benefit from Project-related revenue, taxes, and funding, which will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA and which could be used for improvements to community infrastructure and public services or utilities. Positive residual effects are not characterized further.

The Project is expected to have adverse residual effects on change in community infrastructure and access to public services or utilities through increased demand on waste facilities in Yellowknife in the event of medical evacuation from site. The employment of workers may place additional demands on police services, daycare, and community programs and recreation facilities during transit to and from the Project site. An increase in the number of people using the land and marine environments may increase demand on the CCG and SAR activities. Adverse residual effects will be long-term in duration as they will occur during Construction and Operations and Maintenance in the LAA and RAA, will be of low magnitude, will occur as irregular events and be irreversible. Timing is not applicable to adverse residual effects as a result of increased demand on community infrastructure and public services or utilities.

Change in Accommodation and Housing Availability

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on accommodation and housing availability are anticipated to be both positive and adverse. The Project will increase land- and marine-based infrastructure in the LAA and could improve the transport of construction materials from the Grays Bay Port to the Kitikmeot communities, facilitating the construction of new housing. Positive residual effects are not characterized further.

The Project is anticipated to have adverse residual effects on accommodation and housing availability through increased demand on temporary accommodations by the Project workforce in communities in the LAA. Adverse residual effects are long-term as they will occur during Construction and Operations and Maintenance and will be of low magnitude. Planned use of temporary accommodations will occur at regular intervals that coincide with rotation shifts at the Project. Unplanned use of temporary accommodations if the Project workforce is weathered-in in a community during transit will occur at irregular intervals. Adverse residual effects are irreversible. Timing is applicable to adverse residual effects on accommodation and housing in Yellowknife, as demand for accommodation is typically higher in the winter when there is an increase in tourism.

Change in Transportation Infrastructure

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on transportation infrastructure are anticipated to be both positive and adverse. The Project will increase land- and marine-based infrastructure in the RAA, which may be used by residents of the LAA. Positive residual effects are not characterized further.

The Project is anticipated to have adverse residual effects on transportation infrastructure through increased demand on the TCWR and air transportation infrastructure. Adverse residual effects will be long-term in duration as they will occur during Construction and Operations and Maintenance in the RAA, will be of low magnitude, will occur as irregular events and be irreversible. Adverse residual effects as a result of increased demand on the TCWR will be limited to the winter road season. Timing is not applicable to adverse residual effects as a result of increased demand on air transportation infrastructure.

Community Resupply

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on community resupply are anticipated to be both positive and adverse. The Project will increase land- and marine-based infrastructure in the RAA and could improve community resupply through the transport of goods and materials from the Grays Bay Port to the Kitikmeot communities. The transport of goods and materials from the Port to the Kitikmeot communities may be accomplished on an individual basis or through the establishment of new businesses to transport or haul goods and materials. Positive residual effects are not characterized further.

There are no anticipated residual effects of the Project on community resupply from using sealift or air freight services to mobilize goods and materials for Construction and Operations and Maintenance of the Project.

28.3.8 Transboundary Effects

An assessment of the potential for transboundary effects on infrastructure and services is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

28.3.9 Effects of Climate Change on Infrastructure and Services

In the absence of the Project, environmental conditions are projected to continue changing (due to climate change) in ways that will affect infrastructure and services in the LAA and RAA. It is known that, due to climate change, sea ice extent is declining, the Arctic Ocean is warming and acidifying, and permafrost temperatures are at record highs (Meredith et al 2019), among other issues. Annual mean temperatures and maximum temperatures are projected to increase over time under all projected scenarios. Annual precipitation is also projected to increase across all scenarios and time periods.

Permafrost thaw and decrease in snow will compromise the stability of the land on which physical infrastructure including homes, temporary accommodations, schools, roads, and emergency service infrastructure exist (Meredith et al. 2019). Inuit knowledge indicates that permafrost changes can result in slumping cabins, wet land creating travel uncertainty, rising sea levels, and coast erosion. Old travel routes are also becoming less certain in some areas (McLennan et al. 2022). In 2018, the IAG indicated that in marshy areas, the ice from permafrost is what is holding up all the land (GBEEC 2018).

Climate change could affect the duration the TCWR is available for use. This would affect the connectivity of Yellowknife to the Grays Bay Road and may decrease demand on the TCWR.

Climate change could also result in a longer open water season, which could allow sealifts to deliver goods to the Kitikmeot Region more frequently, as long as other conditions permit. This could improve the timing, reliability, and frequency of community resupply to the region.

Overall, changes to environmental conditions are not likely to alter the conclusions of the effects of the Project on local infrastructure, housing and accommodation availability, ground-based, port or air transportation infrastructure, and community resupply. Mitigation, management, and enhancement measures will be factored into the project design to reduce or avoid effects on climate-sensitive landforms

such as permafrost. See Volume 5, Section 12: Climate and Volume 6, Section 14: Terrain, Soils, and Permafrost for additional information.

28.4 Assessment of Cumulative Effects

28.4.1 Project Residual Effects Likely to Interact Cumulatively

Table 9A1.1 in Volume 4, Appendix 9A, Assessment Methods, presents the Project inclusion list which identifies other projects and physical activities that might act cumulatively with the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 28.9), a cumulative effects assessment is carried out.

Table 28.9 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Past				
Bathurst Inlet	✓	✓	-	-
Omingmaktok	✓	✓	-	-
Snap Lake	✓	✓	✓	✓
Present				
Arcadia Bay Project	✓	✓	✓	✓
B2Gold George Property	✓	✓	✓	✓
B2Gold Marine Laydown Area	✓	✓	✓	✓
Bulk Carriers	✓	✓	✓	✓
Cambridge Bay	✓	✓	✓	✓
Chuk and Fire Shear Blocks	✓	✓	✓	✓
Commercial Cargo	✓	✓	✓	✓
Commercial and Domestic Harvesting	✓	-	-	-
Coppermine Project	✓	✓	✓	✓
Coppermine River Project	✓	✓	✓	✓
Diavik Diamond Mine	✓	✓	✓	✓
Ekati Diamond Mine	✓	✓	✓	✓
Epworth Project	✓	✓	✓	✓
Fishing Vessels	✓	-	-	-
Gahcho Kué Diamond Mine	✓	✓	✓	✓
Goose Mine	✓	✓	✓	✓

Physical Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Hackett River Project	✓	✓	✓	✓
High Lake (Izok Corridor Project)	✓	✓	✓	✓
High Lake East	✓	✓	✓	✓
Hood River Gold Project	✓	✓	✓	✓
Hope Bay Project	✓	✓	✓	✓
Hydroelectric	✓	-	-	-
Icebreakers	✓	-	-	-
Itchen Lake Property	✓	✓	✓	✓
Izok Lake (Izok Corridor Project)	✓	✓	✓	✓
Jericho Mine	✓	✓	✓	✓
Kennady North - Exploration	✓	✓	✓	✓
Kugluktuk	✓	✓	✓	✓
Lupin Mine	✓	✓	✓	✓
Muskox Nickel Property	✓	✓	✓	✓
Nunavut Community Infrastructure	✓	✓	✓	✓
NT Community Infrastructure	✓	✓	✓	
Overflights	-	✓	✓	✓
Passenger Ships and Pleasure Craft	✓	-	-	-
Pistol Lake Project	✓	✓	✓	✓
Rae Copper Exploration Project	✓	✓	✓	✓
Rockinghorse (Koamaogaktok) Project	✓	✓	✓	✓
Roma Project	✓	✓	✓	✓
Scientific Research	✓	✓	✓	✓
South Kitikmeot Gold Project	✓	✓	✓	✓
Tanker Ships	✓	✓	✓	✓
Tibbitt to Contwoyto Winter Road	✓	✓	✓	✓
Tourism	✓	✓	✓	✓
Tree River Lodge	✓	✓	✓	✓
TTMG Project	✓	✓	✓	✓
Tugs/Barges	✓	✓	✓	✓
Ulu Gold Project	✓	✓	✓	✓

Physical Activities	Effects			
	Change in community infrastructure and access to public services or utilities	**Change in accommodation and housing availability**	**Change in transportation infrastructure**	**Change in community resupply**
Wolf/Mistake Lake Property	✓	✓	✓	✓
Yellowknife City Gold Project	✓	✓	✓	-
Past and Reasonably Foreseeable				
Indin Lake Gold Project – Exploration – Historic Gold Camp	✓	✓	✓	-
Mon Mine	✓	✓	✓	✓
Yellowknife Gold Project – Past Producer – Ormsby Property (Discovery Mine)	✓	✓	✓	-
Project-Related Physical Activities				
Reasonably Foreseeable				
Arctic Economic and Security Corridor	✓	✓	✓	✓
Courageous Lake Mine	✓	✓	✓	✓
NICO	✓	✓	✓	-
Reasonably Foreseeable Induced				
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	-	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Jericho	✓	-	✓	✓
Grays Bay Road and Port: Airstrip Expansion	✓	✓	✓	✓
Grays Bay Road and Port: Road Traffic	✓	✓	✓	✓
Grays Bay Road and Port: Port Traffic	✓	✓	✓	✓
Grays Bay Road and Port: Air Traffic	✓	✓	✓	✓
Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border	✓	✓	✓	✓
Hackett River Project	✓	✓	✓	✓
Hackett and Back River Access Road	✓	✓	✓	✓
High Lake Mine (Izok Corridor Project)	✓	✓	✓	✓
Izok Lake Mine (Izok Corridor Project)	✓	✓	✓	✓
Izok Lake Access Road	✓	✓	✓	✓

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

Effects identified in Table 28.6 as not likely to interact cumulatively with residual effects of other projects and physical activities (no check mark) are briefly discussed below. The assessment of the cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

The following projects and physical activities are not anticipated to interact cumulatively with the Project on infrastructure and services:

- Overflights are not anticipated to interact with community infrastructure and public services or utilities; increased demand on air transportation infrastructure such as airports is assessed under change in transportation infrastructure
- The following activities are not anticipated to interact with change in transportation infrastructure as they do not increase demand on existing transportation infrastructure (e.g., air, winter road): commercial and domestic harvesting, fishing vessels, hydroelectric, icebreakers, passenger ships and pleasure craft. Grays Bay Road and Port: Bulk Fuel Storage Expansion at Grays Bay Port and Jericho will not result in an increase in transportation infrastructure in the RAA.
- Commercial and domestic harvesting, fishing vessels, hydroelectric, and icebreakers are not anticipated to interact with change in transportation infrastructure and change in community resupply because these activities do not draw on existing transportation infrastructure (e.g., air, winter road) or contribute to community resupply to the Kitikmeot communities.
- Certain mines and mineral exploration projects located in NT (i.e., Yellowknife City Gold Project, Indin Lake Gold project, and NICO mine) are not anticipated to interact with change in community resupply as the transportation of personnel, equipment, materials, and supplies to these sites do not use the same supply routes and methods as community resupply to the Kitikmeot communities.

28.4.2 Change in Community Infrastructure and Access to Public Services or Utilities

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in community infrastructure and access to public services or utilities.

28.4.2.1 Cumulative Effect Pathways

Table 28.7 lists past, present, reasonably foreseeable, and reasonably foreseeable induced physical activities that may interact cumulatively with the Project residual effects on community infrastructure and access to public services or utilities. Past physical activities including the settlements of Bathurst Inlet and Omingmaktok provided infrastructure and public services or utilities (e.g., RCMP), some of which no longer exist. Existing NT community infrastructure and existing Nunavut community infrastructure, such as in Cambridge Bay and Kugluktuk, allows for the provision of infrastructure and public services and utilities to Kitikmiut and residents of Yellowknife.

Cumulative effects on community infrastructure and access to public services or utilities may occur as a result of combined demands from Project activities and other present, reasonably foreseeable, and reasonably foreseeable induced projects. Projects and activities that are most likely to act cumulatively with the Project are those for which the labour forces will be in the RAA at the same time as the Project labour force. These projects could increase the number of people transiting through communities in the RAA and/or using the land and marine environments. These projects may also result in in-migration to communities in the RAA. Both temporary and permanent increases in populations would result in additional demands on community infrastructure and access to public services or utilities in the RAA.

Present and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project. Commercial operation of Goose Mine, a gold mine that includes two main development areas with a winter ice road connecting the Goose Mine with the Marine Laydown Area / Port located at Bathurst Inlet started in October 2025. The mine is projected to operate for at least 10 to 15 years. Associated mineral exploration is ongoing in the area by B2Gold Corp. which involves work camps at George Lake. Mineral exploration is also ongoing with the Ulu Gold Project which consists of the operation of a seasonal camp and Hackett River Exploration which involves an exploration camp at Hackett River. Existing and potential linear developments also overlap spatially and temporally with Project, including the TCWR which operates between January and early April.

There are several reasonably foreseeable projects, including reasonably foreseeable induced projects (i.e., future mines and access roads, expansion of the Grays Bay Road and Port) that could potentially overlap spatially and temporally with the Project. The Hackett River Mine is currently under NIRB review. It is a proposed base metal mine consisting of one underground component and two open pits with an estimated life span of 15 years. The Hackett and Back River Access Road is proposed to be an approximately 260 km access road from the Grays Bay Road near the Jericho terminus to support two Hackett Mine exploration sites and the existing Goose Mine. Similarly, the High Lake project is a potential future base metal mine and milling project with both open pit and underground components which is currently under a paused NIRB review. The associated High Lake Access Road is proposed to be an all-season road from Grays Bay Road to the High Lake mine. However, some of the reasonably foreseeable projects and reasonably foreseeable induced projects and activities listed in Table 28.9 may not proceed.

Present, reasonably foreseeable, and reasonably foreseeable induced projects may generate waste that will be transferred to facilities for disposal, which could increase demand in waste facilities in the RAA.

Construction of the Project, reasonably foreseeable, and reasonably foreseeable induced projects could increase the amount of infrastructure available in the RAA for CCG and SAR organizations, facilitating SAR activities in the RAA.

28.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of the proposed mitigation and monitoring plans outlined in Section 28.3.3.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on changes community infrastructure and access to public services or utilities. The use of work camps to house Project employees and on-site emergency response measures are expected to limit reliance on community infrastructure and access to public services or utilities, while the Socio-economic Monitoring Program will provide a mechanism to identify and respond to potential emerging pressures.

It is also expected that current and reasonably foreseeable projects in the RAA will implement similar mitigation strategies to reduce cumulative demands on community infrastructure and access to public services or utilities. These include prioritizing hiring of local residents and providing accommodations for non-local workers, implementing policies to govern worker's conduct during transit through communities in the RAA, implementing waste management measures, and implementing emergency response measures, including SAR.

28.4.2.3 Cumulative Effects

Cumulative effects on community infrastructure and access to public services or utilities are anticipated to occur through increased demand on infrastructure and services/utilities from labour workforces, generation of waste, and increased use of the land and marine environments, and the construction of new infrastructure in the RAA.

Past and present development activities, coupled with the legacies of colonial underinvestment in Inuit and northern infrastructure and services, have contributed to baseline conditions where access to timely, culturally appropriate government services is already strained. Current and reasonably foreseeable projects in the RAA may place further stress on these services through workforce in-migration and temporary increases in population during workforce transit through communities in the RAA.

As described in Section 28.3.1.1, out-of-region Project workers will transit through Yellowknife and the Kitikmeot workforce may transit through Cambridge Bay, Kugluktuk, or Yellowknife and could stay in these locations in the short-term (e.g., one night) on their way to/from the project site. Workforces for current and reasonably foreseeable projects in the RAA may transit through the same communities on their way to/from project sites and may increase demand on community infrastructure and access to public services or utilities, such as police services and community programs and recreation facilities. However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Goose Mine and the Ulu Gold Project and annual construction of the TCWR. Reasonably foreseeable projects, including the Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project.

It is unlikely that out-of-region workers will relocate to communities in the RAA during construction and operation of current and reasonably foreseeable projects, aside from potentially Yellowknife. Relocation of out-of-region workers is not anticipated to occur for the Project itself and is unlikely to occur for most current and reasonably foreseeable projects that are in remote locations, require rotational shiftwork by

the workforce, and have out-of-region pick-up points for staff, consistent with current practice. For example, there were no employees who relocated into or out of Nunavut during construction of the Goose Mine in 2023 (Jason Prno Consulting Services Ltd. 2024). Two employees relocated out of Nunavut during construction of the Goose Mine in 2024 (Jason Prno Consulting Services Ltd. 2025). The Goose Mine is located outside of communities in the LAA and employed fly-in/fly-out rotational shiftwork for its construction. Population growth as a result of current and reasonably foreseeable projects could increase demand on community infrastructure and access to public services or utilities including emergency services, community programs and recreation facilities, water and wastewater services or utilities, and education and daycare; however, increased demand would most likely occur in Yellowknife and would be incremental as a result of population growth.

Through recruitment of workers from communities in the RAA, the development of current and reasonably foreseeable projects, as well as the Project, may contribute to capacity issues of public services and utilities in the RAA. Individuals in skilled positions in the RAA communities may choose to leave these positions to pursue other employment, which could exacerbate gaps in the provision of some services in LAA communities. However, through training and employment on current and reasonably foreseeable projects, the capacity of the regional labour force may increase, which would increase the pool of labour for skilled positions in RAA communities after employment on current and reasonably foreseeable projects ends. Proponents of current and reasonably foreseeable projects, as well as the Project, are anticipated to implement labour, training, and procurement strategies to prioritize employment opportunities and associated benefits for Inuit and other Indigenous persons in the RAA. This will reduce the number of out-of-region workers traveling through the RAA for employment on these projects and contribute to the capacity of the regional labour force. Proponents of current and reasonably foreseeable projects, as well as the Project, that are subject to NIRB assessment and monitoring are also anticipated to be required to track and respond to unexpected pressures on community infrastructure and access to public services or utilities through socio-economic monitoring programs. WKR will implement a Drug and Alcohol Policy and Travel Policy to govern workers' behaviour during transit through communities in the RAA and it is expected that proponents of other current and reasonably foreseeable projects will implement similar policies to reduce cumulative effects on community infrastructure and access to public services or utilities.

Current and reasonably foreseeable projects will generate waste from construction and operations and maintenance. Waste generated by the Project will be landfilled at site, incinerated, or transported to approved facilities for disposal. It is likely that waste will be transported to facilities in Yellowknife and/or Quebec. Current and reasonably foreseeable projects will similarly generate waste, and it is likely that waste will be disposed of in a similar manner as for the Project. This will increase demand in waste facilities in Yellowknife and elsewhere. It is not anticipated that wastes will be transported to facilities in the Kitikmeot communities for disposal.

The presence of workforces for current and reasonably foreseeable projects will increase the number of commercial ships, community members, Project workers, and visitors to the Kitikmeot Region traveling through the land and marine environment. This may increase demand on CCG and SAR for navigational support, icebreaking, and SAR activities. Through Construction of the Project, emergency services and shelters will be available along the Grays Bay Road and at temporary and permanent camps at the Grays Bay Port and Jericho Station. Proponents of current and reasonably foreseeable projects, as well as the Project, are expected to be self-sufficient as reasonably practicable for SAR operations and coordinate with relevant authorities as required.

The Project and reasonably foreseeable projects will increase the amount of infrastructure available in the RAA for use by the CCG and SAR organizations. Grays Bay Port may be used for the CCG, CCG Auxiliary, and SAR organizations. During community-based primary research, a community member shared that the Port “could be used as a refuelling station for the Coast Guard” (Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.). Reasonably foreseeable projects such as the Arctic Economic & Security Corridor would increase ground-based transportation infrastructure available in the RAA, which could facilitate SAR activities on the land.

Current and reasonably foreseeable projects, including the Project, may result in some positive residual effects on community infrastructure and public services or utilities as a result of related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests, including community infrastructure and public services or utilities in Kitikmeot communities.

Reasonably Foreseeable Induced

Reasonably foreseeable induced projects and activities are those that would likely only advance if the Project is approved and operational. Residual effects of the Project are anticipated to interact cumulatively with residual effects of reasonably foreseeable induced projects through an increase in number of workers transiting through communities in the RAA to/from project sites and in-migration of workers to communities in the RAA (Yellowknife, primarily), which could increase demand on community infrastructure and access to public services or utilities. The workforces for expansion of Grays Bay Port and Jericho Station and Grays Bay Road and Port Phase 2 –Jericho Mine to NT Border will most likely be housed at permanent accommodations at the port and Jericho Station during construction and operations and maintenance of these reasonably foreseeable induced projects. Similarly, the workforces of reasonably foreseeable induced projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely be housed at existing camp accommodations and in-migration to RAA communities as a result of construction and operations of these projects is anticipated to be minimal.

Reasonably foreseeable induced projects (i.e., mines and infrastructure development) will generate waste; where waste cannot be landfilled on-site or incinerated, it will likely be transferred to waste facilities in Yellowknife or elsewhere, which will increase demand on these facilities.

Proponents of reasonably foreseeable induced projects that are subject to NIRB assessment and monitoring are also anticipated to be required to track and respond to unexpected pressures on health infrastructure and services through socio-economic monitoring programs.

An increase in the number of workers transiting through communities in the RAA and potential in-migration of workers to the RAA will increase the number of people using the land and marine environments, which could increase demand on CCG and SAR organizations. Reasonably foreseeable induced projects will increase the amount of infrastructure available in the RAA for use by the CCG and SAR organizations. Reasonably foreseeable induced projects such as the Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border and access roads to mine sites would increase ground-based transportation infrastructure available in the RAA, which could facilitate SAR activities on the land. Expansion of the Grays Bay Port for bulk fuel storage and a longer airstrip could facilitate SAR activities in the marine environment and use by the CCG.

28.4.3 Change in Accommodation and Housing Availability

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in accommodation and housing availability.

28.4.3.1 Cumulative Effect Pathways

Table 28.7 lists past, present, reasonably foreseeable, and reasonably foreseeable induced physical activities that may interact cumulatively with the Project's residual effects on accommodation and housing availability. Past physical activities including the settlements of Bathurst Inlet and Omingmaktok provided housing to Kitikmiut. Existing NT community infrastructure and existing Nunavut community infrastructure, such as in Cambridge Bay and Kugluktuk, provides housing and accommodation to Kitikmiut, residents of Yellowknife, and visitors to the RAA.

Cumulative effects on accommodation and housing availability may occur as a result of combined demands from Project activities and other present, reasonably foreseeable, and reasonably foreseeable induced projects. Projects and activities that are most likely to act cumulatively with the Project are those for which the labour forces will be in the RAA (Yellowknife, primarily) at the same time as the Project labour force. These projects will increase the number of people transiting through communities in the RAA. These projects may also result in in-migration to communities in the RAA. Both temporary and permanent increases in populations could result in additional demands on accommodation and housing in the RAA. Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 28.4.2.1).

Construction of the Project and present, reasonably foreseeable, and reasonably foreseeable induced projects could increase the amount of transportation infrastructure available in the RAA. This infrastructure may be used for more frequent delivery of building materials to Kitikmeot communities, which could help increase the stock of housing and accommodations in the RAA.

28.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The Project has been designed to reduce demand on accommodation and housing availability in the RAA through the use of fly-in/fly-out work camps to accommodate workers during Construction and Operations and Maintenance. It is expected that other current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar design strategies to accommodate workers while on-site.

The introduction of the mitigation, enhancement, and management measures outlined in Section 28.3.4.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on accommodation and housing availability. For example, WKR will develop and implement a Travel Policy in the event that personnel transiting to and from the Project site are weathered in in a community. The Travel Policy will include plans for accommodation, meals, use of medical services, and other needs for personnel. A Socio-economic Monitoring Program provides a mechanism to identify and respond to emerging pressures on community infrastructure and service use, including accommodation and housing availability. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative demands on accommodation and housing availability.

28.4.3.3 Cumulative Effects

Cumulative effects on accommodation and housing availability are anticipated to occur through increased demand on temporary and permanent accommodations from labour workforces. As described in Section 28.3.1.1, out-of-region Project workers will transit through Yellowknife and Kitikmeot workers may transit through Cambridge Bay, Kugluktuk, or Yellowknife and may stay there in the short-term (e.g., one night) on their way to/from the project site. Workforces for current and reasonably foreseeable projects in the RAA are expected to transit through the same communities on their way to/from project sites, which may increase cumulative demand on accommodation and housing availability. However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Goose Mine and the Ulu Gold Project and annual construction of the TCWR. Reasonably foreseeable projects, including the Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project. WKR will implement a Travel Policy to mitigate adverse effects on temporary accommodations in the LAA, in the event that personnel transiting to and from the project site are weathered in in a community. The Project's Socio-economic Monitoring Plan will monitor availability of housing for workers and allow for timely responses from WKR if unanticipated increases in demand for accommodations in the LAA are identified.

It is unlikely that out-of-region workers will relocate to communities in the RAA during construction and operation of current and reasonably foreseeable projects, aside from potentially Yellowknife. Relocation of out-of-region workers is not anticipated to occur for the Project itself and is unlikely to occur for most current and reasonably foreseeable projects that are in remote locations, require rotational shiftwork by the workforce, and have out-of-region pick-up points for staff, consistent with current practice. For example, there were no employees who relocated into or out of Nunavut during construction of the Goose Mine in 2023 (Jason Prno Consulting Services Ltd.2024). Two employees relocated out of Nunavut during construction of the Goose Mine in 2024 (Jason Prno Consulting Services Ltd. 2025). The Goose Mine is located outside of communities in the LAA and employed fly-in/fly-out rotational shiftwork for its construction. Population growth as a result of relocation of workers on current and reasonably foreseeable projects could increase demand on accommodation and housing availability in the RAA. There is a substantial need for housing in the Kitikmeot communities, and Yellowknife's vacancy rate for all rental units is 3.5%, with an anticipated future increase in the stock of rental apartments by roughly 4.1%. Increased demand would most likely occur in Yellowknife and would be incremental as a result of population growth. Furthermore, increased demand on temporary accommodation and permanent housing over the long-term may be addressed with increased supply and capacity by the private sector.

The Project is expected to increase land- and marine-based infrastructure in the RAA which will allow for more frequent community resupply and delivery of building materials to the Kitikmeot communities, facilitating the construction of new housing. The Project will also allow for ground-based transportation of goods from Yellowknife to the Grays Bay Port using the TCWR. The construction of the Arctic Economic Security Corridor, a reasonably foreseeable project, would establish year-round access from Yellowknife to the NT-NU border. From the NT-Nunavut border, access to the Grays Bay Road would be accomplished using a winter road (e.g., the TCWR). This would allow for mobilization of building materials from Yellowknife to the Grays Bay Port during the winter road season. From warehouses at Grays Bay Port, goods may then be delivered to Kitikmeot communities (although these activities are outside the scope of this Project proposal). This could expedite the construction of new homes and aligns with the objectives of Nunavut 3000.

Current and reasonably foreseeable projects, including the Project, may result in some positive residual effects on accommodation and housing availability due to related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests, potentially including the construction of new housing in Kitikmeot communities.

Reasonably Foreseeable Induced

Residual effects of the Project are anticipated to interact cumulatively with residual effects of reasonably foreseeable induced projects through an increase in number of workers transiting through communities in the RAA to/from project sites and in-migration of workers to communities in the RAA (potentially in Yellowknife), which would increase demand on accommodation and housing availability. The workforces for expansion of Grays Bay Port and Jericho Station and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border will most likely be housed at permanent accommodations at the port and

Jericho station during construction and operations and maintenance of these reasonably foreseeable induced projects. Similarly, the workforces of reasonably foreseeable induced projects at Hackett River, Back River, High Lake, and Izok Lake in the Kitikmeot Region will most likely be housed at existing accommodations and in-migration to RAA communities as a result of construction and operations of these projects is anticipated to be minimal. Proponents of reasonably foreseeable induced projects that are permitted through the NIRB will be required to track and respond to unexpected pressures on health infrastructure and services through socio-economic monitoring programs.

Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round. This would allow for more frequent delivery of building materials for the construction of new housing in Kitikmeot communities. From warehouses at the Grays Bay Port, goods may then be delivered to Kitikmeot communities via ice roads in winter road season, barges in open water season, and/or flights. Expansion of the Grays Bay Port to include a longer airstrip may facilitate delivery of some building materials to Kitikmeot communities via air freight.

28.4.4 Change in Transportation Infrastructure

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in transportation infrastructure.

28.4.4.1 Cumulative Effect Pathways

Table 28.7 lists past, present, reasonably foreseeable, and reasonably foreseeable induced physical activities that may interact cumulatively with the Project's residual effects on transportation infrastructure and services. Current physical activities such as NT community infrastructure and existing Nunavut community infrastructure provide transportation infrastructure such as airstrips in the Kitikmeot communities and an airport in Yellowknife. The Yellowknife Airport is a logistics hub for current projects and physical activities in the RAA and some flights originating at the Yellowknife Airport transit to the Kitikmeot communities. Mobilization of personnel and equipment and materials by air freight for the Project and other reasonably foreseeable and reasonably foreseeable induced projects will increase demand on air transportation infrastructure in the RAA. Present, reasonably foreseeable, and induced projects in the RAA will only act cumulatively with the Project if they overlap temporally in the RAA (as described in Section 28.4.2.1).

Past and current mines including Snap Lake Mine, Jericho Mine and Lupin Mine and the TCWR are anticipated to interact cumulatively with the Project. The TCWR was constructed to facilitate mobilization and resupply of equipment and material from Yellowknife to NT diamond mines and the Jericho and Lupin mines during the winter road season. Mobilization of equipment and materials from Yellowknife for construction of the southern portion of Grays Bay Road and operation of Jericho Station will increase truck traffic on the TCWR. Once the Project is constructed, other existing, reasonably foreseeable, and reasonably foreseeable induced projects may mobilize equipment and materials from Yellowknife using the TCWR and Grays Bay Road, which will increase demand on the TCWR. Reasonably foreseeable projects such as Courageous Lake Mine and reasonably foreseeable induced projects such as

Hackett River Project, High Lake Mine, and Izok Lake Mine will likely require the mobilization of equipment and materials from Yellowknife using the TCWR.

Construction of the Project and present, reasonably foreseeable, and reasonably foreseeable induced projects could increase the amount of transportation infrastructure available in the RAA. This infrastructure may be used for commercial and community transportation purposes in the RAA.

28.4.4.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

Through Project design, access to Grays Bay Road will be controlled and monitored at both the Grays Bay Port and Jericho Station. The introduction of the mitigation, enhancement, and management measures outlined in Section 28.3.5.2 are anticipated to reduce the Project's contributions to adverse cumulative effects on transportation infrastructure. For example, WKR will schedule construction activities to reduce vehicle access on the TCWR, minimize the number of trips required to move road construction materials, and coordinate with local and territorial governments and regional businesses to reduce interference on the TCWR. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative demands on the TCWR and airports in the RAA.

WKR will also develop and implement a Road Management Plan and Port Management Plan to manage the safe use of new infrastructure in the RAA.

28.4.4.3 Cumulative Effects

Cumulative effects on transportation infrastructure are anticipated to occur through increased demand on air transportation infrastructure from the mobilization of labour workforces. As described in Section 28.3.1.1, out-of-region Project workers will transit through Yellowknife and Kitikmeot workers may transit through Cambridge Bay, Kugluktuk, or Yellowknife on their way to/from the project site. Workforces for current and reasonably foreseeable projects in the RAA are expected to transit through Yellowknife and may also transit through Kitikmeot communities on their way to/from project sites, which may increase cumulative demand on air transportation infrastructure. However, workforces for current and reasonably foreseeable projects in the RAA will only act cumulatively with the Project if they overlap temporally. Some present mining and mineral exploration projects overlap spatially and temporally with the Project, including operation of the Goose Mine Project and the Ulu Gold Project and annual construction of the TCWR. Reasonably foreseeable projects, including the Hackett River Mine and the High Lake project, could potentially overlap spatially and temporally with the Project.

Through Project planning, WKR will avoid placing increased demand and workforce pressure on Kitikmeot airports and it is expected that proponents of current and reasonably foreseeable projects in the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative demands on airports in these communities. The Yellowknife Airport is developing a new terminal building, and an expansion of airport infrastructure is being considered. These improvements would increase the capacity for aircraft and passenger movements related to reasonably foreseeable projects.

Cumulative effects on transportation infrastructure are also anticipated to occur through increased demand on the TCWR from the mobilization of equipment and materials from Yellowknife. Currently, the TCWR is open for approximately two months per year to resupply the Ekati and Diavik diamond mines and other mineral exploration projects in the RAA. An average of 6,605 northbound trucks used the TCWR annually from 2002-2012. Starting in Year 2 of Construction, the Project will add approximately 1,000 trucks during Construction and 28 trucks during Operations and Maintenance in each winter road season. Other reasonably foreseeable projects such the Courageous Lake Mine will likely require the mobilization of equipment and materials from Yellowknife using the TCWR. The TCWR is approved to transport 12,000 trucks per year and cumulative demand on the TCWR is not anticipated to exceed its capacity due to safety requirements. Nonetheless, WKR and proponents of other reasonably foreseeable projects are expected to implement mitigation measures outlined in Section 28.4.4.2 to reduce vehicle traffic and reduce interference on the TCWR. During Operations and Maintenance of the Project, WKR will control access to the Grays Bay Road at Jericho Station, which may limit the type of vehicles (e.g., transport trucks vs personal vehicles) and reduce the number of vehicles travelling on the TCWR to access the Grays Bay Road.

The Project is expected to increase land- and marine-based infrastructure in the RAA. The construction of the Arctic Economic Security Corridor, a reasonably foreseeable project, would establish year-round access from Yellowknife to the NT-Nunavut border. From the NT-Nunavut border, access to the Grays Bay Road would be accomplished using a winter road (e.g., the TCWR). This may increase cumulative demand on the connecting winter road by both commercial and Kitikmiut users travelling from the Kitikmeot Region to Yellowknife. Cumulative effects would be limited to the winter road season.

Construction of Grays Bay Port will facilitate Project-related shipping and shipping for other current and reasonably foreseeable projects. An assessment of potential cumulative effects of marine vessel traffic is addressed in the Non-Traditional Land, Marine, and Resource Use VC (Section 29). WKR will develop and implement a Port Management Plan and Port Operation Plan to manage the safe use of new infrastructure in the RAA. Construction of the aerodrome at Grays Bay Port would create new air transportation infrastructure in the RAA.

Current and reasonably foreseeable projects, including the Project, may result in some positive residual effects on transportation infrastructure as a result of related revenue, taxes, and funding. This will flow to various governments (i.e., municipal, territorial and federal) in the LAA and RAA, contributing to the local, regional, territorial, and federal tax base. Revenue, taxes, and funding could support funds and resources for respective priorities and interests.

Reasonably Foreseeable Induced

Residual effects of the Project are anticipated to interact cumulatively with residual effects of reasonably foreseeable induced projects through an increase in the number of workers transiting through communities in the RAA to/from project sites, which would increase demand on air transportation infrastructure. Cumulative effects may also occur through an increase in the number of vehicles on the TCWR to supply equipment and supplies to reasonably foreseeable induced projects such as Hackett River Project, High Lake Mine, and Izok Lake Mine.

Currently, the TCWR is open for approximately two months per year. During community-based primary research, community members shared concerns that climate change could affect the duration of the winter road season:

> *"Will it be too dangerous to get use of that ice road in the south end? Is that ice road reliable? I think that's questionable. On the southern end, it might be too risky and ice road seasons are getting shorter" (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.).*

Construction of the Project, the Arctic Economic & Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would establish ground transportation infrastructure from Yellowknife to the Grays Bay Port year-round. This would provide all-season access for commercial and Kitikmiut users to/from Yellowknife and the Kitikmeot Region, although access to Grays Bay Road would be controlled and monitored by WKR. Following Construction of the Project, the Arctic Economic & Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, annual construction of the TCWR may no longer be required, reducing or eliminating cumulative effects on the TCWR.

28.4.5 Change in Community Resupply

This section describes the pathways, mitigation measures, and predicted residual cumulative effects as they pertain to change in community resupply.

28.4.5.1 Cumulative Effect Pathways

Table 28.7 lists past, present, reasonably foreseeable, and reasonably foreseeable induced physical activities that may interact cumulatively with the Project's residual effects on community resupply. Current physical activities such as the use of commercial cargo, tanker ships, and tugs/barges currently facilitate community resupply of equipment, materials, shelf-stable goods, and fuel to the Kitikmeot communities via annual sealift during ice-free seasons. Existing Nunavut community infrastructure, including airports in each of the Kitikmeot communities, allows for community resupply via flights year-round.

Construction of the Project and present, reasonably foreseeable, and reasonably foreseeable induced projects could increase the amount of infrastructure available in the RAA for community resupply, which would increase the timing, reliability, and frequency of resupply. Past and current projects including Snap Lake Mine, Jericho Mine, and Lupin Mine are anticipated to interact cumulatively with the Project. The TCWR was constructed to facilitate mobilization and resupply of goods from Yellowknife to NT diamond mines, and the Jericho and Lupin mines. Construction of the Project could allow for mobilization of goods from Yellowknife to the Grays Bay Port using the TCWR and the Project during the winter road season, which could in turn facilitate community resupply through the transport of goods from the port to the Kitikmeot communities (although this is outside the scope of this project proposal). Reasonably foreseeable and reasonably foreseeable induced projects such as the Arctic Economic & Security Corridor, Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, and access roads to mine sites would increase ground-based transportation infrastructure available in the RAA, some of which could facilitate community resupply.

There are no anticipated residual effects of the Project on community resupply from using sealift or air freight services to mobilize goods and materials for Construction and Operations and Maintenance of the Project. Therefore, present, reasonably foreseeable, and reasonably foreseeable induced projects are not anticipated to interact cumulatively with the Project on community resupply using sealift or air freight services.

28.4.5.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The introduction of the mitigation, enhancement, and management measures outlined in Section 28.3.5.2 are anticipated to reduce the Project's contributions to potential adverse cumulative effects on changes in community resupply. For example, WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project, and will work with local and territorial governments to reduce interference with each other's deliveries and if possible, coordinate joint resupply efforts. A Socio-economic Monitoring Program provide a mechanism to identify and respond to potential emerging pressures on community infrastructure and service use, including community resupply. It is also expected that current, reasonably foreseeable, and induced projects in NT and the Kitikmeot Region will implement similar mitigation strategies to reduce cumulative demands on community resupply.

28.4.5.3 Cumulative Effects

There are no anticipated cumulative effects on community resupply through sealift or air freight services. Positive cumulative effects on community resupply through overland transportation may occur as a result of interactions between the Project and past, present, reasonably foreseeable, and reasonably foreseeable induced projects.

Construction of the Project will increase land- and marine-based infrastructure available in the RAA for use for community resupply via sealift, air freight, and ground-based transportation. The Grays Bay Port could be used as an additional location for sealifts to the Kitikmeot Region, which would increase the timing and frequency of resupply to the RAA.

The Project will also allow for ground-based transportation of goods from Yellowknife to Grays Bay Port using the TCWR. The construction of the Arctic Economic Security Corridor, a reasonably foreseeable project, would establish year-round access from Yellowknife to the NT-Nunavut border. From the NT-Nunavut border, access to the Grays Bay Road would be accomplished using a winter road (e.g., the TCWR). This would allow for mobilization of goods from Yellowknife to the Grays Bay Port during the winter road season. From warehouses at Grays Bay Port, goods may then be delivered to Kitikmeot communities as well as to present and reasonably foreseeable projects in the RAA via ice roads in winter road season, barges in open water season, and flights (although these activities are outside the scope of this Project proposal). Transportation of goods from Yellowknife to the Grays Bay Port via truck and onwards to Kitikmeot communities would increase the frequency and reliability of community resupply, although this would be seasonally limited to the winter road season. Proponents of present and reasonably foreseeable projects may also procure services to transport goods and materials between Grays Bay Port and project sites, as well as to Kitikmeot communities. New businesses may also be established to provide these services.

Reasonably Foreseeable Induced

Construction of Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would allow for mobilization of goods from Yellowknife to the Grays Bay Port year-round. From warehouses at Grays Bay Port, goods may then be delivered to Kitikmeot communities as well as to reasonably foreseeable induced projects in the RAA via ice roads in winter road season, barges in open water season, and flights. Transportation of goods onward to Kitikmeot communities facilitated using an all-season road connection from Yellowknife to Grays Bay Port would increase the frequency and reliability of community resupply.

28.4.6 Summary of Cumulative Effects

Project residual effects were informed by Inuit, Indigenous, and Community Knowledge, perspectives, and values, serving to understand current conditions and potential changes that may be experienced on the infrastructure and services relied upon by Kitikmiut, other Indigenous groups, and other potentially affected communities. Table 28.10 summarizes cumulative effects on Infrastructure and Services.

Table 28.10 Residual Cumulative Effects on Infrastructure and Services

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in community infrastructure and access to public services or utilities	P*/A	L	RAA	N/A	LT	IR	I
Contribution from the Project to Residual Cumulative Change in community infrastructure and access to public services or utilities	The Project is anticipated to result in some increased demand on community infrastructure and public services or utilities due to the mobilization of personnel through the RAA. Construction of the Project will beneficially increase land- and marine-based infrastructure in the RAA that can be used for SAR activities. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) and could support improved and/or new community infrastructure and public services or utilities over time.						
Change in accommodation and housing availability	P*/A	M	RAA	N/A	LT	IR	I
Contribution from the Project to Residual Cumulative Change in accommodation and housing availability	The Project is anticipated to result in increased temporary demand on accommodation and housing availability due to the mobilization of personnel through the RAA. The Project will contribute to positive cumulative effects through improved transportation infrastructure and delivery of building materials, which may facilitate faster home construction in the RAA. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) and could support improved and/or new accommodation and housing over time.						

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in transportation infrastructure	P*/A	L-M	RAA	A, N/A	LT	IR	I
Contribution from the Project to Residual Cumulative Change in ground-based and air transportation infrastructure and services	The Project is anticipated to increase demand on air transportation infrastructure and the TCWR through the mobilization of personnel, goods, and materials. Construction of the Project will increase land- and marine-based transportation infrastructure for use in the RAA. Revenue, taxes, and funding from the Project will flow to various governments (i.e., municipal, territorial and federal) and could support improved transportation infrastructure over time.						
Change in community resupply	P*	N/A	N/A	N/A	N/A	N/A	N/A
Contribution from the Project to Residual Cumulative Change in community resupply	The Project will contribute to positive cumulative effects through the establishment of infrastructure in the RAA that could improve community resupply.						

Key:

See Table 28.3 for detailed definitions

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
N/A: Not applicable
A: Applicable

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:

* Positive residual effects are not characterized further.

Change in Community Infrastructure and Access to Public Services or Utilities:

With the implementation of mitigation, enhancement, and management measures, cumulative effects on change in community infrastructure and access to public services or utilities are anticipated to be both positive and adverse. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will increase land- and marine-based infrastructure in the LAA that can be used by the CCG and for SAR activities and to improve wayfinding in the land and marine environments. RAA residents may benefit from project-related revenue, taxes, and funding, which will flow to various governments (i.e., municipal, territorial and federal) and could support improvements to community infrastructure and public services or utilities over time. Positive residual effects are not characterized further.

Adverse cumulative effects may occur through the mobilization of personnel through the RAA and in-migration of out-of-region workers to the RAA (Yellowknife, primarily), which may place cumulative demands on community infrastructure and public services or utilities. Adverse cumulative effects are anticipated to be low in magnitude as cumulative demand will be at or near to baseline conditions, long-term in duration, will occur as irregular events and be irreversible. Timing is not applicable.

Change in Accommodation and Housing Availability

With the implementation of mitigation, enhancement, and management measures, cumulative effects on accommodation and housing availability are anticipated to be both positive and adverse. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will increase land- and marine-based infrastructure in the RAA and could improve the transport of construction materials from Yellowknife to the Kitikmeot communities, which may facilitate the construction of new housing. RAA residents may benefit from project-related revenue, taxes, and funding, which will flow to various governments (i.e., municipal, territorial and federal) and could support improved and/or new accommodation and housing over time. Positive residual effects are not characterized further.

Adverse cumulative effects may occur through the mobilization of personnel through the RAA and in-migration of out-of-region workers to the RAA (Yellowknife, primarily), which may place cumulative demands on accommodation and housing availability. Adverse cumulative effects are anticipated to be moderate in magnitude as cumulative demand may strain already limited accommodation and housing capacity, long-term in duration, will occur as irregular events based on multiple rotational shift schedules, and be irreversible. Timing is not applicable.

Change in Transportation Infrastructure

With the implementation of mitigation, enhancement, and management measures, cumulative effects on transportation infrastructure are anticipated to be both positive and adverse. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will increase land- and marine-based transportation infrastructure for use in the RAA. RAA residents may benefit from project-related revenue, taxes, and funding, which will flow to various governments (i.e., municipal, territorial and federal) and could support improved transportation infrastructure over time. Positive residual effects are not characterized further.

Adverse cumulative effects are anticipated to occur through the mobilization of equipment and materials through the RAA, which may place cumulative demands on air transportation infrastructure and the TCWR. Adverse cumulative effects on air transportation infrastructure are anticipated to be low in magnitude. Adverse cumulative effects on the TCWR are anticipated to be moderate in magnitude as cumulative demand may approach, but is not expected to exceed, capacity of the TCWR. Cumulative effects of the Project, current, and reasonably foreseeable projects will be limited to the winter road season. Construction of the Project, reasonably foreseeable projects, and reasonably foreseeable induced projects (i.e., all-season connection from Yellowknife to Grays Bay Port) would eliminate cumulative effects on the TCWR.

Adverse cumulative effects are anticipated to long-term in duration will occur as irregular events based on multiple rotational shift schedules and be irreversible.

Community Resupply

With the implementation of mitigation, enhancement, and management measures, cumulative effects on community resupply are anticipated to be positive. The Project, reasonably foreseeable, and reasonably foreseeable induced projects will increase land- and marine-based infrastructure in the RAA, which could improve community resupply through the transport of goods and materials from Yellowknife to the Grays Bay Port and on to the Kitikmeot communities. Positive residual effects are not characterized further.

28.5 Significance of Effects

28.5.1 Significance of Project Residual Effects

With the implementation of mitigation, enhancement, and management measures, residual effects of the Project on infrastructure and services in the LAA and RAA are predicted to be not significant because they do not exceed available capacity of infrastructure and services and do not result in a substantial decrease in the quality of a service provided, on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

28.5.2 Significance of Cumulative Effects

With the implementation of mitigation, enhancement, and management measures, residual cumulative effects on infrastructure and services in the RAA are predicted to be not significant because they do not exceed available capacity of infrastructure and services and do not result in a substantial decrease in the quality of a service provided, on a persistent and ongoing basis, which cannot be mitigated with current or anticipated programs, policies, or mitigation measures.

28.5.3 Summary of Mitigation, Management, and Enhancement Measures

Mitigation, management and enhancement measures are expected to reduce the adverse residual and cumulative effects on infrastructure and services. The plan to accommodate Project construction and operations workers at camps will reduce demands on infrastructure and services, and temporary accommodation and housing, which is in short supply in the LAA and RAA. The Labour Relations and Training Strategies will increase and retain local Inuit employment and reduce the requirement to hire non-local employees to the degree practical.

To manage effects on transportation infrastructure and community resupply, WKR will transport equipment and supplies from outside of the region to the Project site using barges, sealift, aircraft, and/or trucks contracted specifically for the Project. WKR will also work with local and territorial governments to reduce interference on the TCWR and with each other's deliveries and if possible, coordinate joint resupply efforts. Community members hired from the Kitikmeot Region will be flown to a central hub, such as Cambridge Bay, Kugluktuk, or Yellowknife and then flown to the project site where practical to avoid placing capacity and workforce pressure on Kitikmeot airports in the communities in the eastern Kitikmeot Region.

Several Project-specific plans will be developed and implemented to reduce adverse effects on infrastructure and services and to enhance benefits. These include:

- A Travel Policy in the event that personnel transiting to/from the Project site are weathered in in a community. The Travel Policy will include plans for accommodation, meals, use of community medical services, and other needs for personnel during travel delays.
- A HSSE plan will include safety training requirements for personnel, and security and response procedures.
- The HMSP which will include prevention and management measures for injuries, infection, and disease, a description of medical and first aid services available to personnel at Site, including first aid/medical staff and a medical clinic, and describe medical emergency responses, including medical emergencies requiring evacuation.
- An Risk Management and Emergency Response Plan will include notification protocols with local search and rescue community groups and the CCG or CCG Auxiliary, including protocols or compensation requirements for utilizing these resources for Project-related searches, if required.
- A Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.
- A Procurement Strategy will be developed and implemented to facilitate regional and Inuit business involvement, including providing first opportunity to regional and Inuit businesses, where competitive. The Procurement Strategy will prioritize the use of local construction equipment to reduce the need to transport equipment from outside of the region and enhance local project benefits.

WKR will also engage with Kitikmiut, other Indigenous groups, and other potentially affect communities throughout the lifetime of the Project.

28.6 Prediction Confidence and Uncertainty

With the implementation of mitigation, enhancement, and management measures, including implementation of normal planning procedures by the relevant authorities, and liaison between WKR and those local authorities, the residual effects on infrastructure and services have been determined with a medium level of confidence.

As described in Section 28.3.1, there are some uncertainties associated with the availability of information, data analyses, and interpretation of data; these are addressed by taking a conservative approach that manages the potential to underestimate the significance of an effect. Through the application of a conservative approach, assumptions err on the side of overstating an effect.

The prediction confidence in the conclusions for project residual effects and residual cumulative effects for infrastructure and services is also based on:

- Uncertainty regarding the extent to which project employment will be realized by local residents and the number of people who may require transit through communities in the LAA and increase demand on community infrastructure and public services or utilities and temporary accommodations, particularly in the event the workforce is weathered in in a community.
- Uncertainty regarding the extent to which transportation of goods and materials from Grays Bay Port to Kitikmeot communities for community resupply can be realized.
- Effectiveness of mitigation and management plans
- Changes regarding the status of other reasonably foreseeable and reasonably foreseeable induced projects in the region that are outside the control of the Project

The proposed mitigation and management plans, including the provision of camps to accommodate fly-in/fly-out Project employees, Training and Labour Relations Strategies, and Road Management Plan, are standard mitigations that have proven to be effective for managing effects of other resource development projects.

28.7 Follow-up and Monitoring

WRK will establish a program to monitor the socio-economic effects of the Project, including effects on infrastructure and services. A SEMP will be one of the key strategies to guide the implementation of mitigation and management measures, measure the effectiveness of these measures, monitor how communities are experiencing effects (both positive and adverse), help with the socio-economic development of Inuit communities, and enable adaptive management of potential new/emerging socio-economic effects.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, including adaptive management and monitoring, as appropriate. WKR will also develop "Guidance for Incorporating Community Perspectives and Inuit, Indigenous, and Community Knowledge" in the Project's Monitoring Programs to meaningfully incorporate this valued information and knowledge into project operations.

28.8 Knowledge and Literature Cited

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28.8.2 Personal Communications

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29 Assessment of Potential Effects on Non-Traditional Land, Marine, and Resource Use

The Kitikmeot Region is comprised of both Inuit Owned Land (IOL) and Crown (Public) Land. As negotiated through the Nunavut Land Claims Agreement, IOL with subsurface rights were selected by Inuit to advance economic development for the benefit of land claim beneficiaries and to rebuild and advance Inuit self-determination in land and resource management the Kitikmeot Region (Public History Inc. 2006).

This Section describes and assesses the potential effects of the Grays Bay Road and Port Project (Project) (all phases) on the following elements of non-traditional land and marine use: land use designations; mineral resources; commercial harvesting, tourism and recreation, and marine navigation. Community members who participated in the Naonaiyaotit Traditional Knowledge Project (NTKP) shared information on non-traditional land use, wildlife (hunting and fishing trips), tourist travel, and marine navigation in the Project area.

These perspectives are carried through the assessment, and acknowledge Inuit, Indigenous, and Community perspectives in primary research findings as well as publicly available information about perspectives on non-traditional land, marine, and resource use. Elements related to cultural and traditional land, marine, and resource use (e.g., fishing, subsistence harvesting, and traditional seasonal travel routes) are addressed separately in the Impact Statement (IS) under the Traditional Land, Marine, and Resource Use VC (see Section 24).

As such, Non-Traditional Land, Marine, and Resource Use has been identified as a Valued Component (VC) to be assessed for the Project. The Project will interact with IOL and Crown land areas. The Project is anticipated to interact with certain non-traditional land, marine, and resource users through changes in access to and use of land and resources for mining, changes in access to and use of land and resources for commercial harvesting, tourism and recreation, and changes in access to and waters used for marine navigation.

The non-traditional land, marine, and resource use assessment is also informed by assessments of the following VCs:

- Noise and Vibration (Volume 5, Section 13) – Project-related activities may result in disturbance and nuisance effects to land, marine, and resource users
- Freshwater Fish and Fish Habitat (Volume 7, Section 20) – Project-related activities may result in changes in freshwater fish and fish habitat and in turn may affect use of freshwater fish resources (e.g., recreational fishing/commercial fishing in creeks and rivers)

- Wildlife – Caribou, Birds, and Other (Volume 6, Sections 16, 17, and 18) – Project-related activities may result in changes to wildlife and wildlife habitat and in turn affect use of wildlife resources (e.g., hunting, outfitting, trapping)
- Infrastructure and Services (Section 28) – Project-related activities may alter traffic and transportation infrastructure and in turn may affect non-traditional land, marine, and resource use

This report conforms with requirements outlined in the Nunavut Impact Review Board (NIRB) IS Guidelines for the Project (NIRB 2026).

29.1 Scope of Assessment

This Section defines and describes the scope of the assessment of potential effects on non-traditional land, marine, and resource use.

29.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities about the Project. A summary of engagement activities conducted from 2016 to 2025 is presented in Volume 3, Section 6 (Public Engagement). Additionally, an Inuit Advisory Group (IAG) was established to advise WKR on potential environmental and socio-economic effects or concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, baseline understanding, significance determination, and consideration and integration of Inuit, Indigenous, and Community Knowledge. IAG members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and/or water in the Project area.

To further inform the Project design, a Project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, compiled from Inuit Knowledge contained in the NTKP database, was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

In addition to the engagement activities and knowledge gathering initiatives described, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak, along with organizations in Yellowknife. Community-based primary research was conducted in the Kitikmeot Region in October and November 2024 and with Yellowknife organizations in May and June 2025. Applicable feedback identified during Project engagement activities and through shared Inuit, Indigenous, and Community Knowledge (see Volume 3 Inuit Knowledge, Indigenous Knowledge, and Perspectives) has been integrated into the summary of baseline conditions for non-traditional land, marine, and resource use and integrated into the assessment where applicable.

As well, publicly available sources of Inuit and Indigenous Knowledge were reviewed to provide further context about baseline conditions and how conditions are changing, as well as potential mitigation measures recommended on previous projects that could be considered for the Project. Results from monitoring studies and other community-based research were also reviewed.

Through the Project-specific engagement program and community-based primary research, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations specifically related to socio-economic topics, including infrastructure and services. Through reviewing the information, Inuit, Indigenous, and Community Knowledge has influenced key components of this assessment. WKR commits to continued engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during the advancement of Project design, planning, and monitoring and throughout the life of the Project. Continued engagement through the NIRB process will support issues identification and mitigation measures to address them.

29.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge reviewed with consideration to the proposed spatial boundaries served to confirm the assessment boundaries. For example, the Local Assessment Area (LAA) considers water quality, fish, and wildlife resources that are harvested or used for other commercial or recreational purposes, which includes species identified to be of cultural importance to Kitikmiut, other Indigenous groups, and other potentially affected communities (see Section 29.1.4.1).

29.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining Inuit-led and collaborative knowledge gathering (including the Project-specific Inuit Knowledge report compiled from the NTKP database and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities with technical studies collected through western scientific methods. Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered and summarized in Section 29.2.2.1, Table 29.6. This includes information on the importance of certain resources for non-traditional harvesting and on access management (see Section 29.2.2.1).

29.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities (e.g., clearing, blasting) and project infrastructure could affect socio-economic conditions or important interests including culturally important species within the non-traditional land, marine, and resource use LAA. Through community meetings, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities including transboundary communities provided perspectives and values, which were considered and integrated into the potential effects to be considered.

Some key issues and concerns related to non-traditional land, marine, and resource use raised by Kitikmeot communities during the Project's engagement activities completed to date include:

- **Wildlife, Fisheries, and Heritage** – The Project could affect caribou in the area, fisheries, and historical sites; bridges, or road presence may degrade wilderness experience and wildlife behaviour and alter perceived remoteness by land users.
- **Road Access** – There is potential for effects to caribou and other ungulates due to the road facilitating more year-round access, and enabling hunters, tourism operators or other parties unaffiliated with the road from the south to access areas further north associated with the Project.
- **Road Safety, Compliance, and Education** – There is a need for monitoring and managing access for safety and compliance, regarding local hunters and tourism operators and the need for education on buffer zones, and the importance of balancing access and safety to protect the environment and community.

Feedback also helped guide planning for the Project's mitigation and adaptive management measures. This feedback has been integrated in the assessment of project effects on non-traditional land, marine, and resource use, where applicable (see Section 29.3).

29.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas, species, and practices as well as socio-economic conditions that may experience combined effects from the Project and other projects and activities in the Project's Regional Assessment Area (RAA).

WKR wove Inuit, Indigenous, and Community perspectives with western science to develop a holistic view of how multiple changes could affect land-based livelihoods, cultural continuity, and environmental integrity over time. The analysis recognizes the importance of long-term monitoring, which will track combined effects to inform adaptive management plans (see Section 29.4). WKR will develop and implement a Road Management Plan and a Port Management Plan that will address access issues associated with the road, small craft harbour, use of port facilities, use of facilities along the road, air strip, and the existing cabin near the Project. The Road Management Plan will help manage vehicle use on the road. The use of these community access strategies will reduce the potential for adverse cumulative effects by encouraging safe travel within the RAA. The Wildlife Mitigation and Monitoring Plan will include a framework for monitoring of Project-related effects on caribou, birds, and other wildlife within and adjacent to the PDA.

29.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed with input from Inuit, Indigenous, and Community Knowledge and engagement feedback about relevant values and perspectives (see Volume 3 Inuit Knowledge, Indigenous Knowledge, and Perspectives). This information supported WKR's consideration of how the Project complies with established plans, policies, and by-laws, the amount of change or disruption to non-traditional land, marine, and resource use, or the amount of change to marine navigation. In addition, members of the IAG provided additional criteria to consider when identifying whether the Project is likely to have significant, or unacceptable, effects (see Sections 29.1.6 and 29.5).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR is committed to implementing proactive socio-economic planning strategies such as implementing a Road Management Plan and Port Management Plan to address access issues related to the road, small craft harbour, use of port facilities, use of facilities along the road, air strip, and existing cabin near the Project.
- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).
- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

29.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce negative effects from the Project and enhance benefits were shared.

Mitigation, management, and enhancement measures shared during these information exchanges or that are proposed in accordance with best practices and standards were often discussed and reviewed with Inuit community representatives during community meetings and IAG workshops to confirm they align with community priorities. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Inuit, Indigenous, and Community Knowledge also emphasized the importance of some of the mitigation measures listed in Sections 29.3.2.3, 29.3.3.3, 29.3.3.4, and 29.3.5.3. Adjustments were made as appropriate based on advice from IAG members and the Kitikmeot Inuit Association, in addition to Indigenous groups and other potentially affected communities through engagement. IAG members emphasized the need for education and signage to promote safe and responsible use of the road. They expressed the need for monitoring and managing land user access to ensure safety and compliance. Concerns were raised about local hunters and the need for education on buffer zones. The importance of balancing access and safety to protect the environment and community interests were discussed (IAG 2025a). Inuit co-developed monitoring and reporting were incorporated to support ongoing involvement and accountability. WKR proposes to implement a Road Management Plan and Port Management Plan to address access issues related to the road, small craft harbour, use of port facilities, use of facilities along the road, air strip, and existing cabin near the Project. Furthermore, WKR will develop a system to track complaints and responses to manage and mitigate feedback from the public regarding noise concerns through an Air Quality Monitoring and Management Plan and Noise and Vibration Abatement Plan. The Project will apply adaptive management strategies (see Section 29.5.3).

In addition, the assessment of effects on marine habitat is guided by Inuit, Indigenous, and Community Knowledge (as outlined in Section 29.1.1). Inuit Knowledge may also be referred to as *Inuit Qaujimaningit* which encompasses “Inuit traditional knowledge (and variations thereof or *Inuit Qaujimajatuqangit*), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2018). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as *Inuit Qaujimajatuqangit* principles (NIRB 2018; Pauktuutit 2006). For more detail see Volume 3 Inuit Knowledge, Indigenous Knowledge, and Perspectives. The Kitikmeot Inuit Association recommended use of the term “Inuit Knowledge” in the IS. WKR has adopted this terminology and understands Inuit Knowledge encompasses *Inuit Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on non-traditional land, marine, and resource use.

29.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

29.1.2 Regulatory and Policy Setting

The management of non-traditional land, marine, and resource use is subject to several statutes, regulations, policies, and agreements.

The Project is in the western Kitikmeot Region of Nunavut and is located on a combination of Inuit Owned Lands and Crown land administered by the Government of Canada. Table 29.1 provides a description of the key legislation, policy, and regulatory guidance documents applicable to the assessment of non-traditional land, marine, and resource use. In addition to the federal and territorial agencies included in Table 29.1, the following entities are relevant to this VC:

- Nunavut Planning Commission (NPC) – responsible for developing and administering land use plans that set out where different land uses may occur in the Nunavut Settlement Area based on environmental, socio-economic, and cultural needs.
- Nunavut Tunngavik Incorporated (NTI) – represents Inuit and is responsible for implementing the *Nunavut Land Claims Agreement Act* (Nunavut Agreement). At the time of signing the Nunavut Agreement, the Government of Canada retained certain administrative responsibilities for the territory. Responsibilities for Nunavut's public lands, natural resources, and rights in respect to water will be transferred from the Government of Canada to the Government of Nunavut (GN) by April 1, 2027, through the Nunavut Lands and Resources Devolution Agreement.
- Nunavut Wildlife Management Board (NWMB) – oversees wildlife and habitat management in a co-management system, based on principles of conservation, sustainability, and ecosystemic integrity. The NWMB may approve plans for wildlife management and protection.

Table 29.1 Summary of Key Legislation, Policy, and Regulatory Guidance Documents for Non-Traditional Land, Marine, and Resource Use

Regulation or Policy	Description
Federal	
Canadian Environmental Protection Act, Environment and Climate Change Canada (ECCC)	Dredging and disposal in coastal waters and the bulk storage of fuel require approvals from ECCC.
Canadian Navigable Waters Act, Transport Canada	Construction of works (i.e., port and harbour) and road crossings of navigable waterways require approval from Transport Canada, Navigation Protection Program (Transport Canada 2025).
Explosives Act, Natural Resources Canada (NRC)	The storage, transport, and use of explosives require a permit and licence from NRC.
Fisheries Act, Fisheries and Oceans Canada (DFO)	Construction of in-stream works and wharf construction are subject to review and approval from DFO with respect to the potential for the harmful alteration, disruption, and destruction (HADD) of fish and fish habitat.

Regulation or Policy	Description
Nunavut Land Claims Agreement Act, Kitikmeot Inuit Association	The Nunavut Agreement delegates the responsibility of land and resource management on IOL to Nunavut Tungavik Incorporated (NTI). Surface land management in the Kitikmeot Region is further delegated to the Kitikmeot Inuit Association. Access to IOL for drilling, fuel storage, camp operation, quarry, research, and road construction are subject to Kitikmeot Inuit Association approval. Long-term use of land for quarrying and the road is subject to issuance of a lease.
Territorial Lands Act, Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)	Supporting regulations made under the *Territorial Lands Act* include the Territorial Lands Regulations, Territorial Dredging Regulations, and Territorial Quarrying Regulations.
Territorial	
Commissioner's Land Act, Government of Nunavut Department of Community and Government Services	Governs access to and disposition of surface rights on Commissioner's lands and untitled municipal lands (subsurface rights administered by CIRNAC).
Nunavut Planning and Project Assessment Act, Nunavut Impact Review Board (NIRB)	Provides for the assessment of biophysical and socio-economic impacts of projects in the Nunavut Settlement Area, and for the monitoring of approved projects, under Article 12 of the Nunavut Agreement.
Nunavut Waters and Nunavut Surface Rights Tribunal Act, Nunavut Water Board	Watercourse crossings, use of water, deposits of waste, storage of fuel and other hazardous material are subject to issuance of water license(s) under Article 13 of the Nunavut Agreement.
Draft Nunavut Land Use Plan (2021)	A draft Nunavut Land Use Plan (NLUP) was prepared for consideration under Article 11.5.1 of the Nunavut Agreement and Part 2 of the *Nunavut Planning and Project Assessment Act* to guide and direct short-term and long-term development in the Nunavut Settlement Area and reflect the priorities and values of residents (to date, the draft is not approved).

29.1.3 Potential Effects, Pathways, and Measurable Parameters

Potential effects, effects pathways, and measurable parameters for non-traditional land, marine, and resource use are described in Table 29.2. For each potential effect, effect pathways and indicators/ measurable parameters have been identified to facilitate the quantitative or qualitative measurement of change in Project-specific and cumulative effects potentially caused by the Project.

Where practical, the assessment of potential effects on non-traditional land, marine, and resource use was completed using measurable parameters that are quantified (e.g., area of overlap). However, not all effects pathways can necessarily be quantified. Therefore, some effects (e.g., visual quality/aesthetics) are predicted qualitatively by considering case studies from other projects, published information, feedback from engagement, and professional judgment based on experience with similar projects.

Table 29.2 Potential Effects, Effects Pathways and Measurable Parameters for Non-Traditional Land, Marine, and Resource Use

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in land use designation	• Project activities may not be compatible with applicable land use designations and land ownership, including parks and protected areas	• Conflict(s) with land use designations
Change in access to and use of lands and resources for mining	• Project activities may alter access to land and resources that may be used for mineral exploration and development • Project development may affect other mining or mineral exploration areas	• Change in access • Area of overlap with other mines or areas of exploration within the Local Assessment Area (LAA)
Change in access to and use of lands and resources for commercial harvesting, tourism and recreation	• Project activities may alter access to land and resources that may be used for commercial fishing, hunting, and wilderness guiding (i.e., recreation/tourism) • Clearing and construction activities will alter the topography and vegetation within the PDA may affect the landscape through visual changes from the presence of the Project • Project activities may result in sensory disturbance (e.g., aesthetics, light, noise, emissions) to land users undertaking fishing, hunting, and wilderness guiding (i.e., recreation/tourism) • Potential change in wildlife harvesting success, availability of, and competition for resources affecting the quality of the outdoor experience (e.g., fishing, hunting, and wilderness guiding)	• Area of overlap with other land uses within LAA (ha) • Visual quality (qualitative description) • Sensory disturbance (quantitative assessment) • Experiential quality (qualitative description)
Change in access to and use of waters for marine navigation	• Project activities may affect marine navigation	• Number of Project-related vessel movements • Areal extent of navigable waterway affected (square kilometres)

29.1.4 Boundaries

29.1.4.1 Spatial Boundaries

Spatial boundaries for the assessment of potential effects consider the geographic extent over which Project activities may affect non-traditional land, marine, and resource use including areas identified as important resource habitat and harvesting area for Kitikmiut. The spatial boundaries for non-traditional land, marine, and resource use are described below and are illustrated on Figure 29.1.

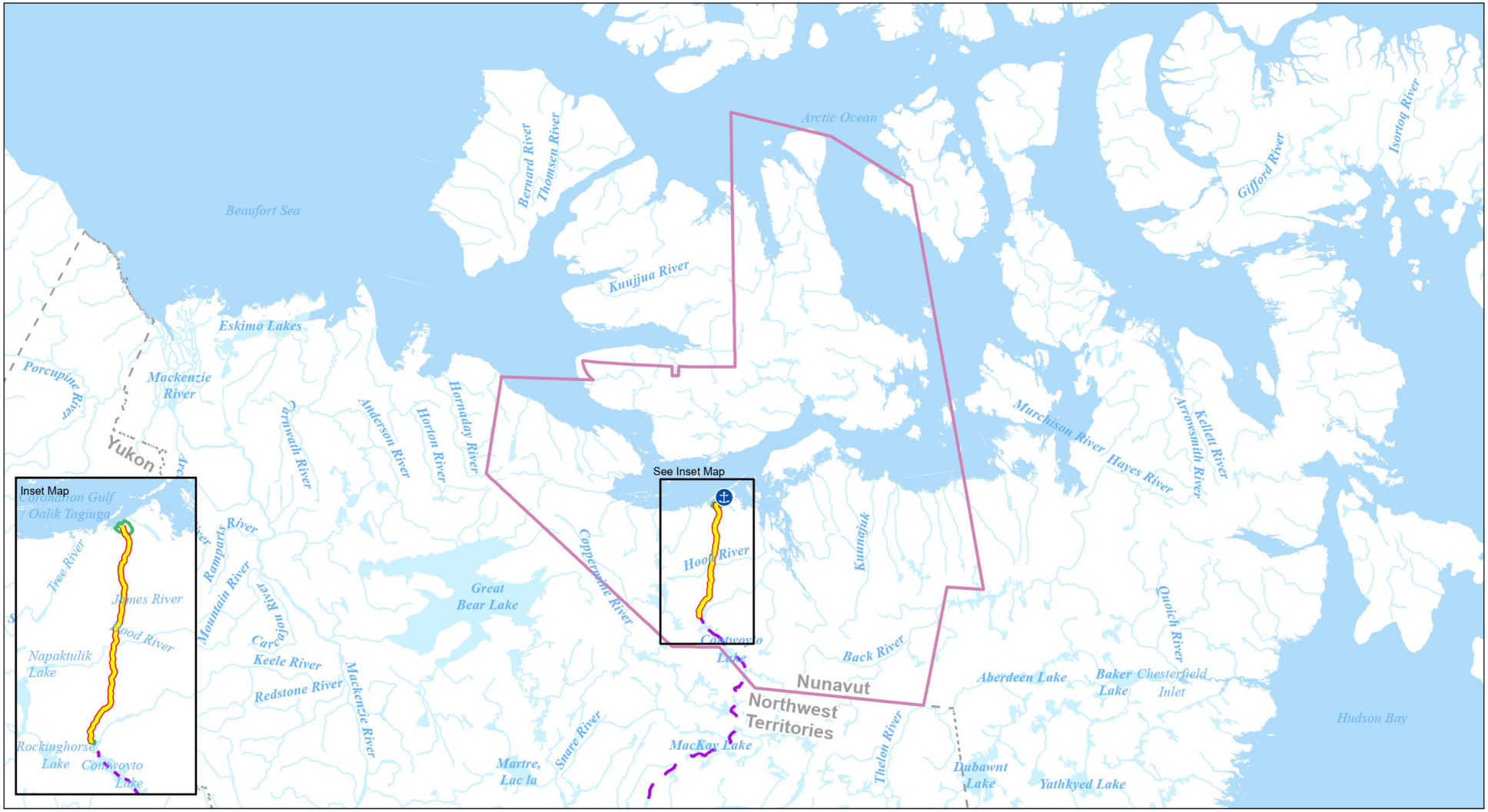
Project Development Area

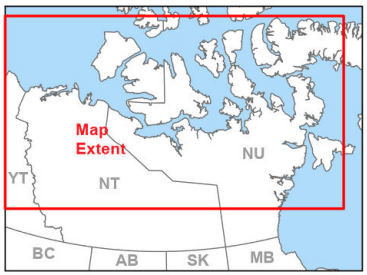
The Project Development Area (PDA) encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. The boundary of the PDAs were created by applying buffers around where the Project components will be sited, and varies by each of the sub-areas depending on necessary flexibility for final siting of certain Project components based on conditions on the ground. For the Road PDA and Winter Road PDA, a 75-metre (m) buffer was applied to the roads centreline, for the Port PDA and the Aerodrome PDA, the areas were subdivided based on the conceptual Project component locations and then buffered approximately 1,000 m for the landside Port PDA, approximately 300 m for the marine Port PDA, and 500 m for the Aerodrome PDA. The Jericho Station PDA was buffered based on the existing development from the old Jericho Mine site that will be used for the Project and the need for additional space to accommodate the Project components that will be developed as part of the Project for this location. The Winter Road PDA will only exist annually between the beginning of February and end of March, will be built on land where the existing Jericho Station road ends, at the southeastern portion of Jericho Station, to the shoreline of Contwoyto Lake where it will connect to the Tibbitt to Contwoyto Winter Road (TCWR). For the purposes of the impact assessment, the PDA is the same as the Site Study Area identified in the Guidelines for the Preparation of the Project Impact Statement (NIRB 2026; IS Guidelines).

Local Assessment Area

As non-traditional land, marine, and resource use activities are closely tied to navigation, and mineral, fish, and wildlife resources that are harvested, the LAA is based on the fish, wildlife, and marine assessment boundaries. The LAA for the Non-Traditional Land, Marine, and Resource Use VC (Figure 29.1) is comprised of:

- A 2 kilometres (km)-wide corridor centered on the Road PDA
- A 4 km buffer of the Port PDA (Landside Infrastructure)
- A 4 km buffer of the Aerodrome PDA, and
- A 1 km buffer of the Port PDA (Marine-based Infrastructure).





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

- Local Assessment Area (LAA)
- Regional Assessment Area (RAA)
- Grays Bay Port
- Grays Bay Road
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Watercourse
- Ocean
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:6,750,000

N

NUNAMI
STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2026-02-05
TR by SJ on 2026-02-05

Client/Project
123514868_018

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
29.1

Title
Non-Traditional Land, Marine, and Resource Use Assessment Areas

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Regional Assessment Area

The RAA for the Non-Traditional Land, Marine, and Resource Use VC corresponds to the western portion of the Kitikmeot Region (Figure 29.1). The RAA encompasses a broader area beyond the Project in the western Kitikmeot to provide additional context for non-traditional land, marine, and resource use activities.

29.1.4.2 Temporal Boundaries

Temporal boundaries identify when an effect is evaluated in relation to specific Project phases and activities. Temporal boundaries are based on the timing and duration of Project activities and the nature of the interactions with non-traditional land, marine, and resource use.

The following temporal boundaries were used in the assessment:

- The Construction phase of the Project will take approximately five years to complete (both pre-construction activities and construction) with a proposed start date in 2029.
- The Operations and Maintenance phase of the Project will start in 2035 and will continue in perpetuity.

Refer to Table 2.1 in Volume 2, Section 1-4 (Preliminary Schedule of Project Activities [Post-Project Certificate]) for a more detailed construction schedule. At this stage, there is no plan to decommission or abandon the Project.

29.1.5 Residual Effects Characterization

Table 29.3 presents definitions and criteria that are used to characterize residual effects on non-traditional land, marine, and resource use. Residual effects are those effects that remain after the application of mitigation and management measures.

Table 29.3 Characterization of Residual Effects on Non-Traditional Land, Marine, and Resource Use

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	The long-term trend of the residual effect	**Positive** – a residual effect that moves measurable parameters in a direction beneficial to non-traditional land, marine, and resource use relative to baseline. **Adverse** – a residual effect that moves measurable parameters in a direction detrimental to non-traditional land, marine, and resource use relative to baseline. **Neutral** – no net change in measurable parameters for non-traditional land, marine, and resource use relative to baseline.

Characterization	Description	Quantitative Measure or Definition of Qualitative Categories
Magnitude	The extent of a change in measurable parameters or the VC from baseline conditions.	**Negligible** – no measurable change in the measurable parameter **Low** – a measurable change in non-traditional land, marine and resource use activities experienced on an individual-basis level, or that can take place at or near baseline levels **Moderate** – measurable change in non-traditional land, marine, and resource use experienced at a small group level, or that is greater than "low", but the change does not present a management challenge **High** – measurable change in non-traditional land, marine, and resource use experienced at a community level, or such that activities cannot take place at or near baseline levels, and presents a management challenge
Geographic Extent	The spatial area(s) in which an effect is predicted to be detectable.	**PDA** – residual effects are restricted to the PDA **LAA** – residual effects extend into the LAA **RAA** – residual effects interact with those of other projects in the RAA
Timing	Considers when an effect is predicted to occur, where relevant to the VC.	**Not Applicable** – non-traditional land, marine, and resource use activity occurs year-round **Moderate sensitivity** – non-traditional land, marine, and resource use activities occur seasonally; effects may occur during a less sensitive time **High sensitivity** – non-traditional land, marine, and resource use activities occur seasonally; effects may occur during a sensitive time
Duration	The time required until the measurable parameter or the VC returns to its existing condition, or the residual effect can no longer be measured or otherwise perceived.	**Short-term** – the residual effect is restricted to no more than the duration of the construction phase (five years) **Long-term** – the residual effect extends beyond the Construction phase and into Operations and Maintenance
Frequency	How often an effect is predicted to occur.	**Single event** **Multiple irregular event** – occurs at no set schedule **Multiple regular event** – occurs at regular intervals **Continuous** – occurs continuously
Reversibility	The degree to which a VC can be returned to baseline conditions or other established reference point after relevant activities have ceased.	**Reversible** – the residual effect is likely to be reversed **Irreversible** – the residual effect is unlikely to be reversed

29.1.6 Significance Definition

During the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to non-traditional land, marine, and resource use, feedback received from IAG members (IAG 2025b) identified the following priorities, when considering potentially unacceptable changes arising from the Project:

- That Inuit perspectives are listened to when designing the Project
- That wildlife and water are protected
- That the Project does not negatively affect people's ability to harvest caribou and put food on the table

Furthermore, a significant adverse residual effect on non-traditional land, marine, and resource use is defined as one where:

- The Project does not comply with established and approved land use plans, policies or by-laws,
- The Project will create a change or disruption that restricts or degrades present land use to a point where the existing activities or land use cannot continue at or near baseline levels and where mitigation is not possible, or
- The Project will affect marine navigation in a way that is unacceptable to the relevant regulatory authorities.

29.2 Baseline Conditions

29.2.1 Methods

The non-traditional land, marine, and resource use assessment, including the assessment of Project-related effects and cumulative effects, was conducted in accordance with the methods described in Volume 4, Section 9 Effects Assessment Methodology and guided by the IS Guidelines. Baseline data were collected and described for non-traditional land, marine, and resource use from several key sources, including from Kitikmiut, other Indigenous groups, and other potentially affected communities. Secondary data were collected through desktop research and publicly available information and georeferenced datasets (e.g., Nunavut Map Viewer). Primary data were collected through interviews with key informants. Further information on methods is described in the Grays Bay Road and Port Project People and Communities Baseline Report (Appendix 25A).

29.2.1.1 Literature Review and Secondary Data Collection

Quantitative and qualitative information on baseline conditions within the LAA and RAA was obtained from the following sources:

- Government of Canada
- Government of Nunavut
- Nunavut Tunngavik Incorporated
- Inuit Tapiriit Kanatami
- Hunters and Trappers Associations
- *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report*
- Other environmental assessment reports
- Published literature and “grey” literature

29.2.1.2 Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified.

29.2.1.3 Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to people and communities in the Kitikmeot Region in October and November 2024. A social sciences research license, which included ethics approval, was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

As described in the People and Communities Baseline Report (Appendix 25A), a total of 61 interviews were conducted with 70 community members in-person and virtually over Microsoft Teams. In-person interviews were conducted in the communities of Kugaaruk, Cambridge Bay, Kugluktuk, Gjoa Haven and Taloyoak. Interview participants included regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

29.2.1.4 Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded by written notes and audio recording, when consent was granted. Written notes and audio recordings were typed and transcribed, respectively. Primary research underwent thematic analysis, which grouped findings into major themes that align with the various People and Communities VCs (Food Security and Food Sovereignty, Community Health and Well-being, Employment and Economy, Infrastructure and Services, and Non-traditional Land, Marine, and Resource Use). Key findings of data analysis were integrated into the baseline report.

29.2.1.5 Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of the research program, the methods used, and the interpretation of information. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination based on gender, sexuality, Indigeneity and other identity factors. All members of the research team have taken unconscious bias training, a 2-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be managed.

29.2.1.6 Gender Based Analysis Plus (GBA Plus)

The Gender-Based Analysis Plus (GBA Plus) framework guides the consideration of differential effects on unique subpopulations. This framework requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the inclusion of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including the impact of colonialism.

Subpopulations that will be considered in the assessment of potential effects on non-traditional land, marine, and resource use have been selected based on the GBA Plus framework, feedback from engagement, through literature on socio-community impacts from industrial development projects, and on the professional experience and knowledge of the socio-economic technical team. A suite of unique socio-economic sub-populations are fully addressed in the People and Communities Baseline Report (Appendix 25A). Sub-populations that have been selected for consideration in the assessment of the Non-Traditional Land, Marine, and Resource Use VC include women, Inuit, hunters and trappers, and other Indigenous groups.

29.2.2 Overview

The following subsections summarize baseline conditions for land use planning, mineral resource development, parks and protected areas, non-traditional marine use, tourism and recreation, and commercial fisheries. Further details on baseline conditions can be found in the Grays Bay Road and Port Project People and Communities Baseline Report (Appendix 25A).

To inform understanding of the non-traditional land, marine, and resource use setting, multiple sources of information were considered, including Inuit, Indigenous, and Community Knowledge perspectives and engagement feedback. The traditional land, marine, and resource use baseline is presented in Section 24 Traditional Activity and Knowledge.

29.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the Project-specific engagement program delivered since 2016, including community meetings, workshops, community-based primary research, the project-specific Inuit Knowledge report compiled from the NTKP database, and through a review of publicly available information, Kitikmiut, other Indigenous groups, and other potentially affected communities shared information, expressed concerns, and provided recommendations related to non-traditional land, marine, and resource use. This feedback has been considered and summarized in Table 29.4, where applicable, and has been integrated into the assessment of potential effects on non-traditional land, marine, and resource use that follows.

Inuit Knowledge shared explains the importance of and illustrates how Inuit have used, and still use the land, wildlife (i.e., caribou, land mammals, birds), fish (i.e., fishing and fishing places), and plants in the Project area. Inuit Knowledge was also shared to help understand landscape features (i.e., eskers), special resources (i.e., wood, soil, carving stone and metal), water sources and quality, seasons and climate, and environmental changes (Banci and Spicker 2024). Of the 600 Inuit interviewed on land use, most of the people holding knowledge on fish, wildlife, and travel were men. Only 53 (8.8%) of the interviewees were women (Banci and Spicker 2024). In all, the information presents a capsulation of the influences that have affected Inuit and their use of the land. Feedback was also reviewed from other Indigenous groups and other potentially affected communities, which revealed knowledge of other issues such as the location where rivers were commercially fished (Table 29.4).

Table 29.4 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Comment	Source	WKR Response	Where/How Addressed
During early engagement on the Project, Cambridge Bay (*Ekaluktutiak*) Hunters and Trappers Organization expressed concern regarding caribou in the area, fisheries, and historical sites. They reported that wolf hunting and other harvesting activities occurred in Contwoyto Lake. They also stated that notification of port closure should be communicated two weeks ahead.	GBRP 2017	WKR has identified mitigation measures to reduce effects to wildlife and freshwater fish resulting from project activities. The effects of the Project on caribou and freshwater fisheries from changes in habitat are assessed in Sections 16 and 20. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Information informed baseline conditions as presented with Section 29.2.2. Informed mitigation and management measures to reduce or eliminate effects on fisheries and wildlife (see Section 29.3.3). The effects of the Project on wildlife from changes in habitat are assessed in Volume 6, Section 16.3 Caribou; Section 18 Other Wildlife; and Volume 7, Section 20.3.2 Freshwater Fish and Fish Habitat.
During Project engagement, members of the Gjoa Haven public expressed concern about the number of boats that will travel in the Grays Bay area if the port is built and that they will be transporting toxic chemicals.	GBRP 2025	WKR has identified plans for managing marine navigation at the Grays Bay Port area. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Information informed baseline conditions as presented in Section 29.2.2. Informed mitigation and management measures and management plans (e.g., Port Management Plan, and Risk Management and Emergency Response Plan, including an Oil Pollution Emergency Plan, and Road Management Plan), potential effects pathways, and effects assessment.

Comment	Source	WKR Response	Where/How Addressed
IAG members emphasized the need for education and signage to support safe and responsible use of the road. They expressed the need for monitoring and managing access to ensure safety and compliance. Concerns were raised about local hunters and the need for education on buffer zones. The importance of balancing access and safety to protect the environment and community interests were also discussed.	IAG 2025a	WKR has identified plans for tight security and controlled access points along the route. Sharing Inuit Knowledge with various biophysical disciplines was conducted, including air quality, vegetation, wildlife, socio-economics, land and resources, traditional land, marine, and resource use, and freshwater fish.	Informed mitigation and management measures, potential effects pathways, and effects assessment. Inuit Knowledge with respect to biophysical and socio-economic VCs is described and assessed in Volume 9 Section 24 Traditional Activity and Knowledge.
IAG members recommended heated shelters be made available for hunters and monitors, water transport be facilitated for hunters without boats to support community members gaining access to the port, and suggested marked trails for safe winter travel to the port could be an option to consider. Members explained these supplies would support recreation and harvesters. They discussed that the Project could act as a 'safe haven' for travellers in the region, including those travelling between Kugluktuk and Cambridge Bay.	IAG 2025b	WKR will work with the Kitikmiut Inuit Association to discuss supporting these initiatives.	Informed mitigation and management measures and management plans (e.g., Road Management Plan, Port Management Plan), potential effects pathways, and effects assessment. Inuit Knowledge with respect to use of travel routes as part of socio-economic VCs is described and assessed in Volume 9 Section 24 Traditional Activity and Knowledge.
Representative shared knowledge on land use, hunting, and wildlife (hunting and fishing trips), tourist travel in the Project area, and potential negative impacts from the road and concerns with wildlife sensitivity, visitor experience, and cultural values.	Black Feather Wilderness Company 2025, pers. comm.	The effects of the Project on land use, hunting, and fishing, and visitor experience are assessed in Section 29. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Informed mitigation and management measures, potential effects pathways, and effects assessment. Informed mitigation and management measures and management plans (e.g., Air Quality Monitoring and Management Plan and Noise and Vibration Abatement Plan, Borrow Pits and Quarry Management Plan, Road Management Plan).

Comment	Source	WKR Response	Where/How Addressed
Kitikmeot Foods representative shared knowledge of river systems that are currently and/or historically used for commercial fishing.	Kitikmeot Foods, Cambridge Bay 2024, pers. comm.	The effects of the Project on freshwater fisheries from changes in habitat are assessed in Section 20. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Information informed baseline conditions as presented with Section 29.2.2. Informed mitigation and management measures to reduce or eliminate effects on fisheries (see Section 29.3.3). The effects of the Project on wildlife from changes in habitat are assessed in Volume 7, Section 20.3.2 Freshwater Fish and Fish Habitat.
A Community Member in Kugaaruk shared knowledge on the location where rivers were commercially fished (e.g., Aerosmith River) and associated use and location of cabins (e.g., Middle Lake).	Community Member, Kugaaruk. 2024, pers. comm.	The effects of the Project on freshwater fisheries from changes in habitat are assessed in Section 20. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Informed mitigation and management measures, potential effects pathways, and effects assessment. Inuit Knowledge with respect to biophysical and socio-economic VCs is described and assessed in Volume 9 Section 24 Traditional Activity and Knowledge.
Representative shared knowledge on caribou migration and summer grounds in the Project area, experience elsewhere with all season roads built in the Arctic.	Taloyoak Housing Authority 2024, pers. comm.	WKR has identified mitigation measures to reduce effects to wildlife resulting from project activities. The effects of the Project on caribou from changes in habitat are assessed in Section 16. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Informed mitigation and management measures, potential effects pathways, and effects assessment. Inuit Knowledge with respect to biophysical and socio-economic VCs is described and assessed in Volume 9 Section 24 Traditional Activity and Knowledge.

Comment	Source	WKR Response	Where/How Addressed
Representative shared concerns related to caribou population/migration routes being affected and the ability of hunters and trappers to hunt.	Nunavut Arctic College, Taloyoak 2024, pers. comm.	WKR has identified mitigation measures to reduce effects to wildlife resulting from project activities. The effects of the Project on caribou from changes in habitat are assessed in Section 16. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Informed mitigation and management measures, potential effects pathways, and effects assessment. Inuit Knowledge with respect to biophysical and socio-economic VCs is described and assessed in Volume 9 Section 24 Traditional Activity and Knowledge.
A Community Elder shared community knowledge on boat traffic and increasing tourist ships that can disturb marine mammals, on road location and its role in community support.	Community Elder, Gjoa Haven. 2024, pers. comm.	WKR has identified plans for managing marine navigation at the Grays Bay Port area. WKR is committed to ongoing engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities during advancement of project design and planning. WKR will engage with communities to inform them of the activities and effects that may occur during construction.	Information informed baseline conditions as presented in Section 29.2.2. Informed mitigation and management measures and management plans (e.g., Port Management Plan, and Risk Management and Emergency Response Plan, including an Oil Pollution Emergency Plan, and Road Management Plan), potential effects pathways, and effects assessment.

29.2.2.2 Land Ownership and Land Use Planning

There are two main types of land ownership and tenure within the Kitikmeot Region, IOL and Crown (Public) land, the latter of which includes municipal land. Title to IOL includes surface rights, while some parcels also include subsurface rights. The Kitikmeot Inuit Association manages the surface rights for IOL in the Kitikmeot Region. Nunavut Tunngavik Incorporated manages subsurface rights in Nunavut and collects associated royalties on behalf of Inuit beneficiaries. IOL comprises approximately 6.6 million hectares (ha) in the western Kitikmeot Region, 5.6 million ha with surface rights and approximately 1.0 million ha (15%) with subsurface rights (Figure 29.2). IOL parcels within the LAA total 22,403 ha (6,679 ha with surface rights and 15,724 ha with subsurface rights).

Under Article 19 of the Nunavut Agreement, IOL are held under fee simple title. Under Article 41 of the Nunavut Agreement, the ‘Contwoyto Lake Lands’ were also granted to the Kitikmeot Inuit Association as Inuit Fee Simple Lands (Tunngavik Federation of Nunavut and Department of Indian Affairs and Northern Development 1992).

Crown land is currently administered as federal land by Crown-Indigenous Relations and Northern Affairs Canada through the federal *Territorial Lands Act* (CIRNAC 2024a). Lands within 31 m of the highwater mark of seacoast shorelines, navigable rivers or navigable lakes are considered Crown land, even if they occur on IOL, and are managed as untitled municipal lands (CIRNAC 2024a). Crown land constitutes 35,307 ha in the LAA and approximately 47 million ha in the RAA. Municipal lands within the RAA, comprising Cambridge Bay and Kugluktuk, total 115,900 ha. There are no municipal lands in the LAA.

Federally managed sites within the Kitikmeot Region in western Nunavut include remediated or unassessed contaminated sites. These sites are maintained under the Federal Contaminated Sites Inventory by the Treasury Board Secretariat of Canada. There are 10 suspected, 32 active, and 167 closed contaminated sites in the Kitikmeot Region in the vicinity of Kugluktuk, Kingaok (Bathurst Inlet), Omingmaktok (Bay Chimo), and Cambridge Bay (Treasury Board of Canada Secretariat 2024). Three sites are located within the LAA – one suspected site (i.e., High Lake), one closed site (i.e., an unnamed lake), and one high-priority active site (i.e., Jericho Diamond Mine).

Article 11 of the Nunavut Agreement established the Nunavut Planning Commission and mandates land and marine use planning. Land use plans are intended to guide and direct resource use and development in Nunavut. There is currently no approved land use plan in effect for the Kitikmeot Region. A single plan for the whole of Nunavut is under development by the Nunavut Planning Commission and has been recommended to the Government of Canada, GN, and NTI.

Parks and Protected Areas

Designated lands/rivers and protected areas within the Kitikmeot Region include:

- Kugluk/Bloody Falls Territorial Park near Kugluktuk (Nunavut Parks n.d.a)
- Coppermine River at Kugluktuk (Nunavut Parks n.d.b)
- Ovayok (Mount Pelly) Territorial Park near Cambridge Bay (*Ekaluktutiak*) (Nunavut Parks 2018)
- Queen Maud Gulf (Ahiak) Migratory Bird Sanctuary east of Kingaok (Bathurst Inlet)

Other sanctuaries, conservation areas, and critical wildlife habitat are illustrated on Figure 29.3 and include:

- Thelon Wildlife Sanctuary (Nunavut Parks 2008)
- Caribou Point Conservation Area (Great Bear Lake Working Group 2005)
- Wilberforce Falls
- Hiukitiak (Hiuqqitaaq) River watershed

The Middle Back River is an identified Important Bird Area (IBA) that partially overlaps the western Kitikmeot Region (IBA Canada n.d.a). The Thelon River at the southeast corner of the western Kitikmeot Region is also an IBA. This site is divided between Nunavut and the NWT (IBA Canada n.d.b). In addition, there are several key designated habitat sites and IBAs within Coronation Gulf and Queen Maud Gulf that support important aggregations of birds (IBA Canada n.d.c). Though not legally protected, IBAs complement (and often overlap partially or entirely with) other national, provincial, and local conservation designations (e.g., Migratory Bird Sanctuaries, National Wildlife Areas). IBAs are defined and designated specifically based on bird populations (IBA Canada n.d.d).

The Coppermine River, generally, is also a site of importance in the western Kitikmeot Region. The Coppermine River was nominated as a Canadian Heritage River in 2002 in recognition of the river's outstanding natural and human heritage values and significant recreation opportunities. The river has long been a travel corridor for Indigenous peoples in the western part of Nunavut (Nunavut Parks n.d.b).

29.2.2.3 Mineral Resource Development

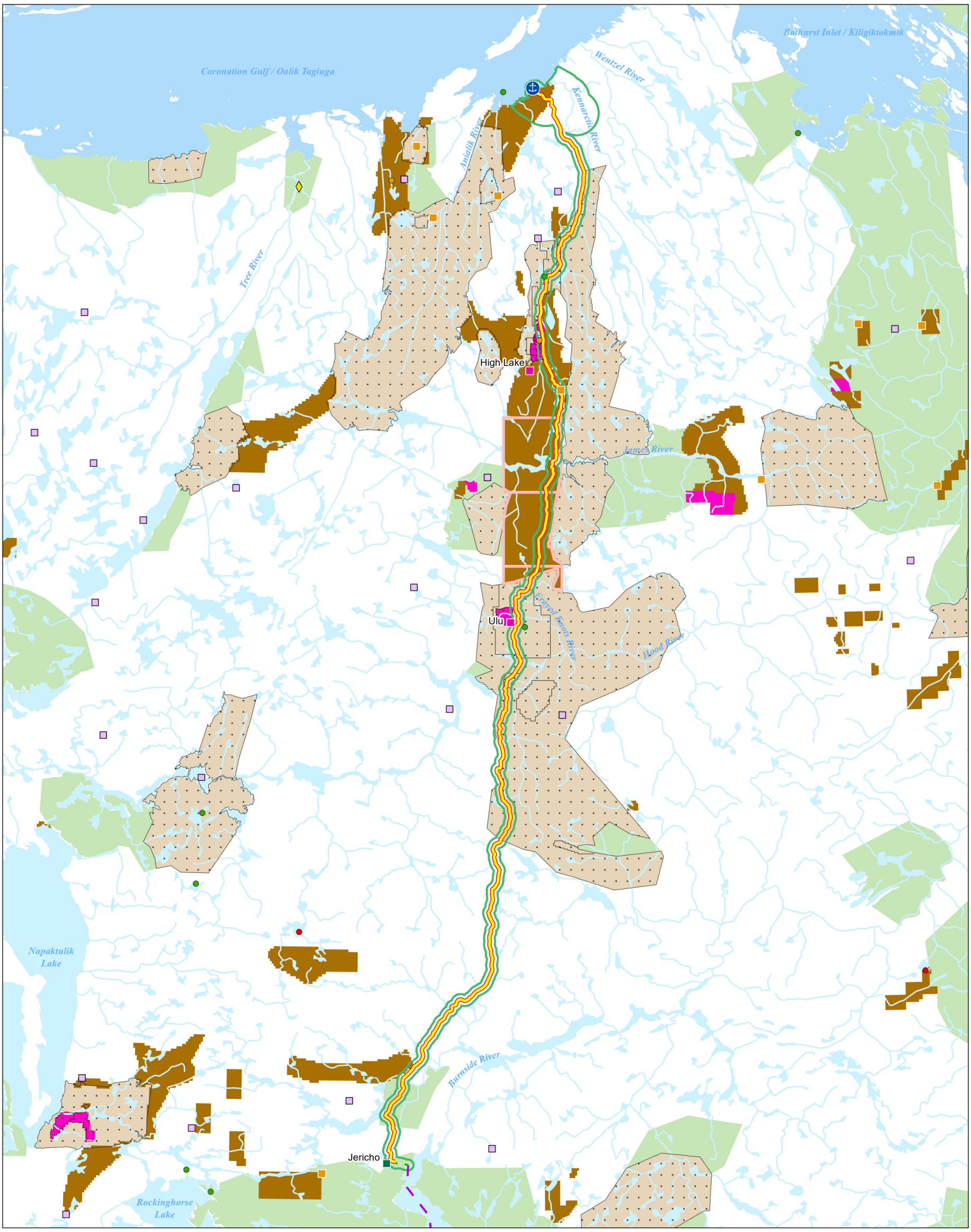
The Kitikmeot Region has been explored historically for gold, base metals, diamonds, and platinum-group elements. Mineral deposit locations are shown on Figure 29.2 and Figure 29.3. Four past-producing mines are in the Region: the Roberts Bay and Ida Bay silver mines located in the Hope Bay area (Hope Bay Project); and the Lupin Mine, which produced gold, and the Jericho Mine, which produced diamonds, located near Contwoyto Lake (*Tahikyoak*) and the NWT border (CIRNAC 2023, 2024b).

The Lupin Mine and Jericho Mine are both closed and have been decommissioned, although mine infrastructure remains on the sites. In 2022, the Hope Bay Project transitioned from active mining to care and maintenance, with a focus on advanced mineral exploration which includes the Doris, Madrid North, Madrid South, and Boston deposits. Mine infrastructure remains non-operational.

The lack of critical infrastructure and high costs have inhibited mining exploration and development in Nunavut and Canada's north. The high costs are directly related to the lack of infrastructure in these remote areas. Investments are required in costly and essential infrastructure including ports, power plants, winter and permanent roads, and accommodations (Mining Association of Canada 2015).

Mineral exploration activities that are ongoing in the Kitikmeot Region are summarized in Table 29.5. The Goose Mine (B2Gold Nunavut) is the only operating mine in the Kitikmeot Region. It began commercial production in October 2025. Another mineral project in the LAA, Jericho Diamond Mine, is under long-term remediation, periodic monitoring, and risk management.

The Crown currently administers land access and mineral rights to Crown land in Nunavut. Land use permits for activities on Crown land are issued by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) under the federal *Territorial Lands Act* and Territorial Land Use Regulations (CIRNAC 2024a, 2024c). Subsurface mineral rights on Crown land are issued by CIRNAC through the *Nunavut Mining Regulations*. There are four types of mineral tenure on Crown land in Nunavut: mineral claims, mining leases, prospecting permits, and coal exploration licences. As of November 2024, the Kitikmeot Region had 1,899 mineral claims covering 2,420,220 ha, five prospecting permits covering 59,901 ha, and 252 mining leases covering 209,902 ha, for a combined total of more than 1.875 million ha (CIRNAC 2024b).





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada, Stantec, www.ntkp.ca

- Local Assessment Area (LAA)
- Grays Bay Port
- Grays Bay Road
- Grays Bay Winter Road
- Advanced Mineral Exploration Site
- Closed Mine Site
- Mineral Exploration Site

Federal Contaminated Area - Site Status

- Active
- Closed
- Suspected
- Licenced Tourism Operator
- Mineral Deposit
- Tibbitt to Contwoyto Winter Road
- Watercourse
- Active Mineral Claim
- Active Mining Lease

Inuit Owned Land

- Subsurface
- Surface Only
- NTI Agreement
- Ocean
- Prospecting Permit
- Waterbody

0 10 20 Kilometres

(At original document size of 11x17) 1:750,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
West Kitikmeot Region, Nunavut

Prepared by DSPRY on 2026-02-05
TR by SLEMAY on 22026-02-05

Client/Project
123514886_017

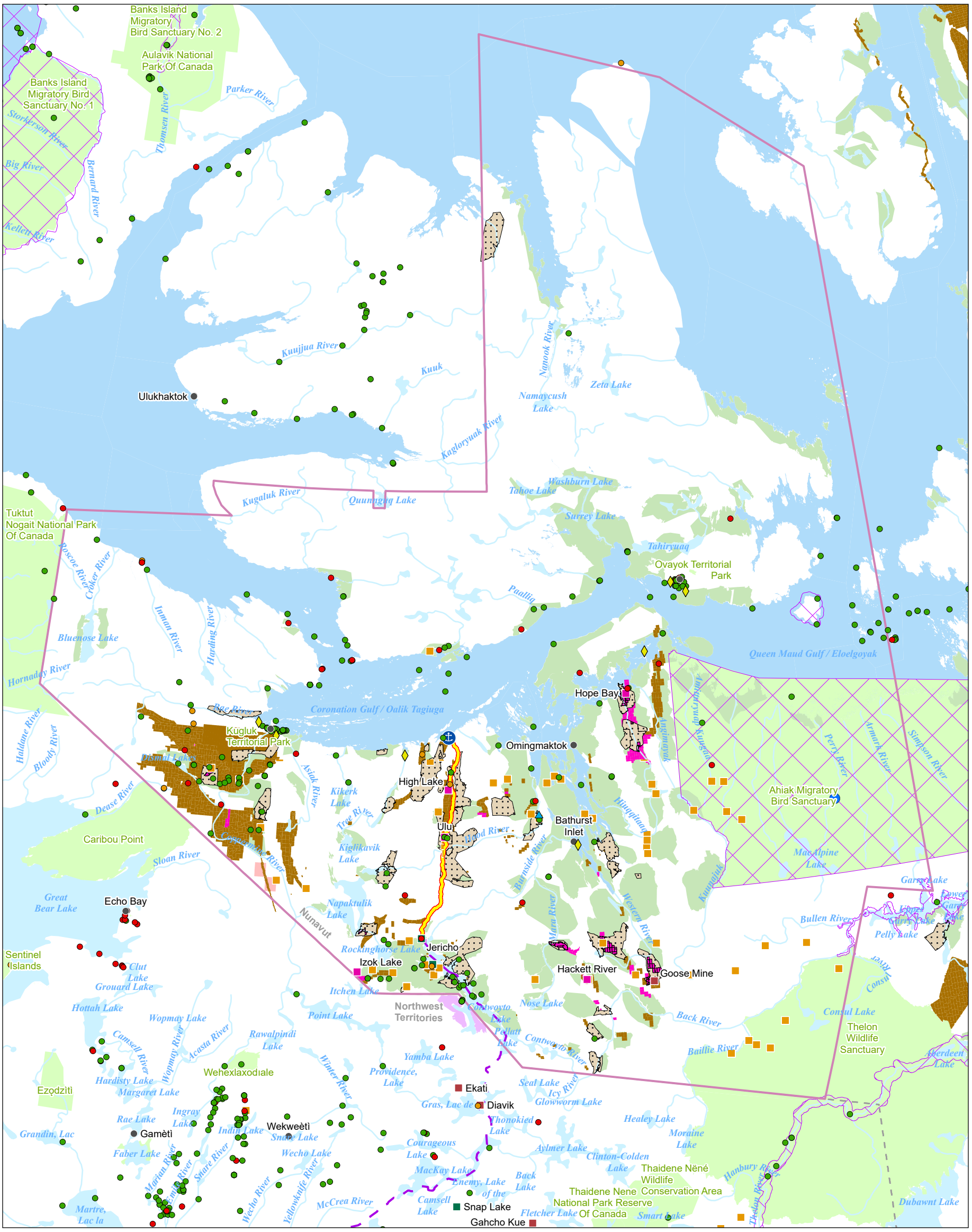
West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
29.2

Title
Non-Traditional Land, Marine, and Resource Use Local Assessment Area

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Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada, www.ntkp.ca, Stantec

- Land Use Regional Assessment Area (RAA)
- Grays Bay Port
- Grays Bay Road
- Community
- Advanced Mineral Exploration Site
- Operating Mine Site
- Closed Mine Site

Federal Contaminated Area - Site Status

- Active
- Closed
- Suspected

- Mineral Exploration Site
- Mineral Deposit
- Kattimannap Qurlua
- Licenced Tourism Operator
- Ramsar Wetland
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road

- Active Mineral Claim
- Active Mining Lease
- Important Bird Area

Inuit Owned Land

- Article 41
- Subsurface
- Surface Only
- NTI Agreement
- Ocean
- Prospecting Permit
- Protected Conserved Area
- Waterbody

0 50 100 Kilometres

(At original document size of 11x17) 1:4,000,000

N

NUNAMI
STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
West Kitikmeot Region, Nunavut

Prepared by DSPRY on 2026-02-09
TR by SLEMAY on 2026-02-09

Client/Project
123514886_007

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
29.3

Title
Non-Traditional Land, Marine and Resource Use Regional Assessment Area

\\CA0002-PPFSS05\GEOMATICS\Clients\Nunami_Stantec\GBRP\Figures\123514868_007_Land_Use_RSA_Overview.pagx Revised: 2026-02-09 By: dspry

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Table 29.5 Ongoing Mineral Exploration the Kitikmeot Region

Company/Project Owner	Project/Property Name
West Kitikmeot Resources Corp.	Arcadia Bay Project
	Chuk and Fire Shear Blocks
	Itchen Lake Property
	Wolf/Mistake Lake Property
Somerset Minerals Ltd.	Coppermine Project
Tundra Copper Corp.	Coppermine River Project
Aston Bay Holdings Ltd.	Epworth Project
B2Gold Corp.	George Property
Glencore Canada Corp	Hackett River Project
MMG	High Lake
	High Lake East
	Izok Lake
Blue Star Gold Corp.	Hood River Gold Project
	Roma Project
	Ulu Gold Project
Agnico Eagle	Hope Bay Project
SPC Nickel Corp.	Muskox Nickel Property
Leeward Capital Corp.	Pistol Lake Project
White Cliff Minerals Ltd.	Rae Copper Exploration Project
Unknown	Rockinghorse (Koamaogaktok) Project
Viridis Mining & Minerals	South Kitikmeot Gold Project
Bathurst Metals Corp.	TTMG Project

There are several advanced mineral exploration projects in the Kitikmeot Region that are on subsurface IOL parcels. These include 81 Crown Mining Leases, which are grandfathered leases on Crown land that became IOL after the Nunavut Agreement was signed, covering approximately 55,747 ha. There are 15 IOL Mineral Exploration Agreements covering approximately 105,104 ha and 2 IOL Mineral Production Leases covering approximately 203 ha. There are 36 IOL land parcels where there are no issued IOL Mineral Exploration Agreements or Production Leases, encompassing 844,285 ha. Table 29.6 summarizes types of mineral tenures in the PDA and LAA.

Mineral tenures on IOL and Crown land in the PDA and LAA are summarized in Table 29.6.

Table 29.6 Mineral Tenures in the PDA and LAA

Land Ownership	Mineral Tenure	PDA		LAA	
		Count	Area (ha)	Count	Area (ha)
IOL	Crown Mining Leases (Grandfathered Lease)	7	82	14	780
	Exploration Agreement	4	526	4	5,676
	Total	***11***	***608***	***18***	***6,457***
Crown	Mineral claims	17	1,731	25	13,008
	Active mineral mining leases	6	80	14	1,065
	Prospecting permits	3	486	3	6,218
	Total	***26***	***2,298***	***42***	***20,291***
IOL and Crown	**Total**	**37**	**2,906**	**60**	**26,748**

The potential for oil and gas development in Nunavut has not been substantially evaluated. Extensive exploration activity would be required to assess the potential fully. In 2023, the federal government opted to maintain an offshore moratorium on oil and gas leasing in Arctic waters, which was first implemented in 2016 (CIRNAC 2023).

29.2.2.4 Commercial Harvesting, Tourism and Recreation

Tourism is an important component of Nunavut's economy (GN 2019, 2021a). The Nunavut tourism economy saw substantial growth from 2010 to 2019; however, the COVID-19 pandemic caused tourism in Nunavut to decline steeply. As of 2023-2024, visitation has been reported to be increasing (CBC News North 2024; Travel Nunavut 2025). A recent important tourism experience in Nunavut centres on the story of Sir John Franklin's historic exploration expedition, especially since the recent discovery of the shipwrecks HMS Erebus and HMS Terror through the sharing of Inuit Knowledge. The remains of the boats are preserved in Arctic waters off Gjoa Haven at King William Island along the Northwest Passage (Destination Nunavut 2025).

There are several tourism businesses, such as hotels, lodges, bed and breakfasts, outpost camps, outfitters, and cruise ships, operating in the Kitikmeot Region, including Cambridge Bay, Kugluktuk, Gjoa Haven, and Taloyaok (GN 2024a). Cruises are a popular form of tourism in Nunavut, and their popularity is growing steadily (GN 2019). Cruises did not occur in 2020 due to the COVID-19 pandemic; however, cruises have since resumed voyages to, and stops in, Nunavut. Cruise ships have visited the Kitikmeot communities of Cambridge Bay, Kugluktuk, and Gjoa Haven. Cambridge Bay reported 18 cruise ship visits in 2024 (Community Member, Cambridge Bay, November 3, 2024, pers. comm.). In 2023, there were 14 cruise ships that docked at Gjoa Haven, and in 2024, there were 8 (Hamlet Staff, Gjoa Haven, December 5, 2024, pers. comm.). The number of cruise ships that visited Kugluktuk in 2023 and 2024 was unavailable. Cruise ships also offer tourism opportunities in communities like Cambridge Bay, Kugluktuk, and Gjoa Haven through onshore community tours and selling of artisanal goods (Community Member, Kugaaruk, October 30, 2024, pers. comm.).

Tourist recreational sport hunting and fishing occurs throughout the Kitikmeot Region. Terrestrial wildlife species within the Kitikmeot Region include caribou (*tuktuit*), muskoxen (*omingmak*), moose (*tuktukvak*), grizzly bear (*tuktukvak*), wolverine (*kalvik*), wolf (*amagok*), foxes (*kayuktok*), and small mammals (EDI 2025). There are currently allowable harvests for Bluenose-East, Bathurst, and Dolphin and Union caribou herds (GN 2024b). Nunavut is divided into wildlife management units for hunting purposes (GN 2023a). Managed species include polar bear, muskox, caribou (subject to community quotas), tundra wolf, Arctic fox, and wolverine (Nunavut Tourism 2016). Migratory game bird hunting in Nunavut is federally regulated under the Migratory Birds Regulation, 2022. Daily bag and possession limits vary for migratory game birds in Nunavut, including all ducks, Canada geese (*oloagolik*), cackling geese, white-fronted geese, and Brant geese, coots, and snipe (ECCC 2024a).

Sport hunting species in Nunavut include Arctic fox, polar bear, grizzly bear, muskox, barren ground caribou, walrus, wolf, and wolverine, as well as small game, birds, and fish (Travel Nunavut n.d.; GN 2023a). Visitors are required to use the services of a licensed commercial outfitter and be accompanied by a professional big game guide to hunt big game (Travel Nunavut n.d.). Local outfitters in Kitikmeot communities include Coppermine Outfitters (Coppermine Tours and Lodge) in Kugluktuk and Two Oceans Outfitting in Taloyoak. Coppermine Outfitters offer muskox tags and grizzly tags and outfit wolf, wolverine, and fox hunts (Coppermine Outfitters, Kugluktuk, November 8, 2024, pers. comm.). Two Oceans Outfitting provides muskox tags and caribou tags and was planning for polar bear and wolverine hunts in 2025. Muskox hunts typically occur in March and April, caribou hunts occur in September and October, polar bear hunts occur in April, and grizzly bear hunts occur in March to May and in August to September.

Sport fishing in Nunavut is subject to a Sport Fishing Licence available from the GN Department of Environment, Fisheries and Oceans Canada, and most sport fishing lodges. Daily catch limits and possession limits are established for Arctic char, Arctic grayling (*ihulukpaukkait*), lake trout (*ihuuqit*), northern pike, walleye, brook trout, suckers, whitefish [all species], and ciscoes for all Nunavut waters. This includes the Coppermine River upstream from Bloody Falls and Tree River (Coronation Gulf) in the Kitikmeot Region. There are no size limits or other restrictions (GN 2021b) but there are limits on what can be kept (Kurtairujuark Hunters & Trappers, Kugaaruk, focus group, October 29, 2024, pers. comm.). Plummer's Arctic Lodges operates the Tree River Lodge in the Tree River area in the western Kitikmeot Region (Plummer's Arctic Lodges, December 17, 2024, pers. comm.). Tree River Lodge is only open in the months of July and August. Fishing is primarily catch and release, mostly for Arctic char with some lake trout and cod; although, some char is consumed for lunch by lodge guests. In recent years, Plummer's Arctic Lodge staff have observed more people from Kugluktuk traveling to Tree River to fish (Plummer's Arctic Lodges, December 17, 2024, pers. comm.); however, this has long been an area visited by Inuit.

Non-consumptive recreational (e.g. expedition canoeing) and wildlife trips that emphasize eco-tourism are offered in the western Kitikmeot Region. No hunting is allowed but limited fishing is offered (i.e., participants may fish with licenses). A leave no trace approach is practiced that seeks to reduce wildlife disturbance (Black Feather Wilderness Company, June 18, 2025, pers. comm.). Black Feather offers trips around northern Canada, and their Hood River expedition trips may cross or fly near the Road PDA where it intersects with the Hood River. The Hood River is highly valued for its remote wilderness and scenic value (e.g., Wilberforce Falls), exceptional fishing, whitewater, and low user pressure, and

sensitive caribou and muskox habitat (Black Feather Wilderness Company, June 18, 2025, pers. comm.). Other expedition companies operating in the western Kitikmeot Region and within the RAA include Nahanni River Adventures, which offers a guided rafting expedition on the Burnside River. Bathurst Inlet Lodge operated at Kingaok (Bathurst Inlet) for incoming tourists and sport hunters, but it is not currently operational (Community Member, Cambridge Bay, November 4, 2024, pers. comm.).

Freshwater and inshore commercial fisheries in Nunavut are currently managed through the *Fisheries Act* and its associated regulations. Proposed new regulations (Nunavut Fishery Regulations) are being co-developed by government, wildlife co-management boards, organizations, and industry and would replace two current regulations applicable within the area: the *Northwest Territories Fishery Regulations* and the *Atlantic Fishery Regulations* (DFO 2024).

Inshore and freshwater commercial fisheries in the Kitikmeot Region consist of small-scale inshore fishing operations primarily focused on the harvest of Arctic char (*iqalukpiit/ikalukpik*/*ekalukpik/ehokketak*) (Bernauer 2021). The Cambridge Bay Arctic char fishery is the only commercial inshore fishery operating currently in the Kitikmeot Region. In 2022, a total of 38,241 kilograms (kg) (round weight) or 83% of the targeted quota was commercially harvested in Cambridge Bay (DFO 2022). There are no adjacent offshore fisheries in in the western Kitikmeot Region. More generally, Arctic char areas of abundance were noted in the vicinity of the communities of Kugluktuk, Kingaok (Bathurst Inlet), and Omingmaktok (Bay Chimo) in in the western Kitikmeot Region (Banci and Spicker 2024).

Kitikmeot Foods Ltd. in Cambridge Bay packages and sells locally harvested fish. Supply depends on season, but Arctic char is a staple (Nunavut Development Corporation n.d.). Kitikmeot Foods has historically used five river systems where they have quotas and have kept fishing to five main locations within a 90-mile radius of Cambridge Bay (DFO 2014), processing up to 110,000 pounds (49,895 kg) of char annually (Kitikmeot Foods, Cambridge Bay, November 4, 2024, pers. comm.). About 80% of the Arctic char brought in annually is exported out of the community (Kitikmeot Foods, Cambridge Bay, November 4, 2024, pers. comm.).

No interviews identified direct use of the Port PDA as a destination for angling or guide outfitters. Kitikmeot Foods also confirmed that their operations do not occur in the marine environment and occur instead in lakes and rivers near Cambridge Bay (Kitikmeot Foods, Cambridge Bay, November 4, 2024, pers. comm.).

29.2.2.5 Non-traditional Marine Navigation

Non-traditional marine use in the Kitikmeot Region consists of sea vessel activity, including commercial vessels, government vessels, ice breakers, and small (e.g., personal use) boats. Commercial vessel traffic is largely destination shipping, annual sealifts to deliver supplies to Arctic communities, or voyages (i.e., cruises) to and from Arctic locations. A common shipping route in the Kitikmeot Region is through the Queen Maud Gulf and Coronation Gulf. Navigation aids (i.e., day beacons, shore lights) are positioned throughout the gulfs to accommodate vessel transit, including at Cambridge Bay, Kingaok (Bathurst Inlet), and Kugluktuk (GOC 2025).

Bulk carrier and tanker ships have increased in the Kitikmeot Region since 2015. In Queen Maud Gulf, government vessels and ice breaker traffic has also increased (Dawson et al. 2017). Residents of Kitikmeot communities have witnessed an increase in vessel traffic activity. The community of Cambridge Bay reported the third highest increase in vessel traffic overall in Nunavut due to the increasing number of vessels travelling the Northwest Passage. This vessel traffic included small boats, passenger ships, general cargo, and tanker ships (Dawson et al. 2017). Numerous vessels have been reported as visiting Cambridge Bay, including small boats, yachts, sailboats, fuel barges, and other barges from the west and the east (Community member, Cambridge Bay, November 3, 2024, pers. comm.). Community members in Gjoa Haven have also commented on increasing ship traffic near their community, including tourist visits to the area where the shipwrecks HMS Erebus and HMS Terror were discovered (Community Elder, Gjoa Haven, November 16, 2024, pers. comm.).

There are several types of marine vessels that operate in the region, and marine shipping provides an essential service to transport goods to communities. Most current activity is associated with government icebreaking and tug/sealift traffic, but there has been an increase in pleasure craft activity, and to a lesser degree bulk carrier and tanker traffic. As an example, in Kugluktuk, to the west of the Project, the annual average shipping traffic has increased by 910 vessels based on observations between 1990 and 2000 (479 vessels) and 2011 and 2015 (1389 vessels) (Dawson 2017).

With increased marine traffic in the Northwest Passage comes the potential for increased ship groundings. For example, 18 ships, including cargo, tanker, tug, and passenger ships ran aground in the Canadian Arctic between 2009-2025 (Wright 2025). Groundings may be caused in part by a lack of adequate surveying and hydrographic data in the Arctic Ocean as well as deviation from recognized transit routes and lack of familiarity with the marine environment.

Based on primary research, commercial fishing is not known to occur within the coastal and marine areas of the LAA or PDA (Kitikmeot Foods, Cambridge Bay, November 4, 2024, pers. comm.).

29.2.2.6 Summary of Baseline Information on Sub-Populations for Gender Based Analysis Plus

Mining and other industrial development projects in the north, such as hydroelectric generation and oil and gas extraction, have historically been dominated by southern entities and have been seen to primarily benefit non-Indigenous peoples (Bernauer 2021). Additionally, these types of industrial development projects can disrupt Indigenous subsistence activities when appropriate mitigation is not in place and may negatively affect communities' environmental, social, cultural, and physical wellbeing (Pauktuutit Inuit Women of Canada n.d.; Bernauer 2021).

The colonial influence in Nunavut and Kitikmeot communities has undermined various aspects of Inuit self-determination. As historical/colonial practices and economic development have favoured southern entities, Inuit have historically not enjoyed an equitable share of the economic benefits from land use development. Both NTI and the Kitikmeot Inuit Association protect Inuit rights, advocate for Inuit interests in each region, and manage IOL in the Kitikmeot Region. IOL with known sub-surface mineral potential were selected by Inuit to advance economic development for the benefit of land claim beneficiaries (Public History Inc. 2006). Co-management boards were created for wildlife management, land use planning, impact assessment, and water licensing, and local Hunters and Trappers Associations were

also established to represent hunter interests at the community level. The creation of these administrative entities was intended to rebuild and advance Inuit self-determination in land and resource management the Kitikmeot Region. Ultimately the Nunavut Agreement, as a progressive modern-day treaty, established the Nunavut Settlement Area, the three administrative regions, and Regional Inuit Associations.

The Nunavut Agreement enabled Tungavik Federation of Nunavut (now NTI) to select IOL with subsurface rights to provide an economic basis for Inuit beneficiaries. NTI now manages subsurface resources, including mines and minerals, on IOL in the Kitikmeot Region, and manages associated royalties on behalf of Inuit beneficiaries as negotiated through the Nunavut Agreement. The Kitikmeot Inuit Association is seeking to improve Inuit economic participation from non-traditional land use. Resource revenues and other economic benefits from the Project are considered in the Employment and Economy VC (see Section 27 Employment and Economy).

29.3 Assessment of Project Effects on Non-Traditional Land, Marine, and Resource Use

29.3.1 Project Interactions with Non-Traditional Land, Marine, and Resource Use

Table 29.7 identifies, for each potential effect, the Project activities that might interact with non-traditional land, marine, and resource use and result in the identified effect. These interactions are indicated by a check mark (anticipated effect) or a dash (no anticipated effect) and are discussed in detail in the following sections, in the context of effects pathways, standard and Project-specific mitigation measures, and residual effects.

Table 29.7 Project Interactions with Non-Traditional Land, Marine, and Resource Use

Project Activities	Effects			
	Change in land use designation	Change in access to and use of land and resources for mining	Change in access to and use of land and resources for commercial harvesting, tourism and recreation	Change in access to and use of waters for marine navigation
Construction				
Mobilization/demobilization of machinery/equipment, vehicles, materials, and fuel (e.g., by barge, sea lift, boat, or road)	-	-	✓	✓
Staging and storage of materials, fuel, equipment and pre-fabricated components	-	-	-	-
Chemical and hazardous material transport, storage, and management (including explosives)	-	-	-	-

Project Activities	Effects			
	Change in land use designation	**Change in access to and use of land and resources for mining**	**Change in access to and use of land and resources for commercial harvesting, tourism and recreation**	**Change in access to and use of waters for marine navigation**
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓	✓	✓	-
Machinery/equipment and vehicle refuelling / fuel storage handling	-	-	-	-
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	✓	✓	✓	-
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	✓	✓	✓	✓
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	✓	✓	✓	-
Water withdrawal to support construction activities (e.g., winter road construction, dust control, material compaction)	-	-	✓	-
Watercourse crossing construction (e.g., bridge and culvert installation)	✓	✓	✓	-
Ground based transportation (e.g., workforce, materials, supplies)	-	-	✓	-
Air transport (e.g., personnel transport, resupply)	-	✓	✓	-
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓	✓	✓	-
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refuelling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	✓	✓	✓	✓

Project Activities	Effects			
	Change in land use designation	**Change in access to and use of land and resources for mining**	**Change in access to and use of land and resources for commercial harvesting, tourism and recreation**	**Change in access to and use of waters for marine navigation**
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	-	-	-	-
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	✓	✓	✓	-
Operations and Maintenance				
Port landside operations (e.g., use and maintenance of accommodations, borrow source, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operations and maintenance).	-	✓	✓	-
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	-	✓	✓	✓
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	-	✓	✓	-
Desalination operation and wastewater treatment (e.g., marine water use and effluent discharge)	-	-	-	-
Water withdrawal / use (e.g., potable water, dust control, maintenance)	-	-	✓	-
Road maintenance/use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	-	✓	✓	-
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	-	-	-	✓
Vessel Fuel Line/Refuelling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	-	-	-	✓
Equipment maintenance	-	-	-	-
Chemical and hazardous material transport, storage and management (including explosives)	-	-	-	-
Air transport (e.g., personnel transport, resupply)	-	✓	✓	-

Project Activities	Effects			
	Change in land use designation	Change in access to and use of land and resources for mining	Change in access to and use of land and resources for commercial harvesting, tourism and recreation	Change in access to and use of waters for marine navigation
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	-	-	✓	-
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	-	-	-	-

Notes:
✓ = Potential interaction – = No interaction

The following activities or components are not anticipated to interact with non-traditional land, marine, and resource use:

- Establishment and operation of camps, machinery/equipment and vehicle refueling/fuel storage handling, site preparation and earthworks, and borrow source and quarry development will not affect marine navigation.
- Ground-based transportation and air transport will not affect marine navigation as these activities are not marine water-based disturbances. Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, and laydowns are land-based disturbances will not affect marine navigation.
- Port landside operations will not affect land use designation and property ownership or access to and use of commercial resources. Once established, no potential change in land use designation and ownership will occur.
- Marine component of port use and operations will not affect land use designation and property ownership as the movement of ships is a marine water-based disturbance.
- Desalination operation (e.g., marine water use) and water withdrawal/use will not affect non-traditional land use and commercial resource use as these activities are solely marine water-based disturbances.
- Road maintenance/use will not affect marine navigation as these disturbance activities are primarily land based.
- Air transport during operations will not affect marine navigation as this activity is not a water-based disturbance.
- Taxes, contracts, and procurement are the main drivers of many potential socio-economic effects. The potential for interaction and assessment of effects are carried forward through in the Employment and Economy VC.

A summary of key feedback shared by Kitikmiut and other potentially affected communities relevant to non-traditional land, marine, and resource use and available at the time of filing is consolidated in Table 29.4 and has been integrated into this assessment where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

29.3.2 Change in Land Use Designation

29.3.2.1 Analytical Assessment Techniques

Spatial analysis was used to quantify the overlap of the Project with land use designations to determine the change in land use designation associated with the Project. The assessment of Project effects on land use designation also relied on information from primary and secondary research, an understanding of project interactions and mitigation, management, and enhancement measures, information collected from other VCs, and professional judgment.

29.3.2.2 Project Effects Pathways

The assessment of change in land use designation considers whether Project activities are compatible with existing land use designations. The assessment also considered how Project activities may affect the available land base for other purposes such as territorial parks and protected areas.

29.3.2.3 Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures were selected based on information received during engagement activities, community-based primary research, IAG workshops; applicable regulations and policies; management practices and guidelines; and other reports (e.g., Hope Bay Project, Back River Socio-economic Monitoring Reports). Measures were selected to address Project interactions that could potentially affect land use designation during Project Construction and Operations and Maintenance phases. The selection of mitigation, management, and enhancement measures was also informed by the proposed measures from other similar projects in the Kitikmeot Region, as well as those within other regions of Nunavut and the Northwest Territories (e.g., Back River Project, Hope Bay Project, Mackenzie Valley Highway Project).

The following mitigation, management, and enhancement measures will be implemented to reduce residual effects on land use designation:

- The road alignment reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to Inuit Owned Lands.
- WKR will notify communities of project activities and schedules, including provision of Project maps and design components.
- Temporary access roads, quarries, and workspaces not needed after construction will be closed and reclaimed.

- The Project will use previously disturbed areas for Project activities, Project infrastructure and workspaces, to the extent practical.
- A Borrow Pits and Quarry Management Plan will be developed and implemented for each quarry and borrow source.
- All-terrain vehicle, utility task vehicle, and snow machine use will be limited to within the PDA boundaries during construction. Any deviation of use outside of the PDA must be pre-approved by the WKR representative on site.
- A Road Management Plan (including traffic and access management) will be developed and implemented for the Project.

These measures take into consideration the values identified by Kitikmiut, other Indigenous groups, and other potentially affected communities.

29.3.2.4 Project Residual Effect

Construction

No established and/or approved land use plan currently exists for the western Kitikmeot Region. As such, there is no conflict between the Project and land use and development policies. No areas designated as parks or protected areas are within the PDA or LAA. The Port PDA (Landside Infrastructure) is located on Crown land held by CIRNAC. The Road PDA is a mixture of Crown land and IOL (subsurface and surface rights) parcels. The Project will occur within a small proportion of overall Crown land and IOL land in the LAA as follows:

- Crown land: 3,253 ha (9.2% of the total area of Crown land in the LAA)
- IOL parcels: 1,767 ha (7.9% of the total area of IOL in the LAA)

No change to parks or protected areas will occur from the Project. No change in land use designation or ownership will occur along the road and port due to the Project; lands will remain as Crown lands and IOL parcels, as currently designated. The Project will acquire land use permits and leases from the applicable land holder, though this will not change land ownership or designation.

The Grays Bay Road alignment was chosen based on information shared by the Kitikmeot Inuit Association, including Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, while increasing Inuit access to IOL. The Kitikmeot Inuit Association views the road alignment as a benefit to Inuit.

Operations and Maintenance

During Operations and Maintenance, no change in land use designation or ownership will occur along the road and port due to the Project; lands will remain Crown lands and IOL parcels, as currently designated.

29.3.2.5 Residual Effects on Sub-Populations Identified Through Gender Based Analysis Plus

The Project is not anticipated to change land use designations and so disproportionate effects on key sub-populations identified through GBA Plus are not anticipated.

29.3.3 Change in Access to and Use of Lands and Resources for Mining

29.3.3.1 Analytical Assessment Techniques

Spatial analysis was used to quantify the overlap with and proximity to mining and exploration activities in the PDA, LAA, and RAA. Consideration of the nature of Project effects on mining also relied on information from primary and secondary research.

29.3.3.2 Project Effects Pathways

Construction and Operations and Maintenance of the Project could lead to changes in access to mineral resources and mineral exploration activity. Generally, the development of the road will result in potential benefits for mineral resource users due to increased access to areas for mineral exploration and development. Reclamation activities at temporary access roads, quarries, and workspaces at the close of construction as well as restoration could also temporarily affect commercial mineral resource use activities, but may ultimately result in restoration of access to areas for mining.

29.3.3.3 Mitigation, Management, and Enhancement Measures

The following mitigation, management, and enhancement measures will be implemented to limit residual effects on access to and use of lands and resources for mining:

- The road alignment reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to IOL.
- As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to maintain access to land and marine areas throughout all phases of the Project for Inuit and local residents. These plans will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by users.
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.

- WKR will control access to the road through agreements with key user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Inuit community users will have no-cost access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit wildlife organization (Hunter and Trapper Organization (HTO)). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited.
- WKR is committed to open communication with other regional industrial developers and proponents and where possible implement joint programs to share information.
- WKR will notify communities of project activities and schedules, including the provision of Project maps and design components.
- Temporary access roads, quarries, and workspaces not needed after construction will be closed and reclaimed.
- The Project will use previously disturbed areas for project activities, project infrastructure and workspaces, to the extent practical.
- A Borrow Pits and Quarry Management Plan will be developed and implemented for each quarry and borrow source.
- Construction activities will be scheduled to reduce disruption to public and commercial vehicle access on winter roads where possible.
- Access to borrow sources and associated access roads when active extraction and hauling is occurring will be limited to authorized personnel only.
- Efficient Project planning will be used to reduce haul distances and the number of trips required to move road construction materials.
- Speed limits will be posted on the road.

29.3.3.4 Project Residual Effect

Construction

There are numerous parcels in and near the Project PDA that have been identified as potentially supporting mineral exploration and mining activities. The Project's PDA overlaps with 608 ha of leases and exploration agreements on IOL parcels, representing 9% of the total area tenured for mining activity on IOL within the LAA. The Project's PDA overlaps with 2,298 ha of mining claims, mining leases, and prospecting permits on Crown land, representing 11% of the total area tenured for mining activity on Crown land within the LAA (Figure 29.2). As the road is planned across areas where mining, exploration and mineral tenures are already held, the areas directly under and adjacent to the road will not be accessible from the surface for mining. The loss of mineral resource potential on IOL parcels and Crown land within the PDA (2,906 ha) will be small (11%) in comparison to the increase in access to mineral resources on IOL parcels and Crown land in the LAA (26,748 ha) created by the Project.

The development of the road, port and associated infrastructure will result in potential benefits for mineral resource developers due to the provision of new access to areas where mineral exploration may occur and areas where mineral tenure is already held on IOL parcels and Crown land. The road alignment reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to IOL.

Road, port and associated infrastructure construction activities may temporarily disrupt mineral exploration and mining activities near the Project. Conflicts between Project construction activities and traffic associated with other mining activities may vary. Traffic and transportation activities and safety issues on the new road will be addressed through the implementation of a Road Management Plan. Once the construction of the new road is complete, traffic conflicts will be reduced. WKR will notify communities of project activities and schedules, including the provision of Project maps and design components. Construction activities will be scheduled to reduce disruption to public and commercial vehicle access on winter roads where possible. Reclamation activities at temporary access roads, quarries, and workspaces at the close of construction as well as restoration could temporarily affect commercial mineral resource use activities, but may ultimately result in restoration of access to areas for mineral exploration or mining. However, the amount of temporary disturbance with the Project will likely be very small.

Operations and Maintenance

Operations and Maintenance of the road, port and associated infrastructure is anticipated to have positive effects on access to mineral exploration and mining activities in the LAA. Once the Project becomes operational, road users will be afforded access to existing mineral tenure areas (claims, leases, permits, and exploration agreements) and new areas for mineral exploration activities. WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. WKR is committed to open communication with its industry neighbours and where possible implement joint programs to share information.

29.3.3.5 Residual Effects on Sub-Populations Identified Through Gender Based Analysis Plus

Residual effects on change in access to and use of lands and resources for mining are anticipated to disproportionately benefit Inuit in the Kitikmeot Region. IOL with subsurface rights were selected to provide an economic basis for Inuit beneficiaries. Increased access to IOL parcels with existing mineral tenure areas (leases and exploration agreements) and new areas for mineral exploration activities could lead to the development of mineral resources on these parcels, generating revenue for NTI and Inuit beneficiaries in the Kitikmeot Region.

Positive and adverse effects as a result of changes in access to and use of land and resources for mining may affect men+ disproportionately as it is more likely for men+ to be employed in the mining industry than women+ (Statistics Canada 2021).

29.3.4 Change in Access to and Use of Lands and Resources for Commercial Harvesting, Tourism and Recreation

29.3.4.1 Analytical Assessment Techniques

Spatial analysis was used to quantify the overlap with non-traditional harvesting, tourism and recreational activity (e.g., fishing, hunting, guiding) with the Project in the PDA, LAA, and RAA. Consideration of the nature of Project effects on non-traditional resource use also relied on information from primary research (e.g., interviews) and secondary research (e.g., extent of fisheries in the LAA and species harvested). A review was also conducted of the baseline conditions described in the Freshwater Fish and Fish Habitat VC (see Section 20) and the Caribou, Birds, and Other Wildlife VCs (see Volume 6, Sections 16, 17, and 18) to identify freshwater fish and wildlife species present in the PDA, LAA, and RAA.

The assessment of potential Project effects on access to and use of resources for non-traditional harvesting, tourism and recreation considered the interactions and relationship between non-traditional resource uses and other VC (i.e., Noise and Vibration, Freshwater Fish and Fish Habitat, Caribou, Birds, and Other Wildlife). The residual effects on wildlife species and habitats are important considerations for understanding changes in access to and use of resources available for harvesting and recreational activities.

29.3.4.2 Project Effects Pathways

The assessment of change in access to and use of lands and resources used for commercial harvesting, tourism, and recreation (e.g., commercial sport harvesting, outfitting and guiding) considers whether Project activities and physical works during Construction and Operations and Maintenance may lead to a reduction in commercially harvested species or areas necessary to support those resource uses.

Fish and wildlife resources available for commercial or recreational harvesting by sport anglers/guide outfitters may be affected through direct habitat loss and alteration, lethal and sub-lethal effects from deleterious substances (e.g., changes in water quality), or change in or loss of access to terrestrial habitat or freshwater streams, rivers, and lakes in the PDA. Construction could lead to direct loss of resources

(e.g., wildlife mortality, fish mortality, and loss of habitat), or loss of access to lands used for commercial hunting, fishing or tourism. Reclaiming temporary access roads, quarries, and workspaces at the close of Construction may disrupt access to and use of commercial and recreational resources during the reclamation process but may ultimately result in the restoration of access and resource use.

The assessment of change in access to and use of commercial resources (e.g., wildlife, fish) also considers whether project activities and physical works may change access to lands available for commercial hunting, fishing and tourism. The Project could also create increased access along Grays Bay Road to previously inaccessible areas thereby potentially increasing the fishing or hunting pressure on local fish and wildlife populations, which could affect the quantity of resource or quality of experience of sport fishers, hunters and tourists in the LAA. The level of hunting and fishing pressure will depend, however, on how frequently the road is used for access to hunting and fishing areas. The presence of construction workers who fish could increase the competition for species harvested by sport anglers in the LAA.

The Project could result in visual changes to the landscape and cause disturbance and nuisance effects (e.g., construction noise, light, dust), which could affect the wilderness experience. Increased noise, light and dust from the Project (e.g., from construction activities, vehicle use of the Grays Bay Road) could also affect wildlife distribution and movement, resulting in altered harvesting success for non-traditional hunting, fishing and tourism.

29.3.4.3 Mitigation, Management, and Enhancement Measures

The following mitigation, management, and enhancement measures will be implemented to limit residual effects on access to and use of lands and resources for commercial harvesting, tourism, and recreation:

- As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to maintain access to land and marine areas throughout all phases of the Project for Inuit and local residents. These plans will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by users.
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port
- WKR will control access to the road through agreements with key user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies. Security and other public government users will have access to the road through agreements to be established between WKR and the relevant government department or agency. Inuit community users will have no-cost access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit wildlife organization (HTO). If no approval process is in place, WKR anticipates that use of the road for harvesting purposes would be prohibited.

- Personnel will not feed, harass, or harvest fish or wildlife while working on the Project.
- WKR will notify communities of project activities and schedules, including the provision of Project maps and design components.
- Temporary access roads, quarries, and workspaces not needed after construction will be closed and reclaimed.
- The Project will use previously disturbed areas for Project activities, Project infrastructure and workspaces, to the extent practical.
- A Borrow Pits and Quarry Management Plan will be developed and implemented for each quarry and borrow source.
- Construction activities will be scheduled to reduce disruption to public and commercial vehicle access on winter roads where practical.
- Project vehicles will travel on designated winter roads, existing infrastructure roads, or constructed embankment, to the extent possible, to avoid disturbing vegetated areas.
- Access to borrow sources and associated access roads when active extraction and hauling is occurring will be limited to authorized personnel only.
- General mitigation and management measures will be followed as outlined in the Air Quality Monitoring and Management Plan and Noise and Vibration Abatement Plan. WKR will develop a system to track complaints and responses to manage and mitigate feedback from the public regarding noise concerns.
- Blasting intensity or timing may be adjusted during periods when non-traditional land use activities are occurring near the PDA.
- Engagement will be conducted with land users to determine the location and usage information for areas such that avoidance of noise generating activities (i.e., pile driving, drilling) may be considered.
- Efficient Project planning will be used to reduce haul distances and the number of trips required to move road construction materials.
- Speed limits will be posted on the road.

These measures take into consideration the values identified by Kitikmiut, other Indigenous groups, and other potentially affected communities.

29.3.4.4 Project Residual Effect

Construction

There are several tourism businesses that offer outfitting services in the Kitikmeot Region. Tourism outfitters and guiding companies such as Black Feather and Nahanni River Adventures offer canoeing and rafting trips on rivers that may intersect with (i.e., Hood River) or are located near to (i.e., Burnside River) the PDA. Construction of the Project may affect access to these rivers for tourism.

Local outfitters in Kitikmeot communities include Coppermine Outfitters (Coppermine Tours and Lodge) in Kugluktuk and Two Oceans Outfitting in Taloyoak. The areas used for hunting by these outfitters do not overlap with the PDA: the area used by Coppermine Outfitters is west of the PDA (Coppermine Outfitters, Kugluktuk, November 8, 2024, pers. comm.) and the area used by Two Oceans Outfitting is on the Boothia Peninsula (Two Oceans Outfitting, Taloyoak, November 20 2024, pers. comm.).

A small proportion of overall Crown land on which outfitting and recreation can occur will be affected by the Project (i.e., 3,253 ha [9.2% of the total area of Crown land in the LAA]). There are also alternative lands within the LAA that would become available for wilderness recreational use and outfitting and guiding through enhanced access. Reclamation of areas used for temporary workspace following Construction will help to return some areas to become available again for their prior use.

Commercial fishing is not known to occur within the coastal and marine areas of the LAA or PDA and the level of harvesting activity (e.g., angling) by sport fishers utilizing the LAA is limited. Most watercourses crossed by the Project do not provide fishing opportunities due to their small size and/or intermittent flow (see Volume 7, Section 20 Freshwater Fish and Fish Habitat). However, the Project crosses rivers (e.g., Hood River, James River) that may offer sport fishing opportunities, which could be affected by construction activities. Plummer's Arctic Lodges operates sport fishing at Tree River Lodge in the Tree River area. The Project may facilitate increased access to the Tree River area, which could increase harvesting pressure on the fishery in Tree River, affecting Plummer's Arctic Lodges' operations at Tree River Lodge (Plummer's Arctic Lodges, December 17, 2024, pers. comm.). WKR will control access on Grays Bay Road to organizations and individuals through user agreements across Crown (Public) land and IOL as per the Road Management Plan. An increase in pressure on harvestable resources by non-traditional users will also be reduced by implementing access control and harvesting restrictions for workers.

Construction of the Project will result in visual changes to the landscape and noise and nuisance effects (e.g., light, dust, vibration), which could affect the wilderness experience. Noise and nuisance effects from the construction of the Project are expected to be moderate in magnitude. Short-term construction noise levels at Grays Bay Port will not exceed Health Canada noise threshold limits (Section 13). No exceedances of permissible sound level thresholds from long-term Project construction noise are expected at Jericho Station. Vibration effects from construction activities (e.g., blasting) for the closest Grays Bay Road permanent accommodations receptors (i.e., Grays Bay Port Stationary Camp and Jericho Station Stationary Camp [Grays Bay Port PDA boundary location]) due to ground vibration are predicted to be below the applicable threshold levels (see Volume 5, Section 13 Noise and Vibration). Nevertheless, noise, light and vibration may alter the movement patterns and availability of harvested resources (i.e., hunted species), which may avoid areas near the Project, and thus may alter harvesting success. Mitigation, management, and enhancement measures (e.g., Borrow Pits and Quarry Management Plan, Wildlife Mitigation and Monitoring Plan, restriction of road construction and maintenance activities during spring caribou migration and calving season) will reduce effects on wildlife. Refer to Volume 6, Section 16, Section 17, and Section 18 for further details.

Feedback received during engagement with tourist lodge operators/wilderness outfitters has suggested the wilderness experience and perceptions of remoteness would be diminished or altered because of the Project going forward (Tree River Lodge, December 17, 2024, pers. comm.; Black Feather Wilderness Company, June 18, 2025, pers. comm.). WKR will engage with land users such as wilderness recreational users and outfitters and guiding operations in the LAA to determine the location and usage information for areas such that avoidance of noise generating activities (i.e., pile driving, drilling) may be considered.

Operations and Maintenance

Following construction, Operations and Maintenance of the Project will provide access at Grays Bay Port and along Grays Bay Road the Jericho Station. The Project may therefore increase access to areas in the LAA in which commercial harvesting, recreation and tourism may occur.

The new all-season access provided by the road could facilitate additional hunting opportunities but is not expected to result in an increase in legal harvest pressure based on total allowable harvests and co-management efforts (see Section 16 Caribou). The current level of harvesting activity (e.g., hunting) by non-Inuit hunters utilizing the LAA is likely very low. Access control measures to limit illegal harvesting and poaching and harvesting restrictions for Project personnel while working on the Project will reduce the potential for increased hunting pressure (see Volume 6, Section 16 Caribou).

Access control measures (e.g., gated road) will be implemented for the road at the Port site. Public access to the road will be controlled and restricted for public safety and traffic management purposes using checkpoints, gates (where allowable), permits, limited entry, and closed access zones. Ground and air transportation infrastructure and traffic effects management measures (e.g., road wildlife crossings) will be monitored in accordance with the Road Management Plan. Public access to the Port facility will be restricted as per the Port Management Plan and Port Operation Plan. WKR will maintain a 24/7 staffed gate at the Port facility to control public access. Grays Bay Road will be an all-season-controlled access road (e.g., multi-user, multi-use transportation system). Ongoing communication with local Inuit communities, pending outfitter licence operations out of Cambridge Bay or Kugluktuk, and the respective Hunting and Trapping Organizations, and tenure holders will identify and address access concerns as part of a Road Management Plan. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (Hunters and Trappers Associations (HTA)).

During Operations and Maintenance, the frequency of Project-related vehicle traffic will be reduced compared to the construction phase. Noise generated from operations and maintenance at the PDA, and traffic along Grays Bay Road will be limited. The noise assessment results indicate operations and maintenance noise levels at Grays Bay Port and Grays Bay Road will be below the noise threshold levels (e.g., Grays Bay Port Station Stationary Camp, Ulu Gold Camp). Nevertheless, noise, light and vibration may alter the movement patterns and availability of harvested resources (i.e., hunted species), which may avoid areas near the Project, and thus may alter harvesting success. Visual quality/aesthetics effects on enjoyment of the natural environment from the presence of the Project and from traffic along the road could be an ongoing effect on wilderness recreational users operating and travelling through the LAA.

Both the port and road may be readily visible due to topographical relief and lack of vegetation screening and could result in disturbance to recreational users' experience of the natural environment.

29.3.4.5 Residual Effects on Sub-Populations Identified Through Gender Based Analysis Plus

Positive and adverse effects as a result of changes in access to and use of land and resources for commercial harvesting, tourism and recreation may affect men+ disproportionately as outfitters are more likely to be men+ than women+ (Statistics Canada 2021).

29.3.5 Change in Access to and Use of Waters for Marine Navigation

29.3.5.1 Analytical Assessment Techniques

The assessment of Project effects on non-traditional marine navigation is based on information from primary research (e.g., interviews) and secondary research (e.g., commercial vessel traffic). Potential effects were identified on non-traditional marine navigation to inform an understanding of Project interactions and mitigation, management, and enhancement measures based on professional judgement. Information was also collected from other VCs (e.g., review of community infrastructure) to identify potential effects on change in marine navigation. Spatial information about the size of marine infrastructure within the PDA is included, based on Volume 2, Section 2 Project Components and Activities.

This Section reviews the use of large vessels and small craft and their ability to navigate during Construction and Operations and Maintenance phases.

29.3.5.2 Project Effects Pathways

The assessment of change in access to, and use of, the marine environment for non-traditional marine navigation (e.g., travel, recreational fishing) considers whether Project activities and physical works during construction and operations and maintenance may lead to a change in travel patterns through alteration of travel routes or change in access to navigable areas.

Construction of the Project will increase marine-based infrastructure in the LAA, which may affect or improve marine travel and safety for a variety of commercial and community purposes.

29.3.5.3 Mitigation, Management, and Enhancement Measures

Mitigation, management, and enhancement measures were selected based on applicable regulations and policies, on established management practices and guidelines, and relevant peer-reviewed literature. Measures were selected to address Project interactions that affect access to and use of marine navigation during Project Construction and Operations and Maintenance phases. The selection of mitigation, management, and enhancement measures was also informed by the proposed measures identified from other relevant regulatory applications and impact statements (e.g., Back River Project).

The following mitigation measures are specific to marine navigation:

- WKR will contract only certified vessels to carry cargo for the Project and shall make shippers aware of the requirements of the Port Management Plan.
- WKR will develop and implement a Port Management Plan in accordance with the requirements of the *Marine Transportation Security Act* for the safe operation of commercial vessels operating near the port.
- WKR will coordinate with the Canadian Coast Guard and commercial operators for navigable maps on approaches to the Port. WKR will submit a post-construction depiction of the Port and associated laydown areas (Marine Laydown area) and surrounding shoreline, including any new bathymetry aspects.
- WKR will also coordinate with the Canadian Coast Guard and commercial operators to inform mariners of important navigational safety matters affecting Canadian Waters, through the Notices to Mariners publications and Navigational Warnings (NAVWARNs).
- WKR will work with Transport Canada to identify and install appropriate aides to navigation (e.g., buoys). The navigational aids will identify the defined shipping lanes to assist with avoidance between community watercraft and Project vessels.
- WKR will work with Transport Canada to address requirements for approvals within the Navigation Protection Program for in-water work required in the PDA.
- WKR will implement a Risk Management and Emergency Response Plan and a Spill Contingency Plan. WKR will provide the necessary spill response equipment and training for employees and contractors on site. The small craft harbour will be included in the response plans.

General mitigation, management, and enhancement measures that will be implemented to reduce residual effects on access to and use of marine navigation include the following:

- General mitigation and management measures will be followed as outlined in the Port Management Plan, Port Operation Plan, Risk Management and Emergency Response Plan, and Spill Contingency Plan.
- As part of the Road Management Plan and Port Management Plan, access mitigation measures will be included to maintain access to land and marine areas throughout all phases of the Project for Inuit and local residents. These plans will include provisions for access to the road, port, airstrip, and associated facilities. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by users.
- The Road Management Plan will include spill kit requirements, refueling procedures and training requirements for road users.
- WKR is committed to open communication with regional industry developers and proponents where possible implement joint programs to share information about port usage and requirements.
- WKR will engage with communities to inform them of the activities prior to the start of construction.

These measures take into consideration the values identified by Kitikmiut, other Indigenous groups, and other potentially affected communities.

29.3.5.4 Project Residual Effects

Construction

Section 29.2.2.4 identified that current non-traditional marine use in the Kitikmeot Region consists of sea vessel activity, including commercial vessels, government vessels, ice breakers, and small boats. Commercial vessel traffic is largely destination shipping, annual sealifts to deliver supplies to Arctic communities, or voyages (i.e., cruises) to and from Arctic locations. Cruise ship and tanker traffic is also present in the Coronation Gulf during ice-free periods which may present potential for interactions.

During Construction, shipping of equipment and materials is anticipated to increase shipping traffic within the RAA. A fuel barge will be required to transport fuel to the port site. Initial mobilization would require approximately one fuel tanker and two freighter (sealift) sailings, and around 60 to 100 offload lightering barge trips to stage materials required for the first season of construction at the port site. Subsequent annual resupply will be by sealift (one) and barge, with resupply volume less than the initial mobilization. All new vessel traffic is a change in the current condition as no annual sealift occurs at Grays Bay.

Some of the effects of increased shipping have been already experienced by marine users due to the presence of large cruise ships and tourism. A hunter in Gjoa Haven identified that he has seen that ship traffic is increasing and guardians are needed around the Franklin historical shipwrecks. Even when the water is calm, the hunter explained that he finds it hard to see seals now, which he attributes to possibly the ships. The hunter was also concerned about increased ship traffic and disturbances to marine mammals. (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16, 2024, pers. comm.).

Project shipping will stay confined to identified shipping routes which will provide clarity for community users as they gain awareness and become familiar with the frequency and routes of marine vessels. The potential for conflicts between community vessels and project vessels will be negligible due to the use of defined Project shipping routes.

Marine construction activities at the Port will include nearshore dredging, infilling, and pile driving. It will also include installation of pipes for a desalination line, and a vessel refuelling line connected to bulk fuel storage. Construction of physical infrastructure at the marine area around the port may result in temporary closures or restrictions on travel through the PDA for safety. Port landside operations are unlikely to affect the marine environment directly. However, port use and operations, such as vessels and cargo loading/unloading, barge landing operations, and small craft harbour operations, may affect marine navigation and/or interact with other marine users in the LAA. In-water work during construction within the Port PDA (Marine-based Infrastructure) will be planned in accordance with applicable legislation, including the *Canadian Navigable Waters Act* approval by Transport Canada for construction of the port and the Small Craft Harbour, and *Fisheries Act* Authorization(s) by Fisheries and Oceans Canada for wharf construction, as well as authorizations from Transport Canada for operation of the port.

The construction of the port represents an opportunity to enhance navigation safety in the Kitikmeot Region through the introduction of new marine infrastructure. Integration of navigational aids into the project designs, maintaining marine charts for approaches to the port, and following Notices to Mariners and NAVWARNs, will be important contributors to safety. WKR will engage with the Canadian Coast Guard and Kitikmeot Inuit communities to keep organizations informed about project progress.

Operations and Maintenance

The Project will provide a port at which large and medium sized commercial, Coast Guard, sea lift and other vessels can now dock where they could not before. The ability to load and unload cargo or fuel directly to shore is not currently available in the Kitikmeot Region. This represents a positive change which will occur throughout the Operations and Maintenance phase of the Project.

Marine-based Project infrastructure to be constructed in the PDA has been designed to provide opportunities for increased and safer travel in the area for both small craft and large vessels. Wharf structures will provide two deep water berths each able to accommodate a design vessel with an approximate loaded draught of 15 m, and a length of approximately 240 m (i.e., suitable for 100,000 deadweight tonnes bulk carriers). As feasible, each berth will be designed to accommodate other cargo vessels (e.g., sealift), Coast Guard vessels, Canadian military and naval vessels, and tankers that currently operate in the Arctic. A future third-party shiploader is planned for one of the berths (likely the western berth). A shallower barge area including up to two barge berths, envisioned to consist of a side-loading berth structure and / or a front-loading barge ramp structure, will also be constructed. The barge loading would accommodate vessels 123 m in length and 60 m in length, respectively. Fuel infrastructure will also be included for floating fuel lines or direct connection.

The small craft harbor would provide seasonal moorage for approximately 24 vessels up to approximately 7 m length, separated from the other marine-based infrastructure for public safety. Floating docks, boat launch ramp, offshore anchor buoys, and / or beach landing area are envisioned to be available during the open-water season. Section 2: Project Components and Activities identifies further details regarding the size and function of the port, including wharf and small craft harbour configurations

The intended marine vessel approach to the port runs approximately 40 nautical miles (approximately 75 km) southward of the existing, well-defined shipping lane within the Northwest Passage. Vessel movements along this approach would occur during both the Construction and Operations and Maintenance phases of the Project.

Community marine-based travel occurs along the Coronation Gulf coastline between Kitikmeot communities, particularly from Kugluktuk and Cambridge Bay. This travel will continue through the Operations and Maintenance phase. As documented in the Grays Bay Road and Port Project People and Communities Baseline Report (Appendix 25A), users regularly travel in the summer months along the coast to visit family cabins. Recreational boating also occurs along the coast from these communities and boats are used for travel, recreation, or for traditional land use pursuits. The Small Craft Harbour will improve safety for community boaters in coastal marine waters.

During interviews, search and rescue volunteer personnel and the Royal Canadian Mounted Police identified benefits for boaters operating in the area. A Canadian Coast Guard member in Cambridge Bay identified that the benefits also include a source of light for wayfinding:

> *On a personal level, it could be a pit stop location. Just even a place with lighting makes a big difference when you are out in the middle of nowhere and you know where that is, right? I see nothing but positive if this thing goes through. Even if there is street lights or buildings – at Hope Bay they have lights. You can see those lights when it is dark 150 kilometres away. 'Hey there is Hope Bay, I know there is something there.' It reinforces that – I'm not 200 kilometres from my community anymore, I am 80 kilometres from something.* (Canadian Coast Guard, Cambridge Bay, December 3, 2024, pers. comm.)

Potential adverse effects to marine navigation can be reduced through the Port Management Plan and Port Operation Plan and providing adequate signage or protocols. The Port Management Plan and Port Operation Plan will also allow safe access for individuals accessing the Small Craft Harbour when travelling between Kugluktuk and Cambridge Bay or for community members transiting through the LAA.

During early engagement for the Project (2016-2017), the Cambridge Bay (Ekaluktutiak) HTO identified that notification of port closure should be communicated two weeks ahead of time. This may be in relation to being aware if access will be limited for their traditional or non-traditional land use activities. Any closure notification protocols would be identified in the Port Management Plan, Port Operation Plan, and Road Management Plan.

29.3.5.5 Residual Effects on Sub-populations identified through Gender Based Analysis Plus

The Project is not anticipated to affect key sub-populations identified through GBA Plus disproportionately as a result of changes to marine navigation. Information regarding the current and historical use in the LAA and RAA by local Inuit community members is described in Section 24 Traditional Activity and Knowledge.

29.3.6 Summary of Project Residual Effects

Table 29.8 summarizes Project residual effects on non-traditional land, marine, and resource use.

Table 29.8 Project Residual Effects on Non-Traditional Land, Marine, and Resource Use

Residual Effect	Residual Effects Characterization							
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Reversibility
Change in land use designation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Change in access to and use of lands and resources for mining	C, O	P*	N/A	N/A	N/A	N/A	N/A	N/A
Change in access to and use of lands and resources for commercial harvesting, tourism and recreation	C, O	P*/A	L	PDA, LAA	HS	ST/LT	R/C	I
Change in access to and use of waters for marine navigation	C, O	P*/A	L	LAA	HS	ST	IR	R

Key:
See Table 29.2 for detailed definitions

Project Phase:
C: Construction
O: Operations and Maintenance

Direction:
P: Positive
A: Adverse
N: Neutral

Magnitude:
NMC: No Measurable Change
L: Low
M: Moderate
H: High

Geographic Extent:
PDA: Project Development Area
LAA: Local Assessment Area
RAA: Regional Assessment Area

Timing:
NS: No sensitivity
MS: Moderate sensitivity
HS: High sensitivity

Duration:
ST: Short-term
LT: Long-term

Frequency:
S: Single event
IR: Irregular event
R: Regular event
C: Continuous

Reversibility:
R: Reversible
I: Irreversible

N/A: Not applicable

Note:

* Positive residual effects are not characterized further.

Change in land use designation

Project Construction and Operations and Maintenance are not expected to have residual effects on land use designation. The Project is not expected to affect designated parks and protected areas. Crown lands and IOL parcels will be crossed by the road and port, but there will be no change in land use designation. Kitikmeot Inuit Association views the road alignment across IOL as a benefit to Inuit as a result of providing greater access to areas under IOL designations.

Overall, following the implementation of mitigation, management, and enhancement measures, the residual effects on change in access to and use of lands and resources for mining during Construction and Operations and Maintenance are anticipated to be positive as the Project will provide access to a previously inaccessible area for mineral exploration and mining. Positive residual effects are not characterized further.

Change in access to and use of lands and resources for commercial harvesting, tourism and recreation

With the implementation of mitigation, management, and enhancement measures, the residual effects on change in access to and use of land and resources for commercial harvesting, tourism and recreation such as commercial fishing, hunting, and wilderness guiding, are anticipated to be positive and adverse. The Project may increase access to areas in the LAA and RAA for commercial harvesting, tourism and recreation. Positive residual effects are not characterized further.

Adverse effects are anticipated to be low magnitude as some users may choose to avoid the PDA during periods of construction or high operational activity at the port and along the road and limited to the PDA and LAA. Residual effects are likely to be short-term (for temporary access restrictions and sensory disturbance related to Construction activities) to long-term (for sensory disturbance related to Operations and Maintenance) in duration, and regular/continuous in frequency. Effects are highly sensitive due to the seasonal nature of commercial harvesting, including hunting and fishing. Residual effects are likely to be irreversible, as the Project will be permanent.

Change in access to and use of waters for marine navigation

With the implementation of mitigation, enhancement, and management measures, the residual effects on change in marine navigability during the Construction and Operations and Maintenance phases are largely positive, as aspects such as improved navigation aids, mapping, and wayfinding are likely to result in improved safety. The Project will increase marine-based infrastructure for use in the LAA, and the Small Craft Harbour also presents a location of refuge during adverse weather conditions and a communication point of contact. Positive residual effects are not characterized further.

During Construction, adverse effects arising from additional Project-related shipping activities on existing navigation patterns of large vessels and small boats are anticipated to be low magnitude. Some community users may choose to avoid the PDA during periods of construction or periods of high operational shipping and chose an alternate route (e.g., further from the coastline). Adverse effects are considered reversible as potential negative interactions with project-related shipping would not occur when shipping is not present in the area. Change in marine navigability has a moderate timing sensitivity

as Project effects in the marine environment are highly dependent on shipping schedules and seasonality of travel during ice-free periods. Frequency of potential interaction between small watercraft and Project shipping or altered travel patterns may occur as multiple irregular events.

29.3.7 Transboundary Effects

An assessment of the potential for transboundary effects on non-traditional land, marine, and resource use is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

29.3.8 Effects of Climate Change on Non-Traditional Land, Marine, and Resource Use

The local and regional climate projections for the Project area were described in the Climate Profile (Volume 5, Appendix 12A) prepared for the Project and were used to inform the assessment of VCs (e.g., air quality, noise and vibration, freshwater fish and fish habitat, vegetation, wildlife and wildlife habitat) for the Project. The assessment used appropriate Global Climate Models, or climate change models, provided in the Intergovernmental Panel on Climate Change's Fifth and Sixth Assessment Reports (AR5 and AR6).

Climate projections were analyzed across various timeframes, comparing three future scenarios (i.e., high, intermediate, and low emissions). Projections were segmented into four 30-year periods: Baseline (1991-2020), 2030s (2021-2050), 2050s (2041-2070), and 2080s (2071-2100) representing end-of-century climate projections (see Volume 5, Appendix 12A).

Consideration was given to the current and projected climate effects on non-traditional land, marine, and resource use from the key findings of the assessment of effects from climate change. Analysis of climate change projections revealed that annual mean temperatures and maximum temperatures are projected to increase over time under all scenarios. Annual precipitation is also projected to increase across all scenarios and time periods. Fire season length, fire weather severity, and the number of days classified as 'very high' fire danger are projected to increase under continued climate change (Volume 5, Appendix 12A).

Recreation and commercial tourism may be affected by changing weather patterns (ECCC 2024a). Winter and northern tourism and recreation, including snowmobile use, are sensitive to climate variability (Lemmon et al. 2021). Changing climate conditions may affect food webs of aquatic ecosystems by reducing the survival and reproduction of aquatic species, including fish (ECCC 2024b). The increase in wildfire risk could potentially lead to increased pressure on the availability of wildlife resources for hunting.

Winter resource use activities (e.g., snowmobiling) have been affected by the lack of snowfall and changing waterbody freeze-up conditions. Major changes in both lake and ocean ice have been documented, not only in increased melting time, but also in decreased ice quality and safety for people traveling (Banci and Spicker 2024). Alternatively, warmer weather may increase opportunities for commercial and subsistence activities (i.e., fishing, hiking, hunting). Climate change considerations do not change the conclusions of the Project residual effects on non-traditional land, marine, and resource use.

29.4 Assessment of Cumulative Effects

29.4.1 Project Residual Effects Likely to Interact Cumulatively

Volume 4, Appendix 9A presents the Project Inclusion List which identifies other projects and physical activities that might act cumulatively with the Project. Where residual effects from the Project act cumulatively with residual effects from other projects and physical activities (Table 29.9), a cumulative effects assessment is carried out. As the Project is not anticipated to result in a change in land designation, no residual project effects are predicted and thus this effect is not carried forward for consideration in the cumulative context.

Table 29.9 Interactions with the Potential to Contribute to Cumulative Effects

Physical Activities	Effects		
	Change in access to and use of land and resources for mining	**Change in access to and use of land and resources for commercial harvesting, tourism and recreation**	**Change in access to and use of waters for marine navigation**
Past			
Bathurst Inlet	-	-	-
Omingmaktok	-	-	-
Snap Lake Mine	-	-	-
Present			
Arcadia Bay Project	✓	✓	-
B2Gold George Property	✓	✓	-
B2Gold Marine Laydown Area	✓	✓	✓
Bulk Carriers	-	-	✓
Cambridge Bay	-	-	-
Chuk and Fire Shear Blocks	✓	✓	-
Commercial Cargo	-	-	✓
Commercial and Domestic Harvesting	-	✓	✓
Coppermine Project	✓	✓	-
Coppermine River Project	✓	✓	-
Diavik Diamond Mine	-	-	-
Ekati Diamond Mine	-	-	-
Epworth Project	✓	✓	-
Fishing Vessels	-	-	✓
Gahcho Kué Diamond Mine	-	-	-
B2Gold Goose Mine	✓	✓	-
Hackett River Project	✓	✓	-
High Lake (Izok Corridor Project)	✓	✓	-

Physical Activities	Effects		
	Change in access to and use of land and resources for mining	**Change in access to and use of land and resources for commercial harvesting, tourism and recreation**	**Change in access to and use of waters for marine navigation**
High Lake East	✓	✓	-
Hood River Gold Project	✓	✓	-
Hope Bay Project	✓	✓	-
Hydroelectric	-	-	-
Icebreakers	-	-	✓
Itchen Lake Property	✓	✓	-
Izok Lake (Izok Corridor Project)	✓	✓	-
Jericho Mine	✓	✓	-
Kennady North - Exploration	-	✓	-
Kugluktuk	-	-	-
Lupin Mine	✓	✓	-
Muskox Nickel Property	✓	✓	-
Nunavut Community Infrastructure	-	-	-
NWT Community Infrastructure	-	-	-
Overflights	-	-	-
Passenger Ships and Pleasure Craft	-	-	✓
Pistol Lake Project	✓	✓	-
Rae Copper Exploration Project	✓	✓	-
Rockinghorse (Koamaogaktok) Project	✓	✓	-
Roma Project	✓	✓	-
Scientific Research	-	-	-
South Kitikmeot Gold Project	✓	✓	-
Tanker Ships	-	-	✓
Tibbit to Contwoyto Winter Road	✓	✓	-
Tourism	-	✓	✓
Tree River Lodge	-	✓	-
TTMG Project	✓	-	-
Tugs/Barges	-	-	✓
Ulu Gold Project	✓	✓	-
Wolf/Mistake Lake Property	✓	✓	-
Yellowknife City Gold Project	-	-	-

Physical Activities	Effects		
	Change in access to and use of land and resources for mining	**Change in access to and use of land and resources for commercial harvesting, tourism and recreation**	**Change in access to and use of waters for marine navigation**
Past and Reasonably Foreseeable			
Indin Lake Gold Project	-	-	-
Mon Mine	-	-	-
Yellowknife Gold Project	-	-	-
Project-Related Physical Activities			
Reasonably Foreseeable			
Arctic Economic and Security Corridor	✓	-	-
Courageous Lake Mine	✓	-	-
NICO	-	-	-
Reasonably Foreseeable Induced			
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port	✓	✓	✓
Grays Bay Road and Port: Bulk Fuel Storage Expansion, Jericho	✓	✓	-
Grays Bay Road and Port: Airstrip Expansion	✓	✓	-
Grays Bay Road and Port: Road Traffic	✓	✓	-
Grays Bay Road and Port: Port Traffic	✓	-	✓
Grays Bay Road and Port: Air Traffic	✓	✓	-
Grays Bay Road and Port Phase 2 – Jericho Mine to NWT Border	✓	✓	-
Hackett River Project	✓	✓	-
Hackett and Back River Access Road	✓	✓	-
High Lake Mine (Izok Corridor Project)	✓	✓	-
Izok Lake Mine (Izok Corridor Project)	✓	✓	-
Izok Lake Access Road	✓	✓	-

Notes:

✓ = Other projects and physical activities whose residual effects are likely to interact cumulatively with Project residual effects.

– = Interactions between the residual effects of other projects and residual effects of the Project are not expected.

Effects identified in Table 29.9 as not likely to interact cumulatively with residual effects of other projects and physical activities (no check mark) are briefly discussed below. The assessment of the cumulative effects that are likely to result from the Project in combination with other projects and physical activities are discussed in subsequent sections.

The following projects and physical activities were not identified as having residual effects that may interact with the residual effects of the Project:

- Two present mineral exploration activities associated with ongoing projects do not overlap spatially with the Project as they are not in the non-traditional land, marine, and resource use RAA (i.e., Kennady North Exploration, Yellowknife City Gold Project).
- Three present mines do not overlap spatially with the Project as they are not in the non-traditional land, marine, and resource use RAA (i.e., Diavik Diamond Mine, Ekati Diamond Mine, Gahcho Kué Diamond Mine).
- Past mineral exploration/mine historic activity and reasonably foreseeable projects (i.e., Indin Lake Gold Project, Mon Mine, and Yellowknife Gold Project, Courageous Lake Mine, and NICO) are not in the non-traditional land, marine and resource use RAA.
- Physical activities associated with communities and community infrastructure are already considered in existing baseline conditions.
- No hydroelectric power utilities are in the non-traditional land, marine, and resource use RAA.
- Non-specific aircraft overflights are neither land or water-based activities with a spatial footprint in the RAA.
- Marine-based physical activities are not anticipated to interact with a change in access to and use of land and resources for mining and change in access to and use of land and resources for commercial harvesting, tourism and recreation as these are land-based effects.
- Land-based physical activities are not anticipated to interact with change in access to and use of waters for marine navigation.

29.4.2 Change in Access To and Use of Land and Resources for Mining

The following Section describes cumulative residual effects of the Project with the effects of other past, present, and reasonably foreseeable projects and physical activities on change in access to and use of land and resources for mining.

29.4.2.1 Cumulative Effect Pathways

Past and present projects including Jericho Mine, Lupin Mine, and the TCWR are anticipated to interact cumulatively with the Project on change in access to and use of lands for mining. The TCWR was constructed to facilitate mobilization and resupply of goods from Yellowknife to these mines. Construction and operations and maintenance of the Project and reasonably foreseeable and reasonably foreseeable induced projects such as the Arctic Economic and Security Corridor, Grays Bay Road and Port Phase 2 – Jericho Mine to Northwest Territories (NT) Border, and access roads to mine sites would increase access to areas for mineral exploration and development of mining resources in the RAA.

29.4.2.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of mitigation, management and enhancement measures outlined in Section 29.3.3.3 are anticipated to reduce the Project's contributions to adverse cumulative effects and enhance the Project's contribution to positive cumulative effects. It is expected that reasonably foreseeable projects that require regulatory approval will be subject to similar effects management measures through the environmental assessment and permitting processes.

Potential cumulative effects associated with improved access along the new Grays Bay Road will be addressed through a Road Management Plan, which will help manage vehicle road use and access along the road. Similar new resource roads constructed for other projects will likely also need to implement access management measures. WKR is committed to open communication with its industry neighbours and where possible implement joint programs to share information.

29.4.2.3 Cumulative Effects

The RAA encompasses approximately 53 million ha of land. Commercial resource uses are allowed on federal Crown (Public) lands and IOL parcels unless specifically prohibited. The PDA represents less than 0.01% of the RAA. There are 42 mineral tenure areas (i.e., agreements, claims, leases, permits) within the LAA and additional areas under mineral tenure in the RAA. The mineral tenure areas overlapped by future projects would be less than 0.01% of the total area available for commercial resource use area within the RAA.

Mining and mineral exploration activities overlap spatially and temporally with the Project. B2Gold Nunavut's Goose Mine is the only operating mine in the RAA. It is a gold mine located on Bathurst Inlet that includes two main development areas with a winter ice road connecting the Goose site with a Marine Laydown Area (MLA). Commercial production started in October 2025. The mine is projected to operate for at least 10 to 15 years. Associated mineral exploration is ongoing within the Back River Gold District by B2Gold, which involves two work camps at Goose Lake and George Lake.

Mineral exploration activities associated with several projects and properties are ongoing in the RAA. Although activities and thus effects associated with mineral exploration activities are generally small on the landscape, there is the potential for mines (and associated infrastructure, transportation connections and activities) to be developed.

Remediation activities at two closed mines are also planned. The timing of the future remediation at the Jericho Mine site in the vicinity of the Project and the Lupin Mine are long-term in nature with post-closure surveillance and monitoring activity and decommissioning and reclamation activity ongoing onsite respectively.

The Project is expected to increase land- and marine-based infrastructure in the RAA. The construction of the Arctic Economic Security Corridor, a reasonably foreseeable project, would establish year-round access from Yellowknife to the NT-Nunavut border. From the NT-Nunavut border, access to the Grays Bay Road would be accomplished using a winter road (e.g., the TCWR). This will result in positive cumulative effects for mineral resource developers due to the provision of new access to areas where mineral exploration may occur and areas where mineral tenure is already held on IOL parcels and Crown land. The alignment of the Grays Bay Road reflects the preferred route selected by the Kitikmeot Inuit Association. This decision was grounded in Inuit Knowledge, Community Knowledge, and western science inputs, to limit environmental impacts, and increase Inuit access to IOL. Construction of Grays Bay Port will facilitate shipping to resupply the Project and other current and reasonably foreseeable projects. WKR will develop and implement a Road Management Plan, Port Management Plan, and Port Operation Plan to manage the safe use of new infrastructure in the RAA. WKR will control access to the road through agreements with various user groups. Mining users will have access to the road on a tolled basis, with port and road use fees to be established through agreements between WKR and mining/exploration companies.

Future mining projects within the RAA will contribute to increased traffic in the RAA as vehicles travel along associated access roads. There is potential for access issues between the Project and other projects and activities in the RAA. Access along the Grays Bay Road has been identified as a concern by the Kitikmeot Inuit Association and IAG members. Development of the Izok Lake Access Road (i.e., part of the Izok Corridor Project) near the terminus at Jericho Station could result in an increase of construction traffic along the new access road. If multiple mining projects are successfully started, there could be increased pressure on access to Grays Bay Port to import supplies and export products.

Effects management measures proposed by proponents of other Projects and activities in addition to those proposed by the Project will limit the potential for cumulative effects on resources and other resource users within the RAA. Similarly, it is assumed that proponents of new resource roads constructed for other projects will also implement access management measures. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by users. Similar new access roads constructed for other projects will also need to put in place access management and air quality and noise measures.

Reasonably Foreseeable Induced

There are several reasonably foreseeable induced projects (i.e., mines and access roads) that could potentially overlap spatially and temporally with the Project, including the Hackett River Project, High Lake Mine, and Izok Lake Mine.

Construction of the Project, the Arctic Economic & Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would establish ground transportation infrastructure from Yellowknife to the Grays Bay Port year-round. This would provide all-season access for commercial users to/from Yellowknife and the Kitikmeot Region, although access to Grays Bay Road would be controlled and monitored by WKR. Following Construction of the Project, the Arctic Economic and Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, access to the RAA for mining and mineral exploration activities will increase.

29.4.3 Change in Access to and Use of Land and Resources for Mining, Commercial Harvesting, Tourism and Recreation

The following Section describes cumulative residual effects of the Project with the effects of other past, present, and reasonably foreseeable projects and physical activities on change in access to and use of land and resources for commercial harvesting, tourism and recreation. These various activities are land-based non-traditional uses that may be practiced in the area, and which may be affected by the activities of another.

29.4.3.1 Cumulative Effect Pathways

Current, reasonably foreseeable, and induced physical activities, along with the Project, have the potential to result in cumulative effects by reducing the land base available for non-traditional resource use activities (e.g., mine displacing commercial hunting from the area where mining is occurring). Future projects located within the RAA may contribute to a change in the availability and access to these areas, pressure on limited access in the area, as well as provision of increased access (i.e., Grays Bay Road). Present, reasonably foreseeable, and induced physical activities, including the Project, may cause sensory disturbance (e.g., noise, light, dust, visual changes to the landscape) that could affect commercial harvesting, tourism, and recreation.

29.4.3.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

The implementation of mitigation, management and enhancement measures outlined in Section 29.3.4.3 are anticipated to reduce the Project's contributions to adverse cumulative effects. It is expected that reasonably foreseeable projects that require regulatory approval will be subject to similar effects management measures through the environmental assessment and permitting processes.

Potential cumulative effects associated with improved access along the new Grays Bay Road will be addressed through a Road Management Plan, which will help manage vehicle road use and access along the road thereby limiting adverse nuisance effects associated with traffic volumes. WKR will notify communities of project activities and schedules, including the provision of Project maps and design components. Similar new resource roads constructed for other projects will likely also need to implement access management measures and notification protocols.

29.4.3.3 Cumulative Effects

The RAA encompasses approximately 53 million ha of land. Non-traditional harvesting, recreation and tourism activities are allowed on federal Crown (Public) lands and IOL parcels unless specifically prohibited. Resource harvesters and operators are currently affected to some degree by changes in access and availability of lands from which to conduct these uses due to past and present physical activities and resource use (see Section 29.3.3). Road presence may potentially degrade the wilderness experience or alter the perception of remoteness (Black Feather Wilderness Company, June 18, 2025, pers. comm.). Reasonably foreseeable projects, such as mines, will likely also cumulatively affect the biophysical resources upon which non-traditional harvesting, tourism and recreation rely. The physical footprints of mining, their associated roads and the people and activities associated with them will result in direct land disturbance and to indirect disturbance through the generation of noise, light, vibrations and dust. These in turn may affect the quality, quantity and distribution of wildlife and fish resources and change the nature of the wilderness experience in the area.

Effects management measures proposed by proponents of other Projects and activities in addition to those proposed by the Project will limit the potential for cumulative effects on the experience of the natural environment within the RAA. As part of the Road Management Plan, access mitigation measures will enable consistent access to land and marine areas throughout all phases of the Project for local and Inuit populations. Clear access protocols are intended to prevent unintentional restrictions, reduce conflict, and support safe and respectful use of Project infrastructure by users. Similar new access roads constructed for other projects will also need to put in place access management and air quality and noise measures.

Reasonably Foreseeable Induced

There are several reasonably foreseeable induced projects (i.e., mines and access roads) that could potentially overlap spatially and temporally with the Project, including the Hackett River Project, High Lake Mine, and Izok Lake Mine. Construction of these projects could result in cumulative effects on non-traditional resource use activities through reducing the land base available for these activities, changes in access to areas used for these activities, and contributing to sensory disturbance that could affect commercial harvesting, tourism, and recreation.

Construction of the Project, the Arctic Economic & Security Corridor, and Grays Bay Road and Port Phase 2 – Jericho Mine to NT Border, a reasonably foreseeable induced project, would establish year-round ground transportation infrastructure from Yellowknife to the Grays Bay Port. This could increase access to lands in the Kitikmeot Region that could be used for commercial harvesting, tourism, and recreation. Access to Grays Bay Road would be controlled and monitored by WKR. Community users will have free access to the road for travel and transportation purposes, subject to agreeing to abide by safe operating procedures. Users seeking access to the road for harvesting purposes will require prior approval from the Kitikmeot Inuit Association and an Inuit Wildlife Organization (HTA).

29.4.4 Change in Access to and Use of Waters for Marine Navigation

The following Section describes cumulative residual effects of the Project with other past, present, and reasonably foreseeable projects and physical activities on change in access to and use of waters for marine navigation.

29.4.4.1 Cumulative Effect Pathways

Current, reasonably foreseeable, and reasonably foreseeable induced projects and activities, along with the Project, have the potential to result in cumulative effects from the increase in third-party marine traffic through the RAA, increased potential for interaction with other vessels, and the increase in nuisance effects from marine traffic.

29.4.4.2 Mitigation, Management, and Enhancement Measures for Cumulative Effects

WKR will develop and implement a Port Management Plan which will include measures for prior notification of travel within the RAA for vessels destined for the PDA, and for avoidance of non-project vessels through communication and technology such as radar. WKR will develop and implement a Road Management Plan. The Road Management Plan and Port Management Plan will include access management for the road, small craft harbour, use of port facilities, use of facilities along the road, air strip, and existing cabin near the Project.

It is expected that current projects and activities will implement measures for safe travel through the marine environment in the RAA.

29.4.4.3 Cumulative Effects

Third-party shipping (e.g., bulk carriers, commercial cargo) and other vessels (e.g., cruise ships, icebreakers, tugs and barges) already occurs within the RAA since Coronation Gulf is part of the Northwest Passage, which is an east-west travel route through the Canadian Arctic. Community resupply ships also make use of the RAA each year, which involves barge traffic from Montreal or elsewhere to the Kitikmeot communities. Community resupply and cumulative effects are considered under Section 28 Infrastructure and Services.

Construction and Operations and Maintenance of the Grays Bay Port is anticipated to increase marine navigation by third parties within the RAA and the PDA. Increased marine traffic is likely to occur as mining companies may seek to use the Project's port facility for loading and unloading of supplies or in support of mineral resource development and exploration. Interest in using the port may be greatest for developments at other present exploration locations (West Kitikmeot Resources Corp.'s Arcadia Bay and Wolf/Mistake Lake Property, Bathurst Metals Corp.'s TTMG Project, and Leeward Capital Corp.'s Pistol Lake Project) that are nearest to the marine coastline as the port may reduce transportation costs. There would be increased potential for local shipping to service those sites with the construction of the Grays Bay Port. The B2Gold Goose Mine includes two main development areas with a winter ice road

connecting the Goose Property with an MLA located on Bathurst Inlet. Increased shipping to Grays Bay Port may interact with marine traffic to the B2Gold Marine Laydown Area.

Shipping may also increase within the RAA beyond the PDA. This RAA shipping is expected to be more dispersed. Increased navigation has potential to lead to more interactions between project shipping and third parties using the RAA (i.e., cruise ships, tanker ship, bulk carriers, and icebreakers, tugs or barges). Small craft transportation from local Inuit communities using the coastal areas for fishing or domestic harvesting may also be present at the same time, which increases the potential for interactions. Bathurst Inlet is an important destination for Inuit marine travel from Kugluktuk and Cambridge Bay. Vessels enroute to Bathurst Inlet may travel near the PDA and may be affected by increased marine traffic. Construction of the Grays Bay Port and associated facilities such as the small craft harbour will provide a stop-over point for small craft and a safe haven in the event of inclement weather.

Tourism is an important economic driver for some hamlets, and Cambridge Bay is visited by several cruise ships annually, as well as personal pleasure crafts (e.g., yachts, sailboats) and community resupply barges (Community Member, Cambridge Bay, November 3 2024, pers. comm.; Community Member, Kugaaruk, October 30 2024, pers. comm.; Kitikmeot Inuit Association, Cambridge Bay, November 4, 2024, pers. comm.). Increased tourism may occur within the RAA due the presence of Project-related marine-based infrastructure. Direct tourism for cruise ships stopping at the port is not anticipated due to the commercial nature of the port and its distance from the Kitikmeot communities. Cruises may only use the PDA indirectly such as for ship to shore communication to avoid other shipping traffic, or in case of emergency.

By working with Canadian Coast Guard and Transport Canada to refine marine charts and install navigational aids near the port, the Project will contribute to improved safe navigation to both Project-specific and third-party marine users within the RAA. The port will contribute to safe navigation as well as a waypoint for marine vessels from Kitikmeot communities, or for other users such as the Canadian Coast Guard and Canadian military. WKR will also coordinate with the Canadian Coast Guard and commercial operators to inform mariners of important navigational safety matters affecting Canadian Waters, through the through the Notices to Mariners publications and NAVWARNs.

Reasonably Foreseeable Induced

Construction of reasonably foreseeable induced projects including the Grays Bay Road and Port: Bulk Fuel Storage Expansion, Grays Bay Port will expand the infrastructure available for use for marine navigation at Grays Bay Port. Construction of bulk fuel storage expansion (i.e., supply cache) may further increase interest in marine vessels or land transport vehicles using the port for re-fueling. Increased port traffic induced by the Project will increase cumulative effects on access to and use of waters for marine navigation as described in Section 29.4.3.3.

29.4.5 Summary of Residual Cumulative Effects

Table 29.10 summarizes residual cumulative effects on non-traditional land, marine, and resource use.

Table 29.10 Residual Cumulative Effects on Non-Traditional Land, Marine, and Resource Use

Residual Cumulative Effect	Residual Cumulative Effects Characterization						
	Direction	**Magnitude**	**Geographic Extent**	**Timing**	**Duration**	**Frequency**	**Reversibility**
Change in access to and use of lands and resources for mining	P*	N/A	N/A	N/A	N/A	N/A	N/A
Contribution from the Project	Construction of the Project will increase land-based infrastructure for use in the RAA, which will provide access to a previously inaccessible area for mineral exploration and mining.						
Change in access to and use of lands and resources for commercial harvesting, tourism and recreation	A	L	RAA	HS	LT	C	I
Contribution from the Project	The Project will contribute to residual cumulative effects on change in access to and use of lands and resources for commercial harvesting, tourism and recreation, including disturbance/nuisance effects, and availability of harvesting resources. The Project will have a direct effect on 5,020 ha of land within the RAA. The PDA represents less than 0.01% of the overall land base within the RAA.						
Change in access to and use of waters for marine navigation	P*/A	M	RAA	HS	LT	C	I
Contribution from the Project	Construction of the Project will increase marine-based infrastructure for use in the RAA, which will support community users, marine shipping and navigation for users such as the Coast Guard and Canadian military During Construction, adverse effects arising from additional Project-related shipping activities on existing navigation patterns of large vessels and small boats are anticipated to be low, short-term and reversible.						
Key: See Table 29.2 for detailed definitions ***Direction:*** *P: Positive* *A: Adverse* *N: Neutral* ***Magnitude:*** *NMC: No Measurable Change* *L: Low* *M: Moderate* *H: High*	***Geographic Extent:*** *PDA: Project Development Area* *LAA: Local Assessment Area* *RAA: Regional Assessment Area* ***Timing:*** *N/A: Not applicable* *MS: Moderate sensitivity* *HS: High sensitivity* ***Duration:*** *ST: Short-term* *LT: Long-term*			***Frequency:*** *S: Single event* *IR: Irregular event* *R: Regular event* *C: Continuous* ***Reversibility:*** *R: Reversible* *I: Irreversible* *N/A: Not applicable*			

Note:

* Positive residual effects are not characterized further.

Change in access to and use of lands and resources for mining

The Project, reasonably foreseeable, and reasonably foreseeable induced projects are expected to increase land- and marine-based infrastructure in the RAA. This will result in positive cumulative effects for mineral resource developers due to the provision of new access to areas where mineral exploration may occur and areas where mineral tenure is already held on IOL parcels and Crown land. Positive effects are not characterized further.

Change in access to and use of lands and resources for commercial harvesting, tourism and recreation

Residual cumulative effects on change in access to and use of land and resources for non-traditional harvesting, tourism and recreation are considered low in magnitude. The cumulative effects on non-traditional land, marine and resource use are not anticipated to occur at levels that degrade land and resource activities or experience such that existing activities cannot continue within the RAA at current baseline levels. The area of direct change from future mine development is small in relation to the RAA. The Project is predicted to make a small contribution to the cumulative effects case (i.e., 5,020 ha, less than 0.01% of the RAA). Indirect effects from noise, dust, visual changes, lights, vibration will affect a wider area and the associated quality of experience in these areas. Effects are predicted to be long-term in duration, continuous in frequency, and irreversible as the Project and future mine development will be permanent.

In the cumulative effects case without the Project, the existing land base comprising the RAA has already been partially modified by mining and infrastructure development over the past 60 years. Some of the other reasonably foreseeable projects and activities including mining development could proceed while others may not. The timing of these developments is uncertain at present and would be dependent on the state of market conditions for resource development.

Change in access to and use of waters for marine navigation

The Project and reasonably foreseeable induced projects are expected to increase land- and marine-based infrastructure at Grays Bay Port. This will result in positive cumulative effects for marine navigation, including for shipping, tourism, and small crafts. Positive effects are not characterized further.

Adverse cumulative effects on access to and use of waters for marine navigation may occur as a result of increased frequency of marine shipping accessing the port, including disturbance and nuisance effects for other users of the marine environment in the RAA. Adverse cumulative effects are anticipated to be moderate in magnitude, as marine shipping will increase from baseline levels but will not present a management challenge. Adverse cumulative effects will occur during the ice-free season and are considered long-term and irreversible.

29.5 Significance of Effects

29.5.1 Significance of Project Residual Effects

Section 29.3.6 lists the summary of Project residual effects for the non-traditional land, marine, and resource use VC. No change in land use designation is predicted. Positive residual effects were identified for change in access to and use of land and resources for mining resources. A determination of significance is not made for positive residual effects.

Adverse residual effects were identified for change in access to and use of land and resources for commercial harvesting, recreation and tourism, and changes in access to and use of waters for marine navigation. The Project will be developed with the implementation of mitigation, management and enhancement measures and management plans. It will be developed in accordance with approved land use plans, policies and by-laws, as applicable. Non-traditional land and resource use activities are anticipated to be able to continue at or near baseline levels. The Project will not disrupt, restrict, or degrade marine navigation in a manner unacceptable to relevant regulatory authorities. With the implementation of mitigation, management, and enhancement measures, adverse Project residual effects on non-traditional land, marine, and resource are predicted to be not significant.

29.5.2 Significance of Residual Cumulative Effects

Section 29.4.5 lists the summary of residual cumulative effects for the non-traditional land, marine, and resource use VC. Positive residual cumulative effects were identified for change in access to and use of land and resources for mining resources. A determination of significance is not made for positive residual cumulative effects.

Adverse residual cumulative effects were identified for change in access to and use of land and resources for commercial harvesting, recreation and tourism, and changes in access to and use of waters for marine navigation. The Project will be developed in consideration of established policies related to road and port development and with the implementation of mitigation, management and enhancement measures and management plans (e.g., Explosives Management Plan, Port Management Plan, Risk Management and Emergency Response Plan, Road Management Plan) applicable to road and port users. The cumulative effects from disruption and disturbance of non-traditional land and resource use are not anticipated to occur at levels that restrict non-traditional land and resource use activities such that existing uses cannot continue within the RAA at current levels. Marine navigation will continue in a manner acceptable to relevant regulatory authorities. The Project PDA is predicted to make a small contribution to the cumulative effects case. With the implementation of mitigation, management, and enhancement measures, adverse residual cumulative effects on non-traditional land, marine, and resource are predicted to be not significant.

29.5.3 Summary of Mitigation, Management, and Enhancement Measures

Sections 29.3.2, 29.3.3, 29.3.4, and 29.3.5 list the mitigation, management, and enhancement measures applicable to the non-traditional land, marine, and resource use VC. IAG members emphasized the need for education and signage to ensure safe and responsible use of the road. They expressed the need for monitoring and managing access to ensure safety and compliance. Concerns were raised about local hunters and the need for education on buffer zones. The importance of balancing access and safety to protect the environment and community interests was relayed to WKR (IAG 2025a). WKR proposes to implement a Road Management Plan and Port Management Plan to address access issues related to the road, small craft harbour, use of port facilities, use of facilities along the road, air strip, and existing cabin near the Project. With respect to marine navigation, general mitigation and management measures will be followed as outlined in the Port Management Plan, and Risk Management and Emergency Response Plan. Furthermore, WKR will develop a system to track complaints and responses to manage and mitigate feedback from the public regarding noise concerns through an Air Quality Monitoring and Management Plan and Noise and Vibration Abatement Plan. Inuit co-developed monitoring and reporting will be incorporated to support ongoing involvement and accountability. Adaptive management and strategies, with Inuit Monitors, will be applied to the Project. None of the potential effects were predicted to be significant for non-traditional land, marine, and resource use; therefore, no additional mitigation, management, and enhancement measures are proposed to reduce potential effects on non-traditional land, marine, and resource use.

29.6 Prediction Confidence and Uncertainty

The prediction confidence in the conclusions for Project residual effects and residual cumulative effects for non-traditional land, marine, and resource use is based on:

- Information collected as part of desktop data compilation and understanding of baseline conditions, GIS data analyses, understanding of Project activities, locations of activities, and Project interactions, the known effectiveness of management measures, and experience of the assessment team.
- While some of the desktop data were limited in terms of availability (e.g., intensity of usage) or scale (e.g., big game and gamebird hunting areas to support harvest evaluation), giving a moderate level of confidence, the environmental effects mechanisms are well-understood, including those related to wildlife resources and commercial use, and the assessment is conservative, assuming that harvesting may occur across the landscape.
- Many of the management measures identified are standard practice and have been implemented in other infrastructure development projects.

The level of confidence in the predictions for Project related residual effects and cumulative effects on non-traditional land, marine, and resource use is medium due to the conservative (overestimation) approach taken to account for the level of uncertainty in assessing residual effects and cumulative effects. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

29.7 Follow-up and Monitoring

WKR will develop Project-specific environmental management plans and associated monitoring plans, including Borrow Pits and Quarry Management Plan, Road Management Plan, Port Management Plan, Air Quality Monitoring and Management Plan, Noise and Vibration Abatement Plan, and Socio-Economic Monitoring Program, where management measures will be established for the Construction and Operations and Maintenance phases. These measures will be subject to regular review as to their effectiveness as part of a process of adaptive management in Project monitoring and follow-up.

In the event an unexpected deterioration of the environment is observed as part of follow-up and/or monitoring, intervention mechanisms will include the adaptive management process. This may include an investigation of the cause of the deterioration and identification of existing and/or new management measures to be implemented to address it.

Non-traditional land, marine, and resource use activities within the RAA are the subject of ongoing planning, management, regulatory enforcement, and monitoring by the territorial government. This includes the monitoring and collection of information on, for example, municipal land use, hunting, trapping, and fishing activity and development for the purposes of licensing, enforcement, and resource management. WKR has provided, and will continue to provide, Project information to relevant agencies, stakeholders, and affected Inuit communities. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts. Information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, including adaptive management and monitoring, as appropriate.

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30 Assessment of Potential Effects on Heritage Resources

Heritage Resources are defined as a Valued Component (VC) based on engagement, Inuit, Indigenous, and Community Knowledge, territorial requirements, and scientific value. Grays Bay Road and Port Project (Project) construction might disturb heritage resources sites and could result in their loss or alteration. This assessment evaluated the potential for Project-related effects on this resource.

This assessment is linked to the Traditional Land, Marine, and Resource Use assessment (Volume 9, Section 24) and has incorporated Inuit, Indigenous, and Community Knowledge shared through the Project-specific engagement program, the Project-specific Inuit Knowledge report compiled from the Naonaiyaotit Traditional Knowledge Project (NTKP) database, and a review of publicly available information. For example, NTKP consultants reported that the Kitikmeot Region has been used by people for a long time, since long before the current communities existed (Banci and Spicker 2024). The coastal areas including Grays Bay region were used seasonally for resources (fishing, hunting, whaling) by people moving across the region, and inland areas particularly along rivers were also used for travel for hunting (primarily caribou) and fishing.

The Contwoyto Lake area has also been used for a long time. Represented by campsites, gathering places, and other types of sites, this demonstrates long-term and continuing land use by Inuit and other Indigenous groups, such as the Tłı̨chǫ Government (Banci and Spicker 2024; Dedats'eetsaa 2024). NTKP consultants also identified and mapped gathering places at which archaeological sites, including graves, would be expected to be present in the project area, including Kitikmiut gathering and trading areas (Banci and Spicker 2024). Consultants added that when a person died, their remains were often wrapped in caribou hide and placed on the land near where they lived and traveled, stating: "[m]ajor camping areas are locations of potentially many grave sites" (Banci and Spicker 2024). In addition, eskers were identified as important landmarks for Inuit travel and traditional camping sites (Banci and Spicker 2024). This was echoed by Athabasca Denesųłiné Né Né Land Development Corporation and Northwest Territory Métis Nation, who stated that the Project should not disturb important places such as eskers, as they hold value as travel routes and cultural sites, such as burials (NIRB 2025). During Inuit Advisory Group (IAG) workshops, IAG members advised that there is an old cabin at the proposed port area (IAG 2025a).

It was noted that the Grays Bay area was a long-term camping site for a number of Inuit families, and tent rings, graves and a cabin are known to be present in this area. Similarly, the Contwoyto Lake area was reported to be an important camping and gathering place (Banci and Spicker 2024). Multiple Knowledge Holders expressed concerns abut disturbing eskers as these landforms were important travel routes that may contain cultural sites and burials (Banci and Spicker 2024).Heritage Resources are identified by the Nunavut Archaeological and Palaeontological Sites Regulations (GN 2001) and consist of archaeological artifacts more than 50 years old and fossils, including natural casts, preserved tracks, coprolites, and plant remains, as well as shells, exoskeletons of invertebrates, and vertebrate remains. Precontact archaeological sites are composed of artifacts, features, and residues of Indigenous origin. They predate the arrival of Europeans and are typically characterized by modified bone and stone, and

stone structures. Historic sites are characterized by structures, features, and objects of European influence. These sites date back to contact with the Europeans but also include remains of more recent activity (i.e., more than 50 years). Historic sites less than 50 years old are generally associated with contemporary land use and document continued use and occupation of an area to the present time. Cultural landscapes consisting of either natural or human-made features important to a society's sense of place are also important heritage resources. Although palaeontological sites consist largely of fossils or plants or animals or fossilized evidence of their existence, also of geological interest are type sites for geological formations.

30.1 Scope of Assessment

This section defines and describes the scope of the assessment of potential effects on the VC.

The assessment scope is based on:

- The Guidelines for the Preparation of an Impact Statement for the Project (NIRB 2026)
- Inuit, Indigenous, and Community Knowledge, which indicates historic traditional land and marine use in the project area by Kitikmiut and other potentially affected Indigenous groups
- Comments, concerns, and issues raised through engagement and a review of publicly available literature
- Experience of the proponent with similar projects in the past
- The professional judgement of the assessment practitioners

30.1.1 Influence of Engagement and Inuit, Indigenous, and Community Knowledge on the Assessment

West Kitikmeot Resources Corp. (WKR) continues to engage with Inuit of the Kitikmeot Region (hereafter referred to as Kitikmiut), other Indigenous groups, and other potentially affected communities about the Project. A summary of engagement activities conducted from 2016 to 2025 is presented in Volume 3, Section 6 (Public Engagement). In addition to these activities, WKR conducted community-based primary research with residents and organizations of the Kitikmeot communities of Cambridge Bay, Gjoa Haven, Kugaaruk, Kugluktuk, and Taloyoak, along with organizations in Yellowknife. Additionally, an IAG was established to advise WKR on potential environmental and socio-economic effects concerns related to the Project, planned mitigation approaches, and aspects of the environmental assessment, including, but not limited to, baseline conditions, significance determination, and consideration and integration of Community Knowledge. Members were selected by the Kitikmeot Inuit Association and WKR based on their knowledge of many aspects of the natural and human environment, including but not limited to wildlife, fish, climate, land use and access, archaeology, and water in the project area.

To further inform the Project design, a Project-specific Inuit Knowledge report titled *Kitikmeot Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project Final Report* (Banci and Spicker 2024) was commissioned by WKR. This report, based on Inuit Knowledge contained in the NTKP, was made available to WKR through a licensing agreement with the Kitikmeot Inuit Association.

As well, publicly available sources of Inuit and Indigenous Knowledge were reviewed to provide further context about baseline conditions and how conditions are changing, as well as potential mitigation measures recommended on previous projects that could be considered for the Project. Results from monitoring studies and other community-based research were also reviewed.

Through the Project-specific engagement program, Kitikmiut, other Indigenous groups, and other potentially affected communities shared comments, perspectives, concerns, and recommendations related to heritage resources. Through reviewing the information, Inuit, Indigenous, and Community Knowledge has influenced key components of the heritage resources assessment. WKR commits to meaningful continued engagement as applicable during the advancement of project design, planning, and monitoring and throughout the life of the Project.

30.1.1.1 Influence of Inuit, Indigenous, and Community Knowledge on Assessment Boundaries

Inuit, Indigenous, and Community Knowledge reviewed with consideration to the proposed spatial boundaries served to confirm the assessment boundaries. For example, the Heritage Resources Local Assessment Area (LAA) considers the area where effects can be predicted or measured with accuracy including effects on culturally important sites identified by Kitikmiut, other Indigenous groups, and other potentially affected communities (see Section 14.1.4.1).

30.1.1.2 Influence of Inuit, Indigenous, and Community Knowledge on Baseline Conditions

WKR collected baseline condition information by combining, Inuit-led and collaborative knowledge gathering (including the Project-specific NTKP and IAG workshops), publicly available information from Indigenous groups considered in the context of the Project, and engagement feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities, and technical studies collected through western scientific methods. Pertinent baseline information from Inuit, Indigenous, and Community Knowledge sources has been considered and summarized in Section 30.2.2; Table 30.2. This includes information about culturally important sites, including campsites, travel routes, and graves.

30.1.1.3 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Project Effects

WKR discussed with Kitikmiut, other Indigenous groups, and other potentially affected communities how project activities (e.g., clearing, blasting, etc.) and project infrastructure could affect culturally important interests, including cultural sites within the Heritage Resources LAA. Through community meetings, IAG workshops, and public engagement opportunities, Kitikmiut, other Indigenous groups, and other potentially affected communities provided perspectives and values, which were considered and integrated into the potential effects to be considered. Inuit, Indigenous, and Community Knowledge helped to target and to validate potential effect pathways. Kitikmiut reported that there are archaeological sites present in many areas, including coastal areas in the Grays Bay region. These old campsites and other types of sites represent ongoing land use by people over a long time. Through the Project-specific Inuit Knowledge report, gathering places at which archaeological sites, including graves, would be expected to

be present were identified and mapped. Feedback has been integrated in the assessment of project effects on heritage resources, where applicable (see Section 30.3).

30.1.1.4 Influence of Inuit, Indigenous, and Community Knowledge on the Assessment of Cumulative Effects

Through workshops and regional discussions, Kitikmiut Knowledge Holders, other Indigenous groups, and other potentially affected communities assisted WKR in identifying culturally important areas and practices that may experience combined effects from the Project and other projects and activities in the Project's Regional Assessment Areas. Of note, engagement resulted in identification of gathering places that are likely to have archaeological sites and graves, and eskers were also noted as being of importance as travel routes and camping locations, and therefore likely to have cultural sites present.

WKR wove Inuit, Indigenous, and Community perspectives with western science to develop a holistic view of how multiple changes could affect land-based livelihoods, cultural continuity, and environmental integrity over time. The analysis recognizes the importance of long-term monitoring, where local, Inuit co-developed and co-implemented data collection will track combined effects to inform adaptive management plans (see Section 30.4).

30.1.1.5 Influence of Inuit, Indigenous, and Community Knowledge on Assessing Significance of Effects

Significance criteria were informed by input from Inuit, Indigenous, and Community Knowledge. Taking into consideration Inuit, Indigenous, and Community values and perspectives (see Volume 3) and information shared related to cultural relevance of locations. The role an area plays in community history and exchange, supported WKR's consideration of whether unauthorized disturbance or destruction of heritage resource sites occur as a result of the Project. In addition, members of the IAG provided additional criteria to consider when identifying whether a project is likely to have significant, or unacceptable, effects (see Sections 30.1.6 and 30.5).

To be considered "non-significant" or acceptable, IAG members advised WKR to implement comprehensive measures and commitments that align with Inuit, Indigenous, and Community priorities and values.

- Proactive Protection Measures: WKR is committed to implementing proactive measures such as completing community review of heritage resources investigations prior to archaeological field studies (at the archaeological permit application stage) through Inuit Heritage Trust to identify concerns regarding archaeological studies.
- Incorporation of Inuit, Indigenous, and Community Knowledge into Management: The commitment to incorporate Inuit, Indigenous, and Community Knowledge and Western Science in all assessment sections, as appropriate, from baseline to monitoring, fostered dialogue and an inclusive Project. The request for Inuit monitors to enforce mitigation measures in real-time shows that inclusion requires active Inuit participation in the Project's management (IAG 2025a, 2025b).

- Adaptive Management: The use of adaptive management plans that can be revised based on ongoing monitoring and the ongoing sharing of Inuit, Indigenous, and Community Knowledge is seen as essential for success and acceptability, given the unpredictable nature of climate (IAG 2025a, 2025b).
- Holistic Approach to Benefits: The Project's success is tied to its broader social and economic benefits, such as contributing to more resilient supply chains and providing job/training opportunities for Inuit and other Indigenous groups. The protection of all wildlife and water resources, beyond just caribou, was also a key part of the holistic equation for acceptability (IAG 2025b).

30.1.1.6 Influence of Inuit, Indigenous, and Community Knowledge on the Development of Mitigation, Management, and Enhancement Measures

Through engagement activities, community-based primary research, IAG workshops, and review of publicly available literature, measures to reduce negative effects from the Project and enhance benefits from the Project were identified. For example, during IAG workshops, participants stated that WKR should implement mitigation measures that have proven successful on other projects in Nunavut rather than inventing new measures (IAG 2025b). Feedback also helped focus the Project's design on locations for monitoring and mitigation.

Proposed mitigation, management, and enhancement measures were discussed and reviewed with Inuit community representatives during IAG workshops to confirm they align with community priorities. Adjustments were made as appropriate based on advice from IAG members and the Kitikmeot Inuit Association, in addition to Indigenous groups and other potentially affected communities through engagement. Inuit co-developed and co-implemented monitoring and reporting were incorporated to support ongoing involvement and accountability. Information obtained through Inuit, Indigenous, and Community Knowledge emphasized the importance of some of the mitigation measures relevant to heritage resources listed in Section 30.3.2.3.

30.1.1.7 Influence of Inuit, Indigenous, and Community Knowledge on Transboundary Effects

WKR engaged with and received feedback from Indigenous groups and other potentially affected communities, governments, and organizations in regions outside of the Kitikmeot Region to understand if project activities could affect socio-economic conditions, resources, wildlife, or culturally important areas shared between regions. This feedback has been integrated into the transboundary effects assessment (Volume 10, Section 33) and is not discussed further in this section.

30.1.2 Regulatory and Policy Setting

Heritage resources are identified by the Nunavut Archaeological and Palaeontological Sites Regulations (GN 2001). Other relevant documents include the Nunavut Act (1993), and the Guidelines for Applications and Holders of Nunavut Territory Archaeology and Palaeontology Permits (GN 2003). In Nunavut, the Department of Culture and Heritage of the Government of Nunavut (GN) is responsible for the protection of heritage resources. Community review of heritage resources investigations is undertaken prior to

archaeological field studies (at the archaeological permit application stage) through Inuit Heritage Trust to identify concerns regarding archaeological studies. In addition, technical AIA reports are provided to Inuit Heritage Trust for review at the conclusion of archaeological investigations.

The assessment is also guided by Inuit, Indigenous and Community Knowledge (as outlined in Section 30.1.1 and defined in Volume 3). Inuit Knowledge may also be referred to as Inuit *Qaujimaningit*, which encompasses “Inuit traditional knowledge (and variations thereof or Inuit *Qaujimajatuqangit*), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2018). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as Inuit *Qaujimajatuqangit* principles (NIRB 2018). The Kitikmeot Inuit Association recommended use of the term Inuit Knowledge in the Impact Statement (IS). WKR has adopted this terminology and understands Inuit Knowledge encompasses Inuit *Qaujimajatuqangit* principles, which have been incorporated into the assessment of effects on heritage resources.

30.1.3 Potential Effects, Pathways, and Measurable Parameters

Heritage resources sites represent discrete episodes of past activities; as such they are non-renewable and are therefore susceptible to alteration or removal by development. Precontact and historic archaeological resources are comprised of residues of past cultures. Although the cultural entities responsible for deposition of the archaeological material are unavailable for observation, the preserved context and associations in which the remains functioned can reveal many clues about past human behaviour, adaptations and relationships to the natural world. The key to the interpretation of these resources, however, is in their pattern of cultural deposition, which is extremely fragile, ephemeral and the product of unique processes and conditions of preservation. Consequently, once they are disturbed, they cannot be replaced, recreated or restored. Due to the nature of their origin and preservation, archaeological resources are finite in quantity. As a result, archaeological resources are increasingly susceptible to destruction and depletion through natural and cultural disturbances.

In the Arctic, archaeological sites are typically located on the ground surface or in very shallow context given the nature of the terrain (limited soil development, and archaeological sites often placed on elevated landforms such as eskers or bedrock outcrops). As such, archaeological sites in the Arctic are susceptible to disturbance through even low-impact activities such as vehicle access.

Potential environmental effects and effects pathways used to characterize and assess potential effects on heritage resources are provided in Table 30.1. Potential effects to heritage resources are evaluated on an individual, site-specific basis developed through an assessment of heritage value developed by the GN, with facilitated review by the Inuit Heritage Trust at the conclusion of archaeological investigations; therefore, no Project-wide measurable parameter is applicable. However, WKR is committed to implementing discovery protocols in consultation with GN and through engagement with Kitikmiut.

Table 30.1 Potential Effects, Effects Pathways and Measurable Parameters for Heritage Resources

Potential Effect	Effect Pathway	Measurable Parameter(s) and Units of Measurement
Change in heritage resources	• Loss or disturbance to site contents and site contexts through disturbance associated with surficial activities (access, vegetation removal), grading, excavating, vehicle traffic and use of workspaces during construction activities • Unauthorized impacts or collection of artifacts/fossils during construction or as a result of the creation of new access opportunities	• Not applicable

For heritage resources, primary effects are mitigated before or during construction, so no additional effects are expected to occur during operations and maintenance. Secondary effects are mitigated through worker education programs before the construction phase, and detailed recording of any surface sites judged to be at increased risk of impact because of increased human access.

30.1.4 Boundaries

30.1.4.1 Spatial Boundaries

Project Development Area

The Project Development Area (PDA) encompasses the physical footprint of all Project components, including both permanent and temporary disturbances (e.g., extent of Project infrastructure, planned clearing, and laydown areas). The PDA includes six sub-areas based on the types of components to be developed: the Port (which is further divided into marine and landside infrastructure), Road, Aerodrome, Jericho Station, and Winter Road PDAs. The boundaries of the PDAs were created by applying buffers around where the Project components will be sited, and varies by each of the sub-areas depending on necessary flexibility for final siting of certain Project components based on conditions on the ground. For the Road PDA and Winter Road PDA, a 75-metre (m) buffer was applied to the roads centreline, for the Port PDA and the Aerodrome PDA, the areas were subdivided based on the conceptual Project component locations and then buffered approximately 1,000 m for the landside Port PDA, approximately 300 m for the marine Port PDA, and 500 m for the Aerodrome PDA. The Jericho Station PDA was buffered based on the existing development from the old Jericho Mine site that will be used for the Project and the need for additional space to accommodate the Project components that will be developed as part of the Project for this location. The Winter Road PDA will only exist annually between the beginning of February and end of March, will be built on land where the existing Jericho Station road ends, at the southeastern portion of Jericho Station, to the shoreline of Contwoyto Lake where it will connect to the TCWR. For the purposes of the impact assessment, the PDA is the same as the Site Study Area identified in the IS Guidelines.

Local Assessment Area

For heritage resources, the LAA is considered to be the same as the PDA since it is considered to be the maximum area for which effects can be predicted or measured with accuracy.

Regional Assessment Area

Regional Assessment Areas are not typically defined for heritage resources since the PDA/LAA are the maximum area for which effects can be predicted or measured. Archaeological site data outside of the PDA is incomplete and unknown given that archaeological sites are typically only identified during project-specific investigations.

30.1.4.2 Temporal Boundaries

Temporal boundaries for the Project include the Construction phase, and the Operations and Maintenance phase. Assuming that all regulatory environmental approvals are in place, the Project is proposed to start in December 2029 and be constructed (both pre-construction and construction) over the course of five (5) years, with operations and maintenance starting in 2035 and with a design life of 75 years. As the project facilities are designed as being permanent, there are no plans for closure and reclamation other than areas used solely for pre-construction/construction activities that are not required for ongoing operations and maintenance.

Primary effects on heritage resources are mitigated before or during construction, so additional effects are not expected to occur during operations and maintenance.

30.1.5 Residual Effects Characterization

Changes to heritage resources are characterized by change in site contents or site context resulting from development-related activity and are generally confined to the PDA. The regulator (Department of Culture and History, GN) is responsible for managing the threshold of loss to heritage resources in Nunavut. Provided that requirements issued by the regulators for assessment, mitigation, avoidance and consultation are fulfilled, the Department of Culture and History recognizes no residual effects on heritage resources.

Given the unique nature of each heritage resource site, quantitative measures cannot be defined for heritage resources, and residual effects are considered to be mitigated on a site-by-site basis during fulfillment of required investigations.

30.1.6 Significance Definition

A significant adverse effect on heritage resources is defined as one that results in an unauthorised Project-related disturbance to, or destruction of, all or part of a heritage resource site considered by the territorial regulators to be important and that is not mitigated or compensated as required by regulators.

There are no formal thresholds for determining the value of heritage resources as a single, comprehensive VC. Instead, site-specific evaluation is conducted. If the Department of Culture and Heritage, GN, determines that an individual site is of high enough heritage value (including Indigenous concern) that its loss would represent a significant adverse effect, avoidance or mitigation of the site is mandated.

Furthermore, during the September 2025 IAG workshop, participants discussed significance, with the goal of identifying effects that are considered acceptable or unacceptable to members. Through the discussion, a holistic suite of considerations that must be integrated into the Project's social, environmental, and economic plans emerged. With respect to heritage resources, feedback received from IAG members (IAG 2025b) identified the following priority, when considering unacceptable changes as a result of the Project:

- That Inuit perspectives are considered and addressed in project design

30.2 Baseline Conditions

30.2.1 Methods

Existing conditions for heritage resources were determined through desktop review, regulatory consultation, and engagement with Kitikmiut, other Indigenous groups, and other potentially affected communities. This included a review of available archaeological site data, digital data files available to the proponent from prior field investigations, and available archaeological impact assessment (AIA) reports and files. It also included a review of publicly available information that provided Inuit, Indigenous, and Community Knowledge perspectives about cultural sites, such as campsites, travel routes, and graves.

To initiate an overview relative to heritage resources, a memo was sent to the Department of Culture and Heritage, GN on December 17, 2024. In the memo, clarification was requested as to how to best address archaeological resources relative to a planned geotechnical program and relative to future investigations and activities planned for the overall Project. The AIA reports for past studies were requested, as WKR does not have due access to all of the documents or digital data that may provide information on prior archaeological assessment coverage. The only available archaeological reports were the 2004 AIA report (Bussey 2005) and the 2012 AIA report (and digital data) (Prager 2013) as a result of a data transfer agreement.

After correspondence with the Department of Culture and Heritage, a site data license was submitted to request known archaeological site data, and access to the Permit 2005-11A and 2006-09A AIA reports (Prager 2006a, 2007). Archaeological site data requested for the planned 2025 geotechnical program near Grays Bay were provided in an excel spreadsheet and included eight previously recorded archaeological sites. Digital archaeological site data for the remainder of the PDA have not been provided by the Department of Culture and Heritage, GN.

In response to the request for the AIA reports, a high-level summary report on the 2005 AIA (Prager 2006b) was provided by GN. Archaeological site forms associated with this report were also provided by GN (Prager 2006c). The full AIA report from 2005 (Prager 2006a) and 2006 (Prager 2007) was subsequently provided by GN for review.

30.2.2 Overview

A number of previous archaeological studies have been conducted within the general region, including studies relative to the Izok Mine Project (Damkjar 1994; Tischer 2002), the Izok Corridor Project (Prager 2009, 2013), the High Lake Project (Bussey 2005; Prager 2006a, 2007), the Bathurst Inlet Port and Road Project (Blower 2003; Fedirchuk 2001; Tischer 2010), the Ulu Mine Project (Kroker 1996a, 1996b; Tischer 2019; Youell and Tischer 2020, 2022; O'Keefe 2025), amongst others. A comprehensive data set for the current PDA is not available but will be requested from the Department of Culture and Heritage, GN, as part of data gap analysis upon determination of a final project footprint.

The studies most relevant to the current PDA are the High Lake Project studies (Bussey 2005; Prager 2006a, 2007) and the Izok Corridor Project (Prager 2013). This most recent report noted approximately 150 archaeological sites in '…various parts as the study area…'. Additional sites recorded during subsequent studies such as the Ulu Mine Project (Youell and Tischer 2020, 2022; O'Keefe 2025) have likely increased the number of sites within proximity of the current PDA to approximately 200. Additional unrecorded archaeological sites are undoubtedly present in portions of the PDA that have not been subject to (AIA) studies. Site types currently on record are primarily stone feature sites representing precontact and/or historic campsite activities, hunting sites, inuksuit associated with various functions, and grave sites. Archaeological sites also include precontact sites with lithic (stone tool) debitage, as well as sites that are historic in nature.

Although some of the studies listed above may be include locations that correspond with the current PDA, it is understood that parts of the PDA have not likely been assessed with field studies specific to the PDA. As such, once the PDA has been established, a data gap analysis will be undertaken to determine where archaeological studies have been completed within the PDA, and where study gaps may occur. Archaeological field programs will be designed to undertake assessment of gap areas relative to archaeological sites. Previously recorded archaeological sites will also be revisited relative to the PDA, and appropriate mitigation measures (such as avoidance where possible, detailed mapping and systematic collection, archaeological excavation, community engagement) will be designed in consultation with the regulators (Department of Culture and Heritage, GN) and engagement with Inuit.

To date, it is not believed that palaeontological resources have been addressed relative to this Project. Palaeontological study requirements, if any, will be addressed with the regulators as part of the data gap analysis upon confirmation of a PDA. As such, the current assessment focuses on archaeological resources.

30.2.2.1 Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Through the Project-specific engagement program delivered from 2016 into 2026, including community meetings, workshops, community-based primary research, the Project-specific Inuit Knowledge report compiled from the NTKP database, and through a review of publicly available information, Kitikmiut, other Indigenous groups, and other potentially affected communities shared information, expressed concerns, and provided recommendations related to heritage resources. This feedback has been considered and summarized in Table 30.2 and where applicable, has been integrated into the assessment of potential effects on heritage resources that follows.

Table 30.2 Summary of Inuit, Indigenous, and Community Knowledge and Engagement Feedback

Comment	Source	WKR Response	Where Addressed
NTKP consultants reported that the Kitikmeot Region has been used by people for a long time, since long before the current communities existed. The coastal areas including Grays Bay region were used seasonally for resources (fishing, hunting, whaling) by people moving across the region, and inland areas particularly along rivers were also used for travel for hunting (primarily caribou) and fishing. The Contwoyto Lake area has also been used for a long time. Represented by campsites, gathering places, and other types of sites, this demonstrates long-term and continuing land use by Inuit.	Banci and Spicker 2024	It is recognized that the region has been used by peoples for a long time and that land use is ongoing. Relative to heritage resources, this land use has resulted in physical evidence in the form of archaeological sites with features and artifacts. Archaeological field programs will be designed to assess the PDA to identify archaeological sites, and appropriate mitigation measures will be designed in consultation with regulators and engagement with Kitikmiut.	For mitigation measures see Section 30.3.

Comment	Source	WKR Response	Where Addressed
NTKP consultants identified and mapped gathering places at which archaeological sites, including graves, would be expected to be present. They reported that prior to the fur trade (pre-1916), the main Kitikmiut gathering areas included Omingmaktok, Kingaok (community of Bathurst Inlet), Perry River (*Kugyoak*) and Cambridge Bay (*Ekaluktutiak*). It was noted that the Grays Bay area was a long-term camping area for a number of Inuit families Consultants added that when a person died, their remains were often wrapped in caribou hide and placed on the land near where they lived and traveled, stating: "[m]ajor camping areas are locations of potentially many grave sites."	Banci and Spicker 2024	Areas identified by NTKP consultants as gathering places will be subject to archaeological assessment if they fall within the PDA.	For mitigation measures see Section 30.3.
As shared through the Project-specific Inuit Knowledge report, during the fur trade era (1916-1955), there were four primary trading areas in the Kitikmiut Region: Cambridge Bay, Coppermine, Bathurst Inlet, and Perry River.	Banci and Spicker 2024		
NTKP consultants identified eskers as important landmarks for Inuit travel and traditional camping sites. *Inuit used the area below the eskers for campsites so that they could use the high points of the eskers for lookouts.* They added that historic camp areas may also be identified from the accumulations of bowhead whale bones, which used to be used for sled runners.	Banci and Spicker 2024	Eskers and adjacent areas are known to be of high potential for the identification of archaeological sites, consistent with the information provided by NTKP consultants. Eskers and adjacent areas will be subject to archaeological assessment where they fall within the PDA.	For mitigation measures see Section 30.3.
During Project engagement, residents of Gjoa Haven inquired about an Inuit Heritage Trust and ongoing monitoring of the Project.	GBRP 2025	As the project progresses, monitoring relative to archaeological sites can be discussed with Kitikmiut, Inuit Heritage Trust and WKR to develop programs where appropriate.	For mitigation measures see Section 30.3.
During early engagement on the Project, residents of Cambridge Bay expressed concern about historical sites.	GBRP 2017	The PDA will be subject to study gap analysis and archaeological assessment of areas that have not previously been investigated to identify archaeological sites.	For mitigation measures see Section 30.3.

Comment	Source	WKR Response	Where Addressed
IAG members advised that there is an old cabin at the proposed port area.	IAG 2025a	WKR is aware of this cabin. The cabin will be visited during archaeological assessment to facilitate recording and assessment of the cabin location.	For mitigation measures see Section 30.3.
During engagement, Athabasca Denesųłiné Né Né Land Corporation stated that the Project should not disturb important places such as eskers, as they hold value as travel routes and cultural sites, such as burials. Participants reported that burials of ancestors and travel routes may be found in the vicinity of the Project.	NIRB 2025	Eskers will be subject to archaeological assessment where they fall within the PDA to identify cultural sites. Appropriate mitigation measures (including avoidance of sites, where possible) will be developed.	For mitigation measures see Section 30.3.
During engagement on a previous project, the Tłı̨chǫ Research and Training Institute reported that Tłı̨chǫ have historically camped in the area around Contwoyto Lake.	Dedats'eetsaa 2024	The PDA will be subject to study gap analysis and archaeological assessment of areas that have not previously been investigated to identify archaeological sites, including at the south end of the PDA at Contwoyto Lake.	For mitigation measures see Section 30.3.
During engagement on a previous project, Northwest Territory Métis Nation stated that eskers hold both cultural and environmental importance. They were used as travel routes because they provide a hard surface to walk on, good visibility for hunting, and wind which provides some relief from insects in the summer.	NWTMN 2012	Eskers will be subject to archaeological assessment where they fall within the PDA to identify cultural sites.	For mitigation measures see Section 30.3.

30.3 Assessment of Project Effects on Heritage Resources

30.3.1 Project Interactions with Heritage Resources

Table 30.3 identifies, for each potential effect, the Project activities that might interact with the VC and result in the identified effect. These interactions are indicated by a check mark or a dash and are discussed in detail in the following sections, in the context of effects pathways, standard and Project-specific mitigation measures, and residual effects.

Primary effects on heritage resources are mitigated before or during construction, so additional effects are not expected to occur during operations and maintenance. Note that this assumes that winter roads will be assessed prior to or during construction activities as part of the assessment of the PDA.

Table 30.3 Project Interactions with Heritage Resources

Project Activities	Effects
	Change in Heritage Resources
Construction	
Mobilization/demobilization of machinery /equipment, vehicles, materials, and fuel (e.g., by barge, sea lift, boat, or road)	–
Staging and storage of materials, fuel, equipment and pre-fabricated components	–
Chemical and hazardous material transport, storage and management (including explosives)	–
Establishment and operation of camps (e.g., mobile camps and permanent accommodations), maintenance yards, and laydowns	✓
Machinery/equipment and vehicle refuelling / fuel storage handling	–
Site preparation and earthworks of disturbance area (e.g., vegetation clearing, stripping and stockpiling of organic and overburden materials, grading, blasting, drilling)	✓
Construction of port landside facilities, aerodrome, road, and Jericho Station (e.g., buildings/facilities, fuel storage, laydown areas; public use area; access roads; water intake; power generation - diesel (may include wind turbine or solar array); all-season gravel airstrip)	✓
Borrow source and quarry development (e.g., blasting, crushing, sorting, stockpiling of temporary and permanent areas)	✓
Water withdrawal to support construction activities (e.g., winter road construction, dust control, material compaction)	–
Watercourse crossing construction (e.g., bridge and culvert installation)	✓
Ground based transportation (e.g., workforce, materials, supplies)	–
Air transport (e.g., personnel transport, resupply)	–
Waste management and sewage facilities (e.g., development and use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	✓
Construction of Marine-based infrastructure (e.g., construction of large vessel wharves, medium vessel wharf, small craft harbour, barge landing area, desalination line, vessel refueling line / fuel line to bulk fuel storage, including nearshore dredging, infilling, pile driving, blasting)	✓
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	–
Closure and reclamation of temporary borrow sources/quarries, camps, workspaces, laydowns (e.g., erosion stabilization, revegetation, restoration of natural drainage patterns, prevention of future vehicular access)	–

Project Activities	Effects
	Change in Heritage Resources
Operations and Maintenance	
Port landside operations (e.g., use and maintenance of accommodations, borrows, roads, power generation; aerodrome operations including use and maintenance of airstrip and facilities; and Jericho Station operations and maintenance).	–
Marine port use and operations (e.g., vessels and cargo loading/unloading, barge landing operations, small craft harbour operations, maintenance dredging)	–
Borrow source and quarry operations (e.g., blasting, crushing, sorting, and stockpiling of permanent areas)	–
Desalination operation and wastewater treatment (e.g., marine water use and effluent discharge)	–
Water withdrawal / use (e.g., potable water, dust control, maintenance)	–
Road maintenance / use (e.g., transport of equipment, workers, and supplies; maintenance of bridge/culverts; snow clearing; grading and gravel replacement; dust control)	–
Bulk Fuel Storage (e.g., operation of permanent fuel facilities)	–
Vessel Fuel Line / Refuelling (e.g., directly offloading from east wharf or use of floating fuel pipeline; above ground insulated pipeline to bulk fuel storage tanks)	–
Equipment maintenance	–
Chemical and hazardous material transport, storage and management (including explosives)	–
Winter road construction and use (?) (e.g., annual winter road construction and maintenance)	–
Air transport (e.g., personnel transport, resupply)	–
Waste management (e.g., use of a permanent waste management facility and on-site landfill; handling and storage of hazardous and non-hazardous waste; incineration of domestic waste; open air burning; management of black and grey water)	–
Taxes, Contracts, Purchases (e.g., procurement of goods and services; employment of workers)	–

Notes:
✓ = Potential interaction
– = No interaction
[NTD: Text providing rationale when no interaction.]

Where '–' (no interaction) is indicated, site specific AIA and avoidance/controls are expected to remove risk before/during construction; O&M education and access management address residual public/worker risks.

A summary of key feedback shared by Kitikmiut, other Indigenous groups, and other potentially affected communities relevant to heritage resources and available at the time of filing is consolidated in Table 30.2 and integrated into the assessment of potential effects on heritage resources where applicable. WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

30.3.2 Change in Heritage Resources

30.3.2.1 Analytical Assessment Techniques

As the Project moves forward and with regulatory review, AIAs will be required for the PDA, with analytic assessment techniques described in archaeological permit applications for approval by the Department of Culture and Heritage, GN, and communities through the Inuit Heritage Trust.

During Project engagement, Kitikmiut have inquired about an Inuit Heritage Trust and ongoing monitoring of the Project. As the project progresses, monitoring relative to archaeological sites can be discussed with Kitikmiut, Inuit Heritage Trust, and WKR to develop programs where appropriate.

30.3.2.2 Project Effects Pathways

Primary effects on heritage resources consist of loss or disturbance to site contents and site contexts through disturbance associated with surficial activities (access, vegetation removal), grading, excavating, vehicle traffic and use of workspaces during construction activities. Secondary effects result from unauthorized impacts or collection of artifacts/fossils during construction or as a result of the creation of new access opportunities.

30.3.2.3 Mitigation, Enhancement, and Management Measures

The objective of mitigation is to limit the loss of heritage resources materials and sites or site context caused by Project activities. Areas of the PDA that are data gaps for archaeological field assessment will be subject to studies to identify sites. Heritage resources mitigation through detailed documentation of newly recorded sites, avoidance of sites where possible, detailed site and feature mapping, surface collection of artifacts, community engagement, construction monitoring or controlled archaeological excavation of site or portions of sites may contribute to the knowledge base for the territorial archaeological and palaeontological record.

Information and concerns provided during engagement that are relevant to heritage resources, including locations of gathering sites and graves and the importance of eskers, will be considered during data gap analysis and determination of the nature and scope of archaeological field programs.

If previously unknown heritage resources sites of value are identified during construction, operations and maintenance activities, discovery protocols will be implemented, and appropriate mitigation measures will be applied in consultation with GN and through engagement with Kitikmiut.

Information provided following submission of the IS will be reviewed for incorporation into Project planning, including adaptive management and monitoring, as appropriate.

30.3.2.4 Project Residual Effect

Changes to heritage resources are characterized by change in site contents or site context resulting from development-related activity and are generally confined to the PDA. The regulator (Department of Culture and History, GN) is responsible for managing the threshold of loss to heritage resources in Nunavut. Provided that requirements issued by the regulators for assessment, mitigation, avoidance and engagement are fulfilled, the Department of Culture and History recognizes no residual effects on heritage resources.

30.3.3 Transboundary Effects

An assessment of the potential for transboundary effects on heritage resources is provided in Volume 10, Section 33 - Transboundary Effects Assessment.

30.3.4 Effects of Climate Change on Heritage Resources

The effects of climate change on heritage resources in northern locations are particularly severe with effects from thawing of permafrost and coastal erosion. Sites and artifacts preserved in cold and frozen conditions are susceptible to damage or destruction through thawing of permafrost, and sites in coastal settings may disappear entirely with erosion of coastlines (Hollesen et al. 2018). Effects of climate change on archaeological sites would be addressed on a site by site basis when encountered in consultation with regulators and through engagement with Kitikmiut.

30.4 Assessment of Cumulative Effects

After implementation of mitigation measures required by the Department of Culture and Heritage, GN, no residual effects on heritage resources are anticipated. Therefore, there is no requirement to consider the potential for cumulative effects.

30.5 Significance of Effects

With the application of mitigation measures required by the Department of Culture and Heritage, GN, and the application of discovery protocols, no residual effects on heritage resources are predicted. As a result, cumulative effects assessment was not undertaken. Further, no determination of significance is required, as no effects are predicted.

30.6 Prediction Confidence and Uncertainty

Prediction confidence is high given the commitment to follow requirements issued by the regulators.

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts, and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, as appropriate.

30.7 Follow-up and Monitoring

WKR will continue to respond to questions and concerns from Kitikmiut, other Indigenous groups, and other potentially affected communities through its ongoing engagement efforts, and information provided following submission of the IS will be reviewed in the context of the IS and for incorporation into Project planning, including adaptive management and monitoring, as appropriate.

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Appendix 25A

People and Communities Baseline Report

Grays Bay Road and Port Project
People and Communities Baseline Report

Prepared for:

West Kitikmeot Resources Corp.

Prepared by:

Nunami Stantec Limited

March 2026

Project No.: 123514868

Sign-off

This Report titled Grays Bay Road and Port Project: People and Communities Baseline Report was prepared and reviewed by the following:

Prepared by:

Jones, Sarah (Calgary)

Digitally signed by Jones, Sarah (Calgary)
Date: 2026.02.25 10:47:58 -07'00'

Signature

Sarah Jones PhD
Environmental Planner

Printed Name

Reviewed by:

Bohlken, Frank

Digitally signed by Bohlken, Frank
Date: 2026.02.25 10:13:33 -08'00'

Signature

Frank Bohlken MRM
Principal, Human Environment

Printed Name

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Appendix A People and Communities Interviews

Abbreviations

2SLGBTQQIA+	Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Asexual, Other identities and orientations
ACL	Arctic Co-operatives Limited
AD	*Anno Domini*
APTN	Aboriginal Peoples Television Network
ASETS	Aboriginal Skills and Employment Training Strategy
ATV	all terrain vehicle
BMI	body mass index
CBC	Canadian Broadcasting Corporation
CCA	Council of Canadian Academies
CCG	Canadian Coast Guard
CCGA	Canadian Coast Guard Auxiliary
CCSA	Canadian Centre on Substance Use and Addiction
CEGP	College of General and Vocational Education
CHARS	Canadian High Arctic Research Station
CIHI	Canadian Institute for Health Information
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CLC	Community Learning Centre
CLO	Community Liaison Officer
CMHC	Canada Mortgage and Housing Corporation
CN	Canadian National Railway Company
COVID-19 (COVID)	coronavirus disease of 2019
CPI	Consumer Price Index
CRTC	Canadian Radio-television and Telecommunications Commission
CSD	Census Subdivision
CSI	Crime Severity Index
DEW	Distant Early Warning
DFO	Department of Fisheries and Oceans
EIS	Environmental Impact Statement

EMS ..... emergency medical services
FANS ..... Financial Assistance for Nunavut Students
GBA Plus ..... Gender-Based Analysis Plus
GDP ..... Gross Domestic Product
GN ..... Government of Nunavut
GNWT ..... Government of the Northwest Territories
GOC ..... Government of Canada
GPS ..... Global Positioning System
GSH ..... Great Slave Helicopters
HMS ..... Her Majesty's Ship
HTO ..... Hunters and Trappers Organizations
IAG ..... Inuit Advisory Group
IBA ..... Important Bird Area
ICFI ..... Inuit Child First Initiative
IIBA ..... Inuit Impact and Benefit Agreements
IOL ..... Inuit Owned Lands
IOL ..... Inuit Owned Lands
IQ ..... Inuit Quajimajatuqangit
ITK ..... Inuit Tapitiit Kanatami
ITK ..... Inuit Tapitiit Kanatami
KQBR ..... Kitikmeot Qualified Business Registry
LAA ..... Local Assessment Area
MMG ..... Minerals and Metals Group
MTS ..... Marine Transportation Services
NAC ..... Nunavut Arctic College
NAICS ..... North American Industry Classification System
NDC ..... Nunavut Development Corporation
NEM ..... Nunavut Emergency Management
NHC ..... Nunavut Housing Corporation
NIRB ..... Nunavut Impact Review Board
NNC ..... Nutrition North Canada

NPC ..... Nunavut Planning Commission
NS ..... Nunavut Sivuniksavut
NSMA ..... North Slave Métis Alliance
NT ..... Northwest Territories
NTEP ..... Nunavut Teacher Education Program
NTHSSA ..... Northwest Territories Health and Social Services Authority
NTI ..... Nunavut Tunngavik Incorporated
NTKP ..... Naonaiyaotit Traditional Knowledge Project
NWMB ..... Nunavut Wildlife Management Board
NWT Bureau of Statistics ..... Northwest Territories Bureau of Statistics
OECM ..... Other Effective Area-Based Conservation Measure
PDA ..... Project Development Area
Project, the ..... Grays Bay Road and Port Project
RAA ..... Regional Assessment Area
RCMP ..... Royal Canadian Mounted Police
RIA ..... Regional Inuit Association
RNFB ..... Revised Northern Food Basket
SAR ..... search and rescue
SARO ..... Search and Rescue Organizations
SDOH ..... social determinants of health
STI ..... sexually transmitted infection
TCWR ..... Tibbitt to Contwoyto Winter Road
TFN ..... Tungavik Federation of Nunavut
VC ..... Valued Component
WKR ..... West Kitikmeot Resources Corporation
YKFD ..... Yellowknife Fire Division

Symbols and Units of Measure

$	Canadian dollars
$m	million Canadian dollars
%	percent
ha	hectare
km	kilometre
km^2	square kilometre
n/a	not applicable

1 Introduction

West Kitikmeot Resources Corp. (WKR) is an Inuit-owned, Inuit-led company focused on the advancement of the Grays Bay Road and Port Project (the "Project") in the Kitikmeot Region of Nunavut. WKR's largest shareholder is a wholly-owned subsidiary of the Kitikmeot Inuit Association. The Project is proposed as multi-user, multi-use transportation infrastructure to be located on a combination of Inuit Owned Land (IOL) and Crown land in the Kitikmeot Region of western Nunavut. Subject to approval, the Project would result in the establishment of the first deep-water port in the Canadian Central Arctic at Grays Bay, as well as a 230 kilometre (km) all-season access road between Grays Bay and Jericho Station near Contwoyto Lake. The Project will connect to the already approved Tibbitt to Contwoyto Winter Road. The multi-user, multi-use Project would allow for the establishment of shared infrastructure with many potential users including the federal and territorial governments, communities, community members, resource companies, and defence agencies.

This report presents the baseline conditions for People and Communities to support the development of the Impact Statement (IS) for the Project. The baseline report conforms with requirements outlined in the *Guidelines for the Preparation of an Impact Statement for West Kitikmeot Resources Corp's Grays Bay Road and Port Proposal* (NIRB File No. 24XN030; IS Guidelines), issued by the Nunavut Impact Review Board (NIRB) (NIRB 2026).

1.1 Inuit Knowledge, Traditional Knowledge, and Community Knowledge

A considerable amount of Inuit Knowledge has been documented for the Project, which has substantially informed WKR's understanding of baseline environmental and socio-economic conditions in the Project Development Area (PDA). For the purposes of the IS, focus is placed on Inuit of the Kitikmeot Region, or Kitikmiut. The Project is located wholly within the Kitikmeot Region; as such, the region and its people are where key project interactions and effects are most likely to occur.

Verified Inuit Knowledge and perspectives considered and integrated in the IS were shared through two primary project-specific sources.

1. **Naonaiyaotit Traditional Knowledge Project (NTKP):** The Kitikmeot Inuit Association maintains a repository of Inuit Knowledge for the Kitikmeot Region within a Geographic Information System (GIS)-based database called the NTKP. The NTKP contains the collective body of documented and verified Inuit Knowledge of the Kitikmeot Region, including but not limited to knowledge of birds, fish, terrestrial and marine mammals, water quality, travel routes, gathering places, and heritage. The Kitikmeot Inuit Association compiled a project-specific report called *Kitikmiut Knowledge of the Proposed Kogloktoakyok (Grays Bay) Port and Road Project* (Banci and Spicker 2024), which provides the majority of the Inuit Knowledge shared and integrated in the IS.

2. **Inuit Advisory Group (IAG)**: Initiated in 2018 by the previous project proponent, WKR re-initiated the IAG in 2025. Through a series of IAG workshops, WKR and Inuit land users, Elders, and Knowledge Holders have met to discuss and document feedback and advice about the Project, including but not limited to dialogue about wildlife, fisheries, land use, archaeology, water, air quality, and access management. Through the IAG, multiple perspectives have been shared, allowing for the integration of knowledge systems (both Inuit Knowledge and western science), resulting in a more informed and sustainable Project. At the time of filing, four IAG workshops had occurred (GBEEC 2018a, 2018b; IAG 2025a, 2025b), with additional workshops planned for the future.

Pertinent baseline information from these sources of Inuit Knowledge is not presented further here; rather, this information is provided in the above-noted reports themselves, the 'Baseline Conditions' sections of each assessment section, and integrated in the People and Communities sections where appropriate. The same process was applied when integrating baseline information associated with applicable Traditional Knowledge and Community Knowledge shared in publicly available literature and through the project-specific engagement program.

2 Study Scope and Area

2.1 Study Purpose

The purpose of this report is to outline socio-economic baseline conditions in the study area. Baseline conditions represent the current / existing state of socio-economic affairs. The baseline report provides descriptions and measures of existing conditions against which potential project effects can be measured and monitored.

2.2 Study Scope

The following review elements have been specified in the Impact Statement (IS) guidelines (NIRB 2026) with respect to “People and Communities” to describe the baseline information on the functioning and stability of the socio-economic environment in the study area.

- Economic development and opportunities
- Employment (including traditional economy)
- Education and training
- Contracting and business opportunities
- Benefits, royalties, and taxation
- Population demographics
- Food security
- Commercial harvesting and fishery
- Recreational fishery
- Non-traditional land, marine, and resource use
- Individual and community health and wellness, including:
  - Family and community cohesion
- Community infrastructure and services, including:
  - Public services
  - Housing
  - Community resupply
- Governance and leadership
- Health and safety, including worker and public safety

2.3 Valued Components

The review elements identified in Section 2.2 have been consolidated into six Valued Components (VCs).

- Non-Traditional Land, Marine, and Resource Use
- Employment and Economy
- Education and Training
- Infrastructure and Services
- Community Health and Wellbeing
- Food Security and Sovereignty

Elements that relate to non-traditional land, marine, and resource use (e.g., land use planning, mineral and oil/gas resources, tourism and recreation, commercial fisheries) are included under the Non-Traditional Land, Marine, and Resource Use VC. Elements that relate to culture and traditional land, marine, and resource use (e.g., fisheries, traditional seasonal travel routes) are included separately in the EIS under the Traditional Land, Marine and Resource Use VC. Archaeological and palaeontological resources are also included separately under the Heritage Resources VC. Other VCs may be identified and refined based on project-specific engagement, feedback during community-based research, and additional guidance provided by NIRB.

2.4 Study Area

The Project is entirely located within the Kitikmeot Region of Nunavut (Figure 2.1). Project components are located on a combination of Crown land and IOL and in federal waters.

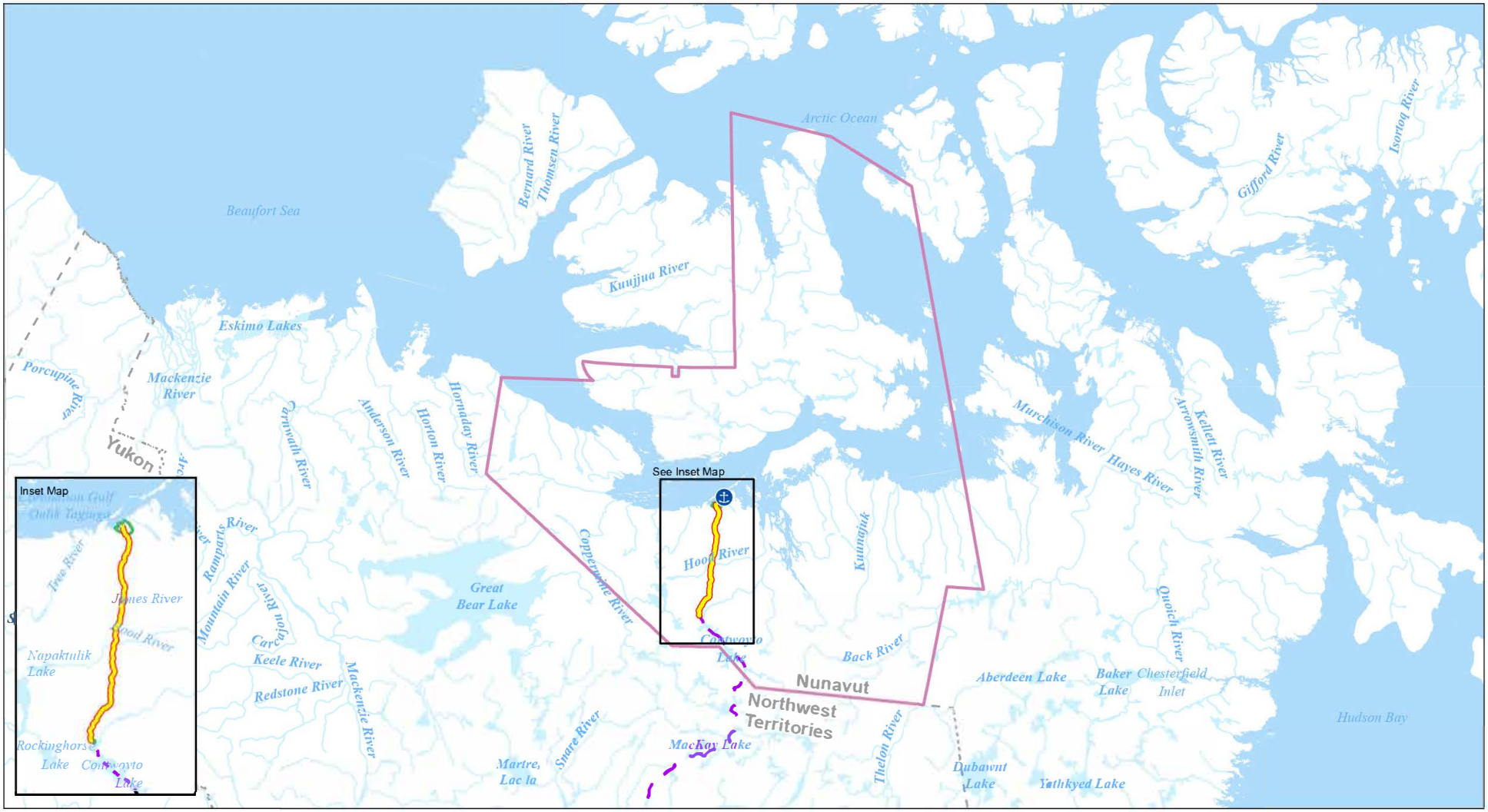
2.4.1 Regional Assessment Area

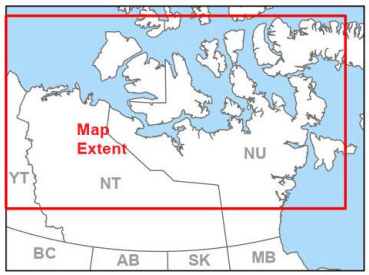
2.4.1.1 Non-Traditional Land, Marine, and Resource Use

The Regional Assessment Area (RAA) for the Non-Traditional Land, Marine, and Resource Use VC corresponds to the western portion of the Kitikmeot Region (Figure 2.1). The RAA encompasses a broader area beyond the road and port in the western Kitikmeot Region to provide additional context for non-traditional land, marine, and resource use activities.

2.4.1.2 Employment and Economy, Education and Training, Infrastructure and Services, Community Health and Wellbeing

The RAA for the Employment and Economy, Education and Training, Infrastructure and Services, and Community Health and Wellbeing VCs is the Kitikmeot Region. The Region includes the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven; as well as the primarily seasonal settlements of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) in the Kitikmeot Region. The RAA also includes part of the Northwest Territories (NT), focusing on Yellowknife, since Yellowknife will serve as a logistics and staging location for the Project (Figure 2.2).





Local Assessment Area (LAA)
Regional Assessment Area (RAA)
Grays Bay Port
Grays Bay Road
Territorial Boundary
Tibbitt to Contwoyto Winter Road
Watercourse
Ocean
Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:6,750,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2026-02-05
TR by SJ on 2026-02-05

Client/Project
123514868_018

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
2.1

Title
Non-Traditional Land, Marine, and Resource Use Assessment Area Overview

Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

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Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

- Local Assessment Area (LAA)
- Regional Assessment Area (RAA) (including Yellowknife)
- Grays Bay Port
- Grays Bay Road
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Ocean
- Watercourse
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by DSPRY on 2025-12-02
TR by SL on 2025-12-02

Client/Project
123514868_015

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
2.2

Title
Employment and Economy, Education and Training, Infrastructure and Services, Community Health and Wellbeing Assessment Area Overview

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2.4.1.3 Food Security and Food Sovereignty

The RAA for the Food Security and Food Sovereignty VCs is the Kitikmeot Region, including the five Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven; as well as the primarily seasonal settlements of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) in the Kitikmeot Region (Figure 2.3).

2.4.2 Local Assessment Area

2.4.2.1 Non-Traditional Land, Marine, and Resource Use

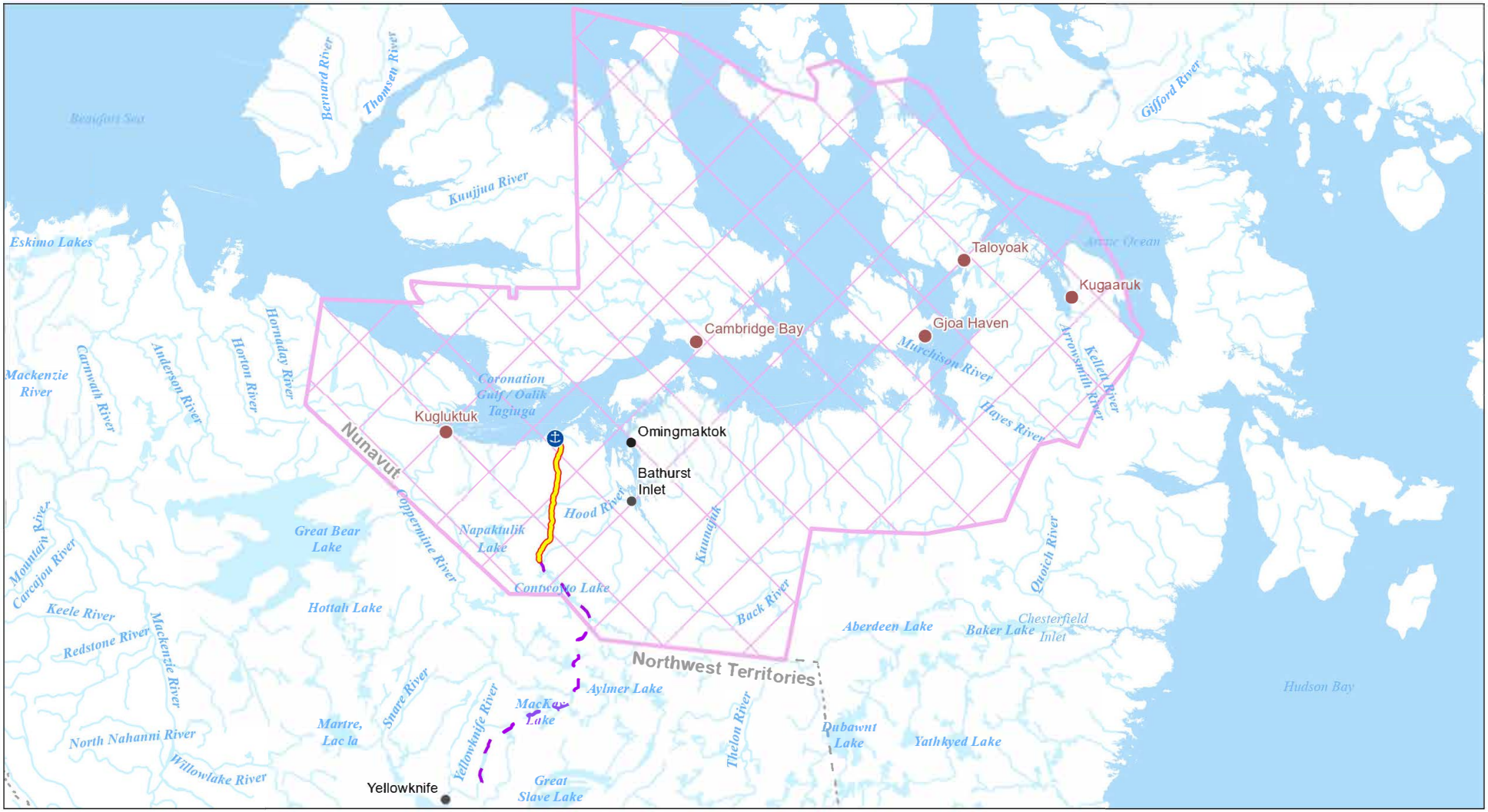
As Non-Traditional Land, Marine, and Resource Use activities are closely tied to the water quality and fish and wildlife resources that are harvested or used for other commercial or recreational purposes, the Local Assessment Area (LAA) is based on the fish, wildlife, and marine assessment boundaries. The LAA for the Non-Traditional Land, Marine, and Resource Use VC (Figure 2.1) is comprised of a 2 km wide corridor centered on the Road PDA and also encompasses a combination of a 4 km buffer of the port landside facilities PDA, aerodrome PDA, and 1 km buffer of the port marine facilities PDA. The 2 km road corridor and 4 km port landside buffer correspond to the Wildlife and Wildlife Habitat LAA (for wildlife other than caribou or birds). The 1 km port marine facilities PDA buffer aligns with the Marine LAA.

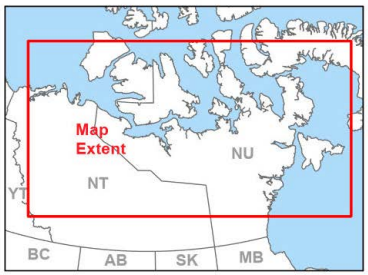
2.4.2.2 Employment and Economy, Education and Training, Infrastructure and Services, Community Health and Wellbeing

The LAA for the Employment and Economy, Education and Training, Infrastructure and Services, and Community Health and Wellbeing VCs (Figure 2.2) is comprised of the five main Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven, as well as Yellowknife.

2.4.2.3 Food Security and Sovereignty

The LAA for the Food Security and Sovereignty VC (Figure 2.3) is comprised of the five main Kitikmeot communities: Kugluktuk, Cambridge Bay, Kugaaruk, Taloyoak and Gjoa Haven.





- Local Assessment Area (LAA)
- Grays Bay Port
- Grays Bay Road
- Grays Bay Winter Road
- Regional Assessment Area (RAA)
- Community
- Territorial Boundary
- Tibbitt to Contwoyto Winter Road
- Watercourse
- Ocean
- Waterbody

0 100 200 Kilometres

(At original document size of 8.5x11) 1:3,500,000

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by BSPRY on 2025-11-28
TR by SL on 2025-11-28

Client/Project
123514868_091

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
2.3

Title
Food Security and Food Sovereignty Assessment Area Overview

Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada

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3 Methods

3.1 Application of Inuit Quajimajatuqangit Principles

Inuit Qaujimaningit, also known as Inuit Knowledge, encompasses “Inuit traditional knowledge (and variations thereof or Inuit Qaujimajatuqangit), local and community-based knowledge, as well as Inuit epistemology as it relates to Inuit Societal Values and Inuit Knowledge (both traditional and contemporary)” (NIRB 2025b). Inuit Societal Values, including traditional values, beliefs, and principles are referred to as Inuit Qaujimajatuqangit) principles (NIRB 2025b, Pauktuutit 2025). The IQ principles have been incorporated into the People and Communities scope to develop a culturally-relevant baseline report. Table 3.1 summarizes the IQ principles and how each principle was applied to the summary of baseline conditions for People and Communities.

Table 3.1 Application of Inuit Quajimajatuqangit Principles

IQ Principle	How Principle was Applied
Inuuqatigiitsiarniq (respecting others, relationships, and caring for people)	By listening well to community members in all Kitikmeot communities and incorporating Kitikmmiut perspectives and experiences to accurately and respectfully portray baseline conditions in the People and Communities baseline report.
Pijitsirniq (concept of serving)	By including Kitikmmiut perspectives and experiences in the baseline report to serve Kitikmeot communities through an accurate portrayal of baseline conditions. This will inform the assessment of the Project, its potential benefits, and its potential adverse effects.
Pilimmaksarniq (concept of skills and knowledge acquisition)	By engaging with Community Liaison Officers (CLOs), to inform the design the People and Communities primary research. By sharing about the Project widely during community-based data collection, to support understanding the Project and the associated assessment process among Kitikmmiut.
Piliriqatigiingniq (concept or collaborative relationships or working together for a common purpose)	By working collaboratively with Kitikmeot Inuit Association, to accurately portray baseline conditions for the People and Communities baseline report. This will inform the assessment of the Project, its potential benefits, and its potential adverse effects, for the common purpose of presenting the information to the NIRB (and relevant stakeholders) to make informed recommendations about the Project and, ultimately, “to protect and promote the existing and future well-being of the residents and communities” (NIRB n.d.).
Tunnganarniq (fostering good spirits by being open, welcoming, and inclusive)	The People and Communities baseline report is inclusive of all five Kitikmeot communities as well as Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo), with open discussions among hamlets, Hunters and Trappers Organizations (HTO), and community members in all Kitikmeot communities.
Aajiiqatigiingniq (decision making through discussion and consensus)	The People and Communities baseline report will be submitted to the NIRB as part of the EIS for the Project. The NIRB review process is a participatory and multi-party review process that considers community feedback through NIRB recommendations.
Qanugtuutunnarniq (concept of being resourceful to solve problems)	By recording all suggestions from Kitikmmiut to enhance benefits and/or mitigate adverse effects of the Project on Kitikmeot communities during People and Communities primary research.
Avatimik Kamattiarniq (concept of environmental stewardship)	By striving for environmental stewardship, the Project will include mitigation and management measures that respect and care for the land, animals, and environment in its final plans.

Source: Government of Nunavut (GN 2022)

3.2 Issues Identification

Project-specific engagement activities regarding the Project occurred in the Kitikmeot communities and Yellowknife between April and May 2024. Community meetings were held in each Kitikmeot community to provide an update on the Project and to introduce the People and Communities community-based research program in October and November 2024. Applicable feedback identified during project-specific engagement activities has been integrated into the summary of baseline conditions for People and Communities. Refer to Chapter 3 for details regarding public engagement for the Project.

The following is a summary of issues and concerns raised in the Kitikmeot communities during the Project's engagement activities completed to date.

- **Employment and training –** The need for Inuit employment, especially with the youth population, now and in the future, was raised in almost all engagement sessions. Many parties also raised the need for training to take advantage of anticipated employment opportunities.
- **Business opportunities –** Parties expressed an interest in the Inuit business opportunities arising from the Project.
- **Caribou –** Parties expressed concerns regarding the protection of caribou. The following specific concerns were identified:
  - Caribou are a key species harvested by Inuit with important cultural connotations and species health is essential to maintain.
  - Project should not interfere with the migration of the Dolphin and Union herd between the islands and mainland.
  - Beverly caribou herd should be part of the investigation as they have been identified in the project area.
  - Review new information available through the GN.
  - Need for wildlife monitors.
  - Measures to mitigate the effects of road dust on habitat are necessary.
- **Wildlife –** Grizzly bear, wolverine, wolf, seal, and muskox populations are also extremely important to the Inuit and ways to mitigate impact to these populations must be identified.
- **Access –** Community members voiced an interest in being able to access Grays Bay Road and Grays Bay Port for their own use; however, concern was also raised that access may need to be controlled to prevent overharvesting of caribou and other renewable resources.
- **Infrastructure –** Road design needs to take into consideration building on permafrost and clearing of snow.
- **Cost of living –** Food security was raised as an issue in all communities and the Kitikmeot communities are interested in ways to reduce costs of goods being transported into the region.

Continued engagement with communities, organizations, and stakeholders through the NIRB process will support issues identification and mitigation measures to address them.

3.3 Literature Review and Secondary Data Collection

Quantitative and qualitative information on baseline economic and social conditions and non-traditional land, marine, and resource use for the LAA and RAA was obtained from the following sources:

- Government of Canada
- GN
- Government of the Northwest Territories (GNWT)
- Municipal Governments
- Economic Development Corporations
- Statistics Canada
- Nunavut Bureau of Statistics
- Public Health Agency of Canada
- Canadian Centre on Substance Use and Addiction
- Canadian Institute for Health Information
- Canadian Mortgage and Housing Corporation
- Nunavut Housing Corporation
- Inuit Tapiriit Kanatami
- Nunavut Tunngavik Incorporated
- Pauktuutit Inuit Women of Canada
- Nunavut Wildlife Management Board
- Nunavut Wildlife Secretariat
- Hunters and Trappers Associations
- Other environmental assessment reports
- Published literature and “grey” literature

Disaggregated data by territorial region and by community are not always available. In instances that regional- or community- specific data is not available, Nunavut and NT data are assumed to broadly represent similar trends found in the Kitikmeot Region and communities and in Yellowknife.

3.4 Primary Data Collection

Following the compilation of baseline data from secondary sources, a gap analysis was completed to identify priority topics and interview questions for further community-based research. Potential sources of information (e.g., businesses and organizations) and sub-populations for interviews (e.g., Elders, Hunters and Trappers Associations) in communities were also identified. Appendix A details all the People and Communities interviews that were solicited and completed.

3.4.1 Kitikmeot Communities

Community-based research was undertaken to collect primary socio-economic data related to People and Communities in the Kitikmeot Region in October and November 2024. A social sciences research license was obtained from the Nunavut Research Institute (License Number 04 018 24N-M) to conduct community-based research in Kitikmeot communities.

Kitikmeot Inuit Association Community Liaison Officers (CLOs) in each Kitikmeot community were engaged by email and video call to discuss timing for community-based research, topics and interview questions, and sources of information and sub-populations for interviews. CLOs and HTOs were also engaged to assist in scheduling focus groups and workshops with identified sub-populations.

Interviews with community members and key informants in each Kitikmeot community were conducted to inform baseline conditions and identify issues of interest and concern related to People and Communities. A total of 61 interviews were conducted with 70 community members in-person and virtually over Microsoft Teams. Interview participants included regional public administration staff, hamlet administration staff, police services, health services, wellness and social services, business and economic development organizations, education and training organizations, and community members who do not work for or represent these organizations. Some interview participants represented families originally from Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo). Table 3.2 summarizes key person interviews conducted in each Kitikmeot community. Appendix A details all interviews that were requested and completed for the People and Communities baseline report.

Table 3.2 Key Person Interviews in Kitikmeot Communities

Community	Format	Date	Number of Interviews	Number of Participants
Cambridge Bay	In-person	Nov 3-6, 2024	20	24
	Virtual	Oct 29, 2024; Nov 14, 2024; Dec 16, 2024	3	3
Gjoa Haven	In-person	Nov 14-16, 2024	7	9
	Virtual	Dec 5, 2024	1	1
Kugaaruk	In-person	Oct 29 – Nov 1, 2024	10	12
Kugluktuk	In-person	Nov 7-9, 2024	10	10
Taloyoak	In-person	Nov 18-20, 2024	10	11

Focus groups and meetings were held with different groups in each Kitikmeot community to discuss baseline conditions and issues of interest and concern related to People and Communities in-person and virtually over Teams. Table 3.3 summarizes focus groups held in each Kitikmeot community.

Table 3.3 Focus Groups and Meetings in Kitikmeot Communities

Community	Group	Format	Date	Number of Participants
Cambridge Bay	Ekaluktutiak Hunters & Trappers Organization	Virtual meeting	Nov 12, 2024	7
Gjoa Haven	Gjoa Haven Hunters & Trappers Association	In-person meeting	Nov 16, 2024	7
	Elders	In-person focus group	Nov 16, 2024	4
Kugaaruk	Kurtairujuark Hunters & Trappers Association	In-person meeting	Oct 29, 2024	8
Kugluktuk	Hunters and Trappers Association	Virtual meeting	April 1, 2024	4
	Community members	In-person focus group	Nov 9, 2024	6
Taloyoak	Taloyoak Hunters & Trappers Association	In-person meeting	Nov 19, 2024	7
	Netsilik High School Students	In-person meeting	Nov 19, 2024	~18

3.4.2 Yellowknife

Key person interviews were also undertaken with government agencies, stakeholders, and community organizations in Yellowknife in May 2025. Research licenses were obtained from the GNWT Department of Education, Culture and Employment (License Number 5957 and 6135) and ethics approval was obtained from Aurora Research Institute (Approval Number AC-REC 24-09) to conduct research in Yellowknife.

Agencies, stakeholders, and organizations in Yellowknife were first engaged by email to introduce the Project and scope of community-based research, and to schedule time to meet. Nineteen key agencies, stakeholders, and organizations were contacted, of which interviews were undertaken virtually by Teams with seven organizations Iin May / June 2025. Table 3.4 summarizes key person interviews conducted in Yellowknife. Appendix A details all interviews that were requested and completed for the People and Communities baseline report.

Table 3.4 Key Person Interviews in Yellowknife

Organization	Date	Format
Yellowknife Airport	May 5, 2025	Virtual
Great Slave Helicopters	May 14, 2025	Virtual
Deton'Cho Corporation	May 22, 2025	Virtual
Tlicho Investment Corporation	May 23, 2025	Virtual
North Slave Métis Alliance	May 23, 2025	Virtual
City of Yellowknife	June 2, 2025	Virtual
Black Feather: The Wilderness Adventure Company (Ontario-based company operating in the north)	June 18, 2025	Virtual

3.4.3 Data Analysis

The findings of primary research interviews, focus groups, and meetings were recorded by written notes and audio recording, when consent was granted. Written notes and audio recordings were typed and transcribed, respectively. Primary research underwent thematic analysis, which grouped findings into major themes that align with the various People and Communities VCs. Key findings of data analysis were integrated into the baseline report.

3.5 Gender Based Analysis Plus (GBA Plus)

Gender-Based Analysis Plus (GBA Plus) guides the consideration of differential effects on unique subpopulations. GBA Plus requires the consideration of identity factors and how power structures may work to produce either advantage or disadvantage in society. Key components of GBA Plus are the inclusion of factors beyond just sex and gender, such as age, disability, education, culture, ethnicity, economic status, geography, language, race, religion, and sexual orientation. GBA Plus also employs an intersectional and culturally responsive lens that considers historical and current issues, including the impact of colonialism. Conducting GBA Plus involves understanding a person's position or role, and challenging long-held beliefs while addressing privilege and internalized colonial values.

In relation to this Project, these gender-based analyses have informed the selection of sub-populations for consideration. Sub-populations that are addressed in the VC sections, and rationale for inclusion are provided in Table 3.5.

Table 3.5 Gender Based Analysis Plus Sub-Populations

Sub-Population	Rationale for Inclusion
Inuit	Inuit are distinct from First Nations and Métis peoples and are the predominant Indigenous peoples in Kitikmeot communities. Inuit may experience systemic racism, intergenerational trauma, food insecurity, lower incomes and worse health outcomes more than the overall Canadian population.
Hunters and trappers	Hunters and trappers may experience differential effects of the Project as a result of their close connection to the land and water, should effects in those areas occur.
Other Indigenous peoples	Yellowknife is populated by First Nations and Métis peoples as well as Inuit. Indigenous peoples may experience systemic racism, intergenerational trauma, food insecurity, lower incomes and worse health outcomes more than the overall Canadian population.
Indigenous women and girls	Indigenous women and girls are a potentially vulnerable population and may experience differential effects due to the complex interrelationship between colonialism and intergenerational trauma, their gender identity, and the Project.
Women+[a]	Women+ are a distinct subpopulation and may experience differential effects due to the complex interrelationship between their gender identity and gender norms.
Men+[a]	Men+ are a distinct subpopulation and may experience differential effects due to the complex interrelationship between their gender identity and gender norms.
Low-income individuals and households	The Kitikmeot Region has a relatively high proportion of people living below the poverty line when compared to the overall population of Canada. Low-income individuals and households are a potentially vulnerable population and may experience differential effects due to pre-existing barriers to inclusion in the market economy and limited social safety nets.
People with disabilities[b]	People with disabilities are a potentially vulnerable population and may experience differential effects due to pre-existing barriers to inclusion in the market economy and limited social safety nets.

Sub-Population	Rationale for Inclusion
Lone parent families[b]	Lone parent families may experience differential effects due to pre-existing barriers to inclusion in the Project and limited social safety nets.
2SLGBTQQIA+ community	The Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer, Questioning, Intersex, Asexual, Other identities and orientations (2SLGBTQQIA+) community may experience differential effects due to the complex interrelationship between their gender identity and gender norms.
Youth	The Kitikmeot Region has a relatively young population distribution when compared to the overall Canadian population. Youth may experience differential effects because the Project may have a larger impact over the longer course of their lifetime or due to opportunities for more training, waged employment, and/or potential erosion of the traditional economy and way of life due waged employment.
Elders	Elders may experience differential effects because of distress caused by environmental change, due to potential barriers to inclusion in the Project, and/or limited social safety nets.

Notes:

[a] Where available, population data disaggregated by gender will be used to support the GBA Plus and sub-populations will be identified by gender identifiers, such as “women,” “men,” and “gender-diverse.” However, population data is not always disaggregated by gender. For example, prior to the 2021 Census, population data was disaggregated based on binary sex identifiers “female” and “male.” In these instances, population data disaggregated by sex will be used in the assessment. Statistics Canada Census Profile Description of Gender Based Analysis – within Statistics Canada Census Profile definitions (Statistics Canada 2022a):

given that the non-binary population is small, data aggregation to a two-category gender variable is sometimes necessary to protect the confidentiality of responses provided. In these cases, individuals in the category "non-binary persons" are distributed into the other two gender categories and are denoted by the "＋" symbol.

"Men＋" includes men (and/or boys), as well as some non-binary persons.

"Women＋" includes women (and/or girls), as well as some non-binary persons.

[b] Although disaggregated in this table, people with disabilities and lone parent families may also be low-income individuals and households, and disproportionate effects on these subgroups may be a result of limited employment and economic opportunities, resulting in low income.

3.6 Reflection on Unconscious Bias and Assumptions

It is acknowledged that socio-economic researchers may have unconscious biases and assumptions, which can influence the scoping of the research program, the methods used, and the interpretation of information. Unconscious bias, also known as implicit bias, is a form of stereotyping and discrimination based on gender, sexuality, Indigeneity and other identity factors. Table 3.6 identifies some such biases and describes how the research team has addressed them in the summary of baseline conditions for People and Communities. All members of the research team have taken unconscious bias training, a 2-hour session focused on providing awareness and education about what biases and microaggressions are, understanding their impacts and how they can be managed.

Table 3.6 Potential Unconscious Biases and How They Are Addressed

Type of Unconscious Bias	Description	How Addressed
Gender bias	Rigid "male" and "female" attributes	Introspection: Considering personal biases through self-reflection Mindfulness: Focusing on the present moment to acknowledge potentially biased thoughts or feelings Perspective-taking: Practicing a view of those who are stereotyped Pause and reflect: Slowing down to reduce reflexive and biased thoughts or actions Individuation: Focusing on an individual's unique character rather than stereotypes of the group they are perceived to belong to Inclusive messaging: Using inclusive language to welcome diversity Continuous learning: Recognizing that mitigating unconscious bias is a continual process Document review: this document has been subject to a quality review process, by individuals who were not directly involved in its writing. This quality review process can also identify, and alert to the document authors, potential occurrences of unconscious bias
Confirmation bias	Seeking information that confirms existing beliefs	
Race and ethnicity bias	Unconscious preferences or prejudices based on race or ethnicity	
Age bias	Discriminating against someone or making assumptions based on their age	
Halo effect	Forming a positive impression of someone based on one positive trait	
Horn effect	Forming a negative impression of someone based on one negative trait	
Affinity bias	Favouring people similar to ourselves (background, interests, or experiences)	
Status quo bias	A preference for things to remain the same rather than change	

4 Kitikmeot Region and Communities

4.1 Historical Background/Socio-economic Context

The Kitikmeot Region of Nunavut is the westernmost region of Nunavut. It encompasses 447,727 km^2 of the central Arctic, encompassing approximately 4.5% of Canada's land mass. The Kitikmeot Region borders the NT to the west and southwest and contains the southern and eastern parts of Victoria Island, the adjacent part of the mainland to the Boothia Peninsula, King William Island, and the southern portion of Prince of Wales Island (Figure 2.2).

The region is the ancestral home of the Kitikmeot Inuit, whose descendants today primarily reside in five incorporated hamlets: Cambridge Bay/*Ekaluktutiak*, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk. The region is also home to two unincorporated communities, Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo), where the populations have decreased to the point where they are generally inhabited on a seasonal basis only. The Kitikmeot communities are accessible only by air, or by sea during the short open-water season. At present, there are no permanent roads between Kitikmeot communities or connecting Nunavut to southern Canada.

The Kitikmeot Inuit and Nunavummiut, more generally, have a culture and way of life that expresses itself in many distinct ways. These include through Inuit languages, the harvesting and consumption of country foods, traditional clothing, and a culture of sharing and celebration with each other.

Until the mid 20th century, the Kitikmeot Inuit observed seasonal rounds to hunt, fish, and harvest available resources. Many Elders in Kitikmeot communities have first-hand experience with this way of life. Kitikmeot Inuit have faced substantial social change in a short period of time, beginning with contact with European explorers in 1771 through European exploration of the Coppermine River area and the later introduction of fur trade posts and missionaries in the early twentieth century. By the 1960s, Kitikmeot Inuit shifted from living on the land to modern permanent settlements where fur trading posts, churches, and federal government services such as policing, medical services, and education were located. This shift resulted in substantial and rapid changes to Inuit values, culture, and life ways (Pauktuutit 2006).

The historical background of the region has led to present day social circumstances troubled by the persisting impacts of colonialism (Pauktuutit 2006). Oppression of Inuit through colonial policies and actions such as the residential school system has resulted in intergenerational trauma (Pauktuutit 2006; Royal Commission on Aboriginal Peoples 1996). Impacts of the region's history may be associated with gender-based violence, suicide, alcoholism, and other social issues. Poverty and food insecurity are also widespread in the Kitikmeot Region. Income levels are among the lowest in Nunavut and Canada, and unemployment rates among the highest. These communities have among the youngest and most rapidly growing populations in Canada, with residents facing severe housing shortages and a cost of living much higher than that found in southern Canada.

4.2 Governance and Leadership

The territory of Nunavut was created on April 1, 1999, through the signing of the Nunavut Land Claims Agreement between the Government of Canada, the GNWT, and the Tungavik Federation of Nunavut (TFN). This made Inuit beneficiaries landowners and regulators for 356,000 km^2 of IOL representing approximately18% of Nunavut and spread across 944 parcels of land distributed across the territory. The Nunavut Land Claims Agreement also established institutions of public government for the regulation of land, water, marine areas, wildlife, including the NIRB, Nunavut Planning Commission (NPC), Nunavut Water Board, Nunavut Surface Rights Tribunal, and Nunavut Wildlife Management Board.

The TFN was superseded by Nunavut Tunngavik Incorporated (NTI), which represents Inuit and is responsible for the implementation of the Nunavut Land Claims Agreement. At the time of signing the Nunavut Land Claims Agreement, the Government of Canada retained certain administrative responsibilities for the territory. However, responsibilities for Nunavut's public lands, natural resources, and rights in respect to water will be transferred from the Government of Canada to the GN by April 1, 2027, through the Nunavut Lands and Resources Devolution Agreement. The Nunavut Land Claims Agreement established the Nunavut Settlement Area and its administrative regions: the Kitikmeot Region, the Kivalliq Region, and the Qikiqtani Region. It also established Regional Inuit Associations (RIAs), which are elected organizations responsible for protecting Inuit rights and advocating for Inuit interests in each region. Both NTI and RIAs manage IOL, which were established under the Nunavut Land Claims Agreement. NTI manages subsurface resources and collects and manages associated royalties on behalf of Inuit beneficiaries as negotiated through the Nunavut Land Claims Agreement. The RIAs are responsible for managing and regulating surface rights to IOL. IOL comprises approximately 106,360 km^2 in the Kitikmeot Region, of which 92,619 km^2 includes surface rights only and 11,509 km^2 includes surface and subsurface rights.

In the Kitikmeot Region, the Kitikmeot Inuit Association represents Kitikmeot Inuit and advocates for Kitikmiut interests. The Kitikmeot Inuit Association mandate seeks to ensure that Inuit within the region can manage their land and resources, and the organization promotes traditional and cultural values, pride in their identity, support for higher education, and for Inuit to speak and write their language (Kitikmeot Inuit Association 2021). The Kitikmeot Inuit Association also provides funding for local education programs and scholarships for its population, as well as funding for community cultural and wellness projects. The Kitikmeot Inuit Association is consulted on government initiatives (federal and territorial) and provides a regional-level voice for issues that affect Kitikmeot Inuit and IOL in the region. Cambridge Bay is the regional administrative centre of the Kitikmeot Region.

There are five hamlets in the Kitikmeot Region (Section 4.3). The hamlet governments are elected by residents (both Inuit and non-Inuit) and are responsible for providing local services to residents, such as maintaining local roads and other non-territorial infrastructure.

HTOs are another level of oversight within Nunavut. Although not a direct level of government, Nunavut HTOs are elected, Inuit-led organizations that help to monitor the harvesting practices of wildlife and play an important role in maintaining a sustainable supply of traditional country foods within Nunavut communities. The Kitikmeot Regional Wildlife Board administers and regulates the HTOs and the Government of Canada provides funding for the Nunavut Inuit Wildlife Secretariat which in turn provides

training and empowers the local HTOs to act as stewards of their lands and waters (Government of Canada (GOC) 2023a). Each of the five Kitikmeot communities has an HTO, as do the primarily seasonal settlements of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo).

4.3 Community Profiles

This section provides an overview of the historic and geographical context for each of the five hamlets and two unincorporated communities in the Kitikmeot Region.

4.3.1 Cambridge Bay

Located on Victoria Island within the Canadian Arctic Archipelago, Cambridge Bay is the largest community within the Kitikmeot Region. In Innuinnaqtun, Cambridge Bay is known as “Ekaluktutiak,” meaning “good fishing place,” because of its proximity to the Ekalluk River which is known for its abundance of large Arctic char (Travel Nunavut 2025a). The Ekaluktutiamiut and their ancestors, the pre-Dorset, Dorset, Thule and Inuit peoples, have lived in this region for centuries, with some archaeology evidence dating back 4,000 years (Municipality of Cambridge Bay 2025; Travel Nunavut 2025a; Inuit Tapitiit Kanatami (ITK) 2016c). Tent rings and Dorset or Tuniit longhouses can still be seen within a short drive from the community (Municipality of Cambridge Bay 2025). Cambridge Bay also served as an important stopping point for several Arctic expeditions between 1839 and 1910 to find and navigate the Northwest Passage (Municipality of Cambridge Bay 2025).

In the 1920s, Hudson’s Bay Company traders and the Royal Canadian Mounted Police (RCMP) set up bases at Cambridge Bay, and church missions were established in the 1920s and 1940s. However, it was not until 1947, when a long-range navigational beacon was established, that the community began to form (Municipality of Cambridge Bay 2025). In 1955, job opportunities to build the North American Radar and Air Defence (NORAD) Distant Early Warning (DEW) Line stations brought hundreds of Inuit to the community (Municipality of Cambridge Bay 2025). This population surge also brought schools and municipal services (Municipality of Cambridge Bay 2025). As of 2021, Cambridge Bay had a population of 1,760 people (Statistics Canada 2024a).

Today, Cambridge Bay is home to the Kitikmeot campus of Nunavut Arctic College and the Canadian High Arctic Research Station (CHARS), which hosts scientists studying Arctic issues (CHARS 2024; Sabina 2013). There are two grocery stores (the Northern and the Co-op), an RCMP station, a library, health centre, churches, sports arena, elementary and high schools, and other community services, such as a wellness centre and a recreation centre. Cambridge Bay serves as a regional hub and headquarters of organizations such as Kitikmeot Inuit Association, as well as regional offices for the Nunavut Impact Review Board. Other GN offices in Cambridge Bay include the Department of Health and the Department of Family Services.

The hamlet council consists of a Mayor, a Deputy Mayor, and six councillors. It provides public works and services including water delivery, wastewater collection, garbage collection, road maintenance, and funeral services. The community also provides recreation and local wellness programs, such as addictions counselling and Elder and youth programming (Municipality of Cambridge Bay 2025; Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024,). Unlike other Kitikmeot communities, Cambridge

Bay has a regional hospital with a regular doctor (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024). Cambridge Bay also has a long-term care facility, one of two in the Kitikmeot Region.

Tourism is an important economic driver for the hamlet and Cambridge Bay is visited by several cruise ships annually, as well as personal pleasure crafts (e.g., yachts, sailboats) and community resupply barges (Community Member, Cambridge Bay, pers. comm., November 3, 2024; Community Member, Kugaaruk, pers. comm., October 30, 2024; Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4 2024). Outside of government services, other industries within the hamlet include retail, contracting and construction, and hospitality (TMAC Resources 2017; Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024). Cambridge Bay has a hardware store, plumbing and heating business, and accommodations and food services (TMAC Resources 2017; Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024). In addition, local business Kitikmeot Foods operates the world's largest wild commercial Arctic char fishery, outputting between 80,000 to 110,000 pounds of fish annually (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024).

Cambridge Bay is considered a transportation hub with a port with access to the Coronation Gulf and the Northwest Passage, and the largest airport in Western Nunavut (Travel Nunavut 2025a). The airport has provided regular commercial flights to communities to the south such as Yellowknife and beyond, as well as acting a hub for local flights onwards to the smaller Kitikmeot communities. Cambridge Bay is serviced by a fuel barge that brings in gas to the community (Community Member, Cambridge Bay, pers. comm., November 3, 2024). Sealifts transport additional supplies each year from locations such as NT, Quebec and British Columbia (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024).

4.3.2 Kugluktuk

Located beneath rocky hills at the mouth of the Coppermine River on Coronation Gulf, Kugluktuk is the western-most community in Nunavut and the second largest community in the Kitikmeot Region with a current population of 1,382 people (Travel Nunavut 2025b; Hamlet of Kugluktuk 2025; Statistics Canada 2024a). The community's name means "place of moving water" in Innuinaqtun with the root word 'kugluk' meaning 'waterfall' in the local dialect (Hamlet of Kugluktuk 2025; Travel Nunavut 2025b). The people of Kugluktuk have been known as the "Copper Inuit," because, for thousands of years, they harvested copper from the nearby shoreline (Destination Nunavut 2024; Hamlet of Kugluktuk 2025).

Kugluktuk's Inuinnaqtun dialect differs slightly from Inuktitut because of the community's long history as descendants of Thule peoples (proto-Inuit), who were present in the Canadian Arctic from 1,000 AD to 1,600 AD. In comparison, present-day Inuit culture is said to be derived from a period extending from approximately 1,600 AD to the present-day (Hamlet of Kugluktuk 2025). This distinction has created unique cultural and linguistic traditions for the people of Kugluktuk (Hamlet of Kugluktuk 2025).

Kugluktuk is also tied to an ancient feud between the Inuit and the Dene over claims to the region. These differences were settled in 1996 during a sacred healing ceremony, when the community was renamed from "Coppermine" to Kugluktuk (Hamlet of Kugluktuk 2025).

Although there are records of Hudson's Bay Company explorations in the region of Kugluktuk in 1771 by Samuel Hearne, it was not until 1927 that a trading post was established in the community (Hamlet of Kugluktuk 2025). The post was followed by a RCMP police station in 1932 and the creation of other government and community services, such as a radio station, weather station, nursing station and a day school (Hamlet of Kugluktuk 2025). The community expanded in the 1970s, when oil and gas exploration provided employment and training to the wider region (Hamlet of Kugluktuk 2025). The population has also benefited in recent years due to employment opportunities with the mining sector (e.g. Diavik and Ekati mines in NT, and Hope Bay and Back River projects in Nunavut).

Kugluktuk has an elementary school and high school, an RCMP station, two grocery stores (the Northern and the Co-op), a branch of Nunavut Arctic College, churches, a health centre, men's and women's shelters, a library and a recreation centre (Sabina 2013; Hamlet Staff, Kugluktuk, November 7 2024, pers. comm.). Businesses in the community cater to construction, retail, tourism, and accommodations and food services. One bank is present – First Nations Bank of Canada (Hamlet of Kugluktuk 2025).

The hamlet council consists of a mayor, a deputy mayor, and six councillors (Hamlet of Kugluktuk 2025). Municipal services and programs extend to mental health programming and social services (RCMP, Gjoa Haven, pers. comm., November 14, 2024).

Access to Kugluktuk is facilitated by a small, public use airport that operates 24 hours a day, seven days a week, pending weather conditions (GN 2025a). Sealifts transport supplies to Kugluktuk each year from locations such as NT, Quebec and British Columbia (Kikiak Contracting, Kugluktuk, pers. comm., November 9, 2024; Kugluktuk Co-op, Kugluktuk, pers. comm., November 8, 2024). Cruise ships often stop in Kugluktuk in August and September (Community Member, Kugluktuk, pers. comm., November 8, 2024).

4.3.3 Gjoa Haven

Located on King William Island, Gjoa Haven is called Uqsuqtuuk in Inuktitut, meaning "place of plenty blubber" (Destination Nunavut 2024; Sabina 2013). It gets its English name from the ship of a Norwegian explorer, Roald Amundsen, who travelled through the region during his pursuit to find the Northwest Passage (Destination Nunavut 2024). The Inuit of Gjoa Haven are called the Netsilingmiut, meaning "people of the place where there is seal" (Travel Nunavut 2025c). They are direct descendants of the Thule people, who have been living in the surrounding regions of Gjoa Haven, Taloyoak and Kugaaruk for thousands of years (Travel Nunavut 2025c).

The community was founded in 1927 when the Hudson's Bay Company established a trading post in the area (Destination Nunavut 2024). Population growth was slow, and by 1961 there were only 110 people settled at the hamlet (Travel Nunavut 2025c). In 2021, the population of Gjoa Haven was 1,349 (Statistics Canada 2024a). As an island community, hunting and fishing are an important part of community culture and as a food source (Sabina 2013).

Existing businesses provide construction and contracting, retail, accommodation, technical and communication and food services (Sabina 2013). Gjoa Haven has two stores (the Northern and the Co-op), an RCMP station, elementary and high schools, a branch of Nunavut Arctic College, churches, a health centre, a community hall, an arena and a continuing care facility (Sabina 2013).

The hamlet council consists of a mayor and eight councillors (Nunatsiaq News 2023). It provides water, sewage, and gravel services (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024). The municipality staffs approximately 80 employees, including bylaw officers, those who oversee community recreation, lands management, finances, and the community's daycare (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024).

Gjoa Haven also serves as a tourism hub for the Northwest Passage Territorial Trail, two nearby shipwrecks from the Her Majesty's Ship (HMS) Erebus and HMS Terror expeditions to locate the Northwest Passage in 1848, and the Queen Maud Gulf (Ahiak) Migratory Bird Sanctuary (Parks Canada 2024; Travel Nunavut 2025c). Currently, the hamlet is focused on improving tourism and offers cultural performances to visitors, including throat singing and square dancing (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024).

Access to the community is facilitated by a small, public use airport that operates 24 hours a day, seven days a week, pending weather conditions (GN 2025b). Tourists most often arrive by cruise ships, which have been increasing in frequency in recent years (Gjoa Haven Hunters & Trappers, Gjoa Haven, November 16 2024, pers. comm.). In 2023, there were 14 cruise ships that docked at Gjoa Haven, and another eight in 2024 (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024).

4.3.4 Kugaaruk

Located on the northeastern coast of Pelly Bay, the community of Kugaaruk translates to "little stream" in Inuktitut (Sabina 2013; Travel Nunavut 2025d). Sometimes called "Arviligjuaq" in Inuktitut, meaning "place of many bowhead whales," Kugaaruk is one of the smallest, youngest and fastest growing communities in the Kitikmeot Region (Travel Nunavut 2025d; Sabina 2013). The Arviligjuaqmiut (people of the place of many bowhead whales) are descendants of the Thule people and are recorded to be one of the last northern Indigenous peoples to have contact with Europeans (Travel Nunavut 2025d).

Although Roman Catholic missionaries were present in Kugaaruk as early as 1935, rapid development of the community began in 1955, when construction of a nearby DEW Line radar system brought an influx of outsiders into the area (Destination Nunavut 2024; Travel Nunavut 2025d). In 1968, the Government of Canada installed 32 prefabricated houses and, over time, more Inuit started permanently settling in the community (Travel Nunavut 2025d). One of the first local businesses was a fish plant that began in the 1970s (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024). In 2021, Kugaaruk had a population of 1,033 people (Statistics Canada 2024b).

Today, Kugaaruk offers construction and contracting, technical and communication services, and caters to tourists with culture, accommodation and food services (Sabina 2013). Several people within the community actively work for mines such as the one run by B2Gold Nunavut (Hamlet Staff, Kugaaruk, October 31 2024, pers. comm.). Discussions are also underway to restart a new fish plant in the community (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024; Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024). The hamlet has an RCMP detachment, two grocery stores (the Northern and Co-op), a branch of Nunavut Arctic College, a school, a health centre, an arena, hotel and a women's shelter (Sabina 2013; Northern Store, Kugaaruk, pers. comm., October 31, 2024).

The hamlet provides water, sewage and garbage services and maintains municipally owned homes and buildings (Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024). In addition, Kugaaruk funds daycare services and wellness programs for Elders and new mothers (Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024).

Access to the community is facilitated by a small, public use airport that can operate 24 hours a day, seven days a week, pending weather conditions (GN 2025c). In addition, a sealift comes in once a year to assist with community resupply of household goods and large items that cannot be sent by air, such as boats, vehicles and snow machines, and to transport fuel (Community Member, Kugaaruk, pers. comm., October 30, 2024; Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024; Northern Store, Kugaaruk, pers. comm., October 31, 2024).

4.3.5 Taloyoak

Located on the southwestern shore of Boothia Peninsula in the Northwest Passage, Taloyoak, meaning “large caribou hunting blind” in Inuktitut, is the northernmost community on the mainland of Canada (Travel Nunavut 2025e). The people of Taloyoak are ‘Netsilingmiut’, direct descendants of the Thule people (Travel Nunavut 2025e). Between 1829 and 1906, the Netsilingmiut interacted with European explorers at Taloyoak who were in search of the Northwest Passage (Travel Nunavut 2025e).

Noted to be one of the last settled communities in the Kitikmeot Region, Taloyoak was established in 1948 when the Hudson’s Bay Company moved its trading post at Fort Ross to Spence Bay (Destination Nunavut 2024; Travel Nunavut 2025e). The post was followed by the establishment of Catholic and Anglican missions and an RCMP detachment (Destination Nunavut 2024; Travel Nunavut 2025e).

Today, Taloyoak features construction and contracting business, retail, technical and communication services, and caters to tourism with a small hospitality industry and an arts and crafts centre (Sabina 2013). There are no restaurants in Taloyoak, however the community has two grocery stores (the Northern and the Co-op), an RCMP station, a hotel, school, branch of Nunavut Arctic College, a health centre, indoor swimming pool and a community hall that doubles as an arena (Sabina 2013; RCMP, Taloyoak, pers. comm., November 18 2024). In 2021, Taloyoak had a population of 934 residents (Statistics Canada 2024c).

The hamlet council consists of a mayor and seven councillors who provide water, sewer and garbage services (Elections Nunavut 2023; 211 Nunavut 2025). The hamlet is currently building new housing, a high school, and offers a range of wellness and recreation programs, as well as a day care (Hamlet Staff, Taloyoak, pers. comm., November 19, 2024).

Access to the community is facilitated by a small, public use airport that operates 24 hours a day, seven days a week, pending weather conditions (GN 2025d). Community resupply is supplemented by one sea lift each year in June that comes from Quebec (Nunavut Arctic College, Taloyoak, pers. comm., November 19, 2024; Taloyoak Housing Authority, Taloyoak, pers. comm., November 18, 2024).

4.3.6 Non-Hamlet Areas

Within the Kitikmeot Region, there are also former permanent settlements at Omingmaktok (Bay Chimo) and Kingaok (Bathurst Inlet) that are now seasonally accessed by Inuit from Cambridge Bay and Kugluktuk. Located on a deep inlet along the northern coast of the mainland, the former community at Kingaok (Bathurst Inlet) was once centered around a Hudson's Bay Company trading post that was first established in 1925 (Burt 2022; Sabina 2013). The Inuit who resided here were known as the Kingaunmiut (NPC 2005). For several decades, Kingaunmiut families gathered at Kingaok (Bathurst Inlet) to trade furs for Euro-Canadian goods, such as rifles, ammunition, files, saws, hatchets and wood planes (Burt 2022). They also harvested seals, fished the river mouths, and hunted caribou on the mainland. While people in other Kitikmeot communities built permanent houses at trading posts, Kingaok (Bathurst Inlet) was originally surrounded by families living in traditional tents and igloos (NPC 2005). A small Catholic mission was also present in the community from 1934 and onwards which, in addition to religious services, provided some health care services (Burt 2022).

Omingmaktok (Bay Chimo), sometimes spelt Umingmaktok, was also a former Hudson's Bay Company trading post whose residents were closely related to the Kingaunmiut (NPC 2005; Sabina 2013). It is located on the mainland, northeast of Kingaok (Bathurst Inlet). Omingmaktok means "the place of muskox" in Inuinnaqtun (NPC 2005).

In the 1960s, decreased profit margins forced the Hudson's Bay Company to close its trading posts, and many Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) families relocated to Cambridge Bay and Kugluktuk (Burt 2022; Nunavut News 2017; Black Press Media 2024). However, those with historic ties to both former settlements continue to return each year by boat and snowmobile to access hunting grounds and family cabins (Community Member, Cambridge Bay, pers. comm., November 3, 2024; Community Elders, Kugluktuk, pers. comm., November 8, 2024; Community Elders, Cambridge Bay, pers. comm., November 3, 2024; Community Member, Cambridge Bay, pers. comm., November 4, 2024).

There are currently no retail stores or municipal services available at either former settlement (Sabina 2013). One seasonal business, Bathurst Inlet Lodge operated at Kingaok (Bathurst Inlet) for incoming tourists and sports hunters, but it is not currently operational (Community Member, Cambridge Bay, pers. comm., November 4, 2024). A small store and gas bar operated at Omingmaktok (Bay Chimo), but is no longer operational (GN Staff, Kugluktuk, pers. comm., November 7, 2024; Kitikmeot Inuit Association, Kugluktuk, pers. comm., November 7, 2024).

4.4 Population and Demographics

The Nunavut Bureau of Statistics reported the 2021 (census) population of the Kitikmeot Region at 6,458 persons, representing approximately 18% of Nunavut's population (Table 4.1). The communities with the largest populations are Cambridge Bay/Ekaluktutiak (1,760 persons), Kugluktuk (1,382 persons) and Gjoa Haven (1,349 persons).

From 2011 to 2021, the Kitikmeot Region's population increased by 7% or 446 persons. All Kitikmeot communities have contributed to this growth, with one of the smaller communities, Kugaaruk, experiencing the most rapid rate (approximately 34% over the ten-year period). Very little of the growth results from in-migration; most is the consequence of a high birth rate among Nunavummiut, the vast majority of whom are Inuit. Migration trends in Nunavut are characterized by negative net migration over the past 20 years (Nunavut Bureau of Statistics 2025a). In Canada, generally, the Indigenous population has increased at a greater rate (18.9% from 2011-2016 and 9.4% from 2016-2021) than the non-Indigenous population over the same periods (Statistics Canada 2022a). The high population growth may put pressures on housing, education and other community infrastructure and services.

Table 4.1 Population in Nunavut and the Kitikmeot Region 1981–2021

	1981	1986	1991	1996	2001	2006	2011	2016	2021
Nunavut	15,572	18,408	21,244	24,730	26,745	29,474	31,906	35,944	36,858
Kitikmeot	2,945	3,447	4,025	4,644	4,816	5,361	6,012	6,543	6,458
Kingaok (Bathurst Inlet)	20	16	18	18	5	0	0	0	0
Cambridge Bay	815	1,002	1,116	1,351	1,309	1,477	1,608	1,766	1,760
Gjoa Haven	523	650	783	879	960	1,064	1,279	1,324	1,349
Kitikmeot Unorganized	30	45	7	0	0	21	0	0	0
Kugaaruk	257	297	409	496	605	688	771	933	1,033
Kugluktuk	809	888	1,059	1,201	1,212	1,302	1,450	1,491	1,382
Taloyoak	431	488	580	648	720	809	899	1,029	934
Omingmaktok (Bay Chimo)	60	61	53	51	5	0	5	0	0

Source: Nunavut Bureau of Statistics (2021) - Nunavut Census Population by Region and Community

While Inuit form most of the region's population, there is variation among Kitikmeot communities (Table 4.2). For example, in the smallest community of Kugaaruk, 90.5% of the population are Inuit. In the largest community, the regional centre of Cambridge Bay, Inuit are 79.5% of the population.

Table 4.2 Inuit and Non-Inuit for Nunavut and Kitikmeot Region Population, Percent, 2021

	% Inuit	% Non-Inuit
Nunavut	83.7	16.3
Kitikmeot Region	88.6	11.4
Cambridge Bay	79.5	20.5
Gjoa Haven	93.8	6.2
Kugaaruk	90.5	9.5
Kugluktuk	87.9	12.1
Taloyoak	96.4	3.6

Source: Statistics Canada (2022a) - Census Profile, 2021 Census of Population

4.4.1 Community Perspectives

4.4.1.1 Population Variation

Community members from Cambridge Bay have noticed more variation among the population:

> When we first settled in Cambridge Bay, there was maybe 250 people in town, and it was 95% Inuit, like myself. Now it's probably 60% Caucasian, compared to the early days. A lot of people have moved in, settled in, and started calling this home. So, it's really changed drastically over the years. (Community Elder, Cambridge Bay, pers. comm., November 3, 2024)

> There's a lot more people, non-Nunavut residents. Well, maybe I should say non-Inuit... it seems to me that there's definitely a much higher non-Inuit population than there was even 10 years ago. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

4.4.1.2 In-Migration within Kitikmeot and from Southern Canada

Community members report noticeable migration trends within the Kitikmeot Region. Kugaaruk, for example, has seen substantial population growth, with residents attributing this to movement from nearby communities:

> Even my small community used to be small when I was growing up, it was 100 people. Today, over 1000. [Interviewer: We heard people are coming here from other communities, other Kitikmeot communities. [Kugaaruk Community Member] …A lot of them in town now. All the way from Kugluktuk, Cambridge Bay. [Interviewer: Why do you think people are coming here] …I think they like the community... (Community Elder, Kugaaruk, pers. comm., October 30, 2024)

> We've almost doubled our population here in the last four years or five years, we're at 1200 now for Kugaaruk…A lot of them are kids…I think that's because it's a more desirable place. A lot of people are flocking to Kugaaruk so we have seen a population increase… [they are coming from] …Gjoa Haven to Taloyoak. There's some from Cambridge Bay here…. Naujaat… in the wintertime, they'll ski doo to Naujaat and Gjoa Haven a lot of times they'll make that run on the sleds. And they know a lot of people, I'd say those are the most. I think there's a couple from Iglulik, but you have mostly just these nearby communities. (RCMP, Kugaaruk, pers. comm., October 29, 2024)

Similar migration trends are noted in Taloyoak:

> Taloyoak [has been] growing since 2020. More kids, more people immigrating from other communities. (Kitikmeot Inuit Association, Taloyoak, pers. comm., November 18, 2024)

However, there is concern that non-local workers, particularly from southern Canada, contribute to a transient population that does not establish long-term residence:

> Lot of places in Nunavut, it's very transient. We don't have people who move up here and want to live here. They come up make their money, leave…Everybody just wants to go, because their families down south. Not a lot of people are coming up here and making a family anymore. And so, teachers come and go. We've had teachers that don't even make it through a semester. Teachers, nurses, so many different departments … I don't know how we fix that, but it's one of those things that it's just not the same anymore... that is one of the biggest barriers, is not having people there consistently… that's our main issue everywhere, all across northern, with every department, is that we don't have people here long term. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

4.4.1.3 Labour Mobility and Out-Migration

The pull of employment opportunities, particularly in the mining sector, influences out-migration patterns:

> The people leaving are mostly younger 20s to early 30s.…Mainly men… I've seen women from this community working there too… [Interviewer: like you said, it's increased in the last few years- how so? Why do you think it has increased?] … I think it's because of the lack of work…and mining offers you a way to get out of town. Yeah, sometimes being in town is a lot for years and years, and…most of the time, mining pays very well compared to work here, so I think that's a big motivator for people … to go for jobs at the mines.… Some people are really, real close to their parents and grandparents, and they don't want to leave… because it is difficult I'd say…if you're leaving for three weeks [or] six weeks at a time, for years on end, it's very hard… (Community Member, Kugaaruk, pers. comm., November 1, 2024)

Labour mobility is also affected by seasonal and educational factors:

> We have a regional campus here for college, so that affects our population. Depending on how many students come each year and how many children those students bring with them, some years there's…not a lot of kids. And then this year, there's … kids everywhere. So that that can have an effect on the population. The High Arctic Research Station is here, [and] that had an effect on our population. They built, I believe…18 housing units to house their staff. Some of that staff is local staff and some of it is contract staff or…staff from the South. We have many, many researchers that come up in the summer season, so that affects our population at times of the year… (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

4.4.2 Family Structure

The following sections describe the family structure, including marital status and lone parent households in the Kitikmeot Region. Additional information is provided in Section 9.6.2.

4.4.2.1 Marital Status

Within the RAA, there is variability with regards to the proportion of married couples (Table 4.3). When compared to Canada, married couples are half as prevalent within the Kitikmeot Region. Instead of married couples, Kitikmeot communities have a higher percentage of couples living common-law and unmarried individuals not living common-law.

Table 4.3 Marital Status within the RAA and Canada, 2021

Location	Married (%)	Living common-law (%)	Not married and not living common-law (%)
Kugaaruk	27.3	34.8	37.9
Kugluktuk	19.7	25	55.3
Gjoa Haven	15.3	35.9	48.8
Cambridge Bay	21.3	28.1	50.2
Taloyoak	22.1	31	46
Kitikmeot	21	30.2	48.7
Canada	44.3	12.6	43.1

Source: Statistics Canada (2022a)

4.4.2.2 Lone Parent Families

The proportion of lone parent families in the Kitikmeot Region is twice that of Canada overall (Table 4.4). Lone parent families may experience disproportionate negative health and wellbeing outcomes such as mental health, substance use, struggles with academics and behavioral problems (Campbell et al. 2016). Negative health outcomes associated with lone parent families are not limited to the children of those families; the parent may experience negative health outcomes as well. For example, food insecurity has been found to be highest among female lone parent families in Canada (Uppal 2023).

Table 4.4 Lone Parent Families within the LAA and Canada, 2021

Location	Lone Parent Families		
	Total (%)	In which the parent is a woman+ (%)	In which the parent is a man+ (%)
Kugaaruk	23.1	13.5	7.7
Kugluktuk	40.6	29	11.6
Gjoa Haven	35.9	21.9	12.5
Cambridge Bay	37	26	11
Taloyoak	34.8	23.9	8.7
Kitikmeot	34.6	23.5	10.8
Canada	16.4	12.7	3.7

Source: Statistics Canada (2022a) - Census Profile, 2021 Census of Population

5 Non-Traditional Land, Marine, and Resource Use

As specified in the Nunavut Impact Review Board's (NIRB) Draft Environmental Impact Assessment (EIS) Guidelines (issued April 2025), Non-Traditional Land, Marine, and Resource Use has been identified as a VC to be assessed for the Project. The Project is anticipated to interact with non-traditional land, marine and resource users through changes in land use designation and ownership, changes in access to and use of commercial resources, and changes in marine navigation. This section describes and assesses the potential effects on elements of non-traditional land, marine, and resource use from the Project (during all project phases), which consists of land use planning, mineral and oil/gas resources, parks and protected areas, non-traditional marine use, tourism and recreation, and commercial fisheries. Elements related to culture and traditional land, marine, and resource use (e.g., subsistence harvesting and fisheries, traditional seasonal travel routes) are included separately in the EIS under the Traditional Land, Marine, and Resource Use VC.

The following sections focus on the baseline for non-traditional land, marine and resource uses.

5.1 Community Perspectives

Community member perspectives were provided on the topics of non-traditional marine use, sport hunting and sport fishing, and licenced tour operations (e.g., cruises). They are presented in the topic subsections below – Section 5.6 Non-Traditional Marine Use and Section 5.7 Tourism and Recreation. Additional primary data has also been incorporated in Section 5.8 Commercial Fishing.

5.2 Land Ownership

The Nunavut Land Claims Agreement Article 11 set out the land use approach within the Territory, based on existing agreements established with the creation of Nunavut in 1999. The NPC was established to development, implement and monitor land use plans in the designated area, consisting of the Nunavut Settlement Are and the Outer Land Fast Ice Zone (NPC 2021).

The main types of land ownership and tenure within the Kitikmeot Region are Inuit Owned Lands and Crown Land.

5.2.1 Inuit Owned Land

The NPC defines Inuit Owned Lands (IOL) as:

(a) the lands that vest in the designated Inuit organization as Inuit Owned Lands pursuant to section 19.3.1 of the Agreement, and

(b) any lands that are vested in, acquired by or re-acquired by the designated Inuit organization as Inuit Owned Land from time to time so long as they maintain that status pursuant to the Agreement. (NPC 2021)

Under Article 19 of the Nunavut Land Claims Agreement, IOL are held under fee simple title. Under Article 41 of the Nunavut Land Claims Agreement, the Contwoyto Lake Lands were granted to the Kitikmeot Inuit Association as Inuit Fee Simple Lands (Tunngavik Federation of Nunavut and Department of Indian Affairs and Northern Development 1992).

The Kitikmeot Inuit Association manages the surface rights for IOL in the Kitikmeot Region. Title to IOL includes surface rights with some parcels also including subsurface rights. NTI manages subsurface rights in Nunavut and collects associated royalties on behalf of Inuit beneficiaries. Section 11.8.2 of the Agreement states that the land use planning process is to apply to Inuit Owned Land and take into account Inuit goals and objectives for Inuit Owned Land (NPC 2021).

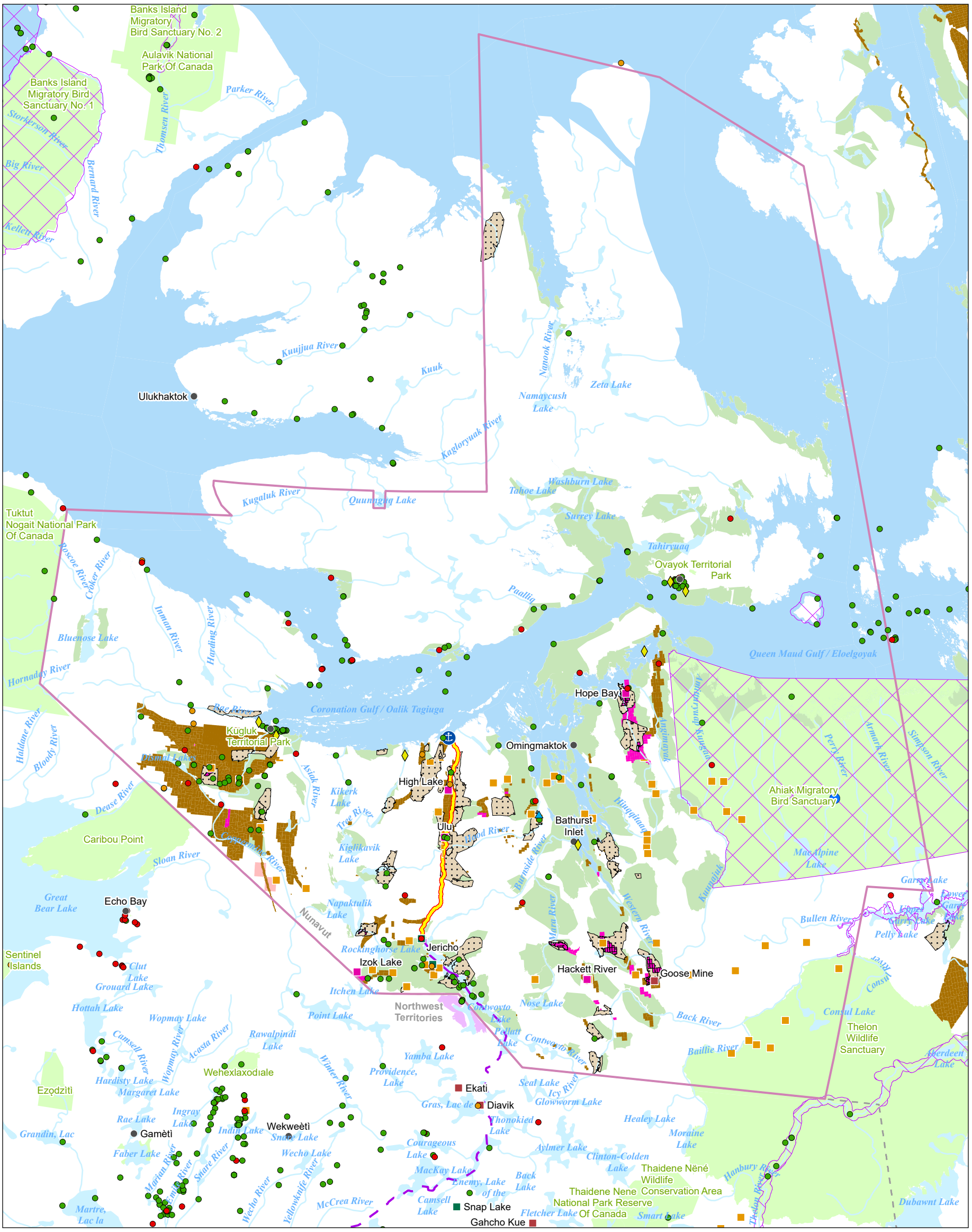
IOL comprises approximately 6.6 million ha in the western Kitikmeot Region, 5.6 million ha with active surface rights and approximately 1.0 million ha (15%) with active subsurface rights, based on mapping as shown in Figure 5.1.

5.2.2 Crown Land

The NPC identifies that, aside from a small percentage of the Nunavut Settlement Area being privately owned (mostly in municipalities), the remainder is Crown Land (NPC 2021)

Crown land is currently administered as federal lands by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) through the federal *Territorial Lands Act* (CIRNAC 2024a). However, responsibilities for Nunavut's public lands, natural resources, and rights in respect to water will be transferred from the Government of Canada to the GN by April 1, 2027, in accordance with the Nunavut Lands and Resources Devolution Agreement.

Lands within 30 m of the high-water mark of seacoast shorelines, navigable rivers or navigable lakes are considered Crown lands, even if they occur on IOL, and are managed as untitled municipal lands. The Department of the Community and Government Services of the GN is responsible for managing untitled municipal lands (CIRNAC 2024a).



Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada, www.ntkp.ca, Stantec

Project Location
West Kitikmeot Region, Nunavut

Prepared by DSPRY on 2026-02-09
TR by SLEMAY on 2026-02-09

Client/Project
123514886_007

West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
5.1

Title
Land Use Regional Assessment Area Overview

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Federally managed sites within the western Kitikmeot Region include remediated or unassessed contaminated sites. These sites are maintained under the Federal Contaminated Sites Inventory by the Treasury Board Secretariat of Canada. There are three site status types for contaminated sites:

- Suspected – further assessment is required to confirm whether the site is considered a contaminated site
- Active – sites are confirmed contaminated sites where remedial action is or may be required
- Closed – no further action is required.

There are 10 suspected, 32 active, and 167 closed contaminated sites in the Kitikmeot Region. These are located in the vicinity of Kugluktuk, Kingaok (Bathurst Inlet), Omingmaktok (Bay Chimo), and Cambridge Bay (Treasury Board of Canada Secretariat 2024).

5.3 Regional and Community Land Use Planning

Article 11 of the Nunavut Land Claims Agreement established the NPC and mandates land and marine use planning. Land Use Plans are intended to guide and direct resource use and development in Nunavut. There is currently no approved Land Use Plan in effect for the Kitikmeot Region though a single plan for the entirety of Nunavut is in development by the NPC and has been recommended to the three signatories (Canada, GN and NTI). The NPC draft land use plan 2021 was the latest version available at the time of the report. Mapping for regional and community land use planning has been referred to for context on proposed direction of land use planning in Nunavut and the Kitikmeot Region.

5.4 Mineral and Oil/Gas Resources

Non-traditional land, marine, and resource use activities within the western Kitikmeot Region include mineral exploration and mining (Figure 5.1). The mainland portion of the Kitikmeot Region is dominated by Archean and Proterozoic rocks of the Bear, Slave, and Churchill provinces. This region has been explored historically for gold, base metals, diamonds, and platinum-group elements. Three past-producing mines are in the Region: Hope Bay Project Phase 1 and Phase 2 and Lupin Mine, which produced gold; and the Jericho Mine, which produced diamonds and is located near Contwoyto Lake and the NT border (CIRNAC 2023).

The Kitikmeot Inuit Association grants access to IOL with surface and subsurface rights as Land Use Licences and Surface Leases; no mineral rights are associated with this access. NTI grants exclusive mineral rights on Subsurface IOL through its own mineral tenure regime. Mineral rights are granted as IOL Mineral Exploration Agreements, which grant exclusive rights to explore and prospect for minerals (excluding oil and gas, construction materials, and carving stone), and IOL Mineral Production Leases, which grant exclusive rights to produce minerals. IOL Mineral Exploration Agreements can be held for up to 20 years. IOL Mineral Production Leases can be held for an initial term of 10 years and can be renewed for two additional 5-year terms and a further 21 years with the possibility of additional renewals depending on the results of feasibility studies or the start of production.

The Crown currently administers land access and mineral rights to Crown Land in Nunavut. Land use permits for activities on Crown land are issued by CIRNAC under the federal *Territorial Lands Act* and Territorial Land Use Regulations (CIRNAC 2024a, 2024b). Subsurface mineral rights on Crown Land are issued by CIRNAC through the Nunavut Mining Regulations. There are four types of mineral tenure on Crown Land in Nunavut: mineral claims, mining leases, prospecting permits, and coal exploration licences. Holding a mineral claim gives the exclusive rights to prospect the claim and to any minerals within the claim. A mineral claim can be held for up to 30 years after which, or if the holder wishes to produce minerals from the claim, a mining lease is required. Under a mineral lease, a holder can prospect, develop, extract, or sell minerals from the land contained in the lease area. Mineral leases are for a term of 21 years and are renewable for another 21 years (CIRNAC 2024b).

There are numerous mineral exploration activities in the Kitikmeot Region. Ongoing mineral exploration activities include West Kitikmeot Resources Corp.'s Arcadia Bay Project, Itchen Lake Property, Wolf/Mistake Lake Property, and Chuk and Fire Shear Blocks; Blue Star Gold Corp.'s Ulu Gold Project, Roma Project, and Hood River Gold Project; White Cliff Minerals Ltd.'s Rae Copper Exploration Project; Leeward Capital's Pistol Lake Project; Bathurst Metals Corp.'s TTMG Project; Viridis Mining & Minerals' South Kitikmeot Gold Project; SPC Nickel's Muskox Nickel Property; and Emerald Geological Services' Epworth Project.

There is currently one operating mine in the Kitikmeot Region: B2Gold's Goose Mine began operations in 2025. Additional mines may be developed in the Kitikmeot Region in the future, including the Hope Bay Project (whose operations continued to be suspended after it was purchased by Agnico Eagle Mines Limited). Other advanced projects, including Minerals and Metals Group's (MMG) Izok Lake Mine and High Lake Mine and Glencore Canada Corp's Hackett River Mine Project, have not yet undergone a full environmental assessment.

There are several advanced mineral exploration projects in the Kitikmeot Region that are on subsurface IOL parcels. These include 81 Crown Mining Leases, which are grandfathered leases on Crown land that became IOL after the Nunavut Land Claims Agreement was signed, covering approximately 55,747 hectares (ha). There are 15 IOL Mineral Exploration Agreements covering approximately 105,104 ha and two IOL Mineral Production Leases covering approximately 203 ha. There are 36 IOL land parcels where there are not issued IOL Mineral Exploration Agreements or Production Leases, encompassing 844,285 ha.

As of November 2024, the Kitikmeot Region had 1,899 mineral claims covering 2,420,220 hectares (ha), five prospecting permits covering 59,901 ha, and 252 mining leases covering 209,902 ha, for a combined total of more than 1.875 million ha (CIRNAC 2024b).

The potential for oil and gas development in Nunavut has not been substantially evaluated. Extensive exploration activity would be required to assess the potential more accurately. In 2023, the federal government decided to maintain an offshore moratorium on oil and gas leasing in Arctic waters, first implemented in 2016 (CIRNAC 2023).

5.5 Parks and Protected Areas

Designated lands/rivers and protected areas within the Kitikmeot Region consist of Kugluk/Bloody Falls Territorial Park near Kugluktuk, Coppermine River at Kugluktuk, Ovayok (Mount Pelly) Territorial Park near Cambridge Bay/*Ekaluktutiak*, and Queen Maud Gulf (Ahiak) Migratory Bird Sanctuary east of Kingaok (Bathurst Inlet). Other sanctuaries, conservation areas, and critical wildlife habitat include the Thelon Wildlife Sanctuary, Caribou Point conservation area, Wilberforce Falls, and the Hiukitiak (Hiuqqitaaq) River watershed (see Figure 5.1).

The largest protected area in the Kitikmeot Region is the Queen Maud Gulf (Ahiak) Migratory Bird Sanctuary. It covers approximately 4.4 million ha of land in the western Kitikmeot Region. It provides essential habitat for most of the global Ross's goose population and other migratory birds, including waterbirds, waterfowl, shorebirds and landbirds. Several other wildlife species either breed within or utilize the sanctuary, including barren-ground caribou (e.g., Beverly and Ahiak herds) as part of their traditional calving grounds, and muskoxen (ECCC 2020).

The Queen Maud Gulf (Ahiak) Migratory Bird Sanctuary is also Canada's largest Ramsar wetland site at 6.2 million ha consisting of a vast tundra plain in the Kitikmeot Region. The Ramsar site comprises a huge area of low-lying wet sedge meadows and marsh tundra, with communities of lichens, mosses, and vascular plants (Ramsar 2024).

The Middle Back River is an identified Important Bird Area that partially overlaps the western Kitikmeot Region. The site follows the middle part of the Back River, including Pelly, Upper Garry, Garry, and Lower Garry lakes. In late summer, the middle section of the Back River supports numerous molting Canada geese. In summer, snow geese breed in the Pelly Lake area (Important Bird Area (IBA) Canada n.d.a). The Thelon River at the southeast corner of the western Kitikmeot Region is also an Important Bird Area (IBA). This site is divided between Nunavut and the NT. In late summer, thousands of Canada geese are found in this part of the Thelon River (IBA Canada n.d.b).

There are several key designated habitat sites and IBAs within Coronation Gulf and Queen Maud Gulf. These habitat sites and IBAs support important aggregations of birds including sites used for colonies, nesting, feeding, brood rearing, molting, staging, migration, or wintering. Arctic breeding bird species include Snow and Brant geese, common eider, king eider, long-tailed duck, Arctic-breeding loons, Arctic-breeding seabirds (e.g., Ivory Gull), and Arctic-breeding shorebirds (Oceans North Conservation Society et al. 2018). Jenny Lind Island situated within the Queen Maud Gulf is an IBA. Cambridge Bay is the closest community, approximately 120 km to the northwest. Large numbers of Snow and Ross's geese breed on Jenny Lind Island. The nesting colony is in the central part of the island. A small herd of muskoxen also inhabit the island (IBA Canada n.d.c). Important bird areas encompass approximately 4.5 million ha within the western Kitikmeot Region.

Kugluk/Bloody Falls Territorial Park is approximately 13 km south of Kugluktuk. The Territorial Park, at 832 ha, encompasses a portion of the Coppermine River. A narrow gorge on the river forms a waterfall called Bloody Falls. The park includes many old campsites from the Copper Inuit who lived in the area (Nunavut Parks n.d.a). A Master Plan was prepared for this Territorial Park in 2022 (Nunavut Parks 2022).

Ovayok Territorial Park is approximately 16 km east of Cambridge Bay and encompasses 2,178 ha. The Park is known for three tall mountains, one of which, Ovayok Mountain, is 200 m high. Ovayok Territorial Park was used by Copper Inuit as an area for fishing and hunting migrating birds. A Master Plan was prepared for this park in 2018 (Nunavut Parks 2018).

The Thelon Wildlife Sanctuary occupies the southeastern corner of the western Kitikmeot Region. The Thelon Wildlife Sanctuary, at 1.2 million ha, was set aside in 1927 to protect the muskox population on the Arctic mainland and wildlife in general. No hunting, except for traditional hunting, or mineral development is allowed in the Sanctuary. The calving grounds of the Beverly caribou herd also overlaps the Thelon Wildlife Sanctuary. The Thelon River which flows through the Sanctuary at the southeastern boundary of the western Kitikmeot Region is also a Canadian Heritage River (Nunavut Parks 2008).

Caribou Point is a designated terrestrial area conserved with other measures. It is known as an Other Effective Area-Based Conservation Measure (OECM) that is governed and managed in ways to achieve positive and long-term outcomes for in situ conservation of biodiversity. Officially designated in 2013, the OECM is primarily in the NT bordering on Nunavut and the western Kitikmeot Region (ECCC 2024a).

The Coppermine River, generally, is also a site of importance in the western Kitikmeot Region. The Coppermine River was nominated as a Canadian Heritage River in 2002 in recognition of the river's outstanding natural and human heritage values and significant recreation opportunities. The river has long been a travel corridor for Indigenous peoples in the western part of Nunavut (Nunavut Parks n.d.b).

Other conservation areas noted to be of importance for local Inuit include the Wilberforce Falls area, known as *Kattimannap Qurlua*, located in the Wilberforce Gorge of the Hood River west of Kingaok (Bathurst Inlet) in the western Kitikmeot Region and the Hiukitiak River watershed, east of Kingaok (Bathurst Inlet) (TMAC Resources Inc. 2011).

5.6 Non-Traditional Marine Use

Non-traditional marine use includes sea vessel activity in the Kitikmeot Region, including commercial vessels, government vessels, ice breakers, and small craft boats. Commercial vessel traffic is largely destination shipping, including annual sealifts to deliver supplies to Arctic communities, or voyages (i.e., cruises) to and from Arctic locations. A common shipping route crosses through the Queen Maud Gulf and Coronation Gulf in the Kitikmeot Region. Numerous navigation aids (i.e., day beacons, shore lights) are positioned in the gulfs to accommodate vessel transit, including at Cambridge Bay, Kingaok (Bathurst Inlet), and Kugluktuk (Oceans North Conservation Society et al. 2018).

Community members travel often in the marine environment. Local travel in the marine environment in winter relies primarily upon snow machines. Some Inuit hunters may still travel along dog sled routes using dog sleds. During the summer, community members use their own small craft boats for travelling and accessing camps/cabins, harvesting and fishing areas (Indian Affairs and Northern Development 2000; Dawson et al. 2017).

From 2011 to 2015, the proportion of commercial vessels including tug and barge traffic, government vessels, and ice breakers decreased while small craft boats as a percentage of total vessels increased. Tanker ships have also increased over time in the Kitikmeot Region. Government vessels and ice breaker traffic, in terms of annual average kilometres traveled, has increased in the Queen Maud Gulf (Dawson et al. 2017). Residents of Kitikmeot communities have witnessed an increase in vessel traffic activity. Cambridge Bay had the third highest increase in vessel traffic overall in Nunavut due to the increasing number of vessels travelling the Northwest Passage, including small craft boats, passenger ships, general cargo, and tanker ships (Dawson et al. 2017). Numerous vessels have visited Cambridge Bay, including small craft boats, yachts, sailboats, fuel barges, and other barges from the west and the east (Community Member, Cambridge Bay, pers. comm., November 3, 2024). Community members in Gjoa Haven also commented on increasing ship traffic near their community, including tourist visits to the area where the shipwrecks HMS Erebus and HMS Terror were discovered (Community Elder, Gjoa Haven, pers. comm., November 16, 2024).

5.7 Tourism and Recreation

Tourism is an important component of Nunavut's economy (GN 2019a, 2021a). There are six different sectors that make up the Nunavut tourism industry: National and Territorial Parks, Cruise Tourism, Business Travel, Adventure/Sports Tourism, Eco-Tourism, and Indigenous/Cultural Tourism (GN 2021a). The Nunavut tourism economy saw significant growth from 2010 to 2019, however the COVID-19 pandemic caused tourism in Nunavut to decline steeply. Nunavut is continuing to rebuild its tourism industry and recover from the financial losses caused by COVID-19. An important tourism experience in Nunavut revolves around the story of Sir John Franklin's historic exploration expedition, especially since the recent discovery of the shipwrecks HMS Erebus and HMS Terror through the sharing of Inuit knowledge. The remains of the boats are preserved in Arctic waters off Gjoa Haven at King William Island along the Northwest Passage (Destination Nunavut 2025).

Pilot data from the 2018 Nunavut Visitor Exit Survey showed there were 51,200 travelers who visited the territory from outside Nunavut from April to September 2018 (GN 2019a). The visitors spent a total of $271,383,000 during their travel, including transportation costs. The GN Department of Economic Development and Transportation provided nearly $1.6 million in funding for Nunavut-based community tourism and cultural industries during the 2018/19 fiscal year (GN 2019a). The department also delivered nine different training programs focused on Nunavut tourism during the 2018/19 fiscal year and ten training programs during the 2019/2020 fiscal year (GN 2019a, 2021a).

5.7.1 Licensed Tour Operators

There are several tourism businesses, such as hotels, lodges, bed and breakfasts, outpost camps, outfitters, and cruise ships, in the Kitikmeot Region (GN 2024a). Tourism businesses must apply for an Establishment Licence annually to ensure continuous monitoring of activities and compliance with applicable legislation. Table 5.1 lists the tourism businesses in the Kitikmeot Region with a valid 2023/2024 Tourist Establishment Licence or Outfitter License, although not all businesses are necessarily operating. For example, the Bathurst Inlet Lodge is not currently operational (Community Member, Cambridge Bay, pers. comm., November 4, 2024).

Table 5.1 Tourism Operators and Tourist Establishments in the Kitikmeot Region

Company Name	Type of Operation	Kitikmeot Community
Arctic Islands Lodge	Hotel	Cambridge Bay
Bathurst Inlet Lodge Ltd. Bathurst Inlet Developments (1984) Ltd.	Lodge / Outfitter	Cambridge Bay
Bathurst Inlet – Outpost Camps	Outpost Camp	Cambridge Bay
Black Feather: The Wilderness Adventure Company	Outfitter	Kugluktuk
Coppermine Outfitters (Coppermine Tours and Lodge)	BnB / Outfitter	Kugluktuk
Eagle-Eye Tours	Outfitter	Cambridge Bay
Hapag Lloyd Cruises – Hanseatic Spirit	Outfitter	Cambridge Bay, Gjoa Haven
Hurtigruten Expeditions	Outfitter	Cambridge Bay, Gjoa Haven
MV Sylvia Earle, Aurora Expeditions	Outfitter	Cambridge Bay
Ocean Endeavour, Adventure Canada	Outfitter	Gjoa Haven, Kugluktuk
Plummer's Arctic Lodges (Tree River)	Lodge / Outfitter	Kugluktuk
TBG Construction Ltd.	Lodge	Cambridge Bay
Two Oceans Outfitting	Outfitter	Taloyoak

Source: GN (2024a)

There were more licenced tourism businesses in 2019 than in 2023/2024 (GN 2021a). The decline in tourism businesses can likely be attributed to the negative impacts of COVID-19 experienced by the tourism industry.

An interview with a tour operator indicated that the Coppermine River and Hood River are utilized for canoe expeditions in the Kugluktuk area. The operator is not involved in hunting trips as it prefers to offer more eco-tourism options for travellers and there are other companies that may offer those trips (Black Feather, pers. comm., June 18, 2025). Additionally, the Burnside River is a river rafting destination with an outlet at Kingaok (Bathurst Inlet).

Tour operators face challenges, that range from cost increases such as for fuel, food, to costs for pilots and charters. An operator noted that there are limitations on travel hours that pilots can use, and weather delays affect flights in northern areas. Float planes or helicopters using Yellowknife may need to make more than one stop for fuel to service flights in Nunavut, which also restricts travel options. The lack of aviation fuel supply options can be a barrier to tour operations or any other types of logistics such as construction (Black Feather, pers. comm., June 18, 2025; Great Slave Helicopters, pers. comm., May 14, 2025).

Cruises are a popular form of tourism in Nunavut, and their popularity is growing steadily (GN 2019a). In 2018, Nunavut had 3,404 cruise tourists during peak season and made $388,351 in revenue. In 2019, cruise tourism made $848,394 in revenue, a significant increase from the year prior (GN 2021a). Cruises did not occur in 2020 due to COVID-19, causing a significant impact on the industry; however, cruises have since resumed voyages to (and stops in) Nunavut.

Cruise ships have recently visited the Kitikmeot communities of Cambridge Bay, Kugluktuk, and Gjoa Haven. Cambridge Bay had 18 cruise ships visit in 2024 (Community Member, Cambridge Bay, pers. comm., November 3, 2024; Community Member, Kugaaruk, pers. comm., October 30, 2024). In 2023, there were 14 cruise ships that docked at Gjoa Haven, and another eight in 2024 (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024). The number of cruise ships that visited Kugluktuk in 2023 and 2024 was unavailable. Cruise ships offer tourism opportunities in communities like Cambridge Bay, Kugluktuk, and Gjoa Haven through onshore community tours and selling of artisanal goods (Community Member, Kugaaruk, pers. comm., October 30, 2024).

5.7.1.1 Commercial Outfitters/Guiding

Under the Nunavut Land Claims Agreement, Inuit beneficiaries have rights related to land and resources, including wildlife harvesting. This section describes sport hunting and sport fishing undertaken by non-Inuit residents and visitors in Nunavut.

5.7.1.2 Sport Hunting

Sport hunting refers to hunting wildlife for recreational purposes rather than subsistence or as part of traditional practices.

Sport hunting species in Nunavut include Arctic fox, polar bear, grizzly bear, muskox, barren ground caribou, walrus, wolf, wolverine, small game, birds, and fish (Travel Nunavut n.d; GN 2023a).

The Nunavut Wildlife Act specifies that, pursuant to the Nunavut Land Claims Agreement, Inuit do not require any form of license to harvest wildlife. Persons (including residents and non-residents) who do not have the right to harvest wildlife without a license in Nunavut must obtain a Nunavut Hunting License from GN, Department of Environment, and necessary tags before hunting. Visitors are required to use the services of a licensed outfitter and be accompanied by a professional big game guide to hunt big game (Travel Nunavut n.d).

Hunting seasons and quotas are strictly enforced by Nunavut Wildlife Officers and tags are generally issued using a lottery system run by the local HTOs (when overall species numbers and hunting restrictions permit). HTOs help regulate harvesting practices and manage opportunities in economic development for marine and terrestrial wildlife resources (CanNor 2019). Sport hunting is not allowed in national or territorial parks (GN 2023a). The communities of Cambridge Bay and Kugluktuk have put quotas on caribou harvest, and it has been reported that there are more polar bear tags than people are using (Kurtairujuark Hunters & Trappers, Kugaaruk, focus group, pers. comm., October 29, 2024).

Nunavut is divided into wildlife management units for hunting purposes (GN 2023a). Within the wildlife management units, species management areas for certain areas are also identified (e.g., polar bear, muskox). Polar bears are distributed throughout the circumpolar Arctic. Grizzly bear and muskox are found in parts of the Kitikmeot Region and northern Kitikmeot Region, while barren ground caribou can be found throughout the mainland in the Kitikmeot Region. Tundra wolf, Arctic fox, and wolverine are found across Nunavut (Nunavut Tourism 2016). Table 5.2 identifies species annual harvest limits and seasons for residents and non-residents who hold a valid licence and tags.

Migratory game bird hunting in Nunavut is governed by the federal Migratory Birds Regulation, 2022. To hunt migratory game birds, hunters must possess a valid Migratory Game Bird Hunting Permit with a Canadian Wildlife Habitat Conservation Stamp on the permit. In Nunavut, the use and possession of shot other than non-toxic shot is prohibited while hunting migratory game birds. The open season ranges from September 1 to December 10. Daily bag and possession limits vary for Migratory Game Birds in Nunavut, including all ducks, Canada geese, Cackling geese, White-fronted geese, and Brant geese, coots, and snipe (ECCC 2024b). Hunting of federal migratory birds is not permitted in migratory bird sanctuaries (ECCC 2024b).

There are several tourism businesses that offer outfitting services in the Kitikmeot Region (GN 2024a). Local outfitters in Kitikmeot communities include Coppermine Outfitters (Coppermine Tours and Lodge) in Kugluktuk and Two Oceans Outfitting in Taloyoak. Coppermine Tours and Lodge is a small bed and breakfast and offers sport hunts and outfitting. The outfitting side of the business has 20 muskox tags and five grizzly tags a year; Coppermine Outfitters also outfit wolf, wolverine, and fox hunts (Coppermine Outfitters, Kugluktuk, pers. comm., November 8, 2024). Muskox and grizzly hunts are typically from March-May with grizzly hunts only in August and September. The area used for muskox and grizzly bear hunting is west of the proposed Project. Access is by snow machine in winter and by boat and all terrain vehicle (ATV) in summer.

Table 5.2 Big Game Hunting Bag Limits, Seasons and Hunting Areas in Nunavut 2023-2024

Big Game Species	Annual Harvest Limit	Season	Hunting Area
Polar Bear (PB)	Any number of adult bears not accompanied by a cub in accordance with number of tags held	1 July – 30 June	Nunavut/PB (subject to specific Total Allowable Harvest)
Grizzly Bear	Resident, Non-residents/ Foreigners – 15	1 July – 30 June	Kitikmeot (requires approval from HTO)
Barren ground Caribou	Resident – 5 Non-resident/Foreigner – 2	1 July – 30 June	Nunavut (subject to Total Allowable Harvests for Bathurst and Bluenose-East and Dolphin and Union caribou herds)
Muskoxen (MX)	Resident – 1 Non-resident/Foreigner – 1	1 July – 30 June	Nunavut/MX (some units have specific harvest levels)
Wolf	Resident – no limit Non-resident/Foreigner – 2	1 July – 30 June	Nunavut (requires approval from HTO)
Wolverine	Resident – no limit Non-resident/Foreigner – 1	1 July – 30 June	Nunavut (requires approval from HTO)
Fox	Resident – no limit Non-resident/Foreigner – no limit	1 July – 30 June	Nunavut (requires approval from HTO)
Hare and Any Other Furbearer	Resident – no limit Non-resident/Foreigner – no limit	1 July – 30 June	Nunavut (requires approval from HTO)
Grouse and Ptarmigan	Resident – 10; possession limit of 40 Non-resident/Foreigner – 5; possession limit of 10	1 July – 30 June	Nunavut (subject to Migratory Bird Hunting Permit)

Source: GN (2023a)

Two Oceans Outfitting began in 2023 and offers sport hunting for muskox, caribou, polar bear, and wolverine around Taloyoak on the Boothia Peninsula. Two Oceans Outfitting has 28 muskox tags and 10 caribou tags and was planning two polar bear and two wolverine hunts in 2025. Muskox hunts typically occur in March-April, caribou hunts occur in September-October, and polar bear hunts occur in April. Access is by snow machine, ATV, and dog team specifically for polar bear hunts (Two Oceans Outfitting, Taloyoak, pers. comm., November 20, 2024).

For both Coppermine Outfitters and Two Oceans Outfitting, most of the sport hunters are from the U.S. and travel to Nunavut for trophy hunts. All the meat is distributed to the community (Coppermine Outfitters, Kugluktuk, pers. comm., November 8, 2024; Two Oceans Outfitting, Taloyoak, pers. comm., November 20, 2024).

5.7.1.3 Sport Fishing

Sport fishing refers to fishing for recreational purposes rather than subsistence or as part of traditional practices. Under the Nunavut Land Claims Agreement, Inuit do not require any form of license to fish. A Sport Fishing Licence is required by non-Inuit residents and non-residents intending to sport fish in Nunavut. Sport fishing in the Nunavut Settlement Area may be subject to terms and conditions of the Nunavut Land Claims Agreement. Licenses are available from the GN Department of Environment, Fisheries and Oceans Canada, and most sport fishing lodges. Daily catch limits and possession limits are established for 10 species (i.e., Arctic char, Arctic grayling, lake trout, northern pike, walleye, brook trout, suckers, whitefish [all species], and ciscoes) for all Nunavut waters, including the Coppermine River upstream from Bloody Falls and Tree River (Coronation Gulf) in the Kitikmeot Region, There are no size limits or other restrictions (GN 2021b). ‘Outsiders’ can harvest Arctic char and fish but there are limits on what they can keep (Kurtairujuark Hunters & Trappers, Kugaaruk, focus group, pers. comm., October 29, 2024).

Plummer’s Arctic Lodges has operated Tree River Lodge in the Tree River area in the western Kitikmeot Region for 75 years (Plummer’s Arctic Lodges, pers. comm., December 17, 2024,). Tree River Lodge is a small lodge, attracting mostly Europeans and other visitors from Canada and the U.S. for recreational fishing (Plummer’s Arctic Lodges, pers. comm., December 17, 2024). Tree River Lodge is accessed via daily plane trips from Plummer’s Great Bear Lake Lodge, with a stop in Kugluktuk for refuelling, before heading back to Great Bear Lake. There are 6 to 12 people on each trip excursion and approximately 250 people each year who visit Tree River Lodge. Tree River Lodge is only run in the months of July and August. The fishing effort is catch and release, mostly for Arctic char with some lake trout and cod being caught. Some Arctic char is kept, being consumed for lunch by lodge guests. In recent years, Plummer’s Arctic Lodge staff have observed more people from Kugluktuk travelling to Tree River to fish (Plummer’s Arctic Lodges, pers. comm., December 17, 2024); however, this has long been an area visited by Inuit.

5.8 Commercial Fishing

The Nunavut Wildlife Management Board (NWMB) was created under The Nunavut Land Claims Agreement as a co-management board for wildlife management, including fisheries management. The NWMB is responsible for determining how the Total Annual Harvest should be allocated between subsistence, commercial, and recreational harvesting. The Department of Fisheries and Oceans (DFO) is the regulatory authority for inshore and freshwater fisheries in Nunavut. The Northwest Territories Fisheries Regulations stipulate quotas, seasons, and other regulations pertaining to freshwater and inshore commercial fisheries in Nunavut. These fisheries are managed according to management plans developed by DFO with review/approval by the NWMB. Proposed new regulations (i.e., Nunavut Fishery Regulations) are being co-developed by DFO, NTI, NWMB, the GN, and the Makivik Corporation. The proposed regulations would apply to all fish (including marine mammals) as defined by the *Fisheries Act*, and to Nunavut and adjacent marine waters (DFO 2024).

Areas of abundant Artic char and commercial fishing areas were noted in the vicinity of the communities of Kugluktuk, Kingaok (Bathurst Inlet)/, and Omingmaktok (Bay Chimo) in in the western Kitikmeot Region (Naonaiyaotit Traditional Knowledge Project Atlas n.d.). Inshore and freshwater commercial fisheries in the Kitikmeot Region (and in the western Kitikmeot Region) consist of small-scale inshore fishing operations primarily focused on the harvest of Arctic char (Bernauer 2021). The Cambridge Bay Arctic char fishery is the only commercial inshore fishery operating currently in the Kitikmeot Region (and in the western Kitikmeot Region). In 2022, a total of 38,241 kg (round weight) or 83% of the targeted quota was commercially harvested in Cambridge Bay (DFO 2022). There are no adjacent offshore fisheries in in the western Kitikmeot Region.

Kitikmeot Foods Ltd. in Cambridge Bay packages and sells locally harvested fish. Supplies depend on season, but Arctic char is a staple (Nunavut Development Corporation n.d.a). Kitikmeot Foods has historically utilized five river systems where they have quotas and have kept fishing to five main locations within a 90-mile radius of town, utilizing up to 110,000 pounds (49,895 kg) of Arctic char annually (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024). About 80% of the Arctic char brought in annually is exported (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024). Kitikmeot Foods harvesters spend August and September hauling loads of fish back and forth from these fishing sites by boat and/or float plane (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024). Kitikmeot Foods works closely with DFO when engaged in harvesting and fishers are only allowed to harvest up to 10% existing stock. Each river system is different in terms of the allowable harvest depending on the size of the lake system (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024).

5.9 Summary of GBA Plus

As described in Section 4.1, the colonial influence in Nunavut and Kitikmeot communities has undermined various aspects of Inuit self-determination. However, the Nunavut Land Claims Agreement, as a progressive modern-day treaty, established the Nunavut Settlement Area, the three administrative regions, and RIAs. Both NTI and the Kitikmeot Inuit Association, protect Inuit rights, advocate for Inuit interests in each region, and manage IOL in the Kitikmeot Region. IOL with known sub-surface mineral potential were selected by Inuit to advance economic development for the benefit of land claim beneficiaries (Public History Inc. 2006). Co-management boards were created for wildlife management, land use planning, impact assessment, and water licensing and local HTOs were also established to represent hunter interests at the community level. The creation of these administrative entities was intended to rebuild and advance Inuit self-determination in land and resource management the Kitikmeot Region.

Mining and other industrial development projects in the north, such as hydroelectric generation and oil and gas extraction, have historically been dominated by southern entities and seen primarily to benefit non-Indigenous peoples (Bernauer 2021). Additionally, these types of industrial development projects can disrupt Indigenous subsistence activities when appropriate mitigation is not in place and may negatively affect communities' environmental, social, cultural, and physical wellbeing (Pauktuutit Inuit Women of Canada 2016a,b; Bernauer 2021).

However, the Nunavut Land Claims Agreement enabled TFN to select IOL with subsurface rights to provide an economic basis for Inuit beneficiaries. NTI now manages subsurface resources, including mines and minerals, on IOL in the Kitikmeot Region, and manages associated royalties on behalf of Inuit beneficiaries as negotiated through the Nunavut Land Claims Agreement.

6 Economy and Employment

6.1 Economic Activity

6.1.1 Nunavut Economy

The Nunavut economy is mixed, comprising both traditional and market economic systems. The traditional economy is largely based on subsistence land use and is connected to culturally important activities, including traditional harvesting and fishing, and the production of Inuit art and crafts. The market, or wage-based economy is supported by several key industries such as mining, public administration, and construction. Many Inuit participate in both the traditional and market economies and wage employment often supplements subsistence activities (and vice-versa). Wage employment may be seasonal or variable depending on harvesting seasonality, life stage of Inuit, and availability of wage employment. The following sections describe the key industries and their contributions to the economy at the territorial level.

6.1.1.1 Mining

In 2023, mining, quarrying, and oil and gas extraction ($1.4 billion) represented approximately 35.9% of Nunavut's total Gross Domestic Product (GDP) ($3.9 billion). The sector has experienced significant growth in recent years, increasing 51.4% from 2019 (Statistics Canada 2024d).

There are three mines in full operation in Nunavut, including the Meadowbank and Meliadine gold mines, both owned and operated by Agnico-Eagle Mines Limited in the Kivalliq Region (Agnico Eagle n.d.a; Agnico Eagle 2025); and Baffinland's Mary River iron ore mine in the Qikiqtani Region (Baffinland n.d.). There are currently no operating mines in the Kitikmeot Region at the time of the report. In 2023, the Back River Project, owned by B2Gold Nunavut, began construction in the Kitikmeot Region and is anticipated to start operations later in 2025, representing $0.6 billion in investment (GOC 2023b). Additional mines may be developed in the Kitikmeot Region in the future, including the Hope Bay Project (whose operations continued to be suspended after it was purchased by Agnico Eagle Mines Limited). Other advanced projects, including MMG's Izok Lake Mine and High Lake Mine and Glencore Canada Corp's Hackett River Mine Project have not yet undergone a full environmental assessment.

Three past-producing mines are in the Kitikmeot Region: Hope Bay Project Phase 1 and Phase 2 and Lupin Mine, which produced gold; and the Jericho Mine, which produced diamonds and is located near Contwoyto Lake and the NT border (CIRNAC 2023). Production activities at the Hope Bay Mine near Cambridge Bay were suspended in 2020 by TMAC Resources Inc., which was subsequently acquired by Agnico Eagle Mines Limited. An active exploration program and project design for future mining development has been underway by Agnico Eagle Mines at the Hope Bay Mine since 2021 (Agnico Eagle n.d.b).

6.1.1.2 Public Administration

Public administration is the second largest contribution to Nunavut's GDP in 2023 ($689.9 million), representing 17.8% of Nunavut's total GDP. The sector's contribution to GDP was stable between 2022 to 2023 and saw a small increase of 2.1% between 2019 to 2023 (Statistics Canada 2024d).

Within public administration's contribution to Nunavut GDP in 2023, the largest contributions were from territorial government public administration ($427.7 million), followed by local, municipal and regional government public administration ($135.2 million), and federal government public administration ($127.8 million) (Statistics Canada 2024d). Public administration was also the largest employer in Nunavut in 2022, with 3,600 workers (GOC n.d.a).

6.1.1.3 Construction

In 2023, the construction industry contributed $287.1 million to Nunavut's GDP represented 7.4% of Nunavut's total GDP. While the construction industry experienced 33.7% growth between 2022 to 2023, the 2023 GDP contribution was 29.5% below pre-pandemic levels in 2019 (Statistics Canada 2024d).

Engineering construction was the largest component of the construction industry, contributing $219.1 million to GDP in 2023 (Statistics Canada 2024d), likely driven by the start of construction of the Back River Gold Project (GOC 2023b).

6.1.1.4 Hunting and Harvesting

In addition to the market economy, hunting and harvesting play an important part of Nunavut's economy. Nunavut's economy is historically based on the harvesting traditions of Inuit, who continue to maintain strong ties to the land. Harvesting animals provides meat for food, fur and skin for clothing, and bones for tools, games and art. It is estimated that the current traditional harvesting economy is worth approximately $40 million annually (GN n.d.a).

Each community has an individual HTO that helps to regulate harvesting practices. HTOs also manage economic development opportunities that may arise from marine and wildlife resources (GOC 2019a). It is estimated that approximately 40,000 seals are harvested every year in Nunavut, with seal meat valued at $5 million and sealskin products worth an additional $1 million (GN n.d.a).

Cost is a barrier to traditional harvesting (ITK 2021a). Primary research affirms that participation in traditional harvesting is an expensive pursuit when considering equipment, gas, and maintenance (Community Elder, Kugaaruk, pers. comm., October 31, 2024; Community Member, Cambridge Bay, pers. comm., November 3, 2024). Wage employment, income, and education are associated with increased participation in traditional harvesting (Statistics Canada 2019).

6.1.1.5 Fisheries

Nunavut has established commercial turbot, shrimp, and Arctic char fisheries that supply global markets. The onshore and offshore turbot fishery is a major employer in the Qikiqtani Region. There is one onshore freshwater fishery in the Kitikmeot Region based in Cambridge Bay. There are no offshore fisheries in the Kitikmeot Region. With much of its commercial fishing stock still unexplored, fisheries provide an important and growing contribution to the territory's economy (GN n.d.a).

6.1.1.6 Tourism

Unique Inuit culture and the natural beauty of Nunavut attract tourists from across the world. An estimated 14,000 people visit Nunavut annually. The range of tourism activities include eco-tourism, sports hunting, fishing, cultural, adventure and educational activities (GN n.d.a).

Nunavut's four national parks and 15 territorial parks are another tourist attraction. Cruise ships now visit Nunavut communities annually providing a source of income for some residents through art sales (GN n.d.a). However, Nunavut's somewhat limited tourism infrastructure and high costs of travel and accommodations are believed to have limited this sector's potential to-date.

6.1.1.7 Inuit Art

The production of Inuit art plays a role in the economies of many of Nunavut's communities. It is estimated the arts and crafts sector contributes approximately $33 million to the territory's economy. Soapstone carvings and prints are produced in the communities of Cape Dorset and Baker Lake, with tapestries and weavings produced in Pangnirtung (GN n.d.a). Vendors of Inuit art in the Kitikmeot Region include, but are not limited to, Taluq Designs in Taloyoak, the Visitors Centre in Kugluktuk, and the Nattilik Heritage Centre in Gjoa Haven.

Tour operator Black Feather identified that many tourists ending their canoe expedition at Kugluktuk are able to experience and shop for local artwork and crafts after arriving in the community (Black Feather, pers. comm., May 14, 2025).

6.1.2 Community Perspectives on Economic Activity

Kitikmeot community members consistently discussed the local economy's heavy reliance on resource extraction (particularly mining) and government services in the region, with associated high operating costs driven by the need to ship goods by plane or barge. Local businesses face persistent challenges due to the small market, availability of employees, and remote location.

> There's a lot of private businesses in Cambridge Bay itself. You got a plumbing and heating business, you got private retail, a hardware store, and just general small businesses…especially since COVID hit…the cost of goods and services drastically went up. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

Community members noted the value of resource projects and infrastructure for creating jobs and revenue. At the same time, they emphasized the importance of balancing wage employment with family, hunting, and subsistence activities.

> I think it's because of the lack of work. And mining offers you a way to get out of town. Sometimes being in town is a lot for years and years, and also most of the time, mining pays very well compared to work here, so I think that's a big motivator for people. (Community Member, Kugaaruk, pers. comm., November 1, 2024)

> The mines are going to be the first people to benefit…unless I go work for them. Cost of living is not going to go down. Carbon tax and all that, you know, it's going to put the price up no matter what. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

6.1.3 Kitikmeot Region Economy

6.1.3.1 Community Perspectives

The Kitikmeot Region's community economies (beyond territory-level GDP figures) are not well-captured in available secondary data. Several community members noted that Cambridge Bay functions as a regional hub with retail, construction, and government offices, yet struggles with workforce shortages. Gjoa Haven similarly experiences high staff turnover and a limited pool of trained workers.

> Everybody—every single employer in town right now—is short staffed…It's very hard to find qualified people. Every store in town is looking for people…We can't get water and sewer delivery because the truck drivers aren't showing up for work. (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024)

> There's lots of turnover in staff for jobs across the community [Gjoa Haven]. (Hamlet Staff, Gjoa Haven, pers. comm., November 14, 2024)

> We have very high needs and the lowest school attendance rates in Nunavut…It is hard to find people who can do the work we need. People that have those skills sometimes seek work at mines…They come back with stronger work habits. (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024)

These observations indicate a small labour force with limited specialized training, which makes it challenging to quantify local economic sectors using traditional data. Primary research suggests there are many unemployed people and that the persistent impacts of colonialism are related to unemployment rates, and that healing from intergenerational trauma may be required before some people are ready to become employed (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024; Omingmak Centre, Men's Shelter, Cambridge Bay, pers. comm., November 5, 2024). Many businesses—especially in Cambridge Bay—compete for the same pool of workers, while Gjoa Haven faces capacity shortfalls and a higher turnover. High living costs, a small population, and infrastructure gaps also limit growth.

6.1.4 Economic Development

The Nunavut Economic Development Strategy was prepared by a coalition including representatives from federal government, Inuit organizations and non-governmental and private sector groups. The strategy identified three sectors with potential for large scale economic growth, including mining, fishing, and tourism. Other vital sectors include harvesting, sealing, and the arts economy, which have grown out of the traditional Inuit economy. These sectors offer communities the chance to develop an economic base while maintaining Inuit traditions (The Sivummut Economic Development Strategy Group 2003).

Several challenges to economic growth were identified in the strategy, including: rapid population growth and limited employment prospects; declining rates of growth in government spending; a struggling Inuit and small business sector; and maintaining a healthy relationship to the land (The Sivummut Economic Development Strategy Group 2003).

Thirteen strategic priorities were identified and placed in four strategic planning areas: the land, people, community economies, and territorial economy (Table 6.1) (The Sivummut Economic Development Strategy Group 2003). Additionally, the GN released a strategy document for mineral exploration and mining strategy called Parnautiit; this document focuses on infrastructure development for the mineral resource industry and information about the jurisdictional frameworks in Nunavut, environmental stewardship, and potential community benefits (GN n.d.b).

Table 6.1 Nunavut Economic Development Strategy, Strategic Planning Areas

Strategic Planning Areas	Strategic Priorities
The Land	• Respecting the land • Maintaining a mixed economy • Building on the knowledge of Elders
People	• Economic development for youth • Education and training • Basic needs – housing, hospitals and schools
Community Economies	• Community capacity building and organizational development • Small and Inuit business development • Building the knowledge base in communities
The Territorial Economy	• Putting the Nunavut Land Claims Agreement to work • Sector development and support systems • Infrastructure – from buildings to broadband • Accessing the global marketplace

Source: The Sivummut Economic Development Strategy Group (2003)

6.1.4.1 Community Perspectives on Economic Development

The Kitikmeot Inuit Association Economic Development and Training Department provides economic development opportunities for organizations and Kitikmeot residents, including training programs, local grants, and small business support, although high overhead and minimal local markets still pose obstacles:

> We have the Kitikmeot Business Assistance Program…$25,000 for existing Inuit-owned businesses or new startups. We try to help with inventory, professional fees, expansions…It's a very successful program. (Cambridge Bay Kitikmeot Inuit Association, pers. comm., November 4, 2024)

Residents also highlighted the need for local, hands-on training (e.g., heavy equipment operation, trades) so that people do not have to relocate out of the community for extended periods.

> We need more training for young people. People want to do heavy equipment, but you gotta go outside for months. People want to stay connected to their families. (Community Elder, Kugaaruk, pers. comm., October 30, 2024)

> It's not for everybody, leaving and staying away from family. Sometimes it's easier if the training is right here. Some people do better with that. (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024)

6.1.5 Overview of Key Economic Indicators

6.1.5.1 Gross Domestic Product

In 2023, the total GDP of Nunavut was $3.9 billion (Table 6.2). Of Canada's territories, Nunavut's GDP was greater than Yukon ($3.4 billion) and below NT ($4.3 billion) (Statistics Canada 2024d).

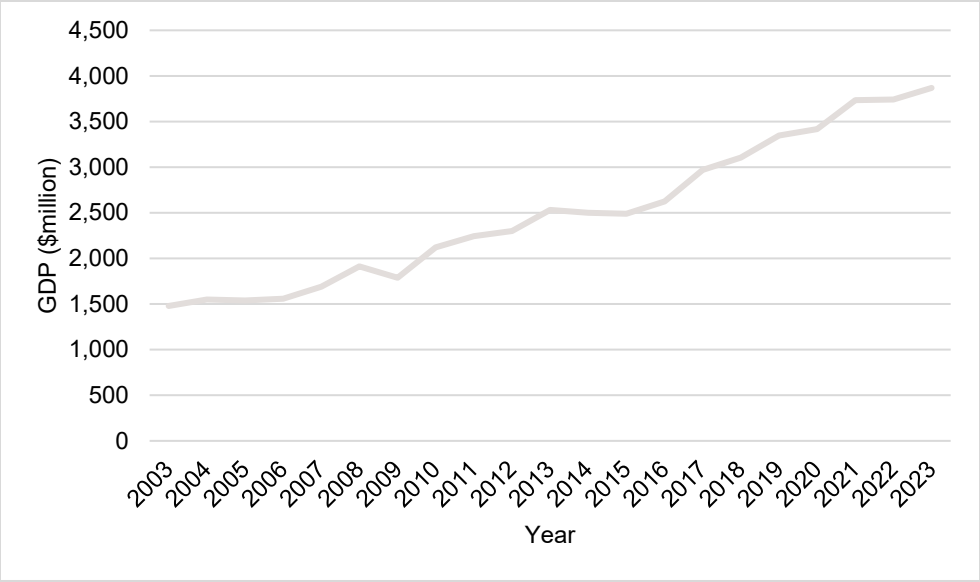
Between 2022 to 2023, Nunavut reported the largest annual increase in GDP across Canada's provinces and territories at 3.4% with growth predominantly driven by the construction industry (Statistics Canada 2024d, 2024e). This followed a longer-term trend of growth for the Nunavut economy, having seen growth of 52.8% in the decade between 2013 to 2023, and growth of 161.6% in the 20-years between 2003 to 2023 (Figure 6.1) (Statistics Canada 2024d).

Table 6.2 Gross domestic product (GDP) of Nunavut at basic prices, Chained (2017) Dollars, 2019-2023 ($million)

						Growth Rate (%)	
Year	2019	2020	2021	2022	2023	2022-2023	2019-2023
Nunavut	3,346.4	3,417.9	3,734.5	3,741.4	3,868.6	3.4	15.6

Source: Statistics Canada (2024e)

Figure 6.1 Gross domestic product (GDP) for Nunavut at basic prices, Chained (2017) Dollars, 2003-2023 ($million)



Source: Statistics Canada (2024e)

Gross Domestic Product by Industry

In 2023, the industries with the greatest contributions to Nunavut's GDP were mining, quarrying, and oil and gas extraction ($1.4 billion), public administration ($689.9 million) and construction ($287.1 million) (Table 6.3) (Statistics Canada 2024e). It is worth noting that the categories are identified by Statistics Canada, which groups mining and oil and gas activities together. However, there is no current oil and gas activity occurring in Nunavut. As such, the data represented in this category is exclusive to mining and quarrying.

Table 6.3 Gross domestic product (GDP) at basic prices, by industry, 2023

	Nunavut	
	$m	**%**
All Industries	**3,868.6**	**100**
Goods-producing industries	1,828.0	47.3
Service-producing industries	1,997.2	51.6
Information and communication technology sector	69.7	1.8
Energy sector	46.8	1.2
Agriculture, forestry, fishing and hunting	31.4	0.8
Mining, quarrying, and oil and gas extraction	1,366.3	35.3
Utilities	66.1	1.7
Construction	287.1	7.4
Manufacturing	17.4	0.4
Wholesale trade	33.8	0.9
Retail trade	107.6	2.8
Transportation and warehousing	78.5	2.0
Information and cultural industries	78.8	2.0
Finance and insurance	34.6	0.9
Real estate and rental and leasing	266.2	6.9
Professional, scientific and technical services	43.1	1.1
Management of companies and enterprises	1.1	0.0
Administrative and support, waste management and remediation services	65.3	1.7
Educational services	210.7	5.4
Health care and social assistance	286.6	7.4
Arts, entertainment and recreation	1.0	0.0
Accommodation and food services	54.2	1.4
Other services (except public administration)	48.2	1.2
Public administration	689.9	17.8

Source: Statistics Canada (2024e)

Community Perspectives

Because official data on local conditions is not widely available, residents often rely on informal measures—such as grocery costs, individuals observed to be struggling financially, and staffing shortfalls—to assess their community's economic health. Many observed that post-COVID inflationary pressures have compounded an already expensive living situation.

There was little discussion of GDP allocations by sector within the interviews. People acknowledged that mining, public administration, and construction are major industries, but they rarely shared exact figures.

> Everyone knows mining is the biggest chunk, but no one here talks about it as 'GDP by industry.' We just know it's big. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

6.1.5.2 Consumer Price Index

The Consumer Price Index (CPI) is an indicator of the changes in consumer prices experienced by a target population (i.e. inflation). The CPI measures price change by comparing, through time, the cost of a fixed basket of commodities. The current basket is based on the expenditures of each target population for the 2002 reference period. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price movements.

As data are unavailable for other Nunavut communities, Iqaluit was used to examine CPI in Nunavut. The CPI for Iqaluit rose 2.5% on an annual average basis in 2023, lower than the national average of 3.9% (Table 6.4). This follows a broader trend between 2002 to 2023, where the CPI for Iqaluit rose 41.9% compared to 57.1% nationally (Statistics Canada 2024f).

Table 6.4 Consumer Price Index, Annual Average, Not Seasonally Adjusted (2002 = 100)

						Growth Rate	
	2019	**2020**	**2021**	**2022**	**2023**	**2022-2023**	**2019-2023**
Canada	136	137	141.6	151.2	157.1	3.9	15.5
Iqaluit, Nunavut	131.4	131.4	133.2	138.4	141.9	2.5	8.0

Notes:
The current time base of the CPI for Canada is 2002=100.
Data unavailable for other Nunavut communities
Source: Statistics Canada (2024f)

Community Perspectives

Across the Kitikmeot Region, the cost of living is high due to several factors, including remoteness and lack of cost-effective transportation infrastructure, reliance on seasonal barges and costly air freight for goods, and a limited economy and housing stock. While some community members hope new infrastructure (roads, ports) could reduce costs, others remain skeptical that basic expenses—like food, water, or supplies—will experience meaningful price decreases.

> Well, again, it's not going to make the price of anything go down…Cost of shipping and driving fuel up there, that won't put the price of stuff down…I don't see the cost of anything way down at all. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

> It costs about $1,000 a month in water for two people. Now imagine 14 people in a house…If you run out of water, your toilet doesn't work. Everything here costs double. (Kugaaruk Co-op, Kugluktuk, pers. comm., October 31, 2024)

> We have some employees…spent $2,500 on groceries and it's all gone in a week because we share with family. Everything is so expensive here, and people rely on the next barge or flight. (Kugluktuk Co-op, Kugluktuk, pers. comm., November 8, 2024)

> Since COVID hit, the cost of goods and services drastically went up…We're still kind of paying for that now. Everything that lands here has to come by barge or plane, which drives up the price. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

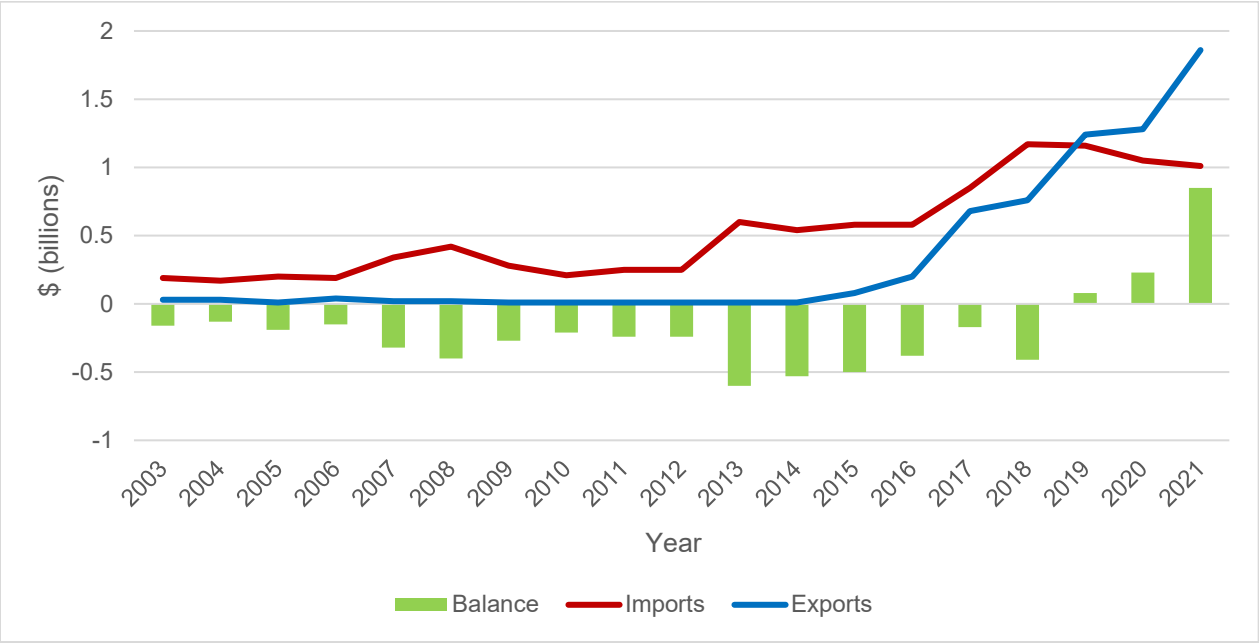
Residents describe a persistent affordability challenge. High transportation costs mean food, fuel, and utilities are substantially more expensive than in southern Canada, and large family or multi-family households can run through groceries quickly, leading to reliance on social safety nets or sharing arrangements.

6.1.5.3 Import/Export and Trade Balance of Goods

Nunavut's economy involves substantial trade activities, with international exports of goods such as iron ore making up 61.2% of the territory's GDP in 2021. In recent years, the territory has seen an increase in its export values, growing by 45.9% from $1.28 billion in 2020 to $1.86 billion in 2021. This made up 0.3% of the total value of Canadian exports. The primary drivers of Nunavut's increase in trade exports are resource-based goods such as iron ore and gold. In 2022, iron ore exports were valued at around $630 million, while gold exports reached approximately $846 million (Library of Parliament 2023).

In 2022, 99.97% of Nunavut's exports went to Europe, with Switzerland, Germany, and France being the top importers. The remaining 0.03% of the total value of exports in 2022 went to the United States. This export performance has contributed to a trade surplus for the territory. In 2021, Nunavut's exports amounted to $1.86 billion, while imports were $1.01 billion, resulting in a trade surplus of $854 million (Library of Parliament 2023). Although Nunavut's trade activities and export values are increasing, the territory is still largely dependent on federal funding for its revenue and to support its expenditures (see Section 6.6). Community members emphasized that nearly all necessities, including groceries and building materials, are imported by plane or once-yearly barge.

Figure 6.2 Nunavut's Merchandise Trade, 2003 to 2021 ($billion)



Source: Library of Parliament (2023)

6.2 Labour and Employment

6.2.1 Community Perspectives

A recurring theme was that community members struggle to balance family obligations and cultural traditions with the demands of wage employment. Others see well-paying jobs at mines as a strong incentive, despite the challenge of leaving their community for weeks at a time.

> If you're not employed in Cambridge Bay it's because you don't want to be. There's not a shortage of opportunities, for sure. (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024)

> I don't think there's too much barriers for a job like that. Right now B2Gold is doing great with hiring new employees that are just starting to work… I've heard they're already up in their roles. (Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024)

Mine work remains tempting for its higher wages, but lengthy rotations away from the community lead some to quit.

> If they want to work, the mines pay well. But it's three weeks away from home, which is hard for families. We see them quit and come back all the time. (Kugluktuk Co-op, Kugluktuk, pers. comm., November 8, 2024)

6.2.2 Labour Force

Labour force indicators for the total population in the Kitikmeot Region and Nunavut are summarized in Table 6.5 and Table 6.6. In 2021, the total size of the five communities in the Kitikmeot Region's labour force was 2,330 (51.3% women+) (Statistics Canada 2022a). When considering the Indigenous (primarily Inuit) population in Table 6.6, the total size of the labour force within the Kitikmeot Region was 1,885 (49.6% women+) (Statistics Canada 2022a). The total labour force participation rate in the Kitikmeot Region, calculated as the total labour force (employed and unemployed, combined) relative to the working-age population, ranges from as low as 37.7% in Taloyoak to a high of 65.3% in Cambridge Bay and varies between men+ and women+ across all five communities (Statistics Canada 2022a).

Similar to trends observed throughout Nunavut, participation rates in the Kitikmeot Region show a disparity between the total population and the Indigenous (primarily Inuit) population. The overall participation rate in Nunavut stands at 58.6%, while the Indigenous (primarily Inuit) participation rate is slightly lower at 52.3%; in Canada, the Indigenous population participation rate is 63.7 % (Statistics Canada 2022a) Nunavut has a lower participation rate than Canada.

Within the Kitikmeot Region, Indigenous (primarily Inuit) participation rates vary, with Taloyoak at a low of 34.3% and Cambridge Bay at a high of 58.6% (Statistics Canada 2022a). This is low compared to the Nunavut participation rate, and very low when compared to Canada. There were minor variations in labour force participation rates observed between men+ and women+ within the Kitikmeot Region. However, like the trends of the broader statistics for Nunavut, men+ (67.7%) generally have higher unemployment rates compared to women+ (59.8%).

6.2.2.1 Community Perspectives

Primary research revealed severe staff shortages and high turnover across multiple sectors. Limited education and training, family and other obligations, and dependence on income support all contribute to a workforce where it is difficult for employers to recruit and retain employees, and many people opt for better wages at mining sites despite cultural or family challenges.

> Everybody—every single employer in town right now—is short staffed…It's very hard to find qualified people. Every store in town is looking for people. (Kitikmeot Community Futures, Cambridge Bay, pers. comm., November 6, 2024)

Table 6.5 Labour Force, Kitikmeot Region and Nunavut, Total Population, 2021

Topic	Total Population																	
	Kugaaruk			Kugluktuk			Cambridge Bay			Gjoa Haven			Taloyoak			Nunavut		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Total - Population aged 15 years and over	640	335	305	935	470	465	1325	660	665	840	440	400	570	285	285	24,535	12,410	12,125
In the labour force	280	150	130	510	255	255	865	430	435	460	255	215	215	105	110	14,380	7,345	7,035
Employed	215	120	95	375	185	190	745	355	390	365	195	170	185	85	100	11,945	5,910	6,035
Unemployed	65	30	35	140	75	65	115	75	45	95	55	40	25	15	10	2,435	1,435	1,000
Not in the labour force	360	180	180	425	220	210	465	230	230	375	190	185	355	180	175	10,155	5,065	5,090
Participation rate	43.8%	44.8%	42.6%	54.5%	54.3%	54.8%	65.3%	65.2%	65.4%	54.8%	58%	53.8%	37.7%	36.8%	38.6%	58.6%	59.2%	58%
Employment rate	33.6%	35.8%	31.1%	40.1%	39.4%	40.9%	56.2%	53.8%	58.6%	43.5%	44.3%	42.5%	32.5%	29.8%	35.1%	48.7%	47.6%	49.8%
Unemployment rate	23.2%	20%	26.9%	27.5%	29.4%	25.5%	13.3%	17.4%	10.3%	20.7%	21.6%	18.6%	11.6%	14.3%	9.1%	16.9%	19.5%	14.2%

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Total Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 6.6 Labour Force, Kitikmeot Region and Nunavut, Indigenous Population, 2021

Indigenous Population																		
Topic	Kugaaruk			Kugluktuk			Cambridge Bay			Gjoa Haven			Taloyoak			Nunavut		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Total - Population aged 15 years and over	585	300	285	820	405	415	1050	500	550	785	405	380	540	270	275	20,140	10,030	10,110
In the labour force	250	130	115	420	210	210	615	285	325	415	220	195	185	90	95	10,535	5,240	5,300
Employed	185	105	85	295	140	155	505	220	285	320	165	155	160	75	90	8,225	3,880	4,345
Unemployed	65	30	30	125	70	60	110	70	40	90	55	35	25	15	10	2,315	1,360	955
Not in the labour force	335	165	165	400	200	205	435	215	220	370	190	185	355	180	175	9,605	4,795	4,810
Participation rate	42.7%	43.3%	40.4%	51.2%	51.9%	50.6%	58.6%	57%	59.1%	52.9%	54.3%	51.3%	34.3%	33.3%	34.5%	52.3%	52.2%	52.4%
Employment rate	31.6%	35%	29.8%	36%	34.6%	37.3%	48.1%	44%	51.8%	40.8%	40.7%	40.8%	29.6%	27.8%	32.7%	40.8%	38.7%	43%
Unemployment rate	26%	23.1%	26.1%	29.8%	33.3%	28.6%	17.9%	24.6%	12.3%	21.7%	25%	17.9%	13.5%	16.7%	10.5%	22%	26%	18%

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Indigenous Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

6.2.3 Employment by Occupation

Table 6.7 and Table 6.8 summarizes the total and Indigenous (primarily Inuit) employment (by gender) by occupations in the Kitikmeot Region and Nunavut. Trends in employment by occupation across the Kitikmeot Region generally align with those across the Territory.

The most common occupation in Nunavut in both the total population and Indigenous (primarily Inuit) population is in sales and service occupations, which encompasses 23.5% and 27.0% of the total and Indigenous (primarily Inuit) populations, respectively. Sales and service occupations are staffed 54.3% by women+ in total population and 58.0% women+ in the Indigenous (primarily Inuit) population. Similarly, sales and service occupations make up the highest number of total and Indigenous (primarily Inuit) Kitikmeot Region labour force workers at 24.7% and 26.3%, respectively. These roles are predominantly held by women+ (53.8% of total population and 58.9% Indigenous population, respectively).

The next most common occupations across Nunavut are in education, law, social, community and government services, which represent 22.2% of the total population (67.1% women+) and trades, transport and equipment operators and related occupations which represent 23.1% of the Indigenous (primarily Inuit) population (92.7% men+). These are also the next most common occupations in the Kitikmeot Region. Trades, transport and equipment operators (and related) occupations make up 24.9% of Indigenous (primarily Inuit) employment in the region and are predominantly held by men+ across the total and Indigenous (primarily Inuit) populations (94.8% and 95.3%, respectively) (Statistics Canada 2022a). Occupations in education, law, social, community and government services represent 17.5% of the total population employment (70.3% women+).

6.2.3.1 Community Perspectives on Gender and Employment

Kitikmeot community members reported that men more often work in heavy equipment or in trades, while women frequently take on housekeeping, cooking, or administrative roles at camps. However, more women are entering occupations in fields formerly dominated by men, and both men and women are involved in home-based or seasonal economic activities (e.g., sewing, guiding, fishing). Jobs tied to seasonal or rotational industry projects may also lead to short-term positions rather than year-round employment. Limited formal certification, such as journeyperson status, can reduce local hiring prospects.

> Men do come in, and there are some women who are trained—they'll apply as well. And then for hospitality, the majority are women, but men do come in to apply too. (GN Staff, Kugluktuk, pers. comm., November 7, 2024)

> I never thought I'd be working for mental health, last place I thought I'd be, but there's so many different departments here…some trades we need more than others. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

Table 6.7 Employment by Occupation, Kitikmeot Region and Nunavut, Total Population, 2021

Employment by Occupation	Kugaaruk			Kugluktuk			Cambridge Bay			Gjoa Haven			Taloyoak			Nunavut		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Legislative and senior management occupations	0	0	0	0	0	0	20	10	15	10	0	0	0	0	0	270	155	110
Business, finance and administration occupations	30	10	20	55	10	45	160	45	120	40	15	30	40	0	35	2,420	650	1,775
Natural and applied sciences and related occupations	0	0	0	25	20	0	45	35	10	10	10	0	10	0	10	475	365	110
Health occupations	0	0	0	15	0	15	50	10	50	20	0	20	10	0	0	540	90	455
Occupations in education, law and social, community and government services	55	10	40	95	20	70	180	60	115	75	25	55	50	10	40	2,950	970	1,980
Occupations in art, culture, recreation and sport	10	0	0	10	0	10	10	10	10	10	10	10	10	0	0	435	185	245
Sales and service occupations	70	35	35	105	35	65	150	70	85	160	80	75	45	25	15	3,110	1,420	1,690
Trades, transport and equipment operators and related occupations	60	60	0	110	105	0	160	150	10	100	95	10	50	45	0	2,610	2,425	180
Natural resources, agriculture and related production occupations	0	0	0	15	15	0	15	15	0	10	10	0	0	0	0	240	225	20
Occupations in manufacturing and utilities	10	0	0	10	10	0	15	10	10	10	0	10	10	10	0	210	175	35

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Total Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 6.8 Employment by Occupation, Kitikmeot Region and Nunavut, Indigenous Population, 2021

Employment by Occupation	Kugaaruk			Kugluktuk			Cambridge Bay			Gjoa Haven			Taloyoak			Nunavut		
	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+	Total	Men+	Women+
Legislative and senior management occupations	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	135	75	55
Business, finance and administration occupations	25	10	15	45	10	40	125	25	105	40	10	25	40	0	35	1,715	370	1,345
Natural and applied sciences and related occupations	0	0	0	10	10	10	20	15	0	0	0	0	10	0	10	185	150	40
Health occupations	0	0	0	10	0	10	30	0	30	15	0	15	10	0	0	240	20	220
Occupations in education, law and social, community and government services	40	10	35	70	10	60	100	20	75	60	15	50	30	0	30	1,675	365	1,310
Occupations in art, culture, recreation and sport	10	0	0	10	0	10	10	10	10	10	10	10	10	0	0	350	150	200
Sales and service occupations	60	25	30	90	30	55	120	45	70	140	60	75	40	25	15	2,550	1,065	1,480
Trades, transport and equipment operators and related occupations	60	60	0	90	90	0	125	115	10	100	95	10	50	45	0	2,180	2,020	160
Natural resources, agriculture and related production occupations	0	0	0	15	15	0	15	15	0	10	10	0	0	0	0	230	220	15
Occupations in manufacturing and utilities	10	10	0	10	10	0	15	0	10	10	10	10	10	10	0	170	140	30

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Indigenous Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

6.3 Employment Income

Within Nunavut, median employment income levels are the highest in Iqaluit, lowest in communities without decentralized government offices or resource development, and in between for the regional centres and for those communities actively participating in the mining industry. Overall, the Kitikmeot Region has the lowest median employment income levels of the three regions of Nunavut (Table 6.9). In comparison to median employment income in Canada, income across Nunavut is low. All economic family types earn much less in Nunavut. For example, the data below show that the median employment income in the Kitikmeot Region is about 1/4 of that across Canada.

Table 6.9 Total Median Employment Income of Taxfilers ($) by Region and Kitikmeot Community, 2012 to 2017; and Median Employment Income of economic family types in Canada, 2012 to 2017

	2012	2013	2014	2015	2016	2017
Nunavut	27,470	28,580	29,550	29,270	30,670	31,390
Iqaluit	69,260	71,080	72,310	72,310	72,580	73,000
Baffin Region	34,020	36,030	37,750	37,750	36,920	36,840
Kivalliq Region	24,390	25,110	25,010	-	-	-
Kitikmeot Region	17,860	17,490	18,440	18,740	19,630	20,920
Cambridge Bay	29,800	28,800	28,960	30,030	31,650	37,340
Gjoa Haven	14,700	14,070	17,250	17,910	16,450	17,200
Kugaaruk	10,560	10,250	11,100	11,170	11,830	15,790
Kugluktuk	19,340	15,540	17,420	19,620	21,030	20,500
Taloyoak	10,890	13,040	14,580	11,850	11,560	14,960

Note:

Employment income includes wages and salaries, commissions from employment, training allowances, tips and gratuities, and self-employment income.

The equivalent of the Nunavut Bureau of Statistics 2017 dataset is an order only product the Statistics Canada 2025 is used as a comparator dataset.

Source: Nunavut Bureau of Statistics (2017); Statistics Canada (2025)

6.3.1 Community Perspectives on Rotational Work

Many participants acknowledged that rotational shifts (e.g., three weeks on/two weeks off) offer good wages but can be difficult on relationships, childcare, and mental health for some individuals.

> Some people are really, really close to their parents and grandparents, and they don't want to leave…if you're leaving for three weeks, six weeks at a time, for years on end, it's very hard…But you come back with money and can do something with your life. (Community Member, Kugaaruk, pers. comm., November 1, 2024)

> I appreciate that the mining jobs…are providing really great wages. But what I am seeing is it's really hard for community members to be out of the community for those periods of time. (Kugluktuk Co-op, Kugluktuk, pers. comm., November 8, 2024)

Although mining jobs pay relatively well, many participants reported that high living expenses and extended family obligations can quickly reduce disposable income. Local government or store jobs offer lower wages but often less disruption to daily life.

> You go out for three weeks; you come back with $5,000 or $6,000 in the bank…That's the appeal. But then it goes fast if you're supporting extended family. (Business Owner, Cambridge Bay, pers. comm., November 4, 2024)

6.3.2 Income and Income Inequality

6.3.2.1 Individual Income

Income information for Kitikmeot communities and Nunavut is summarized in Table 6.10 (total population) and Table 6.11 (Indigenous Population).

In 2021 the population of Nunavut has a median total income of $37,600 ($30,800 among the Indigenous, primarily Inuit, population). Of the Kitikmeot communities shown in Table 6.10 and Table 6.11, the population of Cambridge Bay had the highest median total income at $41,200 ($31,400 among the Indigenous population only), while the lowest was Kugluktuk at $27,800 ($26,200 among the Indigenous population only).

Table 6.10 and Table 6.11 indicates Women+ among the total population were more likely to have a higher total income than men+, while Indigenous (primarily Inuit) men+ in Nunavut had a higher total income compared to women+.

In terms of income equity, mean total income and mean employment income in Nunavut and the Kitikmeot communities are less for Indigenous than non-Indigenous persons and are typically lower for women+ than men+ with Indigenous women+ earning the lowest average income. Income equity is based on comparing incomes of the total population (i.e. Indigenous and non-Indigenous) with the that of the Indigenous population.

Disparities in income also exist within each category (total and employment income) among both men+ and women+ as illustrated through differences in mean and median total and employment incomes. In particular, while the total population overall receives higher income than the Indigenous population, the disparity between men+ and women+ across all categories is more pronounced. Table 6.10 shows that income is lower in Nunavut by all types of income than in Canada. Median total income is about $4,000 dollars lower in Nunavut and about $10,000 dollars lower in Kitikmeot Region communities, except Cambridge Bay. Cambridge Bay has high income relative to the other Kitikmeot Region communities. Still, the individual income in Cambridge Bay is less than across Canada.

Table 6.10 Individual Income (Annual – Before Tax), Total Population, 2021

Topic		Median total income	Median employment income	Mean total income	Mean employment income
Nunavut	Total	$37,600	$38,000	$57,200	$58,100
	Men+	$33,200	$38,400	$55,400	$58,750
	Women+	$41,600	$37,600	$59,050	$57,400
Kugaaruk	Total	$29,600	$14,900	$40,600	$34,600
	Men+	$26,800	$20,000	$40,800	$40,400
	Women+	$33,200	$9,500	$40,400	$28,000
Kugluktuk	Total	$27,800	$21,800	$47,200	$48,200
	Men+	$27,200	$24,000	$47,000	$50,000
	Women+	$29,200	$18,800	$47,400	$46,400
Cambridge Bay	Total	$41,200	$45,600	$62,500	$64,200
	Men+	$36,400	$40,800	$60,700	$63,600
	Women+	$46,000	$50,800	$64,200	$64,400
Gjoa Haven	Total	$33,600	$20,600	$43,400	$35,200
	Men+	$28,800	$21,000	$38,800	$34,000
	Women+	$38,400	$20,200	$48,200	$36,000
Taloyoak	Total	$30,400	$12,800	$41,200	$35,000
	Men+	$24,600	$13,700	$36,400	$35,200
	Women+	$38,800	$11,400	$46,000	$34,800
Canada	Total	$41,200	$63,600	-	$77,200
	Men+	$46,400	$69,000	-	$85,400
	Women+	$36,800	$58,000	-	$67,000

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

Total income is presented for persons aged 15 years and older and is the sum of regular and recurring monetary receipts from part-time and full-time employment income (e.g., wages, tips, and commissions), income from investment sources (e.g., dividends, guaranteed investment certificates, and mutual funds), income from employer and personal pension sources (e.g., private pensions and payments from annuities and registered retirement income funds), other regular cash income (e.g., child support payments and spousal support payments), and income from government sources (e.g., social assistance, Employment Insurance benefits, Old Age Security benefits, and Canada Pension Plan benefits and disability income).

Employment income is the sum of wages, salaries, tips, commissions, and net income from self-employment.

Values shown in “Total” columns are the sum of male and female census subdivision subsets taken from Statistics Canada’s 2021 Census. Due to Statistics Canada rounding (Statistics Canada 2019) totals may not exactly align with those shown on census subdivision Census Profiles and may not sum across tables.

Totals may not sum across tables due to Statistics Canada data suppression.

Source: Statistics Canada (2022a)

Table 6.11 Individual Income (Annual – Before Tax), Indigenous Population, 2021

Topic		Median total income	Median employment income	Mean total income	Mean employment income
Nunavut	Total	$30,800	$15,100	$46,080	$28,960
	Men+	$26,200	$17,000	$42,000	$29,920
	Women+	$35,600	$13,400	$50,040	$28,040
Kugaaruk	Total	$28,600	$8,900	$37,800	$14,800
	Men+	$26,000	$14,000	$37,200	$16,000
	Women+	$32,400	$7,300	$38,400	$13,000
Kugluktuk	Total	$26,200	$13,100	$41,600	$24,400
	Men+	$24,200	$16,400	$39,600	$26,400
	Women+	$28,200	$8,700	$43,400	$22,800
Cambridge Bay	Total	$31,400	$16,200	$49,000	$29,400
	Men+	$26,400	$16,200	$44,400	$28,000
	Women+	$36,400	$16,200	$53,000	$30,400
Gjoa Haven	Total	$31,200	$13,400	$40,800	$20,400
	Men+	$26,200	$16,000	$35,000	$21,200
	Women+	$37,600	$10,400	$46,800	$19,600
Taloyoak	Total	$28,600	$12,400	$38,000	$25,000
	Men+	$24,000	$14,500	$32,000	$18,000
	Women+	$37,200	$11,000	$44,000	$32,000

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

Total income is presented for persons aged 15 years and older and is the sum of regular and recurring monetary receipts from part-time and full-time employment income (e.g., wages, tips, and commissions), income from investment sources (e.g., dividends, guaranteed investment certificates, and mutual funds), income from employer and personal pension sources (e.g., private pensions and payments from annuities and registered retirement income funds), other regular cash income (e.g., child support payments and spousal support payments), and income from government sources (e.g., social assistance, Employment Insurance benefits, Old Age Security benefits, and Canada Pension Plan benefits and disability income).

Employment income is the sum of wages, salaries, tips, commissions, and net income from self-employment.

Values shown in “Total” columns are the sum of male and female census subdivision subsets taken from Statistics Canada’s 2021 Census. Due to Statistics Canada rounding (Statistics Canada 2019) totals may not exactly align with those shown on census subdivision Census Profiles and may not sum across tables.

Totals may not sum across tables due to Statistics Canada data suppression.

Source: Statistics Canada (2022a)

6.3.2.2 Income Distribution

In 2020, income distribution in Nunavut was notably polarized. While over half of individuals earned less than $40,000, more than 20% earned over $100,000, highlighting a significant income gap within the territory (Table 6.12, Statistics Canada 2022a). The higher wages in Nunavut are typically driven by employment in government, mining and the construction industry which can offer higher wages to attract workers to remote and harsh environments.

6.3.2.3 Composition of Total Income

The composition of the total income refers to the relative share of each income source or group of sources, expressed as a percentage of the aggregate total income of that group or area (Table 6.13, Statistics Canada 2022a).

In 2020, a large proportion of total income for individuals in Kitikmeot communities came from government transfers (including COVID-19 related payments) relative to Nunavut and national averages. Cambridge Bay was the exception, with a lower proportion of total income coming from government transfers relative to the Nunavut and national averages (Statistics Canada 2022a).

In 2020-2021, the Government of Nunavut received $1.8 billion through major transfers from federal government, equivalent to $45,367 per capita. The majority of major transfers come from territorial formula financing. In 2025-2026, major transfers to the Government of Nunavut are projected to increase to $2.3 billion, equivalent to $55,305 per capita (GOC n.d.b).

Table 6.12 Income Distribution, Individual Income, 2020

		Under $10,000 (including loss)	$10,000 to $19,999	$20,000 to $29,999	$30,000 to $39,999	$40,000 to $49,999	$50,000 to $59,999	$60,000 to $69,999	$70,000 to $79,999	$80,000 to $89,999	$90,000 to $99,999	$100,000 and over	$100,000 to $149,999	$150,000 and over
Kugaaruk	Total	17.6	15.1	17.6	16.0	8.4	3.4	5.0	1.7	2.5	3.4	9.2	6.7	1.7
	Men+	20.3	17.2	15.6	14.1	6.3	1.6	6.3	0.0	3.1	3.1	10.9	7.8	3.1
	Women+	12.5	14.3	19.6	19.6	12.5	3.6	3.6	1.8	0.0	3.6	7.1	7.1	1.8
Kugluktuk	Total	15.0	17.8	21.1	8.9	6.1	5.0	2.8	3.3	1.1	2.2	16.1	12.8	3.3
	Men+	14.4	21.1	21.1	11.1	4.4	5.6	2.2	4.4	1.1	1.1	15.6	11.1	4.4
	Women+	15.6	15.6	21.1	7.8	7.8	5.6	3.3	2.2	1.1	3.3	16.7	14.4	2.2
Cambridge Bay	Total	16.0	11.8	12.6	8.4	6.1	5.0	4.2	4.2	3.1	3.1	25.6	17.6	8.4
	Men+	16.8	13.7	13.0	9.9	5.3	4.6	4.6	3.8	2.3	2.3	24.4	16.8	8.4
	Women+	15.3	9.9	12.2	8.4	6.1	5.3	3.8	3.8	3.8	4.6	26.7	19.1	8.4
Gjoa Haven	Total	12.7	13.4	18.5	15.3	9.6	8.3	4.5	3.2	3.8	1.9	8.9	7.6	1.9
	Men+	15.9	17.1	20.7	12.2	9.8	7.3	2.4	2.4	2.4	2.4	8.5	6.1	2.4
	Women+	9.5	10.8	16.2	17.6	9.5	8.1	6.8	4.1	5.4	1.4	10.8	9.5	1.4
Taloyoak	Total	17.6	13.9	18.5	13.9	10.2	4.6	2.8	1.9	2.8	2.8	10.2	9.3	0.9
	Men+	20.8	18.9	20.8	15.1	5.7	3.8	0.0	3.8	0.0	1.9	7.5	5.7	1.9
	Women+	13.0	7.4	14.8	14.8	16.7	5.6	5.6	0.0	3.7	1.9	11.1	11.1	0.0
Nunavut	Total	16.2	12.7	13.6	9.6	6.9	5.1	3.8	3.5	3.7	3.6	21.3	15.7	5.6
	Men+	19.1	13.9	14.0	8.6	5.6	4.9	3.5	3.4	3.6	3.0	20.4	14.1	6.3
	Women+	13.3	11.6	13.3	10.5	8.3	5.3	4.1	3.5	3.8	4.1	22.2	17.2	4.9
Yellowknife	Total	9.1	5.4	7.6	7.1	6.9	6.5	6.0	6.6	6.0	6.0	32.7	23.5	9.3
	Men+	8.8	5.0	7.3	6.1	6.5	5.9	5.8	6.6	5.3	6.1	36.7	24.7	12.0
	Women+	9.5	5.8	7.9	8.0	7.3	7.1	6.1	6.8	6.7	6.0	28.8	22.2	6.6
Canada	Total	8.3	11.8	15.9	12.7	11.3	9.2	7.1	5.4	4.2	3.3	10.8	7.2	3.6
	Men+	7.4	10.1	14.1	11.5	10.7	9.1	7.6	6.2	4.9	3.9	14.5	9.2	5.3
	Women+	9.2	13.4	17.5	13.9	11.8	9.2	6.6	4.7	3.6	2.8	7.3	5.2	2.0

Source: Statistics Canada (2022a)

Table 6.13 Composition of Total Income, 2020

		Market income (%)	Employment income (%)	Government transfers (%)	Employment insurance benefits (%)	COVID-19 - Government income support and benefits (%)	COVID-19 - Emergency and recovery benefits (%)
Kugaaruk	Total	62.4	59.2	37.6	3.2	15.6	14.3
	Men+	72.0	69.0	28.0	3.8	12.6	12.0
	Women+	51.0	48.0	49.0	2.4	19.2	16.8
Kugluktuk	Total	71.5	66.5	28.6	1.9	12.1	11.2
	Men+	74.0	68.0	26.2	2.6	13.6	13.0
	Women+	69.0	64.0	31.0	1.0	10.6	9.4
Cambridge Bay	Total	84.8	81.2	15.1	1.1	6.3	5.8
	Men+	86.0	82.0	13.8	1.0	6.7	6.3
	Women+	84.0	80.0	16.3	1.2	6.0	5.4
Gjoa Haven	Total	62.4	57.6	37.8	2.2	17.2	16.2
	Men+	67.0	61.0	33.6	2.2	18.0	17.6
	Women+	58.0	54.0	41.6	2.2	16.4	15.0
Taloyoak	Total	60.0	57.6	40.0	1.7	17.6	16.0
	Men+	65.0	63.0	35.5	1.2	21.2	20.0
	Women+	56.0	53.0	44.0	2.0	14.8	13.2
Nunavut	Total	80.8	76.2	19.2	1.3	7.4	6.7
	Men+	84.0	79.2	16.0	1.4	7.5	7.1
	Women+	77.8	73.4	22.2	1.2	7.3	6.3
Yellowknife	Total	91.6	84.6	8.3	0.7	2.8	2.6
	Men+	93.4	85.8	6.6	0.5	2.5	2.4
	Women+	89.8	83.0	10.2	1.0	3.2	2.7
Canada	Total	82.2	66.8	17.8	1.4	5.4	4.7
	Men+	86.4	70.6	13.7	1.2	4.5	4.0
	Women+	76.8	61.7	23.1	1.7	6.6	5.5

Source: Statistics Canada (2022a)

6.3.2.4 Social Assistance

Table 6.14 shows the percentage of the Nunavut, Kitikmeot Region, and Kitikmeot Communities receiving social assistance from 2018-2024. Social assistance is provided by the GN to individuals between 18-59 who cannot provide adequately for themselves and their dependents to meet a minimum standard of living due to inability to obtain employment, loss of the principal family provider, illness, disability, age or any other cause. The GN also provides a Senior Citizen Supplementary Benefit to low-income seniors aged 60 and older in Nunavut (Nunavut Bureau of Statistics 2025b).

Table 6.14 Percentage of Total Population Receiving Social Assistance by Community, Region, and Territory, 2018-2024

Area	2018	2019	2020	2021	2022	2023	2024
Nunavut	44.6	43.1	37.1	28.8	30.5	30.9	30.6
Kitikmeot Region	56.1	55.2	47.9	33.0	36.0	37.9	37.2
Cambridge Bay	26.1	24.0	19.3	13.0	17.5	20.9	18.5
Gjoa Haven	70.9	67.8	57.9	38.9	42.8	43.8	41.3
Kugaaruk	81.4	84.7	73.8	51.3	49.1	51.7	41.4
Kugluktuk	51.7	53.3	47.2	30.4	31.0	29.7	28.3
Taloyoak	77.0	72.4	64.7	50.4	58.0	63.7	61.6

Source: Nunavut Bureau of Statistics 2025c

The percentage of the population receiving social assistance is higher in the Kitikmeot Region than in Nunavut, although the percentage has decreased from 56.1% to 37.2% in the Kitikmeot Region over this time period. Within the Kitimeot Region, the percentage of the population receiving social assistance in 2024 was highest in Taloyoak (61.6%), followed by Kugaaruk (41.4%), Gjoa Haven (41.3%), and Kugluktuk (28.3%). The percentage of the population receiving social assistance in 2024 was lowest in Cambridge Bay (18.5%), which is likely reflective of the economic opportunities and employment rate in this community (Nunavut Bureau of Statistics 2025b).

6.3.2.5 Community Perspectives on Income and Wage Disparity

While many households benefit substantially from mining and other wages associated with formal work, others remain reliant on social assistance. Several interviewees expressed concerns about the uneven distribution of high-paying opportunities and the difficulty of retaining local employees in lower-wage positions when mine work is available.

> We have a big shortage of staff. But how do we compete with the wages at the mines? They can pay a lot more. Then we lose folks that used to work at our store. (Kugluktuk Co-op, Kugluktuk, pers. comm., November 8, 2024)

Substantial financial disparities can exist between individuals employed at mines or government positions and those who depend on income support or piecework. Households experiencing overcrowding often rely on collectively pooled resources for food, utilities, and other expenses.

> We see big wage gaps. Some folks earn a good living at the mine or government, but others scrape by on social assistance. (Community Member, Kugluktuk, pers. comm., November 8, 2024)

6.4 Businesses

6.4.1 Community Perspectives

Many community members and organizations expressed their hope that large infrastructure initiatives, such as the proposed Project, could encourage new small businesses (e.g., transport, lodging, construction subcontracting). They also stressed the importance of ensuring local entrepreneurs and Inuit-owned firms have a fair chance at contracting and subcontracting.

> I'm hoping it goes ahead…that's what they're looking forward to. It's gonna boost the economy big time in the whole region…there's a lot of business opportunities, employment, training opportunities. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

> Just the startup cost is so expensive now…We need more multi-use facilities in our communities, to house new business startups. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

Community members described mostly small-scale business operations, such as Co-ops, Northern stores, and local construction contractors. They stressed the strain of shipping costs, staff turnover, and limited local purchasing power often has on their operations.

> Construction, retail, the Co-op—those are about it. Everybody is fighting over the same workers, which drives wages up, but also drives up prices. (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024)

6.4.2 Business Investment

6.4.2.1 Business Investment

Business investment opportunities are available in Nunavut from the territory government, Nunavut Development Corporation, and Nunavut Harvesters Support Program.

The territorial government funds business investment opportunities. The GN Business Development and Entrepreneurship program provides a Strategic Investments Program which assists businesses that are majority-owned by Nunavut residents, municipalities, not-for-profit corporations and societies. Under the program, businesses can obtain financial contributions to cover expansion or start-up costs. Municipalities, not-for-profit corporations and societies can get funding for training, marketing and community development. There are two funds within this program: Nunavut Business Investment Fund and Nunavut Economic Foundations (GN n.d.c).

The Nunavut Development Corporation makes equity investments in target Nunavut economic sectors. These equity investments help to create income earning opportunities, employment, and local business growth with an emphasis on investing in Nunavut's smaller communities. The Nunavut Development Corporation prioritizes investments in key sectors of the economy including fisheries, tourism, and cultural industry sectors where many Nunavummiut derive income. The Nunavut Development Corporation has investments in numerous Nunavut corporations ranging from wholly-owned subsidiaries to minority investments with other joint venture partners (Nunavut Development Corporation n.d.b). In the 2021-2022 fiscal year, the Nunavut Development Corporation made six equity investments totaling approximately $1.2 million. Of these equity investments, one was in the Kitikmeot Region, a $125,000 equity investment in CHOU Consulting and Development Inc. in Cambridge Bay (Nunavut Development Corporation 2022).

The Nunavut Harvesters Support Program, updated and approved in August 2021, aims to preserve and advance Inuit harvesting culture, heritage and traditional ways of life and relieve poverty among the Inuit of Nunavut. The program provides Inuit in Nunavut who are in need with funding assistance to make harvesting equipment and tools more affordable, so they can participate in traditional harvesting activities (Kivalliq Inuit Association n.d.).

6.4.2.2 Nunavut Businesses

In 2023, there were 1,347 businesses in Nunavut (Table 6.15). The industries with the greatest number of businesses were real estate and rental and leasing (188 businesses), health care and social assistance (143 businesses), and public administration (118 businesses) (Statistics Canada 2024h).

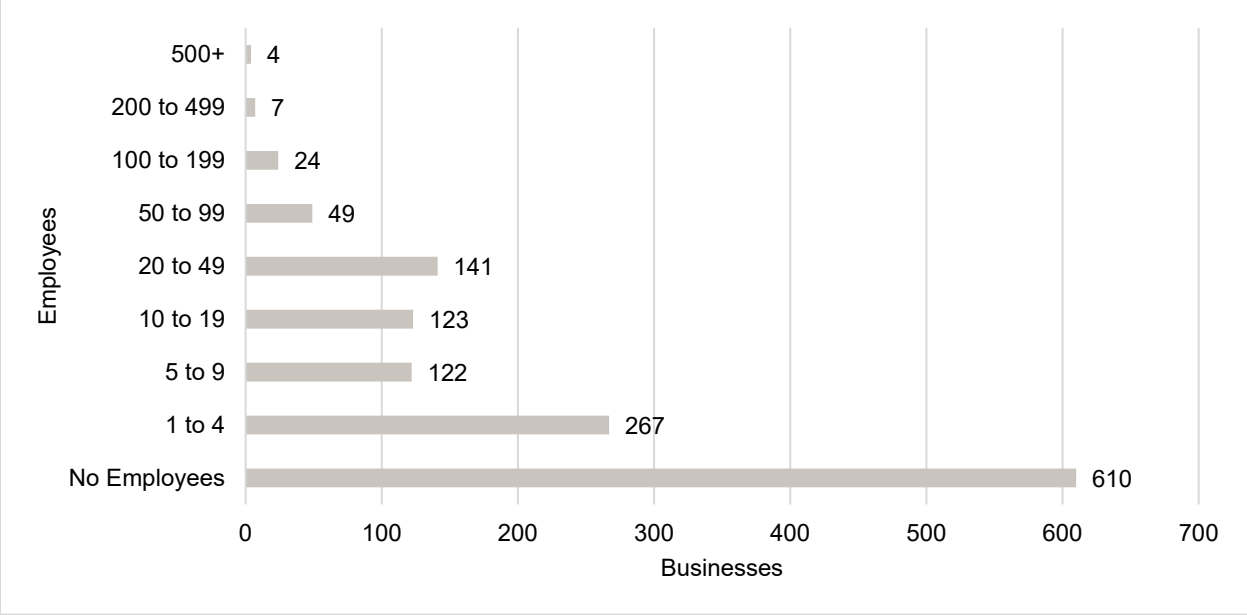
Of the 1,347 businesses in Nunavut, 737 (55%) had employees and 610 (45%) had no employees (e.g., the business is a sole proprietorship or is a limited liability company) (Figure 6.3). Of the businesses with employees, more than a third (36%) had 1 to 4 employees. Just 4 businesses had more than 500 employees (Statistics Canada 2024h).

Table 6.15 Nunavut Business Counts (with Employees and No Employees) by Industry, December 2023

North American Industry Classification System (NAICS)	Nunavut		
	With Employees	No Employees	Total
Agriculture, forestry, fishing and hunting	2	32	34
Mining, quarrying, and oil and gas extraction	5	10	15
Utilities	4	1	5
Construction	56	37	93
Manufacturing	8	5	13
Wholesale trade	10	8	18
Retail trade	84	13	97
Transportation and warehousing	58	41	99
Information and cultural industries	15	15	30
Finance and insurance	12	13	25
Real estate and rental and leasing	43	145	188
Professional, scientific and technical services	40	56	96
Management of companies and enterprises	10	10	20
Administrative and support, waste management and remediation services	22	22	44
Educational services	38	7	45
Health care and social assistance	91	52	143
Arts, entertainment and recreation	10	7	17
Accommodation and food services	49	16	65
Other services (except public administration)	31	41	72
Public administration	115	3	118
Unclassified	34	76	110
Total, all industries	737	610	1,347

Source: Statistics Canada (2024h)

Figure 6.3 Total Business Counts by Employee Number (All Industries), December 2023



6.4.2.3 Community Perspectives

Several organizations, including Kitikmeot Inuit Association and Community Futures, help fund or advise Inuit-owned businesses. Infrastructure investments and improvements (like a port or all-season road) are widely perceived as beneficial for attracting further investment, although some remain uncertain whether that would truly reduce operating costs.

> Our role is dealing with Inuit-owned businesses. We do provide funding…like $25k for startup costs, expansions, or inventory. We help them plan the business out. (Cambridge Bay Kitikmeot Inuit Association, pers. comm., November 4, 2024)

Because of the region's remote setting, many businesses are microenterprises or specialized in local construction, retail, or tourism. The limited scope of the local economy constrains expansion, and participants pointed to the need for more commercial space, capital, and consistent freight.

> If you want to start a new business, you do your best, but there's not a lot of commercial space or a big customer base, so it's tough. (Kitikmeot Community Futures, Cambridge Bay, pers. comm., November 6, 2024)

6.4.2.4 Kitikmeot Region

Some business investment opportunities in the Kitikmeot Region are available through the Kitikmeot Corporation and the Kitikmeot Inuit Association, shown in Table 6.16. The Kitikmeot Corporation's mission is to facilitate growth for partner companies and for the Kitikmeot Region (Kitikmeot Corporation n.d.a). The Kitikmeot Corporation helps companies to grow, by specializing in four areas of development:

growth facilitation, trusted expert access, building lasting relationships, and providing resources (Kitikmeot Corporation n.d.b). The Kitikmeot Corporation currently has 32 partnerships and subsidiaries across a range of industries, including construction, engineering, health services, hospitality, industrial, logistics, mining, and professional services (Kitikmeot Corporation n.d.c).

Table 6.16 Kitikmeot Corporation Partnerships and Subsidiaries

Company	Service/Industry
Acasta Helicopters	Logistics; Mining
BBE Supply Chain Co.	Industrial; Logistics
Geotech Drilling Services Ltd.	Construction – Civil; Mining; Professional & Engineering
Geotech Ekutak Ltd.	Construction – Civil; Mining; Professional & Engineering
Hiqiniq Energy Corp.	Energy
Kitikmeot BBE Expediting Ltd.	Industrial; Logistics; Mining
Kitikmeot Blasting Services Inc.	Construction – Civil; Mining
Kitikmeot Camp Solutions Ltd.	Hospitality; Mining
Kitikmeot Cementation Mining & Development Ltd.	Construction; Mining
Kitikmeot Challenger LP	Professional & Engineering
Kitikmeot Environmental Ltd.	Mining; Professional & Engineering
Kitikmeot Region Properties Inc.	Property Management
Kitikmeot Tire Mine Services Ltd.	Industrial; Mining
Larga Kitikmeot Ltd.	Health Services
Larga Ltd.	Health Services
Medic North Nunavut Ltd.	Health Services
Momentum North	Communications
Nasittuq Corporation	Construction; Logistics; Professional & Engineering
NCC Investment Group Inc.	Construction; Property Management
Nuna Group of Companies	Construction – Civil; Mining
Nunami Stantec Ltd.	Professional & Engineering
Nunasi Corporation	Energy; Health Services; Property Management
Nunavut Resources Corporation	Construction – Civil; Mining
Nunavut Sealink & Supply Inc.	Logistics
Pan Arctic Inuit Logistics Corporation	Construction; Logistics; Professional & Engineering
Panarctic Lightering Corporation	Logistics
Qilak	Logistics
Tasiuq Ltd.	Logistics
Top of the World Travel	Hospitality
Toromont Arctic Ltd.	Industrial; Mining
Tundra Site Services North	Industrial; Mining

The Kitikmeot Region also has its own Community Futures organization dedicated to facilitating community economic development opportunities in the region. Kitikmeot Community Futures offers several programs to those in the area, such as entrepreneurship grants and training, business planning, marketing, and financial services (Kitikmeot Community Futures Incorporated 2022; Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024).

6.4.3 Businesses by Community

Data on the number of businesses in Kitikmeot communities were obtained from Statistics Canada (2024i); these data illustrate the number of businesses with employees by industry and by employee number. Across the communities in the Kitikmeot Region, Cambridge Bay had the largest number of businesses (48 businesses) in December 2023, followed by Kugluktuk (15 businesses), Gjoa Haven (14 businesses), and Taloyoak (12 businesses) (Table 6.17). Data from Statistics Canada on the number of businesses in Kugaaruk were unavailable.

Table 6.17 Community Business Counts (with Employees) by Industry, December 2023

North American Industry Classification System (NAICS)	Cambridge Bay	Gjoa Haven	Kugluktuk	Taloyoak	Kugaaruk
Agriculture, forestry, fishing and hunting	0	0	0	0	…
Mining, quarrying, and oil and gas extraction	1	0	0	0	…
Utilities	1	0	0	0	…
Construction	8	1	1	0	…
Manufacturing	2	0	0	0	…
Wholesale trade	0	0	0	0	…
Retail trade	4	3	3	3	…
Transportation and warehousing	3	1	0	1	…
Information and cultural industries	0	0	0	0	…
Finance and insurance	2	0	0	0	…
Real estate and rental and leasing	1	1	1	1	…
Professional, scientific and technical services	1	1	0	1	…
Management of companies and enterprises	1	0	0	0	…
Administrative and support, waste management and remediation services	1	1	0	0	…
Educational services	2	1	2	1	…
Health care and social assistance	4	2	2	2	…
Arts, entertainment and recreation	0	0	0	0	…
Accommodation and food services	6	0	3	1	…
Other services (except public administration)	5	0	0	0	…
Public administration	6	3	3	2	…
All Industries	**48**	**14**	**15**	**12**	…

Notes:
Data unavailable for Kugaaruk
Totals may differ due to data availability
Source: Statistics Canada (2024i)

Of the total businesses in the Kitikmeot Region communities in December 2023, one-third (34%) had 1 to 4 employees, and none had more than 200 employees (Statistics Canada 2024i). Table 6.18 provides the total number of businesses by size of employees in the Kitikmeot communities; total number of businesses in Table 6.18 may differ from the number reported in Table 6.17 due to data availability and reporting.

Table 6.18 Total Business Counts (with Employees) by Community, by Employee Size, December 2023

Employees	Cambridge Bay	Gjoa Haven	Kugluktuk	Taloyoak	Kugaaruk
1 to 4	17	5	7	3	…
5 to 9	10	3	3	3	…
10 to 19	7	1	1	2	…
20 to 49	13	4	3	3	…
50 to 99	1	2	0	1	…
100 to 199	2	0	2	0	…
200 to 499	0	0	0	0	…
500+	0	0	0	0	…
Total (with employees)	**50**	**15**	**16**	**12**	…

Notes:
Data unavailable for Kugaaruk
Totals may differ due to data availability
Source: Statistics Canada (2024i)

6.4.3.1 Cambridge Bay

As the largest of the Kitikmeot communities, Cambridge Bay has an established business community and serves as the government hub for the region. In December 2023, there were 50 businesses in Cambridge Bay with employees (Table 6.18). The industries with the greatest number of businesses were construction (eight businesses), accommodation and food services (six businesses) and public administration (six businesses) (Table 6.17) (Statistics Canada 2024i).

6.4.3.2 Kugluktuk

In December 2023, there were 16 businesses in Kugluktuk. The industries with the greatest number of businesses were retail trade, accommodation and food services and public administration (three businesses each) (Statistics Canada 2024i).

6.4.3.3 Gjoa Haven

In December 2023, there were 15 businesses in Gjoa Haven with employees (Table 6.18). The industries with the greatest number of businesses were retail trade (three businesses), public administration (three businesses) and health care and social assistance (two businesses) (Table 6.17) (Statistics Canada 2024i).

6.4.3.4 Taloyoak

In December 2023, there were 12 businesses in Taloyoak with employees (Table 6.18). The industries with the greatest number of businesses were retail trade (three businesses), health care and social assistance (two businesses) and public administration (two businesses) (Table 6.17) (Statistics Canada 2024i).

6.4.3.5 Kugaaruk

Data from Statistics Canada (2024i) regarding the number of businesses in Kugaaruk were unavailable. The Kugaaruk economy is comprised of traditional subsistence activities, including hunting, fishing, trapping and gathering, along with wage based economic activities including at local businesses (e.g., Co-op, Northern grocery stores; hamlet services; education; transportation services).

6.4.4 Inuit Owned Businesses

Data on the number of local Inuit Firms were obtained from Nunavut Tunngavik Incorporated (n.d.); these data do not distinguish between businesses with and without employees and therefore total number of businesses may differ from the numbers presented in Section 6.4.3. There is a strong base of Inuit-owned business operations in the Kitikmeot Region (104 businesses), especially in Cambridge Bay (64 businesses) (Table 6.19).

Table 6.19 Inuit Firms by Community, July 2024

Community	Number of Local Businesses
Cambridge Bay	65
Gjoa Haven	13
Kugaaruk	1
Kugluktuk	13
Taloyoak	12
Total	**109**

Note:
These businesses are recorded in the Nunavut Tunngavik Inc. Inuit Firm Registry Database. An “Inuit Firm” means an entity which complies with the legal requirements to carry on business in the Nunavut Settlement Area, and which is either:

- A limited company with at least 51% of the company’s voting shares beneficially owned by Inuit,
- A cooperative controlled by Inuit, or
- An Inuk sole proprietorship or partnership.

Source: Nunavut Tunngavik Incorporated (n.d.)

The Kitikmeot Inuit Association also maintains a Kitikmeot Qualified Business Registry which invites Kitikmeot Inuit majority-owned companies to apply to enroll in the registry on their website.

The Kitikmeot Qualified Business Registry (KQBR) is administered in accordance with the Hope Bay Belt Project and the Back River Project Inuit Impact and Benefit Agreements (IIBAs). The IIBAs require that benefits are provided to Inuit in the areas of training, employment and contracting. Companies enrolled on the KQBR have sole access to bidding on specific contract categories of goods and services. The list of qualified businesses is not available publicly (Kitikmeot Inuit Association 2025).

6.5 Household Economy

6.5.1 Household Income

According to the census, a household refers to a person or a group of persons (other than foreign residents) who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada. It may consist of a family group (census family) with or without other persons, of two or more families sharing a dwelling, of a group of unrelated persons, or of one person living alone (Statistics Canada 2022a).

In 2020, the median total income of households in Nunavut was $118,000 ($104,000 after tax), which was greater than the Canadian median household income of $84,000 ($73,000 after tax) (Table 6.20). Of the Kitikmeot communities, Cambridge Bay had the highest median household income at $128,000 ($110,000 after tax), while Kugluktuk had the lowest median household income at $83,000 ($76,500 after tax) (Statistics Canada 2022a).

Table 6.20 Income of Households, Total Population, Nunavut, 2020

Income of households in 2020	Median total income of household in 2020 ($)	Median after-tax income of household in 2020 ($)	Average total income of household in 2020 ($)	Average after-tax income of household in 2020 ($)
Canada	84,000	73,000	106,300	87,700
Nunavut	118,000	104,000	136,000	117,400
Iqaluit, City	157,000	133,000	177,800	147,800
Kivalliq, Region	114,000	103,000	131,400	114,800
Kitikmeot, Region	104,000	94,000	122,500	107,800
Cambridge Bay, Hamlet	128,000	110,000	143,000	122,000
Gjoa Haven, Hamlet	100,000	95,000	117,000	106,000
Kugaaruk, Hamlet	99,000	91,000	113,000	103,000
Kugluktuk, Hamlet	83,000	76,500	108,000	94,400
Taloyoak, Hamlet	93,000	90,000	110,000	101,000

Source: Statistics Canada (2022a)

In the same year, the mean total income of households in Nunavut was $136,000 ($117,400 after tax), which was greater than the Canadian mean household income of $106,300 ($87,700 after tax). Of the Kitikmeot communities, Cambridge Bay had the highest mean household income at $143,000 ($122,000 after tax), while Kugluktuk had the lowest mean household income at $108,000 ($94,400 after tax) (Statistics Canada 2022a).

6.5.1.1 Household Income Distribution

In 2020, 58.1% of households in Nunavut had a total household income of $100,000 or more, compared to 40.4% across Canada (Table 6.21, Statistics Canada 2022a). Further, 20.1% of households in Nunavut had a total household income of $200,000 or more, compared to 9.8% across Canada.

Table 6.21 Income of Households, Total Population, Breakdown (%), 2020

	Kugaaruk	Kugluktuk	Cambridge Bay	Gjoa Haven	Taloyoak	Nunavut	Yellowknife	Canada
Under $5,000	0.0	0.0	0.9	0.0	0.0	1.0	0.5	1.1
$5,000 to $9,999	0.0	1.3	0.0	0.0	0.0	1.0	0.3	0.6
$10,000 to $14,999	0.0	1.3	0.9	0.0	0.0	1.3	0.3	1.2
$15,000 to $19,999	2.4	3.8	0.9	0.0	0.0	1.5	0.4	1.8
$20,000 to $24,999	0.0	2.5	2.6	0.0	7.3	2.1	0.9	4.3
$25,000 to $29,999	2.4	5.1	3.5	3.4	0.0	2.3	1.3	3.4
$30,000 to $34,999	4.8	3.8	2.6	1.7	2.4	2.5	1.5	3.3
$35,000 to $39,999	2.4	3.8	1.8	1.7	4.9	1.7	1.3	3.7
$40,000 to $44,999	4.8	3.8	2.6	0.0	2.4	2.5	1.6	3.8
$45,000 to $49,999	2.4	5.1	2.6	3.4	2.4	2.4	1.4	3.7
$50,000 to $59,999	7.1	7.6	5.3	5.2	7.3	4.6	3.3	7.3
$60,000 to $69,999	7.1	5.1	2.6	6.9	4.9	5.1	3.2	7.0
$70,000 to $79,999	4.8	3.8	4.4	8.6	4.9	4.6	3.8	6.6
$80,000 to $89,999	7.1	3.8	4.4	8.6	12.2	5.0	4.0	6.2
$90,000 to $99,999	4.8	5.1	3.5	8.6	7.3	4.4	4.1	5.6
$100,000 and over	47.6	41.8	63.2	50.0	46.3	58.1	72.2	40.4
$100,000 to $124,999	16.7	6.3	12.3	13.8	9.8	11.5	12.0	11.7
$125,000 to $149,999	7.1	8.9	10.5	12.1	12.2	10.9	11.0	8.6
$150,000 to $199,999	11.9	11.4	16.7	12.1	12.2	14.0	18.1	10.3
$200,000 and over	14.3	15.2	23.7	13.8	9.8	21.6	31.1	9.8

Source: Statistics Canada (2022a)

6.5.2 Income of Economic Families

According to the census, an economic family is defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law, adoption or a foster relationship. A couple may be of opposite or same sex (Statistics Canada 2022a).

In 2020, the median total income of economic families in the Nunavut was $126,000 ($113,000 after tax), which was greater than the median total income for Canadian economic families at $105,000 ($91,000 after tax) (Table 6.22). The average family size of economic families was also greater for Nunavut, at 4.4 people, than the Canadian average of 3.0 people. Of the Kitikmeot communities, Cambridge Bay had the highest median total income of economic families at $140,000 ($123,000 after tax), while Kugluktuk had the lowest median total income of economic families at $91,000 ($84,000 after tax). Of the Kitikmeot communities, the average family size of economic families was lowest in Cambridge Bay, at 3.7 people, and Gjoa Haven and Taloyoak has the highest, at 5.1 people (Statistics Canada 2022a).

Table 6.22 Income of Economic Families, Total Population, Nunavut, 2020

Income of economic families in 2020	Median total income of economic family in 2020 ($)	Median after-tax income of economic family in 2020 ($)	Average family size of economic families
Canada	105,000	91,000	3.0
Nunavut	126,000	113,000	4.4
Iqaluit, City	190,000	160,000	3.3
Kivalliq, Region	125,000	113,000	4.7
Kitikmeot, Region	106,000	99,000	4.4
Cambridge Bay, Hamlet	140,000	123,000	3.7
Gjoa Haven, Hamlet	103,000	98,000	5.1
Kugaaruk, Hamlet	100,000	93,000	5.0
Kugluktuk, Hamlet	91,000	84,000	4.0
Taloyoak, Hamlet	93,000	92,000	5.1

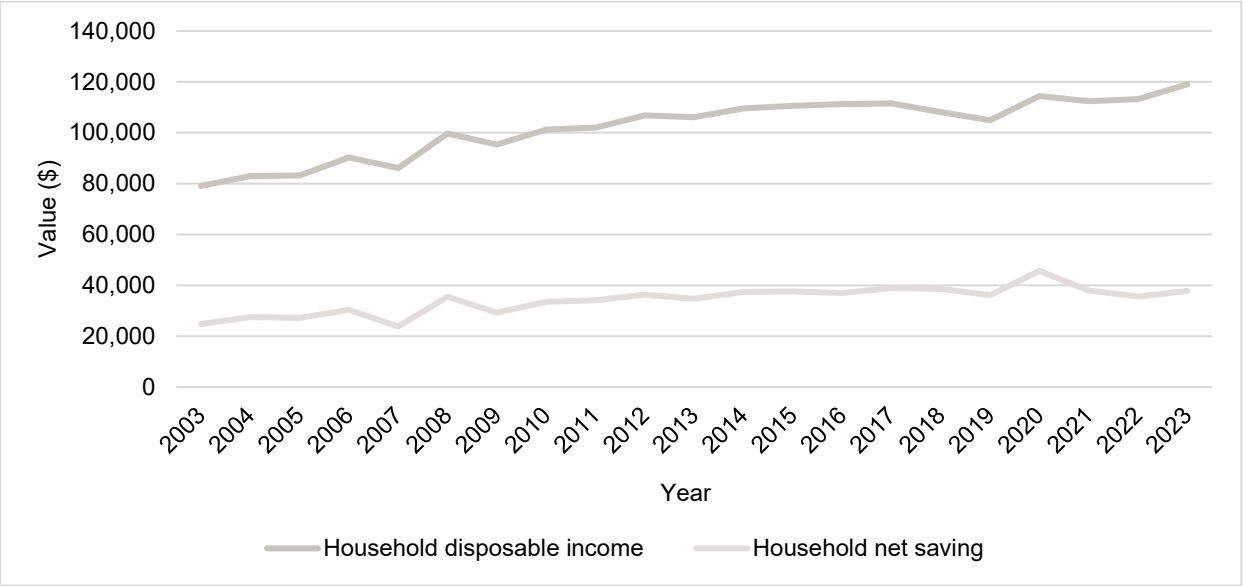
Source: Statistics Canada (2022a)

6.5.3 Household Savings

In Nunavut, household disposable income and savings increased between 2022 to 2023 (Figure 6.4). Household disposable income was $119,054 in 2023, compared to $113,240 in 2022, representing growth of 5.1%. The largest component of household disposable income was compensation of employees (Table 6.23). Average household net saving was $37,770 in 2023, compared to $35,557 in 2022, representing growth of 6.2% (Statistics Canada 2024g).

Between 2003 to 2022, average household disposable income increased 50.6% and average household net savings increased 52.5% (Statistics Canada 2024g).

Figure 6.4 Household Disposable Income and Net Savings, Nunavut (Value per Household)



Source: Statistics Canada (2024g)

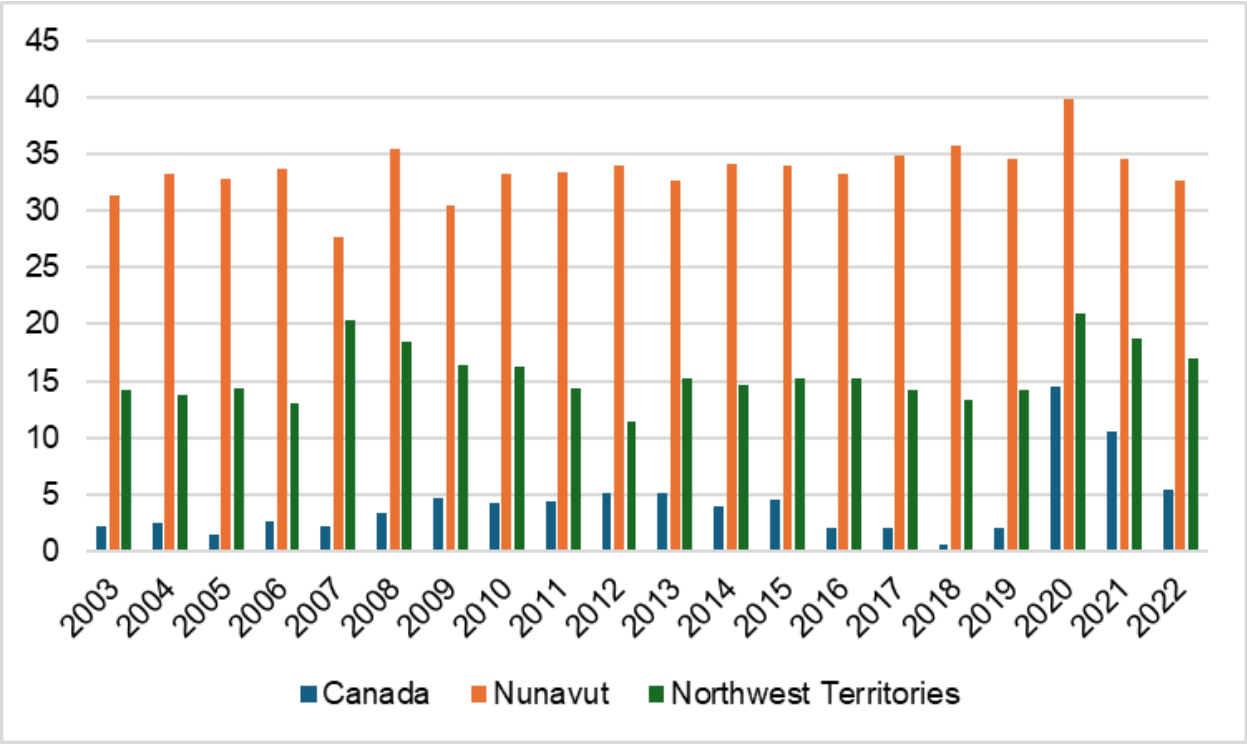
Table 6.23 Composition of Household Disposable Income, 2023

Components of Household Disposable Income	Dollars
Compensation of employees	125,243
Net mixed income	15,481
Property income received	9,906
Less: property income paid	2,123
Current transfers received	40,333
Less: current transfers paid	69,786
Household disposable income	**119,054**

Source: Statistics Canada (2024g)

The household savings rate, the proportion of disposable income that households set aside for savings, is high in Nunavut relative to the NT and the national average (Figure 6.5). In 2022, the household savings rate in Nunavut was 32.6%, compared to 17.0% in NT and 5.4% on average across Canada (Statistics Canada 2023a).

Figure 6.5 Household Saving Rate (%) 2003-2022



Source: Statistics Canada (2023a)

These rates are broadly consistent with long-term trends. On average, the household savings rate in Nunavut was 33.5% over the 20-year period between 2003 to 2022, compared to 15.6% in NT and 4.2% on average across Canada (Statistics Canada 2023a).

As discussed in Section 6.3, income distribution in Nunavut was notably polarized with over half of individuals earning less than $40,000 and more than 20% earning over $100,000 (Table 6.12, Statistics Canada 2022a). Income disparities also exist between Indigenous and non-Indigenous populations and men+ and women+. High household disposable income and savings rates and this data may be specific to community members who hold jobs with higher wages such as in government, mining and the construction industry. The manager of the Nunavut Housing Corporation explained:

> If you consider what we earn and what most, some people earn, especially people working for the government […] Salaries up here are quite high, for people working for the government and established organizations that are here, salaries are way higher than down south, but the life expenses are also high. (Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024)

In contrast, community members who are unable to provide adequately for themselves and their dependents may have substantially lower household disposable income and savings rates. As outlined in Section 6.3.2.1, an average of 37.2% of the population in the Kitikmeot Region receives social assistance, ranging from 18.5% in Cambridge Bay to 61.6% in Taloyoak; community members who

depend on social assistance are unlikely to have high rates of disposable income and savings. Community members who receive employment income may not be able to save at the same rate as the territorial average. Some community members noted that high household expenses and extensive family obligations mean there is little money left to save:

> If you're living with 14 people, you're not saving much. Money goes to groceries, repairs, family needs—there's no leftover for a savings account. (Community Member, Gjoa Haven, pers. comm., November 14, 2024)

6.5.4 Community Perspectives

In addition to the high cost of living, many Kitikmeot households face specific challenges related to income management, overcrowding, and resource sharing. Families often rely on a single wage earner or must pool earnings to cover groceries and utilities. Income from rotational or seasonal work can help but may be offset by the need to support extended family members or cover high day-to-day expenses.

The household economy in Kitikmeot communities is closely tied to extended family structures and shared resources. Even substantial income from mines or other wage employment may be quickly distributed among relatives, particularly in households with more occupants. Community members described large, multigenerational households where income is shared among multiple relatives. High utility, grocery, and housing costs—combined with cultural norms of supporting family—can result in little leftover income or savings. Traditional hunting and fishing can help offset store-bought food expenses but supplies and fuel are also costly.

> Some people are used to living on income support, where they don't have to work to get money. But if you do want a steady income, you're going to share that paycheck with your parents, your siblings, your cousins…That's how it goes. (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024)

6.6 Benefits, Royalties and Taxation

Several interviewees asked about potential royalties from mines but said they have seen no personal financial gain from them to-date. Some people rely heavily on federal or territorial transfers, alongside wages, to make ends meet.

> People keep asking, 'Do we get any royalties from the mines directly?' For many of us, the answer's no. We rely on GN or Kitikmeot Inuit Association funds, or just get a job. (Community Member, Kugluktuk, pers. comm., November 8, 2024)

6.6.1 Government of Nunavut

In 2023, the GN had total revenue of $2.9 billion and total expenses of $2.8 billion, resulting in an annual surplus of $167,299 (Table 6.24) (GN 2023b). For 2024-2025 the GN projects their revenues at approximately $3.2 billion (GN 2024b).

Table 6.24 Government of Nunavut Revenues and Expenses, 2019-2023 ($)

Revenue and Expenses	2019	2020	2021	2022	2023	5-year Average
Revenue	2,426,722	2,460,403	2,679,588	2,816,745	2,934,467	2,663,585
Expenses	2,331,798	2,378,826	2,494,583	2,553,285	2,767,168	2,505,132
Surplus for the Year	94,924	81,577	185,005	263,460	167,299	158,453
Annual Revenue Growth	2.8%	1.4%	8.9%	5.1%	4.2%	4.5%
Annual Expense Growth	6.0%	2.0%	4.9%	2.4%	8.4%	4.7%

Source: GN (2023b)

Although Nunavut's GDP is growing on account of increasing trade activities, it is still largely dependent on federal funding. The GN received 82% ($2.4 billion) of its total revenue in 2023 from federal government transfers (Table 6.25). Of the total federal government transfers, $1.9 billion was via Territorial Formula Financing, $322,145 via transfers under third-party funding agreements and $212,680 via other transfer payments (GN 2023b).

Revenue generated by the GN in 2023 totalled $540,234. The largest revenue contributions generated by the GN were sales associated with the Petroleum Products Revolving Fund ($157,347), sales associated with the Quliq Energy Corporation ($72,185) and payroll tax ($41,079) (GN 2023b).

Total expenses by the GN in 2023 totalled $2.8 billion (Table 6.26). The largest expenses by the GN were associated with health ($0.7 billion), community and government services ($0.6 billion) and housing ($0.3 billion) (GN 2023b).

Table 6.25 Government of Nunavut Revenues ($ thousand)

Revenue Source	2023	2022
From the Government of Canada	**2,394,233**	**2,347,240**
Territorial Formula Financing	1,859,408	1,782,111
Transfers under third-party funding agreements	322,145	361,313
Other transfer payments	212,680	203,816
Generated by the GN	**540,234**	**469,505**
Personal income tax	27,803	41,253
Corporate income tax	22,706	13,230
Payroll tax	41,079	39,340
Tobacco tax	23,466	24,617
Fuel tax	17,783	18,947
Property tax	14,403	12,063
Insurance tax	3,120	2,904
Sales		
Petroleum Products Revolving Fund	157,347	116,595
Liquor Revolving Fund	21,756	17,525
Nunavut Development Corporation	3,897	3,669
Qulliq Energy Corporation	72,185	73,844
Staff housing recoveries	18,860	20,302
Transfers under third-party funding agreements	1,595	1,423
Recoveries of prior years expenditures	16,010	16,769
Investment income	18,815	5,494
Insurance proceeds	-	4,420
Other revenues	79,409	57,110
Total Revenues	**2,934,467**	**2,816,745**

Note:
For the year ended March 31, 2023
Source: GN (2023b)

Table 6.26 Government of Nunavut Expenses ($ thousand)

Expenses	2023	2022
Health	701,763	659,883
Community and Government Services	556,588	466,735
Housing	335,590	319,497
Education	334,968	307,415
Finance	210,486	181,762
Family Services	183,677	164,140
Justice	166,163	145,142
Economic Development and Transportation	127,232	121,003
Human Resources	36,488	23,183
Environment	36,488	29,051
Culture and Heritage	30,826	29,860
Legislative Assembly	25,680	27,072
Executive and Intergovernmental Affairs	23,565	78,542
Total Expenses	**2,769,514**	**2,553,285**

Source: GN (2023b)

6.6.2 Municipal Government

Of the Kitikmeot Region communities, municipal government revenues and expenditures are publicly available only for Cambridge Bay (Table 6.27). In 2021, total revenue in Cambridge Bay was $15.6 million, total expenditure was $15.4 million, with final revenue over expenditure equalling $196,000. After accounting for other items, the total year-end accumulated surplus for the municipality was $50.6 million in 2021 (Municipality of Cambridge Bay 2021).

Table 6.27 Government Revenues and Expenditures ($ thousand)

	Financial Statement Year	Total Revenue ($)	Total Expenditure ($)	Revenue over Expenditure before Other Items ($)	Other Items ($)	Revenue over Expenditure after Other Items ($)	Accumulated Surplus (Year End) ($)
Territory							
Northwest Territories	2023	2,804,470	2,698,396	106,074	…	…	2,302,493
Nunavut	2023	2,934,467	2,767,168	167,299	…	…	3,347,109
Regional District							
Kitikmeot Region	…	…	…	…	…	…	…
Municipalities / Communities							
Kugluktuk	…	…	…	…	…	…	…
Cambridge Bay	2021	15,603	15,407	196	4,999	5,195	50,610
Kugaaruk	…	…	…	…	…	…	…
Taloyoak	…	…	…	…	…	…	…
Gjoa Haven	…	…	…	…	…	…	…
Yellowknife	2023	80,480	85,465	(4,985)	30,403	25,418	388,211

Note:
Year end March 31st
Source: City of Yellowknife (2023), GNWT (2024b), GN (2023b), Municipality of Cambridge Bay (2021)

6.7 Summary of GBA Plus Considerations

Concerns were raised by some community members that economic growth might come at the expense of the communities' environmental, social, cultural and physical wellbeing. With climate change warming the Arctic, greater access to the region is leading to increased interest in resource extraction activities in the North. While mining, oil and gas industries can provide significant economic opportunities for Inuit, there can also be human and social costs associated with these activities (Pauktuutit Inuit Women of Canada 2016b).

Inuit in Canada experience lower overall economic participation levels than the Canadian average. Inuit women across the North appear to be more successful at securing employment than Inuit men. The greater success of Inuit women in the labour market may be due to higher educational achievement (see Section 7). While Inuit women are well represented in the workforce, they tend to earn less than Inuit men and non-Indigenous women and men (Pauktuutit Inuit Women of Canada 2016b).

The unique socio-economic context of Inuit Nunangat creates many challenges for economic participation for Inuit women (Table 6.28). Within the Kitikmeot Region, men account for the largest proportion of the employed labour force in several occupations (natural and applied sciences, trades, transport and equipment operators, and natural resources, agriculture) (Statistics Canada 2022a), which may limit women's participation in certain occupations or industries. Men also account for the greatest proportion of the population with an apprenticeship or trades certificate or diploma, the education levels typically required for occupations with the most demand during major infrastructure development phases. Average employment income (both mean and median) earned by men is greater than that earned by women across the Kitikmeot Region and is greater among the non-Inuit population than the Inuit population.

Table 6.28 Potential Challenges for Economic Participation for Inuit Women

Topic	Potential Challenges for Economic Participation
Overall	• Childcare • Education • Programs and services • Housing • Social issues • Self confidence • Geographical isolation • Internet connectivity
Employment	• Sexism • Culture • Travel • Job searching • Transportation • Criminal record
Entrepreneurship	• Entrepreneurship as an option • Financial management skills • Cost of business • After-care support

Source: Pauktuutit Inuit Women of Canada (2016a)

6.7.1 Community Perspectives

Inuit community members often described the interplay between cultural obligations, family ties, and the desire (or need) for wage employment. Women highlighted challenges in balancing childcare responsibilities with shift work, while men noted the difficulty of leaving family for rotational jobs. Training and educational programs that are delivered locally—and that recognize the realities of Inuit family life—were consistently named as a priority. Overall, many see potential for new roads, port facilities, and related industry to bring about increased jobs and local business opportunities, provided that meaningful engagement and culturally appropriate practices are in place.

7 Education and Training

This section summarizes data sources and existing conditions for education and training in the Kitikmeot Region, including early childhood education and childcare, primary and secondary education, post-secondary education, and overall educational attainment. Community member perspectives were provided on the topics of education and training and are presented in the topic subsections below.

7.1 Early Childhood Education and Childcare

Nunavut Early Learning and Child Care promotes early childhood development and early learning for children 0 to 6 years of age. It provides guidance and support to licensed childcare facilities to ensure compliance with the *Child Day Care Act* and regulations. In Nunavut in 2018-2019, there were 55 licensed childcare facilities operating in 21 communities with 1,144 spaces (Department of Education 2019). During the 2022-2023 school year, the number of childcare centres in Nunavut increased to 60 with 1,243 childcare spaces. Of these, 215 were in Kitikmeot communities (Representative for Children and Youth's Office 2023).

In 2023, there were 10 licenced childcare centres in the Kitikmeot Region (Table 7.1). In some communities such as Gjoa Haven and Kugaaruk, daycares are operated by the hamlet (Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024; Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024; GN Staff, Kugluktuk, pers. comm., November 7, 2024). A Kitikmeot Inuit Association staff member in Cambridge Bay observed:

> My personal observations of the younger generation is that they are more likely to take advantage of a licensed daycare. As opposed to just leaving their children at home with a babysitter because they are starting to realize that a daycare is preparing your child for success. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

Table 7.1 Childcare Centres in the Kitikmeot Region (2023)

Community	Childcare Centre
Cambridge Bay	Arctic Willow Child Development
	Cambridge Bay Childcare Centre Daycare
	Omingmak Preschool
Gjoa Haven	Gjoa Haven Child Care Centre
	Gjoa Haven Aboriginal Head Start
Kugaaruk	Illaliuvik Daycare
Taloyoak	Innitait Society Daycare
	Taloyoak - Natsiaq Aboriginal Head Start
Kugluktuk	Kakayak Daycare
	Kugluktuk Aboriginal Head Start

Source: GN (2025e)

Community members in Cambridge Bay and Kugluktuk said that daycare is typically available from 8:30 am to 5:00 pm, depending on how many employees are on shift (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024). It has been reported that Nunavut has among the most significant shortages of childcare spaces in Canada (Nunavut Tunngavik 2020). In Iqaluit in 2018, it was estimated there was a two-year waitlist for licensed childcare spaces. In smaller Nunavut communities, there is an issue finding and retaining employees to staff childcare facilities (Nunavut Tunngavik 2020). A Kitikmeot Inuit Association staff member in Cambridge Bay described her experience with daycare in the community:

> Sometimes there's staff shortages so I'll struggle with childcare during that time, because they'll accept a certain amount of kids in and they're like, “Okay, this is our ratio for today, sorry, we're not accepting any more kids”, and then I'll have to look for my own childcare (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024).

Another community member described the impact of staff shortages on daycares, other employers, and students in Cambridge Bay:

> Anybody who relies on local labor, the daycare for example, they're struggling, you know, they just end up closing. And then if they end up closing, you're pulling people off the job that they are currently at work, because now you have to go home and take care of your kids because daycare is closed. I'm teaching at the Arctic College in the afternoons, and I had a student who left halfway through class because the daycare closed. It's frustrating (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024).

Nunavut often lacks the appropriate infrastructure to support its needs for early childhood education and childcare. This represents a barrier for early childhood development and for labour market participation in Nunavut. Nunavut has the highest fertility rate in Canada and a substantially younger population than the Canadian average. As a result, access to appropriate childcare options is essential to allow young parents to participate in education and training opportunities. Better infrastructure is needed in many communities to expand the complement of available regulated childcare spaces. As of 2020, only 37% of Nunavut children five years and under were in daycare or an early learning program, while the national Canadian average was 60% (Nunavut Tunngavik 2020).

In recent years there has been an increase in affordability programs available to Kitikmeot Region communities including the $10 per day daycare programs provided through Canada-wide federal programs. Funding is also available as part of the Young Parents Stay Learning Program for young parents under 18. A Healthy Children Initiative is also available for children under age 6 requiring additional individualized needs such as one-on-one support to support children while attending an early learning program or licenced childcare centre (GN 2025e).

7.2 Primary and Secondary Education

In Nunavut, including the Kitikmeot Region, the provision of kindergarten through to post-secondary schooling is the responsibility of the GN. The GN Department of Education is responsible for 45 schools with nearly 11,000 students and 827 teachers, and 10 offices across Nunavut. Kindergarten to grade 12 schooling is available in each Kitikmeot community. In 2021, there were eight schools in the Kitikmeot Region with a total of 2,025 students (Department of Education 2021).

Cambridge Bay is an education centre for the region and includes Kullik Ilihakvik elementary school and Kiilinik High School. Some students from the smaller regional communities attend school in Cambridge Bay once they complete K-8 studies (GN Education 2024). Kugluktuk has one elementary school (Jimmy Hikok Ilihakvik) and one high school (Kugluktuk High School) operated by the District Education Authority (GN Education 2024). Gjoa Haven has two schools: Qiqirtaq Ilihakvik High School and Quqshuun Ilihakvik operated by the District Education Authority (GN Education 2024). Taloyoak has one school: Netsilik Ilihakvik, which is operated by the District Education Authority (GN Education 2024). Kugaaruk has one school: Arviligruaq Ilinniarvik operated by the District Education Authority. (GN Education 2024).

In the 2018-2019 school year, Nunavut schools saw an increase in full-time student enrolment of 2.9% over the previous year; however, schools in the Kitikmeot Region saw a decrease in enrolment of 0.2%. In Kugaaruk, for example, the student population was estimated at around 500 students; due to absenteeism, the actual number may vary and class attendance is often half of what the student population is in reality (Community Member, Kugaaruk, pers. comm., October 30, 2024). Absenteeism is very high across the Kitikmeot Region (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024).

Some Nunavut schools are not fully staffed or lack administrators. Communities with limited staff housing have often experienced challenges in recruiting educators. During the 2018-2019 school year, though, the number of teaching positions increased by 5.0% (Department of Education 2019). A community member in Cambridge Bay described the impact of an increasing population on schools in the community:

> Before we built CHARs […] the more people you bring into the community with a big project like that, it puts a strain on the school. The school is running at capacity. They don't have enough space. If you need more space, you need more teachers, you need more recreation facilities, because now you have more kids in town. The impacts, it's just a spider web of them. (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024)

Schools in Kitikmeot communities typically have a combination of Inuit teachers and administrators and southern teachers (Netsilik Ilihakvik Teacher, Taloyoak, pers. comm., November 20, 2024). Nunavut's *Education Act* also mandates Elder involvement in schools. The department employs Inuit Elders to work alongside teachers and other educators under the position title of Innait Inuksiutilirijiit. They provide guidance on Inuit language and culture, traditional skills, and life-long learning. According to the 2018-2019 Department of Education Annual Report, fifty-two Elders had been certified as Innait Inuksiutilirijiit since April 2018, and 42 additional Elders were being certified (Department of Education 2021).

There are a variety of youth or early career development programs offered through schools in the Kitikmeot communities. For example, Netsilik Ilihakvik in Taloyak offers a welding program and after school care program to students; these programs are partly mining industry-funded:

> We have a Welding Program after school. It prepares people to support welders when they come up from the South. We also have an After School Youth Care Club; older students take care of little kids so that teachers and other adults with kids can lead after school programs, like the Welding Program […] That is capacity building. Many people just want to see kids reading but there's always more to do than that, there are other skills. I was also able to ship up instruments in the seacan that B2Gold helped with. The kids who weld are the ones who struggle with other parts of school, generally. They will be great supporters for welders one day and it would be seasonal work when people come up. (Netsilik Ilihakvik Teacher, Taloyoak, pers. comm., November 20, 2024)

7.3 Post-Secondary Education and Training

Post-secondary education in Nunavut is offered through Nunavut Arctic College (NAC) which has five campuses: Nunatta Campus, including Piqqusilirivvik, in Clyde River, the Nunavut Research Institute Science Campus in Iqaluit, Kivalliq Campus and the Nunavut Trades Training Centre in Rankin Inlet, and the Kitikmeot Campus, located in Cambridge Bay. NAC provides university-level transfer, certificate, and diploma programs. Additionally, NAC provides trades training, educational assessment, and counselling. Degree programs are currently offered through partnerships with educational institutions in other Canadian jurisdictions.

The Kitikmeot Campus of NAC provides post-secondary school offerings. In 2024-2025, the campus offered courses towards a Bachelor of Social Work degree, as well as a social services worker diploma, culinary arts, office administration certificate, and Nunavut Teacher Education Program (NTEP) (NAC 2024).

The Dean of the Kitikmeot Campus estimated there were 35 to 50 students enrolled at the campus in the 2024-2025 school year, and also commented that enrollment in courses at the campus is limited by the availability of student housing in the community. In general, there is low attrition among courses offered at the Kitikmeot Campus (Nunavut Arctic College, Cambridge Bay, pers. comm., December 16, 2024).

NAC also operates Community Learning Centres (CLCs), which are located in all 25 communities of Nunavut. Each CLC is staffed by an Adult Educator who can provide information and guidance to anyone seeking further education (NAC 2024). Many CLCs offer one program at a time, such as NTEP and office administration (Nunavut Arctic College, Taloyoak, pers. comm., November 19, 2024). CLCs may also offer Adult Continuing Education courses, although obtaining General Educational Development (GED) certification after secondary school can be challenging:

> High school doesn't work for everybody, especially when you're older and there is no option to get your Grade 12 and that is very frustrating for us, which is why we do a lot of the programming we do because sometimes we can build up their skills [to be able to get into] Nunavut Arctic College for some of their programs. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

Additionally, the GN offers Pathways to Adult Secondary School:

> They give you a computer, they give your textbooks, they give you a tutor and you can take one class at a time by distance and you can work your way to a regular grade 12. But…it's only for people though, that are fairly close to graduation […] It's not set up as work at your own pace (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

Community members who want to access other courses offered through NAC apply for programs at campuses throughout Nunavut. The Adult Educator at the Taloyoak CLC explained:

> I take applications for anyone in my community who wants to go all across the territory. So I get anywhere between 25 to 40 [applicants] […] A lot of people wanting to go into trades. It is majority male. And a lot of people, because of where we live, are interested in either oil burner mechanic, because that's where a lot of our heat comes from, or they're very much interested in construction to then come back and be able to help build some of the houses. Those seem to be the top two trades that a lot of people want – I'd say at least half […] All the trades programs are in Rankin Inlet, and they have a huge trade center. And it also helps all applicants get their red seals and all the other proper permits that they need to work in their territory.

Community members may also access post-secondary education outside of Nunavut, with many students attending programs at educational institutions in NT, Edmonton, Winnipeg, Ottawa, and St. John's (Community Member, Kugaaruk, October 30 2024, pers. comm.). In particular, many community members who access post-secondary education outside of Nunavut participate in the Nunavut Sivuniksavut (NS) program in Ottawa, which combines Western education with Inuit cultural programming in a supportive environment (Nunavut Sivuniksavut College n.d.). One community member in Cambridge Bay described post-secondary educational opportunities that his family has accessed outside of Nunavut:

> There's a NS program in Ottawa. A lot of Inuit students go over there and they feel like they're still part of a community. That's kind of nice, but it all depends on what you want to do. My sister is right now in Nova Scotia becoming a vet assistant, I believe. And she's way over there by herself. Another sister in Nova Scotia, a little further away, but it's still pretty far from everybody else. Most people just go to Edmonton, Calgary, for the most part. A lot closer to home. (Community Member, Cambridge Bay, pers. comm., November 3, 2024).

The GN administers the Financial Assistance for Nunavut Students (FANS), a student financial assistance program for territorial residents, which (Canadian Information Centre for International Credentials 2024). The GN also administers the Introduction to Prospecting course, provided in the Kitikmeot Region on an irregular basis (GN 2025f). The Government of Canada offers the Indigenous Skills and Employment Training Program, which is designed to help Indigenous people improve their skills and find employment. Indigenous partners and organizations were engaged in 2016 and 2017 to review and renew the Aboriginal Skills and Employment Training Strategy (ASETS). The program is intended to provide funding to Indigenous service organizations that focus on delivering job training services training to First Nations, Inuit, Métis, and urban/non-affiliated Indigenous people in their communities (GOC 2023c).

The Kitikmeot Inuit Association and other community-driven programs such as the Kitikmeot Friendship Society offering programing for community members to advance their skills and training. For example, the Kitikmeot Inuit Association offers workplace readiness programs, which provide skills training to access employment, and the Kitikmeot Friendship Society offers computer literacy programming in all five Kitikmeot communities (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024 Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

7.4 Educational Attainment

Graduation rates for secondary school students in Nunavut are among the lowest in Canada, although they have been gradually increasing over time. At the territorial level, the Kitikmeot Region, as noted in Table 7.2, has the lowest graduation rates of the three regions of Nunavut. Also, proportionally, the Kitikmeot Region is graduating fewer high school students than its share of territorial population in graduation age; between 2016 and 2018, Kitikmeot graduates represented between 12.5% to 10.2% of Nunavut's total graduates despite the region having about 18% of the territory's population between the ages of 15 and 19. Compared to graduation rates across Canada, rates in the Kitikmeot Region are low: graduation rates in Canada were 86.3% in 2011 and 79.3% in 2016, compared to 18.4% and 31.5% in Kitikmeot Region, respectively.

Low graduation rates may be attributed to various factors, including having friends who dropped out, drug and alcohol consumption, childcare responsibilities, lack of parental encouragement to attend school, having to learn in a second language, insufficient numbers of Inuit teachers, curricula that do not include Inuit culture and history, turnover of education staff and low attendance rates (O'Gorman and Pandy 2015). Educators in the Kitikmeot Region commented on low attendance and low graduation rates:

> There's a large non-attender population in Nunavut in general. Our overall school attendance rate is about 63-64%, which is decent. There's other communities that are significantly lower. And depending on where you are, I think some of the larger hubs, more Rankin Inlet and Iqaluit, they do have higher percentage attendance, but most of the small communities were between 60 and 70%. (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024)

> There's lots of factors [contributing to the high school graduation rate across Kitikmeot Region]. There's trends and teachers that leave and a good core group of teachers in Cambridge Bay and Rankin, like some communities. So I think that helps with kids staying in school. The dropout rate in grade 10 is huge. That's kind of the hump is grade 10. I know most communities have 50-60 kids that are stuck in Grade 10, drop out by the time they're 17. (Community Member, Kugaaruk, pers. comm., October 30, 2024)

Additionally, lack of encouragement from parents to attend and graduate school, parents who have not completed secondary school themselves have been cited as barriers to high school completion in Nunavut, lack of Inuit teachers, lack of curricula that includes Inuit culture and history, and the requirement to learn a second language have been cited as barriers to high school completion in Nunavut (O'Gorman and Pandy 2015).

Table 7.2 Nunavut Secondary School Gross Graduation Rate by Region, 2010 to 2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Nunavut									
Total Graduates, Nunavut	237	229	239	218	206	208	252	292	254
Graduation Rate	36.2	33.9	34.9	32.5	31.6	33.7	41.7	47.7	39.2
Kitikmeot									
Total Graduates, Kitikmeot	30	24	21	21	34	31	37	36	26
% of Territory's Graduates	12.7	10.5	8.8	9.6	16.5	14.9	12.5	12.3	10.2
Graduation Rate	22.6	18.4	16.7	16.0	26.8	24.9	31.5	30.6	23.0
Kivalliq									
Total Graduates, Kivalliq	81	86	94	76	86	82	106	108	116
% of Territory's Graduates	34.2	37.6	39.3	34.9	41.8	39.4	42.0	37.0	45.7
Graduation Rate	38.7	40.6	46.1	38.6	43.1	42.4	56.1	56.4	50.0
Qikiqtani									
Total Graduates, Qikiqtani	126	119	124	119	86	95	109	148	112
% of Territory's Graduates	53.2	52.0	51.9	54.6	41.8	45.7	43.2	50.7	44.0
Graduation Rate	40.3	35.6	35.0	34.8	26.5	31.8	36.6	48.8	33.9
Canada									
Total Graduates, Canada	-	9,340,495[A]	-	-	-	-	22,708,855[B]	-	-
Graduation Rate	-	86.3[A]	-	-	-	-	79.3[B]	-	-

Notes:

Gross Graduation Rate is calculated by dividing the number of graduates by the average of estimated 17 and 18 year-old populations (as the typical age of graduation).

[A] – Total post-secondary graduates in Canada between the age of 25 to 54 years; graduation rate as a proportion of population aged 25 to 54.

[B] – Total post-secondary graduates in Canada between the age of 25 to 64 years, graduation rate as a proportion of population aged 25 to 64.

Source: Nunavut Bureau of Statistics - Nunavut Secondary School Graduates by Community, 1999-2018

An educator in Taloyoak noted that having stable, high speed internet access was requested for years to help with educational attainment, however when it arrived it had an impact on student attendance as students are up all night on devices (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024). However, community members in Cambridge Bay felt that school attendance and graduation rates have been improving (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024). In 2023-2024, there were 20 graduates in Cambridge Bay:

> That was a big year. We were the biggest out of all the communities, but this year, I think they're on track for 15 (Community Member, Kugaaruk, pers. comm., October 30, 2024).

In Kugluktuk, there were 8-10 graduates in 2023-2024, with the average number of graduates being between 10 and 12 students per community (Community Member, Kugaaruk, pers. comm., October 30, 2024). In Gjoa Haven, there were 22 potential graduates and in Kugaaruk, there was one potential graduate for the 2024-2025 school year. An estimate of the number of graduates in Taloyoak for the 2024-2025 school year was not available.

Educational attainment levels for residents of the LAA and RAA in 2021 for the total population are summarized in Table 7.3. Overall, within the Kitikmeot Region, the majority of residents did not have a high school diploma (i.e., 77% of total residents in Kugaaruk, 74% of total residents in Taloyoak). This rate is generally consistent among both men+ and women+. While the majority of the population does not have a high school diploma (52%) at the territorial level, a portion of the population has either a college diploma (13%) or a bachelor's degree (11%) with women+ having higher rates compared to men+ in both college diplomas (15% compared to 11%) and university degrees (13% compared to 9%). Conversely, more men+ have apprenticeships, trades certificates, or diplomas compared to women+. In general, educational attainment rates in the Kitikmeot Region are lower than or comparable to rates in Nunavut, and typically much lower than rates in Canada.

Table 7.4 illustrates the educational attainment of the Indigenous population in Kitikmeot communities. The majority of Indigenous residents in the Kitikmeot Region and in Nunavut do not have a high school diploma, which is consistent across both men+ and women+. There are fewer Indigenous residents in the Kitikmeot Region with Bachelor's degrees or higher compared to the non-Indigenous population.

Table 7.3 Educational Attainment Rate, Total Population (Aged 15+), 2021

Total Population							
Educational Attainment		**No certificate, diploma or degree**	**High (secondary) school diploma or equivalency certificate**	**Apprenticeship or trades certificate or diploma**	**College, CEGEP or other non-university certificate or diploma**	**University certificate or diploma below bachelor level**	**Bachelor's degree or higher**
Kugaaruk	Total	76.6	13.3	1.6	2.3	0	6.3
	Men+	79.1	10.4	3	3	0	6
	Women+	73.8	16.4	0	3.3	0	6.6
Kugluktuk	Total	60.4	17.1	7.5	8.6	2.1	4.8
	Men+	60.6	13.8	11.7	9.6	2.1	3.2
	Women+	58.1	19.4	3.2	9.7	3.2	6.5
Cambridge Bay	Total	44.2	17.7	7.5	17.7	2.6	10.6
	Men+	41.7	18.9	12.1	14.4	3.8	9.8
	Women+	46.6	15.8	3	21.1	2.3	11.3
Gjoa Haven	Total	66.7	13.7	4.2	9.5	0	4.8
	Men+	67	13.6	6.8	6.8	0	5.7
	Women+	66.3	13.8	2.5	12.5	0	5
Taloyoak	Total	71.9	13.2	4.4	4.4	0	3.5
	Men+	73.7	12.3	8.8	3.5	0	3.5
	Women+	71.9	14	0	7	3.5	7
Nunavut	Total	51.9	18.5	5	12.6	1.4	10.6
	Men+	53.3	18.4	8.1	10.5	1.2	8.6
	Women+	50.5	18.6	2	14.7	1.5	12.7

Total Population							
Educational Attainment		**No certificate, diploma or degree**	**High (secondary) school diploma or equivalency certificate**	**Apprenticeship or trades certificate or diploma**	**College, CEGEP or other non-university certificate or diploma**	**University certificate or diploma below bachelor level**	**Bachelor's degree or higher**
Canada	Total	16.2	26.7	8.7	18.8	3	26.7
	Men+	17.1	27.1	12.2	16.4	2.5	24.8
	Women+	15.3	26.3	5.4	21.2	3.4	28.5

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.

2021 'Total Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 7.4 Educational Attainment, Indigenous Population (Aged 15+), 2021

Indigenous Population							
Educational Attainment		**No certificate, diploma or degree**	**High (secondary) school diploma or equivalency certificate**	**Apprenticeship or trades certificate or diploma**	**College, CEGP or other non-university certificate or diploma**	**University certificate or diploma below bachelor level**	**Bachelor's degree or higher**
Kugaaruk	Total	470	75	10	10	0	20
	Men+	255	25	10	10	0	10
	Women+	215	50	0	0	0	10
Kugluktuk	Total	530	135	60	70	10	10
	Men+	270	55	50	35	0	0
	Women+	265	80	15	40	10	10
Cambridge Bay	Total	575	180	80	180	20	25
	Men+	265	95	60	65	10	10
	Women+	305	85	20	115	10	10
Gjoa Haven	Total	550	110	40	70	0	15
	Men+	295	55	25	25	0	0
	Women+	260	50	10	45	0	10
Taloyoak	Total	410	75	25	20	0	0
	Men+	210	30	25	0	0	0
	Women+	205	40	0	15	0	0
Nunavut	Total	12390	3810	990	2275	165	515
	Men+	6390	1820	785	865	65	110
	Women+	6000	1985	205	1405	105	405

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.

2021 ‘Indigenous Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Lower rates of post-secondary education in the Kitikmeot Region may be attributed to various factors, including inadequate high school education and low secondary school graduate rates, lack of culturally-relevant curricula, lack of opportunities to pursue apprenticeships, financial barriers, and lack of affordable housing for students (Office of the Auditor General of Canada 2019, Task Force on Northern Post-Secondary Education 2022), although funding is available through the GN and Government of Canada and students at NAC can access student housing at reduced costs. The Dean of the Kitikmeot Campus of NAC described barriers for community members to access post-secondary education:

> [There is a] disparity in the high school education [where they] do not get the consistent high school experience [due to a] shortage of teachers, department struggles. [It] creates an impact to the students. Students did not have the opportunity to engage in the courses online up until a couple years ago. [Students are] further behind than students down south, especially in biology, chemistry. [They may need to] have a prep year to play catch up in some transcripts. Students do not get career counselling and are not paying attention to admission requirements. Culturally, the westernized way of schooling is quite new to the students, big cultural shift amongst the students. Math is essential in trades – it is a big gap and the gap needs to be addressed before they can move on. Opportunity for apprenticeship is a big gap amongst the trades as well. [Cambridge Bay] only has one electrician for example and [there is] concern how they will take on apprentices. From a financial perspective, the GN is supportive. Students can bring families if they have to relocate, which makes the financial stress less than a southern student (Nunavut Arctic College, Cambridge Bay, pers. comm., December 16, 2024).

Community members accessing post-secondary education outside of Nunavut may also face barriers to completing programs, including lack of a support system, unfamiliar cities and systems, difficulty accessing housing, and financial challenges. Community members and educators in the Kitikmeot Region shared their perspectives on accessing post-secondary education outside of Nunavut:

> There are some cases where they do get homesick and they tend to miss home. There's some cases where I see that their mental health gets affected by that, especially being used to being in a family structure at home and then going out to being on your own, and having no support. There is a support system. It's just that they're used to having somebody there with them, and so they decided, okay, it's time for me to go home to my family. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

> Here there are family residences, and their families can come be with them while they take their schooling. But for down south, I know it's quite more challenging, because they're mainly dorms, so they tend to go alone….I think that once they do have somebody that they actually know that's with them, or that's taking the same program as them, I find that they're more successful that way as well, because they have somebody they know, taking the same course as them doing the same routine as them. I used to take the Office Admin [program] here, and I did have a classmate that was not adjusting to it properly. But then once he found out that another person from his community came, entered the program, that's when he stuck it through. So he was like, okay, I know you. You're from my community. You can do this together. (Cambridge Bay Career Services, pers. comm., 2024).

> They get down there, they get overwhelmed with all of these little things, and then all those little things become a big thing, and then they say, “I'm going home”, (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024)

> If you guys went to post-secondary school, things that were hard for us feel impossible to any of the kids here. As soon as we even think about applying to school, they need a credit card to do their application. No single person in their family has a credit card. And so as soon as they even look at applying, then they're already unmotivated because they can't pay for the application. And then if they get that covered, then there's hurdle after hurdle after hurdle […] FANS program covers their education, but they don't get that usually for two or three weeks after school starts, and so they go down there with zero money and panic, come home or call somebody that they trust and say, “what do I do?” So there's a million hurdles compared to the chances of success.

Organizations such as NS and Sivummut Solutions support Inuit at academic institutions in southern Canada, which may improve the chances of successful graduation:

> Sivummut Solutions has a person in Ottawa that will go in person and touch base with my kid and say, do you need help learning how to take the bus? How's your budgeting going? Things like that, all of the little pieces that maybe we […] just take for granted. (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024)

7.5 Summary of GBA Plus Considerations

As described in Section 4.1, the colonial influence in Nunavut and Kitikmeot communities, in addition to other factors, has contributed to lower educational attainment for Kitikmmiut than non-Indigenous residents and other Canadians. In Kitikmeot communities and Nunavut, women+ having higher rates of educational attainment compared to men+ in both college diplomas (15% compared to 11%) and university degrees (13% compared to 9%). However, Inuit women + have lower rates of high school graduation than non-Indigenous people. In Kitikmeot communities and Nunavut, Inuit men+ have lower rates of high school graduation than non-Indigenous people. More men+ have apprenticeships, trades certificates, or diplomas compared to women+.

Many interviews identified the challenges faced by certain vulnerable populations in accessing education and training, as well as the lingering effects of colonialism. The manager of the men’s shelter in Cambridge Bay identified that a lack of skills can be challenging for its residents in securing employment. The impacts of colonialism may affect community members’ ability to access employment as the wage economy is relatively new and foreign to many. The manager also identified that the Kitikmeot Inuit Association workplace readiness program has assisted clients in accessing employment and moving out of the shelter. For example, a 21 year old client who completed the Kitikmeot Inuit Association program later secured a job with the hamlet (Omingmak Centre, Men's Shelter, Cambridge Bay, pers. comm., November 5, 2024).

Many community members discussed Kitikmeot youths' experiences accessing education and training, including barriers to education attainment. For example, the Western approach to education with southern educators may affect youths' educational attainment and motivation:

> There's a little bit of a bottleneck once you hit grade 7,8,9, kids get stuck there for a bit. Several things contribute to that, but one of them is, in this school specifically, the teaching staff. We're fortunate we have local teaching staff for our K-6 group, and then once they hit grade 7, they encounter southern teaching staff. And so expectations change, and language of instruction changes. There's impacts on learning expectations, things like that." (Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024)

The impacts of colonialism and intergenerational trauma may also affect youths' educational attainment, although in-school programs exist to support youth in completing their high school diploma:

> There are things from home life that creates barriers. Maybe at school, there's lateral violence, there's bullying, but there's also things like the mentorship program that are being used proactively, which I'm very impressed with. (Community Member, Cambridge Bay, pers. comm., November 4, 2024)

Graduation rates in Kitikmeot communities have been gradually increasing over time and younger Kitikmmiut are "shifting" to accessing increasing education and training opportunities. Women+ may also benefit from the ability to access daycares:

> The population that is graduating and is going on to getting good jobs and maybe getting post secondary education or just working their way up in the employment system, the majority of them seem to be more interested in sending to their children to school regularly. Not all, but you know the majority and [they are] utilizing things like daycares and getting their children involved in sports and local groups and things like that. So the younger demographic is shifting. We're slowly starting to have more people that can do the higher-level positions. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

Lower rates of post-secondary education among Kitikmmiut may be attributed to various factors, including inadequate high school education, lack of opportunities to pursue apprenticeships in Kitikmeot communities, travelling to unfamiliar cities to pursue higher education where they may lack a support system, difficulty accessing housing, and financial barriers:

> I think it's leaving. I think, okay, it's not for everybody. Yeah, it's difficult. But sometimes leaving and staying away from family, that can be the hardest part […] If you're moving to a bigger city, Edmonton or wherever, where it can be a bit of a culture shock. (Community Member, Cambridge Bay, pers. comm., November 4, 2024)

> It's the same thing for kids going to school. They have no starting amount, and it's all relying on government giving them that money. But then if there's holdups, like there always is, then these kids are down in the southern community with no food, no emergency money, no way to get emergency money, and then they get this $4,000 deposited into their account. It's up to them to go pay their tuition [and manage that money when they've never had to before] (Community Member, Kugaaruk, pers. comm., October 30, 2024).

Organizations such as NS and Sivummut Solutions support Inuit at academic institutions in southern Canada, which may improve the chances of successful graduation of post-secondary programs.

8 Infrastructure and Services

This section summarizes the data sources and existing conditions for infrastructure and services in the Kitikmeot Region, including housing, shelters, and temporary accommodation; transportation and community resupply; emergency services; marine infrastructure and services including Coast Guard and community search and rescue infrastructure and services, and small craft harbours; utilities, recreation, and telecommunications and internet. Community member perspectives were provided on the topics of infrastructure and services and are presented in the topic subsections below.

There exists a substantial infrastructure gap between Nunavut and the rest of Canada (Nunavut Tunngavik Incorporated 2020). Building and maintaining Northern infrastructure is a significant challenge due to the harsh environment, short construction season, remoteness of communities, lack of building resources, and changing climate conditions (National Aboriginal Economic Development Board 2016). The lack of adequate infrastructure in the North is also linked to colonial interference in the mid-20th century, which resulted in Inuit communities being relocated to permanent settlements with infrastructure that was not appropriate for the Inuit lifestyle or the northern climate (Nunavut Tunngavik Incorporated 2020). Today, much of Nunavut's infrastructure is operating close to or beyond its projected useful lifespan, including essential services like power stations, water pipes, and health centres (Nunavut Tunngavik Incorporated 2020). Inuit Tapiriit Kanatami (ITK) estimates it would cost $75.1 billion to close the gap in Inuit Nunangat, the traditional northern Inuit homeland encompassing 51 communities and four regions, including Nunavut (Forester 2024).

In 2019, the Government of Canada launched Canada's Arctic and Northern Policy Framework, which was co-developed with Indigenous, territorial, and provincial partners. The Framework set out a long-term vision for Canada's activities and investments in the Arctic to 2030 and beyond. This includes a commitment to invest in significant infrastructure projects to improve broadband connectivity, expand transportation infrastructure, and strengthen community-level infrastructure, including social infrastructure (GOC 2019b). In 2025, the Government of Canada announced additional funding for infrastructure to reinforce Canada's security and sovereignty in the Arctic, including development of radar technology and increased presence of the Canadian Air Force in Nunavut, housing initiatives, and power plant upgrades in Cambridge Bay and Gjoa Haven (GOC 2025).

8.1 Housing

8.1.1 Housing Stock

The housing stock in Nunavut is managed by the Nunavut Housing Corporation (NHC). Established in 2000, the NHC coordinates and administers housing programs that provide “fair access to a range of affordable housing options to families and individuals in Nunavut” (Nunavut Housing Corporation 2023a). Specifically, NHC is responsible for the provision of public, GN staff housing, and some private housing within the territory. Housing associations in each community manage NHC housing at the local level.

Nunavut’s Public Housing Program is an income tested rental program which provides subsidized housing to tenants based on their income and ability to pay rent. Rents for public housing ranges from $60 to $1600 per month. The manager of the Gjoa Haven Housing Association explained how rent is assessed:

> It depends on the income you're making. Rent can go from anything from $1600 to as low as $60. $60 is income support and older folk, so people that are not working, that are on income support, they can have their names registered, and income support pays $60 on their behalf. And the older population, over 60 [years old], they're paying automatically, you know, $60 as well for their rent […] So it depends definitely on the working salary of the two primary tenants. And that's how it's measured. But you have a lot of rent, you know, $1500, $1600, you know you have $1000, you know you have $300. So it's different levels based on the yearly income for the family unit, the primary tenants. (Kikitak Housing Association, Gjoa Haven, pers. comm., November 15, 2024).

Nunavut’s housing stock is dominated by publicly funded public and staff housing. As of March 31, 2023, there were 5,916 public housing units in Nunavut communities. Through the GN Staff Housing Program, the NHC provides support for the management of 1,728 staff housing units (Nunavut Housing Corporation 2023a). There were 1675 privately owned homes in the Kitikmeot Region in 2021, an increase of 1% over the previous five years. NHC has programs to provide support to people working towards private home ownership (Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024). In the Kitikmeot Region, the largest number of privately owned homes is in Cambridge Bay and the smallest number is in Kugaaruk, although the number of privately owned homes in Kugaaruk increased at the greatest rate (22%) of all Kitikmeot communities from 2016-2021. Home ownership housing stock in the Kitikmeot Region between 2001 and 2021 is described in Table 8.1.

Table 8.1 Housing Stock (Private Dwellings) in the Kitikmeot Region 2001–2021

Year	Overall Kitikmeot Region	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
2001	1060	315	310	160	140	135
2011	1600	540	430	230	220	170
2016	1663	542	430	284	231	176
2021	1675	570	400	290	200	215
Percent Change (2016-2021)	1%	5%	-7%	2%	-13%	22%

Sources: Nunavut Bureau of Statistics (2021); Statistics Canada (2021b).

The manager of NHC described home ownership in the territory and in Cambridge Bay:

> Home ownership is very low, maybe 1%, less than 3% in the whole of Nunavut. 95% is provided by the government for housing. And you have 5% coming from developers, these people in the business of real estate and private homeowners that just have their own homes […] Cambridge Bay is a little bit different within the communities. Cambridge Bay, even home ownership, you will find this higher for home ownership here. You have contractors. We have people who have seen that as a big opportunity to make money out of real estate [and are] building massively (Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024).

According to the 2022-2023 NHC Annual Report, there remains a significant need for housing in Nunavut (Nunavut Housing Corporation 2023a). Members of communities in the Kitikmeot Region have indicated that there is a housing crisis. Construction of new housing is slowed down by the cost of materials, lack of local labour, the climate, and the remote location of the territory. The remoteness and climate of the Kitikmeot Region mean that the delivery of supplies can be infrequent and expensive (Kugluktuk Housing Association, Kugluktuk, pers. comm., November 8, 2024; Kikitak Housing Association, Gjoa Haven, pers. comm., November 15, 2024). These factors result in very short construction seasons and a requirement to plan housing construction and order supplies very far in advance.

> We only receive one good – what we call sea lift – supply every year. During summer, the ships can come here to our communities, and they can drop material. Everything has to be pre planned first. So if you're going to build next year, now [November] it's too late [to order material]. We would order the material they will come next year. Start preparing to build for 2026. You have to put in there a cushion of two years in advance for planning and preparation before you can actually start to build. That slows down construction. Then also, the government doesn't have unlimited funds. So to be honest, housing is at a critical level. (Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024)

The cost of home construction in Nunavut is high due its unique requirements such as building foundations within permafrost, the need for durable materials, equipment, and assemblies to perform in Arctic conditions, and transportation costs for labour and materials. Due to these challenges, Nunavut is experiencing a severe shortage of housing which has resulted in a lack of appropriate housing options, an aging and inadequate housing stock, and overcrowding (Nunavut Housing Corporation 2023b).

Community members say that the homes that exist in the community are generally old and in poor condition. Housing association members say that some units have mould and this is causing health concerns. Some funding is received from Nunavut Housing Corporation to fix some issues but there is often a lack of skilled trades to maintain homes when they fall into disrepair. Many houses experience wear and tear created by multiple family members living in homes together and homeowners don't have the knowledge to maintain their homes (Cambridge Bay Housing Association, Cambridge Bay, November 5 2024, pers. comm.; Kugluktuk Housing Association, Kugluktuk, November 8 2024, pers. comm.). One housing association manager described housing stock in Cambridge Bay:

> Most of them are from the '70s and '80s. So we're looking at 40 years old. And we're not looking at 40 years old with somebody who's maintained their house. We're looking at 40 years old of good hard abuse. Multiple tenants, people in and out, different types of cleaning abilities, and violence, that kind of thing and then the older sort of construction materials that were used. (Cambridge Bay Housing Association, Cambridge Bay, pers. comm., November 5, 2024)

In 2021, Nunavut had the highest incidence of core housing need amongst provinces and territories in Canada at 32.9% (Canada Mortgage and Housing Corporation (CMHC) 2024a). A household is in core housing need if its housing does not meet one or more of the adequacy, suitability or affordability standards and it would have to spend 30% or more of its before-tax income to access acceptable local housing. This represented a decrease, however, of 3.6% from 2016 when the rate of core housing need in Nunavut was 36.5% (CMHC 2024b; Statistics Canada 2022b). Of the 1,680 private households in the Kitikmeot Region, 17.3% were in core housing need in 2021. The majority (82.8%) of private households in core housing need in 2021 were rented dwellings. Suitability of households contributed most to core housing need as 39.0% of private households were not suitable (Statistics Canada 2022c).

Table 8.2 Core Housing Need Characteristics, Private Households, Kitikmeot Region, 2021

	Total Number of Housing Units	In Core Housing Need	Not in Core Housing Need	Major Repairs Needed	Spending 30% or More of Income on Shelter Costs	Not Suitable
Owned	290	50	240	80	20	50
Rented	1,385	240	815	395	25	600
Total	**1,680**	**290**	**1,055**	**475**	**45**	**650**

Source: Statistics Canada (2022b)

Overcrowding is a notable problem in Inuit communities. In 2016, over half (51.7%) of Inuit in Inuit Nunangat lived in crowded housing compared to 8.5% percent of non-Indigenous Canadians (Inuit-Crown Partnership Committee 2019). Kitikmeot community members and housing managers say there is an issue with overcrowding as many family members are often forced to live together in one home (Kugluktuk Housing Association, Kugluktuk, pers. comm., November 8, 2024; Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024). One community Elder described:

> I remember when we built a house in Kugaaruk, 1967 we built 30 or 36 units, single units for each family. But today, even in 1, 2, 3, bedrooms, 10 to 12 people would have been living there. Because too many young people living together, having kids. Population going really fast and we ran out of housing. (Community Elder, Kugaaruk, pers. comm., October 30, 2024)

There is a lengthy waiting list for available public housing units (Nunavut Housing Corporation 2023a). As of March 31, 2022, there were 3,021 applicants on the waitlist for public housing across Nunavut (Nunavut Housing Corporation 2023b). Kitikmeot community members agree that there are long wait lists for public housing:

> We have 312 public housing units. We have 144 GN staff housing units […] There still is nothing in this town to buy, but they still have to put their name on a wait list for a housing unit if they want a place to live in public housing. There's not enough, of course. The waitlist is 191 right now, individuals or families. So when you extrapolate that to kids and all, it's almost 400 people [on the waitlist]. (Cambridge Bay Housing Association, Cambridge Bay, pers. comm., November 5, 2024)

Local community members have expressed frustration with the fact that when houses become available, they are often purchased by businesses and used to house staff. This situation makes it even more difficult for community residents to acquire housing, even if they have the funds to purchase a home.

> For people who do have an opportunity to buy a home, the other thing too is a lot of times when there's houses available in town that come up for sale, the businesses snap them up for their employees. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

In 2022, NHC launched Nunavut 3000, where they entered into a partnership with NCC Development Limited with a goal to deliver 3,000 new units across the territory over the next eight years (Nunavut Housing Corporation 2023a). As of December 31, 2023, 541 new housing units were started or completed and the work plan for 2024 includes: construction of 80 new public and GN staff housing; 50 new supported housing units; 50 new affordable housing units; 50 new market units; and 300 new building permits each year across Nunavut (Nunavut Housing Corporation 2023b). Table 8.3 illustrates completed builds and targeted starts for public and staff housing in the Kitikmeot communities.

Table 8.3 Nunavut 3000 Completed and Target Staff and Public Housing Allocations by Year in Kitikmeot Communities

Housing Type	Staff Housing	Public Housing											
Status	Starts	Completed	Starts								Forecast Builds	Target	Over/Under Target
Community	2024	2022/2023	2023	2024	2025	2026	2027	2028	2029	2030			
Cambridge Bay	-	-	12	-	18	-	-	12	-	8	50	50	0
Kugluktuk	4	5	-	8	-	10	-	10	-	8	41	40	1
Gjoa Haven	-	10	20	-	-	10	-	10	-	-	50	50	0
Taloyoak	-	-	20	-	10	-	20	-	10	-	60	60	0
Kugaaruk	2	10	-	6	-	-	4	-	-	-	20	10	10

Source: Nunavut Housing Corporation (2023b)

The manager of NHC for the Kitikmeot Region described the Nunavut 3000 initiative:

> We've set ourselves for 3000 units and 3000 homes. It's quite modest. It looks ambitious, because it hasn't been done here, but it can be done. […] The status quo is not working. The rate at which we're building is not working. We're hoping we'll have 3000 to start to change things – by the time we finish in seven years, with the growth rate of these communities the way kids are having kids and kids having kids, my expectation is the waiting list would have grown bigger, even if we build 3,000 houses. (Nunavut Housing Corporation, Cambridge Bay, pers. comm., November 6, 2024)

The Inuit Nunangat Housing Strategy was co-developed by Inuit partners and the Government of Canada through the Inuit-Crown Partnership Committee and released in April 2019. In response to the lack of access to appropriate and affordable housing in Inuit communities, the strategy establishes the vision and direction to improve housing outcomes in Inuit Nunangat (Inuit-Crown Partnership Committee 2022). The vision of the strategy is to improved housing outcomes in Inuit Nunangat. The strategy describes several actions including assessing housing investment effectiveness, long term planning, research, capacity building, intergovernmental collaboration, and reducing overcrowding. The strategy outlines strategic actions to target gaps in housing, invest in new housing, and building administration, construction, and maintenance skills in the local labour force.

8.1.2 Emergency Shelters

Between 2020 and 2022, the number of emergency shelters (permanent facilities that provide temporary, short-term accommodation (typically less than 3 months in duration) for homeless individuals and families) in Nunavut increased from three to six. Four of the six shelters served men, one served families, and one served youth. As of 2022, there were 93 beds at Nunavut emergency shelters, 76% of which were designated for men (Infrastructure Canada 2024). Experiences of domestic violence may necessitate the use of social services such as emergency shelters. Women+ in Nunavut experience gender-based violence at disproportionately high rates compared to the Canadian average (Pauktuutit 2020). See Section 9.6.3.2 for additional information about gender-based violence. In Nunavut in 2022, there were four family domestic violence shelters with 52 beds that are located in Iqaluit, Rankin Inlet, Kugaaruk, and Kugluktuk. Domestic violence shelters provide temporary accommodation and support for individuals and/or families fleeing domestic abuse or the threat of violence, either as a crisis capacity (typically less than three months) or as transitional/second stage housing (Infrastructure Canada 2024). In 2021, funding was announced for four new domestic violence shelters in Nunavut; these will be located in Baker Lake, Gjoa Haven, Pangnirtung, and Pond Inlet.

Kugluktuk and Kugaaruk each have one family domestic violence shelter for women and children. The shelter in Kugaaruk can accommodate three families and clients can stay for a maximum of six weeks (Tammaaquik Women's Centre, Kugaaruk, pers. comm., October 29, 2024). Community members in Kitikmeot communities may be accommodated at shelters outside of their home communities if there are no shelters or beds available in their home communities; costs to travel to shelters outside of their home communities is paid for by the GN (Tammaaquik Women's Centre, Kugaaruk, pers. comm., October 29, 2024).

As of 2025, additional options were available in the Kitikmeot Region, including in Cambridge Bay and Gjoa Haven. In Cambridge Bay, the Kitikmeot Friendship Society operates a 14-bed shelter for women and children fleeing domestic violence and/or are challenged with homelessness. It also manages a transitional housing unit for single women. Use of these shelters has been consistent but Friendship Centre staff typically see an increase in demand for service during the winter (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

The Omingmak Centre is a men's shelter in Cambridge Bay. It is the only men's shelter in the Kitikmeot Region and it is funded primarily by the municipality. It opened in 2016 and has 14 permanent beds and two emergency beds. There have been times when the shelter has been at capacity and has had to turn clients away, particularly during winter months. During the warmer summer months it is common for people experiencing homelessness to sleep in tents and cabins (Omingmak Centre, Men's Shelter, Cambridge Bay, pers. comm., November 5, 2024).

Cambridge Bay also has a youth shelter for 12 to 20 year olds (Cambridge Bay Wellness Centre, Cambridge Bay, pers. comm., November 5, 2024).

Two shelters were opened in Gjoa Haven by the Kitikmeot Friendship Society in March 2025: one for men and one for women (Canadian Broadcasting Corporation (CBC) 2025). Hidden homelessness, referring to unhoused people who are not represented in homelessness statistics due to living with friends or relatives is common in Gjoa Haven and other Kitikmeot communities, particularly for men. Residents are hopeful that additional shelters and the Nunavut 3000 housing plan will alleviate homelessness in the Region (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

8.1.3 Temporary Accommodation

In 2019, Nunavut had 111 licensed or regulated tourism operations, including 55 outfitters and 55 hotels, motels, bed-and-breakfasts, lodges, and camps. That number fell to 59 total operations in 2020, as a result of the Covid-19 pandemic (Nunavut Tourism and Cultural Industries Division, Department of Economic Development and Transportation 2021).

In the Kitikmeot Region, there were 13 hotels, motels, and bed-and-breakfasts, as of July 2024 (Nunavut 2024):

- Cambridge Bay: 3 hotels, 2 bed-and-breakfasts
- Kugluktuk: 2 hotels, 1 bed-and-breakfast
- Gjoa Haven: 1 hotel, 1 bed-and-breakfast
- Kugaaruk: 1 hotel
- Taloyoak: 1 hotel, 1 bed-and-breakfast

In all Kitikmeot communities except Taloyoak, the Co-op operates Inns North hotels; the only hotel in Taloyoak is run by a local operator.

8.2 Transportation and Community Resupply

Communities in Nunavut are typically separated by large distances and are not connected to each other or to the rest of Canada by all-season roads or rail links. Nunavut communities obtain their annual re-supply of goods and materials primarily by ship (sealift) and plane. Several winter roads help supply some Nunavut communities and mining projects; however, there are no operating winter roads open to the public in the Kitikmeot Region. The Tibbitt to Contwoyto Winter Road (TCWR) is a major ice highway that starts 70 km north of Yellowknife and traverses about 400 km before terminating at the Ekati diamond mine. When the Lupin Mine in Nunavut was operating, the TCWR extended another 150 km north of the diamond mines. Since the Lupin Mine closed, this portion of the TCWR has only been open sporadically.

8.2.1 Sealift

Prior to creation of the jurisdiction of Nunavut, the Canadian Coast Guard provided organizational and logistical support in meeting the Nunavut's dry cargo and bulk fuel requirements through a variety of carriers. The GN's Department of Community and Government Services is now responsible for annual dry cargo re-supply and the Petroleum Products Division is responsible for bulk fuel re-supply.

Goods ranging from construction materials, vehicles, heavy equipment, house wares and non-perishable food items are typically shipped from Montreal or Hay River to communities in the Kitikmeot Region once or twice a year during the ice-free summer months. Many northern communities receive only one sealift per year, and orders must be made about a year in advance for anything required the following season, including heavy equipment, construction materials, dry goods, fuel, and vehicles (Transport Canada 2021). One community member in Cambridge Bay shared:

> We get our sea lift, beginning of September, and then everything comes at once. We get two ships coming in, and we get a one shot deal at it. (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024)

Community resupply by ship typically occurs between late June and late October each year. Delivery schedules are published but are prone to changes, delays, and cancellations depending on weather, water levels, and port operations. Community members say they may wait months or years for some items, such as cars and building supplies. Sometimes, in order to retrieve an item they're expecting on the sea lift, community members will have to travel to other communities and use qamutiiks (traditional Inuit sleds) to tow them by snowmobile to their own community.

Primary research indicated that construction activities may put a strain sea lift availability for some communities as building materials take up a lot of space (Great Slave Helicopters, pers. comm., May 14, 2025).

Water levels have affected the ability to resupply communities by sealift from Hay River in recent years. For example, the 2018 barge re-supply to Cambridge Bay and Kugluktuk from Hay River was cancelled as a result of impassable ice and bad fuel, resulting in the need to airlift goods and fuel into the communities at a cost of $4 million (ITK 2021a; Cabin Radio 2024a). The 2021, 2023, and 2024 barging seasons to Cambridge Bay and Kugluktuk from Hay River were also disrupted by low water levels in the Mackenzie River (Cabin Radio 2024a; Nunatsiaq News 2021).

Sealift delays have led to fuel shortages in the past and force rationing, which occurred in Gjoa Haven and Resolute Bay. Cambridge Bay does not typically encounter this issue (Great Slave Helicopters, pers. comm., May 14, 2025).

8.2.2 Air Service

Air service and related aviation infrastructure are essential lifelines for Inuit communities, and act as the sole year-round method of transportation for communities. With the exception of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo), all Kitikmeot communities are served by small, Transport Canada certified or registered airports. There is only one commercial airline that operates throughout Nunavut, Canadian North, and the costs of air travel are high. There are also several special purpose or private airstrips developed to serve resource projects located in isolated areas.

It has been reported that air transportation infrastructure in Inuit Nunangat is aging and inadequate, and often includes short, gravel airstrips, poor airstrip lighting, older fuel-inefficient jets, and lack of basic weather and navigation aids (ITK 2021a). Infrastructure to support air transport is limited in the Kitikmeot Region, with aging aircraft and unpaved runways. The “number one priority” for the Hamlet of Cambridge Bay is to pave their runway:

> Canadian North had the 727- 200 series, which was a jet, which we used all the time, but it's been decommissioned because of the age of it. And the problem with the new jets is they're too low to the ground, so they can't land on the gravel roads. So we'll never get a jet service again until the runway is paved. (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024)

A Kitikmeot Inuit Association staff member in Cambridge Bay described the impact of unpaved runways on community resupply:

> We used to be serviced by 737-200 common jets by Canadian North, but they retired those jets… since we lost our jet, Cambridge Bay and Kugluktuk are hurting big time in terms of less cargo coming up, less passengers coming up, more bags being bumped. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

The total number of aircraft movements at the Kitikmeot community airports from 2014-2018 are shown in Table 8.4. The total number of aircraft movements in the Kitikmeot Region in 2018 was 13,162, up 12% from 11,710 in 2014.

It is very expensive to resupply communities via air freight rather than relying on sea lift. Sea lift generally brings in dry goods and heavy, shelf-stable items such as pop and other non-perishable items, while frozen meats and vegetables and fresh produce are carried in by plane. If there are weather delays or airplanes aren’t able to arrive in communities on time, then perishables may no longer be fit for consumption. Further details regarding the availability and cost of store-bought food are presented in Section 10.4. Great Slave Helicopters has indicated that fuel access can be unreliable at Kitikmeot Resources without pre-arranged fuel deliveries (Great Slave Helicopters, pers. comm., May 14, 2025). The company and other fixed wing companies has been retained at times to supply emergency fuel delivery for bulk and drum fuel. The company is not typically a fuel transport company, but only during emergencies such as during ice break-up or freeze-up periods. (Great Slave Helicopters, pers. comm., May 14, 2025,).

Table 8.4 Aircraft Movements in the Kitikmeot Region 2014-2018

Year	Overall Kitikmeot Region	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
2014	11,710	4,630	3,208	963	1,602	1,307
2015	12,207	4,800	3,394	1,322	1,639	1,052
2016	11,202	4,050	2,779	1,297	1,751	1,325
2017	12,978	4,538	3,039	1,540	2,154	1,707
2018	13,162	4,504	3,648	1,186	1,929	1,895
Percent Change (2014-2018)	12%	-3%	14%	23%	20%	45%

Sources: Statistics Canada (2020a).

Businesses that order supplies to sell in their stores during the year are often tasked with planning what they need far in advance. Some communities seem to have an adequate amount of storage space so they can order enough stock to sell throughout the year while store owners in other Kitikmeot communities have limited storage space (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

8.2.3 Local Transportation

Local transportation within Kitikmeot communities is characterized by use of snowmobiles, all terrain vehicles, and personal boats. Cars and trucks are present within communities, although snowmobiles and all terrain vehicles are more commonly used. Personal boats, snowmobiles, and all-terrain vehicles are also used for hunting, fishing, visits to camps, and inter-community travel.

8.3 Emergency Services

The GN's Nunavut Emergency Management (NEM) division is responsible for safety and emergency preparedness in Nunavut. NEM oversees the provisions of search and rescue operations and emergency preparedness. The division is responsible for:

- Developing emergency preparedness plans and assisting Nunavut communities in creating their own plans; and
- Enhancing community-based ground search and rescue capabilities and preparedness across Nunavut by providing search and rescue (SAR) training to Search and Rescue Organizations (SARO) and assisting with certain SARO equipment and communication systems (Department of Community and Government Services 2023a).

Emergency services (i.e., policing and fire services) within Kitikmeot communities are provided either by the agencies and departments of the GN (e.g., Health and Social Services, Community and Government Services), or by the local (hamlet) municipal governments. Emergency call centres that are dialed using 9-1-1 are not available in Nunavut; rather, people contact emergency services using a specific toll-free emergency number from the GN's Nunavut Emergency Management (GN n.d.d).

All Kitikmeot communities have access to an air ambulance service to transport people requiring emergency health care to facilities in Yellowknife or beyond. Terrestrial ambulance services are available in Cambridge Bay, Taloyoak, and Kugaaruk, with refurbished ambulances having been supplied by southern emergency medical services (EMS) services (Canadian Press 2020; Taylor 2023). Each of the five Kitikmeot communities has a RCMP detachment and a firefighting service provided by a volunteer force (Department of Community and Government Services 2023b; RCMP 2025). Additional information on emergency and general health services available is provided in Section 9.7.

8.3.1 Policing

The RCMP, in collaboration with the GN, is responsible for the safety and security of the residents of Nunavut. The RCMP 'V' Division is headquartered in Iqaluit and operates 25 detachments in communities throughout the territory. The Kitikmeot Region has an RCMP detachment in each of its communities, with the exception of the seasonal communities of Kingaok (Bathurst Inlet) and Omingmaktok (Bay Chimo) (RCMP 2025).

Between 2019 and 2023, the number of police officers in Nunavut increased from 162 to 176. In 2023, the police-civilian ratio was 1:3.9 and the number of police officers per 100,000 population was 344.2, down from 347.6 in 2019. The Crime Severity Index (CSI), which tracks changes in the severity of police-reported crime in Canada, was 379.68 in 2023 compared to 371.82 in 2019. The CSI in Nunavut was much higher than the national CSI in 2023 of 78.10 (Statistics Canada 2023b, 2024j).

Between 2015 and 2018, the total number of criminal violations in the Kitikmeot Region increased from 1,963 to 2,671. Cambridge Bay had the highest number of total violations in the Region, followed by Kugluktuk (Statistics Canada 2020b).

RCMP members in Kitikmeot communities acknowledge that the number of calls received by RCMP detachments is increasing. Some members of the Kitikmeot RCMP detachments, including those in Cambridge Bay and Kugluktuk, feel that they aren't properly resourced to handle the number of calls. The Cambridge Bay RCMP detachment should be staffed with seven members plus two Indigenous officers but at the time of writing the detachment was staffed with only five officers, including four permanent officers and one relief officer. In 2024, officers saw the average number of calls increase from approximately 170 per month to nearly 300 (RCMP, Cambridge Bay, pers. comm., November 4, 2024).

RCMP members in other Kitikmeot communities, including Kugaaruk, say they are well equipped to manage the current demand for service. For example, the Kugaaruk RCMP detachment is staffed with two members and receives approximately 30 calls a month, and has the capacity to deal with the demand for service (RCMP, Kugaaruk, pers. comm., October 29, 2024).

According to officers, the majority of calls are for alcohol-related incidents (RCMP, Kugaaruk, pers. comm., October 29, 2024; RCMP, Kugluktuk, pers. comm., November 8, 2024).

> It's mainly alcohol related. Most of the calls. I want to say maybe 50 to 55% of calls are probably alcohol related, in some sort of way…we really see the spikes when the alcohol gets delivered. (RCMP, Kugluktuk, pers. comm., November 8, 2024)

Other drugs are coming into the Kitikmeot Region, including marijuana, which officers say are having effects on the mental health of community members (RCMP, Kugaaruk, October 29 2024, pers. comm.; RCMP, Gjoa Haven, pers. comm., November 14, 2024). RCMP officers receive calls for service related to domestic violence; however, there is some concern that domestic violence events are underreported in the Kitikmeot Region (RCMP, Kugaaruk, pers. comm., October 29, 2024; RCMP, Kugluktuk, pers. comm., November 8, 2024; RCMP, Cambridge Bay, pers. comm., November 4, 2024).

8.3.2 Fire Services

Fire protection services in Nunavut are governed by the *Nunavut Fire Prevention Act* and managed by the GN Department of Community and Government Services. The Department consists of three regional offices that work with the Office of the Fire Marshal, Emergency Measures Organizations, and building technical standards/safety inspections to manage fire protection in the territory (Department of Community and Government Services 2023b).

More than half of Nunavut communities have identified a need for new fire halls or major renovations to existing fire halls. Some fire halls have no running water and/or lack adequate space for equipment and personnel. Nunavut's limited water supply also presents challenges when fighting fires (Nunavut Tunngavik Incorporated 2020). In 2023, there were 140 fires in Nunavut communities, 16 of which occurred in the Kitikmeot Region (Department of Community and Government Services 2023b).

8.4 Marine Infrastructure and Services

Marine infrastructure such as ports and harbours are limited in Nunavut. Nunavut opened its first deepwater port in 2023 in Iqaluit which allows direct cargo transfer to shore. All other cargo or cruise ships must be offloaded from ships to barges or smaller craft to enter communities (Aboriginal Peoples Television Network (APTN) News 2023). Operational challenges also include a lack of navigational charts for some areas of the territory.

8.4.1 Coast Guard and Coast Guard Auxiliary

The Canadian Coast Guard (CCG) is responsible for providing search and rescue service within the Arctic region of Canada. The organization is a special operating agency within Fisheries and Oceans Canada, with a role that includes protecting the safety of mariners in the marine environment, providing for the safe and efficient movement of maritime trade, and ensuring Canada's sovereignty and security in Canadian waters (CCG 2025a).

The CCG's mandate under the *Oceans Act*, the *Canada Shipping Act,* and the *Wrecked, Abandoned or Hazardous Vessels Act*, gives the Minister of Fisheries, Oceans and the Canadian Coast Guard powers, responsibilities, and obligations concerning:

- Maritime search and rescue
- Marine pollution response, including response to wrecks and hazardous or dilapidated ships
- Icebreaking and ice-management services
- Marine communications and traffic services

- Aids to navigation
- Channel maintenance
- Support to departments, boards, and agencies by providing vessels, aircraft, and services (Canadian Coast Guard 2024)

The CCG Arctic Region serves the Kitikmeot Region and it is based in Yellowknife. A Marine Communications and Traffic Services office is in Iqaluit, while the Kitikmeot Region is served by the Arctic Marine Response Station in Rankin Inlet which is a seasonal base of operations. Seasonal stations are open typically from April to December, based on weather and ice conditions (CCG 2025b). There are currently no response bases in the Kitikmeot Region. There is a limited number of CCG staff present in Cambridge Bay to provide operational and logistic support for operations (CCG, Cambridge Bay, pers. comm., December 3, 2024). Coast Guard personnel in Cambridge Bay described their operations:

> I think my work has gotten a lot busier in terms of the types of calls and rescues. Most of our calls are younger individuals with not much experience or experienced individuals dealing with climate change type issues or situations that are not normal. You know, we may have a winter storm that is not normal for September – have an experienced guy prepared, but maybe not as prepared as for an October storm. I've also had people out on the land running these new snowmobile engines […] it allows them to get a lot further out. But then they get disoriented in a storm. (Canadian Coast Guard, Cambridge Bay, pers. comm., December 3, 2024)

The Canadian Coast Guard Auxiliary (CCGA) is a volunteer organization that partners with the Coast Guard to provide local guidance, community information, and search and rescue support. The CCGA Central & Arctic Region was established in 1978 to provide voluntary maritime SAR and the promotion of safety in a support role to the CCG (CCGA 2025).

The Cambridge Bay Auxiliary is a non-profit organization that consists of a 12-14 person unit with a 28 foot Silver Dolphin boat, a building and gear. One additional personal boat is also available, if required. The volunteers are on stand-by during the ice-free months, and they run training activities. The unit supports the CCG if they need individuals to help with search and rescue. The Auxiliary may also support land-based operations when others are not available. The Auxiliary needs CCG approval for operations. The Cambridge Bay Auxiliary also supports the safety of the Arctic Char fishery (Cambridge Bay Coast Guard Auxiliary member, pers. comm., November 5, 2024).

The Kugluktuk Coast Guard Auxiliary started approximately 10 years ago. It offers marine rescue support. Initially, two personal boats were used when necessary, however the Auxiliary is now able to operate its own boat. One additional personal boat is also available, if required (CCGA, Kugluktuk, pers. comm., November 8, 2024).

The Kugluktuk Coast Guard Auxiliary has plans in place for potential emergencies with cruise ships, such as oil spills, or for passengers that need to disembark for emergency. The organization sees more future need for SAR services in the Kitikmeot Region. There are more people exploring the Northwest Passage in individual boats or exploring the land such as canoeing down the Coppermine River, or hiking south on the land (CCGA, Kugluktuk, pers. comm., November 8, 2024).

8.4.2 Search and Rescue

SAR capabilities are provided by a range of organizations in the territory, including community-based Ground Search and Rescue teams, CCG, CCGA units, Marine SAR societies, Civil Air Search and Rescue Association members, and the Canadian Rangers (Kikkert et al. 2021). Each community has its own volunteer SAR team that is tasked by NEM, which has jurisdiction over SAR in the territory. NEM provides funding for fuel, food, and equipment repairs. The department offers a Nunavut-based SAR training program where groups receive Global Positioning System (GPS) and InReach GPS and beacon devices once completed. It is also in the process of providing “Go Bag” survival kits to SAR groups (GN 2025g). A local volunteer-based SAR system is seen as beneficial given the great distances, lack of federal and territorial resources, but also due to the intimate local knowledge that volunteers have of local geography and sea and ice conditions (Kikkert et al. 2021).

Historically the Kugluktuk SAR was run with volunteers for anyone with snowmachines and time. In 1999 a Kugluktuk SAR Society was started with the Department of Renewable Resources support and other volunteers. The society eventually dissolved as recertification was required to be a formal organization. The group of volunteers is still active (CCGA, Kugluktuk, pers. comm., November 8, 2024). Currently, there are approximately 6-8 people who volunteer with Kugluktuk SAR (CCGA, Kugluktuk, pers. comm., November 8, 2024).

The Kugluktuk and Cambridge Bay SAR volunteers keep in contact during emergencies, and coordinate if a search is closer to the other community. During a SAR incident in spring 2024, a Kugluktuk individual was missing, and support from both the Kugluktuk and Cambridge Bay was used based on the search area (Canadian Coast Guard Auxiliary, Kugluktuk, pers. comm., November 8, 2024).

CCG personnel described coordination between the CCG and Cambridge Bay Auxiliary and Kugluktuk Auxiliary units:

> Kugluktuk has a unit as well. Their eastern boundary is Bay Chimo, and our western zone is Tree River. So there is overlap. That whole Basin area we coordinate together. The Cambridge Bay and Kugluktuk Coast Guard Auxiliaries stay in close contact, and they will do daily calls with each other to share information and coordinate (CCG, Cambridge Bay, pers. comm., December 3, 2024).

Research from the Kitikmeot SAR Project obtained data from Nunavut Emergency Management from 2015-2019 about SAR case statistics shown in Table 8.5.

Call volumes indicate that the number of calls in Taloyoak and Gjoa Haven are higher than the other communities, despite a lower population than other larger hamlets. However, the researchers cautioned that the numbers do not always account for community SAR members responding to local private searches, breakdowns or when people run out of fuel, indicating that the numbers could be higher. (Kikkert et al. 2021).

Table 8.5 Public SAR cases in the Kitikmeot Region by community. Nunavut Emergency Management, Annual Reports 2015-2019

	2015	2016	2017	2018	2019
Cambridge Bay	4	1	2	2	2
Kugluktuk	2	0	0	1	6
Kugaaruk	4	6	11	5	7
Taloyoak	17	11	14	11	27
Gjoa Haven	22	33	22	20	24

Source: Kikkert et al. (2021)

Coast Guard personnel described the effect of increased marine traffic on SAR activities:

> In the summer we are seeing a lot more vessel traffic down there into Bathurst Inlet, into Bay Chimo, and even into Hope Bay. All in that area. We are getting locals going down there and requiring search and rescue at some level (CCG, Cambridge Bay, pers. comm., December 3, 2024).

8.4.3 Canadian Rangers

The Canadian Rangers are a sub-component of the Canadian Armed Forces, and they operate in remote regions of Canada, including the Kitikmeot Region (GOC 2022). Across Canada, the Canadian Rangers are culturally diverse, often including representation from Indigenous Peoples. In the Kitikmeot Region, the 1st Canadian Rangers Patrol Group operates, and they are primarily Inuit. Services provided by the Canadian Rangers include search and rescue, conducting patrols, reporting any information of interest to the Canadian Armed Forces, and asserting Canadian sovereignty.

8.4.4 Deep Water Ports

There are no deep water ports in the Kitikmeot Region. Annual sealifts for community resupply anchor offshore and barge goods, including heavy equipment and seacans, to barge landings in the Kitikmeot communities (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

8.4.5 Small Craft Harbours

There are no small craft harbours in the Kitikmeot communities, although some exist in other Nunavut communities. Private boats are hauled out of the water on shore during the winter months.

8.5 Utilities

Hamlets for each community in the Kitikmeot Region supply utilities such as water, sewage, and solid waste management for community members. Communities are being challenged by increasing populations and demand for services:

> Right now the big push is on Nunavut 3000. Which is great. The problem is every community already needs more water and sewage and more storage space. So there's no community that's really ready for it. (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024)

8.5.1 Water

Despite having freshwater resources, Nunavut has limited access to clean drinking water due to geographic, economic, and infrastructure challenges. In addition, the cold climate means that communities must rely on surface water, rather than groundwater, which is subject to seasonal melting.

Every community in the Kitikmeot Region has a water treatment plant to treat freshwater for household consumption. Approximately 85% of water treatment infrastructure throughout Nunavut is aged and in poor condition, although the age of water treatment plants varies (Nunavut Tunngavik Incorporated 2020). For example, the water treatment plant in Cambridge Bay was built in 2017 (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024).

Nunavut is largely reliant on trucked water and only 14% of Nunavut residents are served by piped water (Nunavut Tunngavik Incorporated 2020). Water services in Kitikmeot communities is similarly reliant on truck delivery; the Hamlet of Cambridge Bay is the only Kitikmeot community with buried water pipes that connect the water treatment plant to certain buildings in the community including the schools, one government building, the gym, the health centre, and CHARS (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024). The rest of Cambridge Bay and the other Kitikmeot communities depend on trucked water delivery, which often struggles to keep up with growing demand. For example, the Hamlet of Cambridge Bay has grown in population but water infrastructure and services have not kept pace:

> When I started with the hamlet in 2010, there were just over 1,200 people, and we had three water trucks and three sewage trucks. Fourteen years later, we’re over 2,000 [people], and we still have the same number of trucks. (Hamlet Staff, Cambridge Bay, pers. comm., November 5, 2024)

The delivery of water services can also be challenged by labour shortages, as the lack of water truck drivers leads to delays and inconsistencies in delivery. In Cambridge Bay, "every single employer in town right now is short-staffed", including water truck drivers: “we can’t get water and sewer delivery because the truck drivers aren’t showing up for work, or there aren’t enough” (Kitikmeot Community Futures Incorporated, Cambridge Bay, November 6 2024, pers. comm.). Similarly, in Taloyoak, the water truck doesn’t always deliver water on schedule because of staffing issues, leaving many residents vulnerable to disruptions of this essential service (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024).

Overcrowding in homes and inadequate housing construction can present additional barriers to drinking water access. Crowded households, which are common in Inuit communities, use more water and produce more wastewater than households that are not crowded. Therefore, households relying on trucked water are vulnerable to running out of water before water tanks are refilled (ITK 2020). For example, in a house with 14 people, "not everybody gets to shower, and if you run out of water, your toilet doesn't work," (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

8.5.2 Sewage

Every community in the Kitikmeot Region relies on trucked wastewater conveyance systems, whereby sewage is picked up from users by vehicle and taken to a treatment facility, and a sewage lagoon from which effluent is discharged through the surrounding landscape (Nunavut Tunngavik Incorporated 2020). Like water services, sewage services are similarly challenged by increasing demand, labour shortages for sewage truck drivers, and overcrowding in many Kitikmeot communities (Kitikmeot Community Futures Incorporated, Cambridge Bay, pers. comm., November 6, 2024; Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024). However, hamlet staff in Taloyoak said the capacity of the current sewage lagoon meet the demands of their community (Hamlet Staff, Taloyoak, pers. comm., November 19, 2024).

8.5.3 Solid Waste

Solid Waste Management in Nunavut is the joint responsibility of the Department of Environment and the Department of Community and Government Services. There are 25 landfills operating in Nunavut and each Kitikmeot community has its own landfill, which are fenced-in above ground dumps (Gogolek 2020). More than half of dumps in Nunavut are in poor or very poor condition and beyond their design capacity (Nunavut Tunngavik Incorporated 2020). The development of effective recycling programs remains a challenge.

As Nunavut's population continues to grow, solid waste management is becoming more challenging. The GN Department of Environment and the Department of Community and Government Services are working in partnership with communities to develop a waste management strategy, which will include updating landfill infrastructure and solid waste management practices (GN 2021c).

8.5.4 Fuel

Fuel, including transportation fuel such as diesel and heating fuel for homes is shipped to Kitikmeot communities during annual resupply and stored at tank farms in the communities. Heating fuel is delivered to homes by truck by the contract holder. In Kugaaruk, this contract is held by the Koomiut Co-op, which shared that fuel storage and delivery may be challenged by equipment breakdowns, fuel leaks, and unexpected costs (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

Community members shared that the cost of transportation fuel is expensive and has increased in recent years due to inflation and additional taxes,

> At one point we were the cheapest place in Canada for gas. We were $1.10 for how many years, and now it's dollar, almost $1.60[…] The cost of everything all across Canada has gone up. But especially up here, it seems to be a lot higher. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

Community members also shared that the cost of heating fuel has increased in recent years:

> The cost of gas and oil and stuff has definitely increased. Especially for homeowners, we definitely feel the difference over the last few years. when I bought my home, it cost me about $300 to heat it for the month and now it cost me $300 every two weeks. There's large increases in those kind of things. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

8.6 Community Programs and Recreation

The GN's Sports and Recreation Division is responsible for implementing the Nualiit Aulajut Framework, which was designed to reflect the Inuit way of life, culture, and societal values (GN 2024d). The framework is deeply rooted in Inuit societal values and promotes hunting, hockey, sewing, soccer, dancing, drumming, badminton and berry picking, which are common activities enjoyed by many Inuit living in Nunavut (GN 2024d).

8.6.1 Community Programs

Community programs in the Kitikmeot Region play an important role in supporting residents' well-being, offering services to youth, Elders, mothers, and other vulnerable populations. Hamlets manage recreation spaces such as community halls and ice rinks/arenas and provide programming, including community festivals, recreation activities, and events; counselling and addictions services; food security programs such as soup kitchens and regular lunches; and Elders- and youth-specific programming (Hamlet Staff, Cambridge Bay, November 5 2024, pers. comm.; Hamlet Staff, Taloyoak, November 19 2024, pers. comm.; Hamlet Staff, Gjoa Haven, November 14 2024, pers. comm.; Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024).

There is extensive programming provided by the Hamlet of Cambridge Bay:

> We have all kinds of programs. We have programs for toddlers, preschool, CPMP [Canada Prenatal Nutrition Program] for nursing mothers and expecting mothers […] We have youth programming under two banners, one called Raven's Nest for older teens, and then regular space, which is dealing with technology and whatnot. We have major festivals: Christmas games, the frolics in May, which is a spring festival. We have smaller one-offs, like your Canada Day, Nunavut day celebrations, Truth and Reconciliation Day. Basically, we are recreation and we're wellness and mental health all tied into one, and we work together to present those four pillars to the community. (Hamlet Staff, Cambridge Bay, pers. comm., November 7, 2024)

The Hamlet of Kugluktuk Department of Healthy Living also provides a range of programs, including “Elder programming, youth programming, prenatal programming, [and] alcohol and drug programming" (Hamlet Staff, Kugluktuk, pers. comm., November 7, 2024). The Department has also created a youth council and an Elders committee and provides facilities and logistical and funding support. Additionally, programs like the Elder’s cabin provide a dedicated space outside the community for Elders to gather, fostering intergenerational connections with youth: "Some of the funding we've attached to that has been around Elders and youth interactions" (Hamlet Staff, Kugluktuk, pers. comm., November 7, 2024). The Nattiq Frolics spring celebration festival is another important event for the community.

Other community-driven programs focus on wellness and social support. The Kitikmeot Friendship Society, a non-profit organization whose mission is “to create a healthy community where residents feel supported and have access to a variety of services, programs and skills that will help to enhance their lives”, operates programs in all five Kitikmeot communities, including shelters and transitional housing for women and children, healing programs, resource centres, and programming for youth and for girls in Cambridge Bay:

> We have our very, very, very, very beneficial Girls Club program. Which we have approximately between 50 to 75 participants every Thursday. And these are young girls from 6 to 13. So it's a very successful program. We do other programming called Power Tuesdays to the older group of girls. With these older girls, we're actually training them to become mentors for the little girls so that they have their days on Tuesdays and then they can go and assist with programming on Thursdays. (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024)

The Kitikmeot Friendship Society also offers on the land programming in all five Kitikmeot communities:

> We [the Kitikmeot Friendship Society] do two weeks in every community, all five communities and it's immersive land programming. [We teach] skills like how to fly drones and how to build stuff, but they're also learning traditional skills like how to fillet a fish and go seal hunting and caribou hunting. Depending on the season and location, that impacts what they can do. (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024)

Funding constraints pose a challenge to sustaining and expanding community programs. While organizations like the Kitikmeot Friendship Society provide important community services, securing consistent financial support remains an ongoing struggle (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024). Some initiatives, such as the Elder’s cabin project in Kugluktuk, rely heavily on fundraising (Hamlet Staff, Kugluktuk, pers. comm., November 7, 2024).

8.6.2 Recreation Programs and Facilities

The Kitikmeot communities each have basic recreation facilities, including gymnasiums, community halls, and ice rinks/arenas. However, one of the biggest challenges for community programming in the Kitikmeot Region is the lack of adequate facilities and spaces for activities:

> Right now there's not very many spaces to go to be physically active. (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024)

For example, there is only one gym in Cambridge Bay that serves over 2,800 people (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024) and it also does not currently have a youth centre:

> We had a great space over behind the Co-op and the Catholic Church. We had a youth center there that burned down. That was a great, great, great facility for the youth. Of course, we could always use newer, better, but we're making do, and we're relocating temporarily from here down to KitNuna's offices so we can get a temporary youth center with some temporary projects that we're doing to make an impact and provide something for the for the youth to do. (Hamlet Staff, Cambridge Bay, pers. comm., November 7, 2024)

In Kugaaruk, several community facilities, including the school, were destroyed in a fire in February 2017, although the school has since been rebuilt. School buildings may also serve as additional recreational spaces, but their use is limited to out of school hours. The demand for recreation space has outpaced supply in Kitikmeot communities:

> I don't think there's obviously enough facilities or buildings for more activities. (Hamlet Staff, Kugaaruk, pers. comm., October 31, 2024)

Accessibility to recreation facilities is a concern in Kitikmeot communities, especially for individuals with disabilities. Many community spaces remain inaccessible to those with mobility impairments, and there is a lack of services for residents with visual or hearing impairments (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

8.7 Telecommunications and Internet

The availability of high-speed broadband internet in Canada's Inuit regions lags behind the rest of Canada. Nunavut is the only Canadian province or territory without access to broadband delivered by fibre cable, although the Canadian Radio-television and Telecommunications Commission (CRTC) proposed building a fibre optic cable to deliver high-speed Internet to Nunavut communities in 2023 (GOC 2024a). GEO satellite is the only way Nunavut residents can connect to the Internet, despite its being significantly slower and less reliable than fibre-delivered internet. As of 2018, the fastest possible speed available in Nunavut (15 Mbps) is eight times slower than the Canada-wide average. As of 2022, Starlink became available to Nunavut with download speeds between 95-170 Mbps, although the cost to purchase Starlink may be a barrier to some (Zafar 2022).

Access to affordable, high-speed broadband is imperative for Inuit to be able to participate equitably in society and the economy. Broadband connectivity supports educational attainment, spurs economic development, and can improve access to services such as on-line health care (ITK 2021b).

8.8 Summary of GBA Plus Considerations

The colonial influence and other factors in Nunavut and Kitikmeot communities have contributed to poor socio-economic conditions, including an infrastructure gap when compared to the rest of Canada. The infrastructure deficit in the Kitikmeot Region affects all Kitikmeot residents. In particular, a shortage of housing, substandard housing conditions, and overcrowding affects all Kitikmeot residents. Some sub-populations may be affected by a lack of community infrastructure and services differentially:

Women+ who experience gender-based violence, domestic violence, and housing insecurity may experience challenges seeking emergency shelters in the Kitikmeot Region due to limited number of shelters and beds and the potential need to travel to other communities to access these services. Inuit women are more likely to experience gender-based violence or violent crime than the average Canadian woman (Pauktuutit 2020). Women+ may also be affected by insufficient capacity of RCMP officers in some Kitikmeot communities to respond to calls regarding gender-based and domestic violence.

Men+ who experience housing insecurity may experience challenges seeking emergency shelters in the Kitikmeot Region due to limited numbers of shelters and beds. The Omingmak Centre in Cambridge Bay is the only men's shelter in the Kitikmeot Region and is often at capacity.

A large proportion of people in the Kitikmeot live below the poverty line in crowded households. Public housing is subsidized based on income; however, low income-individuals may struggle to pay rent and bills to operate the household.

Accessibility to recreation facilities is a concern in Kitikmeot communities, especially for individuals with disabilities. Many community spaces remain inaccessible to those with mobility impairments, and there is a lack of services for residents with visual or hearing impairments (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

Hamlets provide specific services for Elders and youth, including specific programming and facilities, and a youth council in certain communities. Recreational facilities for youth are limited in Kitikmeot communities. For example, there is currently no youth centre in Cambridge Bay.

9 Community Health and Well-being

The NIRB draft EIS guidelines describe well-being as a series of "factors to be assessed at the individual and community levels [that] typically include, but are not necessarily limited to, the following: IQ principles and values; cultural continuity and language; social, physical and mental health; connection to the land (including Inuit food harvesting and Inuit food security/food sovereignty); and access to training, education and employment opportunities."

In consideration of potential effect pathways, Inuit Knowledge, community concerns identified through engagement, and the description of well-being provided above, baseline indicators for community health and well-being were developed to include:

- Social determinants of health and well-being
- Physical health conditions and outcomes
- Mental health conditions and outcomes
- Personal health behaviours
- Community and family stability
- Community safety

Food security and sovereignty, including baseline indicators for the country food system and the market food system, are described in Section 10.

9.1 Community Perspectives

Community member perspectives were provided on the topics of community health and well-being. They are presented throughout the topic subsections below.

9.2 Health Determinants

The World Health Organization (1946) defines health as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." As such, this section provides a holistic assessment of population health for the Kitikmeot Region (where data are available) and Nunavut, and describes the social conditions that can influence health outcomes, known as the social determinants of health (SDOH).

The SDOH are the social, cultural, and economic circumstances in which people are born, grow up, live, work and age that influence health and wellbeing outcomes and conditions (GOC 2024b; National Collaborating Centre for Determinants of Health 2022). Examples of SDOH include:

- Income
- Employment and working conditions
- Education and literacy

- Early childhood development
- Access to health services
- Housing
- Gender
- Food insecurity
- Geography and physical environments
- Social inclusion
- Culture and language

Different segments of the population have unique interactions with the SDOH and this can lead to disproportionate health outcomes. Unique social environments and lived experience also lead to different health outcomes and potentially disproportionate health outcomes among different groups of people. These differences can be assessed through the GBA Plus process described in this report. Many of the SDOH indicators are described in other sections of the baseline report such as through Economy and Employment, Infrastructure and Services, and Kitikmeot Region and Communities.

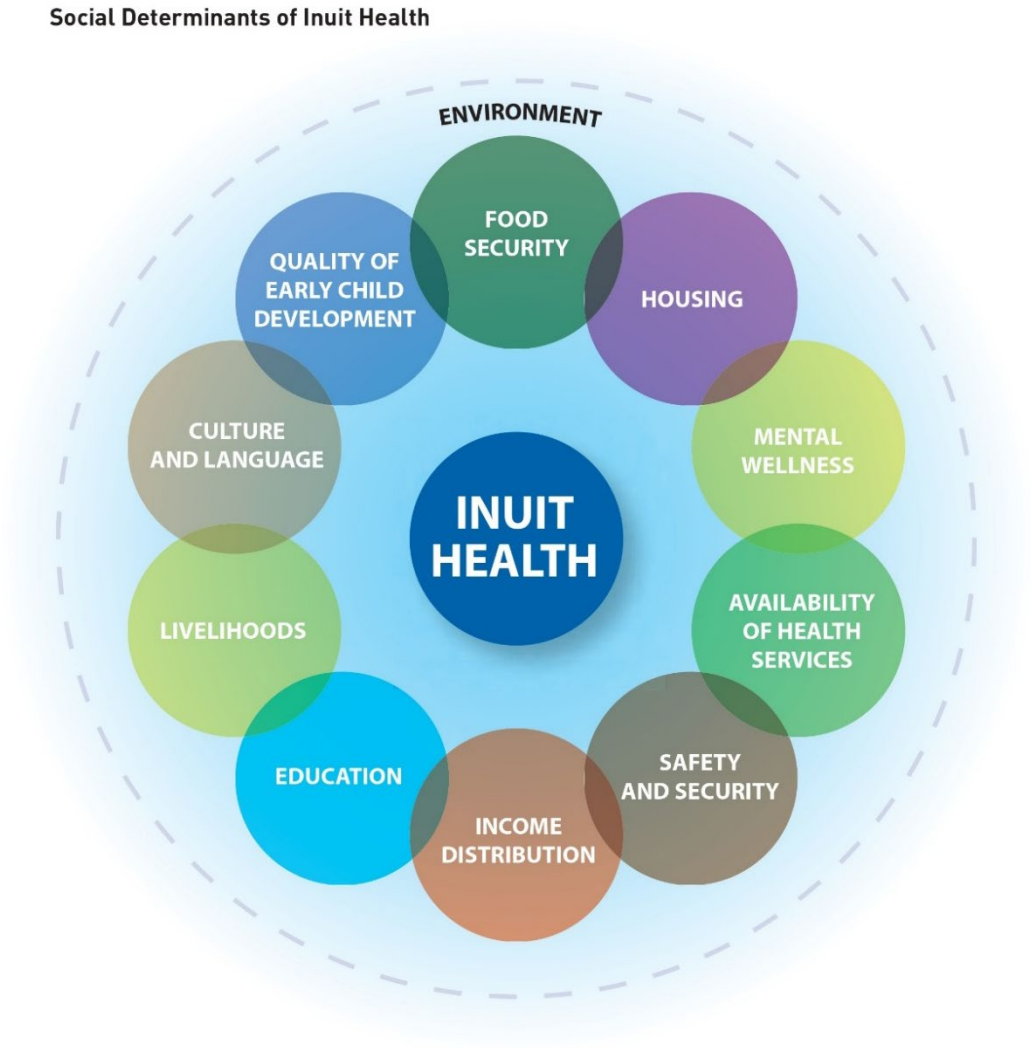
9.2.1 Social Determinants of Inuit Health

The social determinants of Inuit health are similar yet distinct from the SDOH. There are similarities in how many SDOH may operate in both an Inuit and non-Indigenous context; for example, income, employment, and education, and may affect health outcomes through analogous pathways for an Inuk in Cambridge Bay and a non-Indigenous person in Vancouver. However, because of factors including the distinct culture, geography, and history of colonialism in an Inuit context, some discussion about what is unique regarding the social determinants of Inuit health is required. The social determinants of Inuit health (Figure 9.1) are influenced by the differences in worldview and lived experience of Inuit and other people (ITK 2014).

The strong disparities in health outcomes when comparing Inuit populations to non-Indigenous populations suggests that Inuit are affected by SDOH through several unique pathways.

The environment is a SDOH that encompasses all other SDOH for Inuit (ITK 2014). Inuit Knowledge informs how the environment acts on all other determinants of health because of how intimately the environment (e.g. the land, water, and wildlife) is connected to Inuit culture (ITK 2014). It is the environment which provides what is necessary for food security, culture and language, and a healthy lifestyle (Pauktuutit 2006). In this sense, the environment can affect the conditions which inform the other all social determinants of Inuit health.

Figure 9.1 Inuit Determinants of Health



Source: ITK (2014)

Culture and language act together and have a strong influence on Inuit health (ITK 2014). Culture has influence across all social determinants of health, shaping the way people live. Cultural continuity is an important aspect of this determinant of health because knowledge transmission and continuation of traditional practices support Inuit health. Inuit Knowledge is central to Inuit culture, as it informs and fundamentally shapes and frames how the world is perceived (McGrath 2019). Culture and language are social determinants of health because they enable a sense of identity, healthy social supports and relationships, and sense of belonging. Cultural continuity also positively impacts mental health outcomes and sense of belonging to a community (Reading and Wien 2009). Indicators of cultural continuity may include land title, self-government, control of education, health and social programs, knowledge of traditional language, accessing traditional medicines, foods and ceremonies. Cultural continuity is thus closely related to culture and language.

Inuit self-determination supports health promotion. For example, enhanced self-determination can enable the integration of Inuit Knowledge and local knowledge to address the socio-economic factors that contribute to community health and well-being (ITK 2014). Inuit-specific policies and programs are enabled through meaningful inclusion in decision making and self-determination.

Colonialism is a combination of cultural absorption and imposition of non-traditional governing systems that affects Inuit health. Colonialism may be considered as a root SDOH for some, because unequal power structures can influence all other SDOH (National Collaborating Centre for Indigenous Health 2022). Centuries of oppressive, colonial policies and actions have resulted in negative effects on Indigenous people's mental, emotional, physical, and spiritual health. Indigenous people continue to experience challenges with the Canadian healthcare system and health services today due to “the ongoing impacts of colonialism […], remoteness factors, jurisdictional barriers and gaps, and non-integration of health systems and health providers” (First Nation Health Authority 2013:6).

9.2.2 Social Determinants of Health as Informed by Primary Research

Community feedback obtained through primary research suggests that housing, employment, and cultural continuity are key social determinants of health in the Kitikmeot Region:

> The health conditions here can be understood through the basic social determinants of health. (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024)

To summarize some issues, the population is growing faster than the housing stock; employment is limited by few meaningful job opportunities and staffing constraints; and Inuit culture or way of life has rapidly changed in a short period of time.

Housing is a barrier to well-being. Interview participants often spoke to how housing scarcity is linked to overcrowding, mental health conditions, family issues, violence and abuse (Kikitak Housing Association, Gjoa Haven, pers. comm., November 15, 2024; Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14 2024; Omingmak Centre, Men's Shelter, Cambridge Bay, pers. comm., November 5, 2024; Taloyoak Housing Authority, Taloyoak, pers. comm., November 18, 2024). Homelessness is a growing issue in the region, and not every community has shelter services to support unhoused people (Taloyoak Housing Authority, Taloyoak, pers. comm., November 18, 2024). Mold within housing units exists throughout the region, and is a legitimate health concern (Taloyoak Housing Authority, Taloyoak, pers. comm., November 18, 2024). Furthermore, overcrowded housing may contribute to disease transmission.

> It used to be a case here and there but now it's basically all year round, and I think you could see there's probably three to half a dozen homeless people at any given time. (Taloyoak Housing Authority, Taloyoak, pers. comm., November 18, 2024)

The connection between employment and the high cost of living, food security, and an ability to participate in traditional activities and traditional land use was emphasized in by Kitikmeot community members. The price of healthy food makes it difficult to eat a well-rounded diet (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). Several community members spoke to a desire for more jobs in their communities.

> There are only a few places where you can get jobs locally. The Co-op, the Hamlet or the housing association. Those are kind of your three options. Maybe the GN, if you graduated. (Community Member, Kugaaruk, pers. comm., November 1, 2024)

Cultural continuity and practicing harvesting and other aspects of Inuit culture are associated with well-being. Community members emphasized how the change to Inuit way of life has been drastic and rapid (Canadian Coast Guard Auxiliary, Kugluktuk, pers. comm., November 8, 2024). While some people believe the values of the culture and hunting practices are being shared very well between generations (Community Member, Kugaaruk, pers. comm., November 1, 2024), others are concerned about a decline of Inuit knowledge (Gjoa Haven Hunters & Trappers, Gjoa Haven, pers. comm., November 16, 2024). Being on the land, hunting, and fishing have many benefits to physical and mental health as well as community well-being (Community Elder, Kugaaruk, pers. comm., October 31, 2024; Community Member, Cambridge Bay, pers. comm., November 3, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). For example, eating country food, sharing food, and participating in traditional activities supports well-being through nutrition, physical activity, and maintaining interpersonal relationships (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024,).

9.3 Physical Health Conditions and Outcomes

Physical health conditions and outcomes discussion in this section include rates of self-reported perceived health, rates of life expectancy, premature mortality, prevalence of chronic diseases, cancers, sexually transmitted infections, tuberculosis, immunization coverage, and suicide rates.

9.3.1 Perceived Health

Self-reported perceived health for Nunavut and Canada is displayed in Table 9.1. Nunavut residents have lower rates of “very good or excellent” perceived health and higher rates of “fair or poor” perceived health compared to the national rates. Females in Nunavut have greater rates of perceived health as “very good or excellent” compared to males, however, nationally, males have greater rates of “very good or excellent” perceived health.

Table 9.1 Perceived health in Nunavut and Canada; 2019/2020; total percent 12 years and over

	Nunavut			Canada		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Perceived health, very good or excellent	52.7	48.4	57.1	61.8	62.6	61
Perceived health, fair or poor	13.3[a]	15.5[a]	11.1[a]	10.8	10.4	11.2

Note:

[a] denotes the information is to be used with caution

Source: Statistics Canada (2022d)

9.3.2 Life Expectancy

Life expectancy in Nunavut is notably lower than the Canadian average. From 2020 to 2022, residents of Nunavut had an average life expectancy of 71.7 years for both sexes (68.9 years for males; 74.4 years for females) (Statistics Canada 2023c). This compares to the average life expectancy for all Canadian residents of 81.3 years (79.1 years for males; 83.6 years for females) (Statistics Canada 2023c).

9.3.3 Premature Mortality

Premature mortality is substantially greater in Nunavut than the national average (Table 9.2). From 2019 to 2021, the premature mortality rate in Nunavut was 2.4 times greater than the premature mortality rate of Canada.

Table 9.2 Premature mortality age standardized rate (per 100,000) from 2015 to 2021 for both sexes in Nunavut and Canada

	2015 to 2017	**2016 to 2018**	**2017 to 2019**	**2018 to 2020**	**2019 to 2021**
Nunavut	649.9	657.1	662.5	677.5	667.4
Canada	278.8	278.3	274.6	275.6	281.3

Notes:

Mortality is the death rate, which can be measured as total mortality (all causes of death combined) or by selected cause of death. All counts and rates are calculated using the total population (all age groups). Premature deaths are those of individuals who are younger than age 75.

Source: Statistics Canada (2023d)

9.3.4 Chronic Diseases

The Canadian Chronic Diseases Surveillance System is a collaborative network of provincial and territorial surveillance systems that generates national estimates and trends from a range of chronic diseases, conditions and other selected health outcomes (Public Health Agency of Canada 2024).

Table 9.3 summarizes chronic disease rates in Nunavut during 2021-2022. The age-standardized prevalence rates of hypertension, chronic obstructive pulmonary disease, heart failure and stroke are greater in Nunavut than in Canada overall. The prevalence of diabetes is lower in Nunavut compared to Canada overall; however, rates of diabetes have been increasing and more people may have diabetes than estimated potentially due to undertesting (Nunatsiaq News 2011).

Table 9.3 Select chronic diseases and conditions for Nunavut and Canada; 2021 to 2022; age-standardized prevalence (%)

	Nunavut			Canada		
	Both Sexes	**Males**	**Females**	**Both Sexes**	**Males**	**Females**
Hypertension, excluding gestational, 20 years and older	23.1	23.1	23.0	22.4	23.8	21.1
Diabetes mellitus (types combined), excluding gestational diabetes, age one year and older	7.2	7.2	7.1	8.3	9.3	7.5
Asthma, age one year and older	4.4	3.5	5.3	12.0	11.4	12.4
Chronic obstructive pulmonary disease, age 35 years and older	19.8	17.0	22.6	8.9	9.3	8.7
Heart failure, age 40 years and older	5.9	6.3	5.5	3.2	3.9	2.7
Stroke, age 20 years and older	3.6	3.9	3.4	2.6	2.8	2.4

Notes:

"age-standardized rate" refers to the prevalence to the 2011 Canadian population to adjust for difference in population age structure

"Prevalence" means the number of cases of a disease/condition present in a given time period in a population, expressed as a proportion.

Source: Public Health Agency of Canada (2024), data extracted May 31, 2024

Health professionals in each community confirmed that hypertension, diabetes, chronic obstructive pulmonary disease are chronic diseases of concern (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024; Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024). Health conditions are also worsening due to an ongoing shift away from a more traditional diet towards a diet high in processed foods (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024); for example, there is anecdotal evidence of worsening childhood obesity (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024, pers. comm.); and that a number of Inuit may have iron deficiency, manifesting as anemia (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024).

9.3.5 Cancer

Health statistics reported by the GN (2022b) indicate the incidence of cancer in Nunavut is generally greater than the Canadian average (ITK 2016a). For example, the rate of lung cancer in 2017 was 113 cases per 100,000 in Nunavut, compared to the national rate of 69.7 cases per 100,000. The age-standardized incidence rate for colorectal cancer in 2017 was almost 3 times greater in Nunavut than nationally. From 2008 to 2017, the Kitikmeot Region had an incidence rate of 30.9 per 100,000 population. In 2017, the age-standardized incidence rate of breast cancer in Nunavut (51.5 cases per 100,000) was below the national rate of 136.6 per 100,000 and similarly, prostate cancer rate was also lower in Nunavut compared to the national rates of 46.9 cases per 100,000 and 128.8 cases per 100,000 respectively. Within Nunavut, residents in the Kitikmeot Region had the lowest rate of breast cancer at 26.3 cases per 100,000 between 2008 and 2017. Factors associated with cancer incidence include tobacco use, alcohol abuse, nutrition, physical activity, environmental hazards, as well as other factors (ITK 2016a).

Residents of the LAA must leave their communities in order to seek medical treatments for cancer; medical travel is difficult for cancer patients as well as their medical escorts due to several reasons including the requirement of leaving their community, remoteness of communities in the Kitikmeot Region, cost of travel, time needed to travel, variability of air schedules, and a potential distrust in the medical system (Tammaaquik Women's Centre, Kugaaruk, pers. comm., October 29, 2024). Yellowknife is a medical hub for the Kitikmeot Region, however many people must travel farther south to Edmonton for cancer treatment (Pauktuutit Inuit Women of Canada 2024). Unfortunately, reported cancer cases are often diagnosed only once the cancer is already invasive (ITK 2016a).

9.3.6 Sexually Transmitted Infections

The rates of sexually transmitted infections (STIs) such as syphilis, gonorrhea and chlamydia are greater in Nunavut compared to the rest of Canada (GN 2023c). The number of new syphilis infections per 1,000 persons in 2020/2021 were between one to two infections; comparatively, syphilis rates in Canada were less than 0.35 per 1,000 people (GN 2023c). The number of new gonorrhea infections per 1,000 persons from 2019 to 2021 were 19, 22 and 13 respectively; comparatively, the Canadian rate is less than one case per 1,000 people (GN 2023c). The number of new chlamydia infections per 1,000 persons from 2019 to 2021 were 34, 33 and 28 respectively; comparatively, the Canadian rate is less than 5 cases per 1,000 (GN 2023c).

Primary research indicates that there is an upward trend in STI incidence. Chlamydia and gonorrhea are the primary infections; syphilis is less common but still presents in the region (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024; Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024). Anecdotal evidence suggests that infidelity during travel to the city or work camp may be a driver of sexually transmitted infection incidence (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024).

9.3.7 Tuberculosis

Tuberculosis among Inuit has been identified as a public health crisis because of the disproportionately high prevalence among Inuit compared to other Canadians (ITK 2018; Patterson et al. 2018). Tuberculosis in Nunavut has colonial dimensions and historically led to medical evacuations to distant sanitoriums in southern Canada (ITK 2018). Although information specific to the Kitikmeot Region is unavailable, in 2016, rates of active tuberculosis among Inuit in Inuit Nunangat were 38 times greater than Canadian rates (ITK 2018). The continuing high rates of tuberculosis are associated with inequities in the social determinants of health, poverty and overcrowded housing being the main contributing factors (Patterson et al. 2018).

9.4 Mental Health Conditions and Outcomes

Mental health conditions and outcomes are described using available rates of perceived mental health, perceived life stress, rates of mood disorders, use of health services for mental illness and alcohol/drug induced disorders and rates of suicide. The results from primary research indicates that both health professionals and Kitikmiut across the Kitikmeot Region are concerned with the state of mental health.

9.4.1 Perceived Mental Health

Rates of self-reported mental health indicators for Nunavut residents in 2019/2020 are displayed in Table 9.4. The proportion of residents reporting their perceived mental health as “very good or excellent” is notably lower in Nunavut compared to the national rate. For both Canada and Nunavut, females had lower rates of “very good or excellent” perceived mental health compared to males.

Table 9.4 Perceived mental health in Canada and Nunavut; 2019/2020; total percent 12 years and over

	Nunavut			Canada		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Perceived mental health, very good or excellent	53.6	55.7	51.5[a]	66	69.4	62.8
Perceived mental health, fair or poor	-	-	-	8.9	8	9.7

Notes:

[a] denotes the information is to be used with caution

“-“ data is unavailable or too unreliable to be published

Source: Statistics Canada (2022d)

Primary research undertaken with healthcare professionals and Kitikmeot community members confirmed that mental health outcomes are generally poor and they represent a large deficit in the health system (Community Member, Cambridge Bay, pers. comm., November 3, 2024; Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024; Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024). Adverse mental health is often associated with alcohol and intergenerational trauma. There is more public discourse about mental health now than there used to be (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024).

9.4.2 Perceived Life Stress

Chronic stress is a negative health outcome which can influence community wellbeing and an individual's physical health. The perceived life stress of Nunavut residents is lower than the Canadian average (Table 9.5). Stress can result from a variety of factors related to an individual's life, work, family, health, or other matters.

Table 9.5 Perceived life stress in Canada and Nunavut; 2019/2020; total percent 12 years and over

	Nunavut			Canada		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Perceived life stress, most days quite a bit or extremely stressful	15.4[a]	16.0[a]	14.7[a]	20.8	19.4	22.2

Notes:
[a] denotes the information is to be used with caution
"-" data is unavailable or too unreliable to be published
Source: Statistics Canada (2022d)

9.4.3 Mood Disorders

Mood disorders are mental health conditions that affect people's emotional state, such as depression or bipolar disorder. Although there are lower rates of "very good or excellent" perceived mental health in Nunavut than nationally, Nunavut has a lower proportion of people with diagnosed mood disorders compared to national rates (Table 9.6). As described in Section 9.7.1, however, there is a lack of access to medical professionals in Nunavut (Office of the Auditor General of Canada 2017); this may contribute to the reduced mental health service use (Public Health Agency of Canada 2024) and therefore lower prevalence of diagnosed mood disorders because there are few doctors to provide those medical diagnoses.

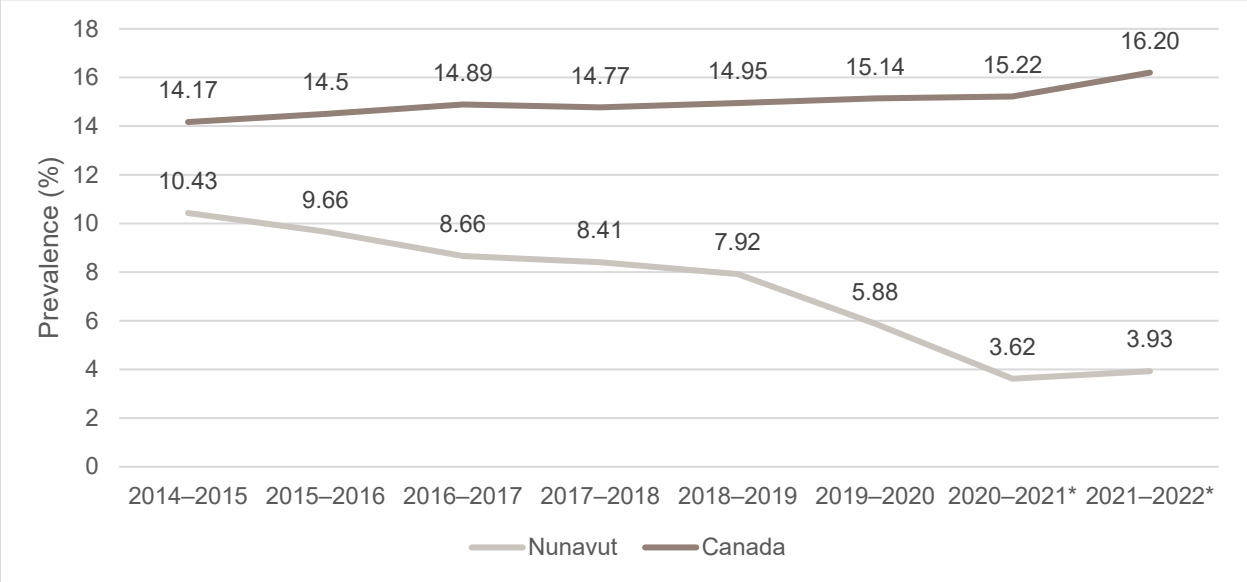
Table 9.6 Mood disorders in Canada and Nunavut; 2019/2020; total percent 12 years and over

	Nunavut			Canada		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Mood disorder	5.8[a]	-	5.1[a]	9.0	7.0	11.0

Notes:
[a] denotes the information is to be used with caution
"-" data is unavailable or too unreliable to be published
Source: Statistics Canada (2022d)

The age-standardized prevalence for use of health services for mental illness and alcohol/drug induced disorder is presented in Figure 9.2. 16.2% of the Canadian population used health care services for mental illness/alcohol and drug induced disorders from 2021-2022 compared to 3.9% in Nunavut. The prevalence of mental health service use for Nunavut has been decreasing since 2014 while the Canada-wide prevalence has been increasing. The burden of mood disorders is increased among youth; it was noted that youth may be more susceptible to anxiety and depression (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024).

Figure 9.2 Use of health services for mental illness and alcohol/drug induced disorder, age-standardized prevalence, percent, age one year and older, 2014 to 2022, Nunavut, and Canada



Note:
- *Use data cautiously when making inferences about population health during the COVID-19 pandemic
Source: Public Health Agency of Canada (2024), data extracted May 31, 2024

Findings from published information and statistics aligns with primary research that was conducted; healthcare professionals suggest that each community is under resourced for the burden of mental health conditions. Mental health care represents a large gap in the health system (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). As a result, people in the community may self-medicate their depression or mental health conditions with alcohol (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024).

9.4.4 Suicide

Suicide rates among Inuit are 25 times the Canadian average (Affleck et al. 2020). The suicide rate has steadily increased from roughly 10 suicides per 100,000 people in the 1970's to over 100 suicides per 100,000 people in the 2010's (Nunavut Tunngavik Incorporated 2015). Men and youth are disproportionately affected by suicide (Nunavut Tunngavik Incorporated 2015). In 2017 in Inuit Nunangat, 11.6% of the Inuit population (age 18+) reported attempting suicides in their lifetime (Konefal 2021). The results of primary research align with published information, suggesting that the Kitikmeot Region has a higher than Canadian average of suicidal ideation (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). Several interview participants mentioned that suicide disproportionately affects youth (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024; Netsilik Ilihakvik, Taloyoak, pers. comm., November 19, 2024). Interview participants also spoke to how deeply suicides are felt across the community, especially when youth are involved.

Suicide prevention is a top priority for Inuit governments, organizations, and communities (ITK 2016b). Kitikmeot Inuit Association staff reiterated how suicide is one of the top issues in the communities (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024). The elevated risk for suicide in Inuit communities is an effect of historical and intergenerational trauma and widespread social and economic inequities (ITK 2016b, Canadian Centre on Substance Use and Addiction (CCSA) 2021). Suicide is associated with risk factors such as mental illnesses (depression, mood disorders, and anxiety disorders), alcohol use, and cannabis use (CCSA 2021). Premature mortality due to suicide may contribute to the stark difference in life expectancy between Nunavut and the Canadian average. ITK released its National Inuit Suicide Prevention Strategy in 2016 to support the coordination of an evidence-based, national suicide prevention strategy (ITK 2016b).

9.5 Personal Health Behaviors

Personal health behaviors relate to the actions taken by individuals that affect health or mortality (Short and Mollborn 2015). Examples of actions classified as health behaviors include physical activity, diet, smoking, substance use, sleep, risky sexual activities and health care seeking activities (Short and Mollborn 2015). Based on available information, this section describes smoking, drinking, illicit drug use and immunization coverage information relevant to the Kitikmeot Region. Diet is further described in Section 10, Food Security and Sovereignty.

9.5.1 Substance Use

Substance use among Inuit is influenced by complex historical and cultural contexts, including intergenerational trauma stemming from settler colonialism (Pauktuutit 2006). Generally, alcohol, and marijuana were reported to be the main drugs that are used in the Kitikmeot Region (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024; Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024). Organizations within Nunavut are working to address substance use related issues in their communities. For example, Pauktuutit has a range of resources and programs relating tobacco cessation, marijuana use, and alcoholism; Pauktuutit also has an ongoing campaign on fetal alcohol syndrome disorder (Pauktuutit 2021). Additionally, the Kitikmeot Friendship Society can liaise with community organizations to support people in seeking substance use and addictions programming (Kitikmeot Friendship Society, Cambridge Bay, pers. comm., November 14, 2024).

9.5.1.1 Smoking

The prevalence of smoking in Nunavut in 2019/2020 is displayed in Table 9.7. In Nunavut, the proportion of current daily or occasional smokers for both sexes was 3.8 times the national rate. In 2017, 20% of Inuit also reported daily or near daily use of cannabis (CCSA 2021). The prevalence of cannabis use is higher among Inuit men than women (CCSA 2021).

Table 9.7 Smoking in Canada and Nunavut; 2019/202; total percent 12 and older

	Nunavut			Canada		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Current smoker, daily or occasional	53.1	50.1[a]	56.2	13.9	16.6	11.2
Current smoker, daily	46.8	45.5[a]	48.1	9.5	11.2	7.9

Notes:

[a] denotes the information is to be used with caution

"-" data is unavailable or too unreliable to be published

Source: Statistics Canada (2022d)

9.5.1.2 Drinking

The GN provides communities with decision-making authority over potential liquor restrictions. Within the RAA, three liquor restriction regimes are in place. Within Taloyoak and Cambridge Bay, liquor is unrestricted (GN 2024c). Within Kugluktuk, a system of restricted quantities exists; import and purchase limits restrict individuals to specific quantities of spirits, beer, and wine every two weeks (GN 2023d). Within Gjoa Haven and Kugaaruk, a prohibition system exists; no liquor is allowed within at least a 20 km radius of the hamlet (GN 2024c). Alcohol restriction regimes in the Kitikmeot Region are shown in Table 9.8. Of importance regarding alcohol abuse is that there are no withdrawal programs or centres in Nunavut.

Table 9.8 Alcohol Restriction Regimes in Kitikmeot Region

Community	Alcohol restriction regime
Cambridge Bay	Unrestricted
Gjoa Haven	Prohibited
Kugaaruk	Prohibited
Kugluktuk	Restricted Quantities
Taloyoak	Unrestricted

The prevalence of heavy drinking in Nunavut and Canada in 2019/2020 is displayed in Table 9.9. Despite liquor restrictions across many communities in the territory, heavy drinking rates in Nunavut are similar to the national rates. Inuit consume less alcohol overall than the Canadian average; however, bouts of binge drinking are more prevalent; binge drinking among Inuit is associated with violence and abuse (CCSA 2021).

Table 9.9 Heavy drinking in Canada and Nunavut; 2019/2020; total percent 12 and older

	Canada			Nunavut		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Heavy drinking	17.2[a]	22.0[a]	-	17.5	21.3	13.7

Notes:
[a] denotes the information is to be used with caution
"-" data is unavailable or too unreliable to be published
Source: Statistics Canada (2022d)

Primary research finds that the implications of alcoholism on the Kitikmeot are very complex and severe. Alcoholism is a chronic disease that has a significant health burden in the region, as it relates closely to mental health, intergenerational trauma, violence and abuse (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024; Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024). Alcohol detoxification programs in the region are unavailable to most (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024).

> There's absolutely no work being done around drinking, the complications of drinking, drinking of moderation. (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024)

The Taloyoak RCMP detachment reported that, in some months, up to 75% of their call volume is alcohol related (RCMP, Taloyoak, pers. comm., November 18, 2024).

RCMP throughout the region are aware of bootlegging (even in Prohibited communities) through the Canada Post and Canadian North flights (RCMP, Cambridge Bay, pers. comm., November 4, 2024; RCMP, Kugaaruk, pers. comm., October 29, 2024; RCMP, Kugluktuk, pers. comm., November 8, 2024) and community members often express concerns on this topic. However, there is said to be little enforcement, and the consequences of bootlegging are not very severe (RCMP, Kugaaruk, pers. comm., October 29, 2024).

9.5.1.3 Illicit Drugs

In 2017, 2.8% of the Inuit population (aged 18+) in Canada reported using illegal substances in the previous year (CCSA 2021) and 1.2% of the Inuit population reported the use of non-medical prescription drugs in the previous year (CCSA 2021). This may not be representative of the baseline conditions in Kitikmeot, as most illegal substance use was by Inuit living outside of Inuit Nunangat (CCSA 2021). This was also prior to the legalization of cannabis in Canada.

Rates of police reported crime for selected drug offences can serve as a proxy indicator of illicit drug use. In 2020 the overall rate of crime for drug offenses in Nunavut was about 15% lower than for Canada overall.

Table 9.10 Rates (per 100,000 persons) of Police-reported crime for selected drug offences and total drug violations in Canada and Nunavut, 2020

Drug	Nunavut	Canada
Cocaine	25	40
Methamphetamine	5	37
Ecstasy	3	2
Opioids	0	14
Heroin	0	7
Other drugs	20	43
Total Drug Violations	**150**	**176**

Source: Statistics Canada (2021c)

Table 9.11 shows drug violations as a percentage of all criminal violations in the Kitikmeot communities between 2008 and 2018. The rate of drug violations was less than 5% of all criminal violations in all Kitikmeot communities from 2008-2018 except Kugaaruk, which had a drug violation rate of 13.6%, 5.6%, and 9.3% in 2011, 2012, and 2013, respectively. In 2018, the drug violation rate in Kugaaruk was less than 1%.

Table 9.11 Rates of drug violations as a percentage of total violations in Kitikmeot communities, 2008-2018

Year	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk
2008	1.1	1.9	1.4	2.1	1.6
2009	2.4	1.3	1.2	1.7	0.0
2010	3.1	1.9	2.4	1.4	2.5
2011	1.6	1.7	1.8	3.5	13.6
2012	2.1	1.4	0.0	3.1	5.6
2013	2.2	4.0	0.5	1.9	9.3
2014	1.3	1.7	0.4	2.1	2.2
2015	1.0	2.4	0.3	2.5	2.1
2016	0.6	1.4	0.6	1.3	0.8
2017	0.6	0.6	2.6	1.8	2.6
2018	0.2	0.5	1.3	0.3	0.9

Source: Nunavut Bureau of Statistics (2021)

Primary research conducted in 2024 indicated that the presence of illicit drugs in the Kitikmeot Region varies between community. It appears that illicit drugs are more visible in Cambridge Bay than the smaller communities in the region. RCMP in Taloyoak and Kugaaruk suggested that hard drugs are uncommon, only identifying cannabis and psychedelic mushrooms as being used (RCMP, Taloyoak, pers. comm., November 18, 2024; RCMP, Kugaaruk, pers. comm., October 29, 2024). It appears that opiates are not readily available in the region (RCMP, Gjoa Haven, pers. comm., November 14, 2024).

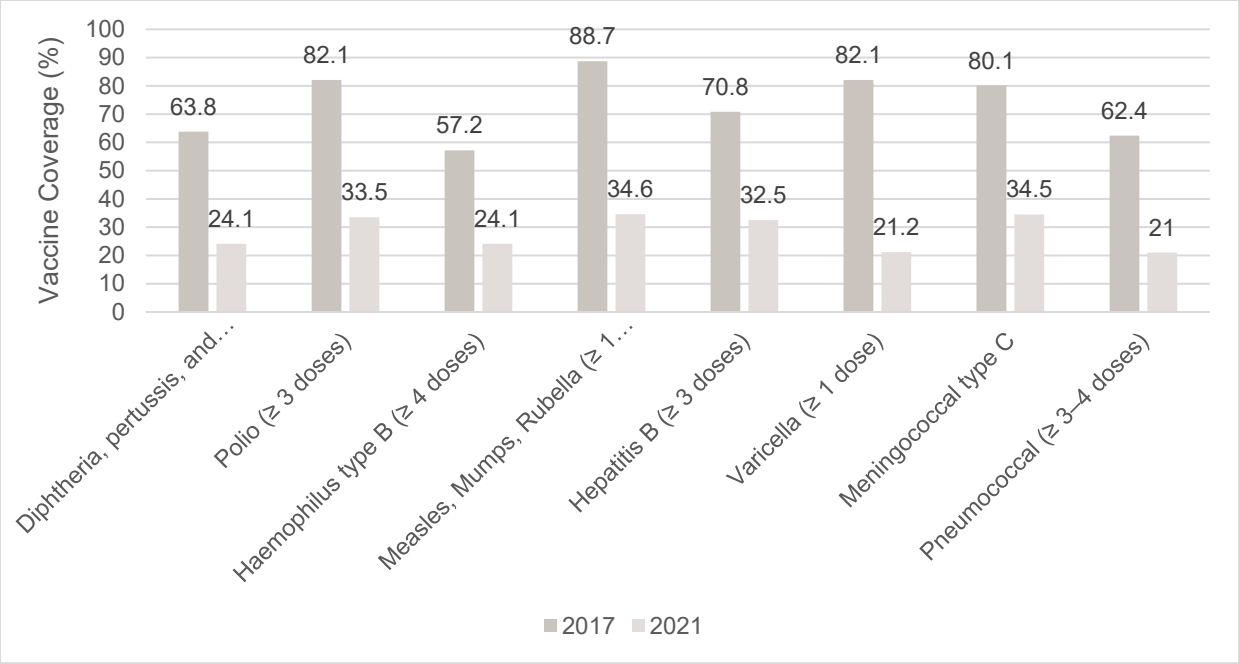
> There's alcohol, but there's no hard drugs. People smoke cannabis, but there's no hard drugs like you find down south. (Community Member, Kugaaruk, pers. comm., November 1, 2024)

> The hard drugs have really worked their way into the community and they are affecting a lot of people. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

9.5.2 Immunization Coverage

The national vaccine coverage goal is 95% for recommended vaccines for two-year old children, which has not yet been met by any province (GOC 2024c). Vaccine coverage for Nunavut is displayed in Figure 9.3. Relative to Canada, vaccination rates of two-year old children in Nunavut in 2021 are low; the percentage of two-year old children in Canada getting vaccinated ranges from 75-92%, compared to about 30% in Nunavut (GOC 2024c). For the years between 2017 to 2021, in Nunavut, the vaccine coverage for diphtheria, pertussis and tetanus, polio, haemophilus type B, measles, mumps, rubella, hepatitis B, varicella, meningococcal type C, and pneumococcal decreased drastically. The vaccine coverage in Nunavut dropped by more than 50% for most vaccines, possibly due to the COVID-19 pandemic; this same pattern was not observed on average in Canada. Nunavut coverage estimates are of marginal quality due to high sampling variability (Statistics Canada 2023e). Two-year-old children living in remote areas had lower vaccine coverage compared to those living in more accessible locations (GOC 2024c).

Figure 9.3 Estimated vaccine coverage of routine childhood vaccines by 2 years of age in Nunavut in 2017 and 2021; percent



Notes:
There is a statistically significant difference between 2019 and 2021
Estimates in 2021 are of marginal quality due to high sampling variability and should be used with caution
Source: GOC (2024c)

Nunavut residents were the most inclined (18.0%) out of any other province or territory (Canadian average 7.7%) to get children aged two years vaccinated due to the Covid-19 pandemic (Statistics Canada 2023e). Based on Indigenous identity, Inuit were the most inclined (35.7%) compared to non-Indigenous people (7.7%) and First Nations (2.0%) to get children aged 2 years vaccinated due to the Covid-19 pandemic (Statistics Canada 2023e). Primary research confirms the finding that immunization rates are high in Kitikmeot (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024).

9.6 Community and Family Stability

9.6.1 Sense of Belonging and Life Satisfaction

Sense of belonging to a community is an indicator of community and family stability. The rate of sense of belonging to local community (somewhat strong or very strong) is greater among Nunavut residents than the national rates (Table 9.12). However, the rate of life satisfaction (satisfied or very satisfied) is lower among Nunavut residents compared to the national rate.

Table 9.12 Sense of belonging and life satisfaction in Canada and Nunavut; 2019/2020; total percent 12 years and older

	Canada			Nunavut		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Sense of belonging to local community, somewhat strong or very strong	70	68.7	71.2	83	85	81
Life satisfaction, satisfied or very satisfied	93.3	93.5	93.1	87.7	85.6	89.8

Notes:
a denotes the information is to be used with caution
Source: Statistics Canada (2022d)

9.6.2 Family Dynamics/Relationships

Family dynamics are defined as the patterns of interactions among relatives, their roles and relationships, and the various factors that shape their interactions (Jabbari et al. 2023). Exposure to unhealthy family dynamics can have negative effects on personal health outcomes. For example, children with unhealthy relationships may have increased risk of developing heart disease, lung disease, liver disease, depression, anxiety, childhood obesity, substance use and addiction (Jabbari et al. 2023). Additionally, poor family dynamics and relationships do not promote community cohesion.

Among Inuit throughout the Arctic, traditional family groupings consist of a father, mother, their children and other relatives such as grandparents or uncles/aunts (Pauktuutit 2006). Traditionally, cooperation between husband and wife was an integral part of the Inuit family unit (Pauktuutit 2006). Gender roles provided men authority on matters outside of the home (hunting, tool making, and transportation) and women authority within the home (childrearing, water, food preparation, and making clothes). Due to the

harsh nature of life in the Arctic, partnership and teamwork within the family unit is essential. The family unit has changed over time, with the roles of men and women changing due to employment within the wage economy, social assistance, and moving beyond traditional gender roles. A shift away from the traditional economy towards a wage economy may contribute to adverse family dynamics as there is typically unequal amounts of responsibility falling upon one parent (Pauktuutit 2016).

Modern Inuit family dynamics are distinct from traditional dynamics because of larger, more permanent communities and other societal changes stemming from colonization. Due to a chronic shortage of housing, it is common for multiple families to share the same house. Table 4.3 also shows there is a higher percentage of couples living common law than married couples in the Kitikmeot Region. Interviews with housing associations and community members across the region have confirmed how common multigenerational homes are, and the concern about overcrowding (Kikitak Housing Association, Gjoa Haven, pers. comm., November 15, 2024). In severe instances, there are reports of upwards of 15 people living in one household (RCMP, Gjoa Haven, pers. comm., November 14, 2024). Overcrowded housing is a potential strain on family dynamics and may lead to the pattern commonly seen where youth are asleep during the day and active at night, sometimes called ‘going backwards’ (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024).

While sharing (particularly of country food) remains an important cultural trait, family and community support systems in the region are changing. Supports from Inuit organizations or local HTOs through community freezers where country food is shared are helpful (Community Member, Kugaaruk, pers. comm., November 1, 2024). One Elder noted how the way that people help others in their community has changed, people don't help their family as much and they don't share food in the same way as before (Community Elder, Kugaaruk, pers. comm., October 30, 2024). Community feasts that bring people together for activities, games, and sharing food are supportive to family dynamics (Community Member, Cambridge Bay, pers. comm., November 3, 2024). Increased community programs targeting health and social wellbeing are important support systems that may promote community family stability (Cambridge Bay Wellness Centre, Cambridge Bay, pers. comm., November 5, 2024; Hamlet Staff, Gjoa Haven, pers. comm., December 5, 2024).

Cultural continuity plays a strong role supporting family dynamics within Kitikmeot communities. People still regularly participate in traditional activities, which supports community stability; however, barriers to the transfer of Inuit Knowledge and language to younger generations presents a challenge to community wellbeing (Community Member, Kugaaruk, pers. comm., November 1, 2024; Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024). Many Kitikmiut still desire to be home in their communities, rather than elsewhere (GN Staff, Kugluktuk, pers. comm., November 7, 2024). The family unit also retains a great deal of importance to Inuit and there remains a high level of respect for Elders in communities throughout the Kitikmeot. Many interview participants spoke to the importance of providing Elders with traditional food, because it is what they grew up eating. This suggests that Inuit culture plays a strong role in family dynamics and relationships.

9.6.2.1 Lone Parent Families

Lone parent families may experience disproportionate negative health and wellbeing outcomes such as mental health, substance use, struggles with academics and behavioral problems (Campbell et al. 2016). Negative health outcomes associated with lone parent families are not limited to the children of those families, the parent may experience negative health outcomes as well. For example, food insecurity has been found to be highest among female lone parent families (Uppal 2023).

Nationally, fewer Inuit children aged 0-4 (68.8%) live in two parent households than children aged 0-4 of non-Indigenous identity (86.2%). More Inuit children aged 0-4 (26.5%) live in lone parent households than children aged 0-4 of non-Indigenous identity (13%). Among Inuit children aged 0-4 living in lone parent households, 20.6% live with a female lone parent and 6% live with a male lone parent. This distribution is similar to children aged 0-4 of non-Indigenous identity living in lone parent households, with 11.1% living in female lone parent households and 1.9% living in male lone parent households (Statistics Canada 2017).

More Inuit children aged 0-4 in both two parent households (6.2%) and lone parent households (12.8%) also live with grandparents compared to children aged 0-4 of non-Indigenous identity (6.2% and 3%, respectively) (Statistics Canada 2017).

9.6.3 Community Safety

The state of community safety in the LAA varies by community and between people within each community. Criminal code violations in the LAA are mainly characterized by violence and sexual assault; community safety is also heavily gendered, women suffer disproportionately from violence and assault.

9.6.3.1 Criminal Code Violations

An analysis of rates of criminal code violations reveals that crime in Nunavut is higher than the national rates (Table 9.13). On a per capita basis, violent criminal code violations are nine times more prevalent in Nunavut; sexual assault (level 1) is six times more prevalent; and sexual violations against children are 14 times more prevalent, compared to Canada overall (Statistics Canada 2023f). The rate of homicide in Nunavut is also much greater than the Canadian average (Table 9.13). Nunavut has the highest rate of homicides out of any province or territory (GN 2019b).

In 2022/2023 in the Kitikmeot Region, the Department of Family Services received 265 referrals for children and youth experiencing family violence, and 43 referrals for sexual or physical abuse (Representative for Children and Youth's Office 2023). Additionally, in the Kitikmeot Region in 2022/2023, there were 153 charges of domestic violence, 28 convictions related to domestic assault, and 31 sexual assault victims (Representative for Children and Youth's Office 2023).

Table 9.13 Rate per 100,000 persons of criminal violations in the Kitikmeot Region, Nunavut, and Canada, 2023

Indicator	Cambridge Bay	Kugluktuk	Gjoa Haven	Taloyoak	Kugaaruk	Nunavut	Canada
All Criminal Code Violations	66,342.2	78,912.0	24,619.6	44,961.2	13,870.4	56415.8	5843.1
Violent Criminal Code Violations	19,416.0	23,572.9	7,468.9	10,562.0	2,657.8	13244.7	1427.9
Homicide	0	0	0	0	0	4.9	1.9
Sexual Assault, Level 3	0	0	0	0	0	2.5	0.3
Sexual Assault, Level 2	0	0	0	0	0	29.5	1.9
Sexual Assault, Level 1	819.7	738.8	345.8	387.6	83.1	592.5	89.2
Sexual Violations Against Children	614.8	738.8	69.2	484.5	0	405.7	28.7
Other Assaults	0	0	0	0	0	4.9	5.9
Forcible Confinement or Kidnapping	51.2	67.2	138.3	0	0	73.8	9.9
Abduction	0	0	0	0	0	4.9	1.0
Offences in Relation to Sexual Services	0	0	0	0	0	4.9	2.1
Human Trafficking	0	0	0	0	0	0	1.1

Source: Statistics Canada (2023f)

RCMP officers at detachments in the Kitikmeot Region provided a more nuanced understanding of police work. The main reasons for calls to the RCMP are health related, and include alcohol, mental health, and domestic violence (RCMP, Cambridge Bay, pers. comm., November 4, 2024). Officers in Kugaaruk and Taloyoak suggested that local crime and violence is not as severe as that on Baffin Island (RCMP, Kugaaruk, pers. comm., October 29, 2024; RCMP, Taloyoak, pers. comm., November 18, 2024). Primary research suggests an increase in vandalism and mischief, potentially by youth in the communities (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024; RCMP, Taloyoak, pers. comm., November 18, 2024).

9.6.3.2 Gender-based Violence

Gender-based violence is any type of harm against someone because of their sex or gender. Gender-based violence stems from unequal power relations between genders, and often results in harms against women and gender diverse people. Examples of gender-based violence include physical, sexual, and verbal abuse as well as various forms of exploitation. Systemic racism plays a role in gender-based violence; an ITK report about the National Inquiry on Missing and Murdered Indigenous Women and Girls emphasizes how social and economic inequities compound gender-based violence (ITK 2021c).

Gendered violence in Nunavut is associated with colonialism and intergenerational trauma. Colonialism led to rapid transformation to the Inuit social structure reducing the traditional economy, forcing people into permanent settlements, and removing children from their families (ITK 2021c). Inuit women suggest

that policing by the RCMP had, and continues to have, a negative impact on gender-based violence, from the perspective of Inuit women (Pauktuutit 2020). Gender-based violence has been associated with racialized policing in Nunavut and resource extraction industries (Pauktuutit 2016, 2020). As social and economic issues as well as intergenerational trauma fester, violence against Inuit women continues; Inuit women state that decolonization and restoring self-determined Inuit governance is an important path forward (Pauktuutit 2020).

Both Inuit men and women experience violence, although women are significantly more affected by gender-based violence (Pauktuutit 2020). Women in Nunavut experience violent crime at more than 13 times the rate of the average Canadian woman (Pauktuutit 2020). Interview participants spoke to the link between gender-based violence and addictions, intergenerational trauma, and overcrowded housing (Omingmak Centre, Men's Shelter, Cambridge Bay, pers. comm., November 5, 2024; RCMP, Taloyoak, pers. comm., November 18, 2024). Local RCMP officers confirm that several calls per month are related to domestic abuse or intimate partner violence; often with the same offender, repeatedly (RCMP, Gjoa Haven, pers. comm., November 14, 2024; RCMP, Taloyoak, pers. comm., November 18 2024).

> Brutal sexual assault is not uncommon, sadly. There are likely one to two cases of sexual assault per week and it is mostly, if not always, women being assaulted. (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024)

The disproportionate burden of gender-based violence is Nunavut is evidenced in criminal violation data (Table 9.13). High rates of sexual assault, sexual violations against children, forcible confinement and kidnapping, and offences in relation to sexual services in Nunavut illustrate the severity of gender-based violence in the region.

> It seems like there's a lot more leniency when it comes to domestic violence here. (RCMP, Gjoa Haven, pers. comm., November 14, 2024)

> Childhood sexual or physical abuse is more common here than any province (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024).

9.7 Health Services

Nunavut's Department of Health is responsible for delivering health care services in Nunavut as well as for developing policies and legislation that govern the health care system. The Department of Health is responsible for directly delivering health care services. The GN offers the Nunavut Health Care Plan for permanent residents of Nunavut; the plan covers the costs of health services similarly to the provinces (Office of the Auditor General of Canada 2017).

Health care is provided at community health centres throughout the Kitikmeot. Cambridge Bay has the Kitikmeot Regional Health Centre, which is the largest health facility in the region; Kugaaruk, Kugluktuk, Gjoa Haven, and Taloyoak each have health centres, as well. Primary health care providers in the communities may include nurse practitioners, community health nurses, home care nurses, public health nurses, family physicians, and pharmacists.

Table 9.14 shows the annual number of visits to a community health centre by community from 2017-2023. In 2023, the number of visits to a community health centre was highest in Cambridge Bay, followed by Taloyoak. The highest number of visits to a community health centre per capita in 2023 was in Taloyoak (8.8). The fewest total number of visits to a community health centre and number of visits per capita (5.3) in 2023 was in Kugaaruk. The most common reason for visiting a community health centre across all Kitikmeot communities in 2023 was for a general medical examination, followed by immunizations (Nunavut Bureau of Statistics 2025c).

Table 9.14 Annual Community Health Centre Visits by Community and Region, 2017-2023

Area	2017	2018	2019	2020	2021	2022	2023
Kitikmeot Region	40,024	37,407	25,063	1,092	20,471	42,289	47,766
Cambridge Bay	9,805	9,139	11,023	879	5,761	10,647	11,764
Gjoa Haven	8,048	7,647	4,330	101	4,390	9,132	9,132
Kugaaruk	6,455	4,556	1,513	2	3,739	5,914	7,551
Kugluktuk	8,951	10,016	4,335	110	3,287	7,743	8,748
Taloyoak	6,765	6,049	3,862	0	3,294	8,853	10,571

Source: Nunavut Bureau of Statistics (2025c)

Medical travel is often necessary for residents requiring services not available in the territory. Due to the size of the territory, dispersion of the small population, weather, and reliance on air transportation, delivering health care services in Nunavut is challenging and expensive. Medical travel is either through a scheduled commercial flight or by a medical evacuation (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). Patients are sent to larger centres in Iqaluit, Rankin Inlet, Cambridge Bay, Yellowknife, Ottawa, Churchill, Winnipeg, or Edmonton depending on the level of treatment required. The main referral centres for people in the Kitikmeot Region are Cambridge Bay, Yellowknife and Edmonton (Office of the Auditor General of Canada 2017).

9.7.1 Healthcare Providers

Nunavut residents are the least likely in Canada to have a regular healthcare provider (Nunavut Tunngavik Incorporated 2020). The territory has the fewest staffed and operational hospital beds per capita in the country, with 1,095 persons per bed in 2018-2019, compared to a national average of 409. Nunavut also spends the most per capita of any region in Canada on out-of-jurisdiction healthcare and travel (Nunavut Tunngavik Incorporated 2020).

There are challenges with recruiting and retaining health care personnel in Nunavut. Many of Nunavut's health care personnel—especially nurses and physicians—are from outside the territory. Challenges to recruiting and retaining health care personnel include a high cost of living, expensive travel, and limited job opportunities for spouses. Working in small, isolated communities far from family can also be a disincentive (Office of the Auditor General 2017).

It is common for health care in small jurisdictions to be provided by physicians who temporarily relocate during the year from other larger jurisdictions (itinerant physicians) (Canadian Institute for Health Information (CIHI) 2023). Typically, about half of the family physicians in Nunavut are travel doctors (CIHI 2022). In 2022, there were 29 physicians with a postal code in Nunavut comprised of 25 family medicine physicians and four specialists. Data indicate there were 175 individual family medicine physicians providing 8,020 days of service in the territory in 2022, or an average of 46 service days each. There were also 29 individual specialist physicians providing 2,347 days of service in the territory that year, or an average of 81 service days each (CIHI 2023). In 2022-2023, there were 10 family medicine physicians in the Kitikmeot Region, down from 19 in 2019-2020. There was only one specialist in the Kitikmeot Region in 2021-2022. Date for 2022-2023 were not available (CIHI 2023).

Health care providers that work in one community for long terms are much more effective than short term travel nurses. For example, Taloyoak and Kugluktuk currently have long-term mental health care providers that have built strong relationships with their patients, which allows for a higher standard of care (Hamlet Staff, Kugluktuk, pers. comm., November 7, 2024; Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024). Staffing health centres in the Kitikmeot is always an issue (Hamlet Staff, Kugluktuk, pers. comm., November 7, 2024; Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024).

9.7.2 Gaps in Health Services as Informed by Primary Research

The demand for healthcare services in the Kitikmeot is greater than local healthcare professionals can supply. Lack of healthcare services is a concern among health professionals across the Kitikmeot (Judy Hill Memorial Health Centre, Taloyoak, pers. comm., November 20, 2024; Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024; Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). For example, in Gjoa Haven, doctors only come for five days every six weeks (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024). Specialized health services are often not available in community, or there are not enough staff to provide care. This finding aligns with the data presented in Figure 9.2.

Inadequacy of available mental health care was a prevalent concern of medical professionals across the Kitikmeot. Cambridge Bay has a mental health facility servicing the entire region with eight beds (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024); the facility provides counselling programs which are largely unavailable in other communities. There are usually between one and three mental health workers in Cambridge Bay, and Cambridge Bay is considered a health resource rich community when compared to others in the Kitikmeot (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024). The communities' mental health affects RCMP call volumes (RCMP, Gjoa Haven, pers. comm., November 14, 2024; RCMP, Kugaaruk, pers. comm., October 29, 2024). A significant gap in current health services is alcohol detoxification and treatment programs (Kitikmeot Regional Health Centre, Cambridge Bay, pers. comm., November 6, 2024).

In most communities there are Elders that live at home without the level of care needed. In the Kitikmeot Region, there are two long-term-care facilities, which are located in Cambridge Bay and Gjoa Haven, each with approximately 10-12 beds (Kitikmeot Regional Health Centre, Cambridge Bay, November 6 2024, pers. comm.). These facilities have palliative care and respite care beds, and are for anybody in the territory (Kativik Health Centre, Gjoa Haven, pers. comm., November 14, 2024).

9.8 Summary of GBA Plus Considerations

Different segments of the population have unique social determinants of health and this can lead to disproportionate health outcomes. Similarly, different segments of the population within Kitikmeot communities have unique histories of colonialism and experiences of intergenerational trauma. The diversity of identity factors and experiences with colonialism or intergenerational trauma manifest as health outcomes through unique pathways of effect.

The social determinants of Inuit health differ somewhat from social determinants of health among other populations, as mentioned in Section 9.2.1. In particular, the environment is an all-encompassing determinant of Inuit health (ITK 2014) which suggests that in the context of Inuit health, the environment often plays a more important role than in other populations. The importance of the environment as a determinant of health is likely emphasized among hunters and trappers, and less important among non-Indigenous Nunavummiut. Additionally, the inclusion of culture and language as determinants of Inuit health points towards the differences in what affects community health and well-being in Nunavut.

A main consideration for Community Health and Wellbeing as it relates to GBA Plus are the effects of colonialism. Although there are distinctions between the communities and individuals, colonialism arises as a contributing determinant to physical and mental health outcomes, alcoholism, gender-based violence, and numerous other challenges affecting people in the Kitikmeot. For example, Inuit experience notably worse health outcomes than non-Indigenous people in Canada. The higher rates of adverse mental health outcomes and suicides in Nunavut, compared to Canada overall, is linked to the cultural and social disruption that resulted from colonialism, among other factors. Furthermore, loss of purpose among some Inuit men due to participation barriers in the traditional economy, stemming from colonialism, contributes to the increased burden of mental health on men.

Data from Statistics Canada and the Nunavut Bureau of Statistics illustrate some aspects of gender-based differences in community health and well-being. While the lack of disaggregated data limits analysis relating to all subpopulations identified in Table 3.5, it is evident that some health outcomes are related to gender. For example, women have a higher life expectancy than men and perceived health (very good or excellent) is higher among women. Healthcare professionals did not note major differences in health outcomes between men and women. Primary research suggests that women suffer from gender-based violence at a disproportionately high rate in Kitikmeot; the physical and mental health burden of violence in the Kitikmeot rests almost entirely upon women.

The burden of mental health may disproportionately affect men, as suicides are more common among men. Furthermore, the majority (80%) of crime in Nunavut is committed by men (GN 2017).

Primary research indicated that there are some services and support available for gender diverse people, including gender affirming care.

A large proportion of people in the Kitikmeot live below the poverty line in crowded households. Income and housing are strong health determinants in the Kitikmeot and have a powerful effect on community and family stability. Low income individuals experience financial barriers to participation in traditional land use because of the high cost of the equipment and supplies needed to get out on the land.

Considering age as an identity factor reveals some nuance, as well. Younger generations may have worse mental health outcomes, and there is significant shortage in support systems for people between the ages of 16 and 18, because the health system and Child Family Services have different age brackets for who they can provide care for. Similarly, there is an unmet need for Elder care in the region. Elders are respected and viewed as an important part of communities in the Kitikmeot. Some Elders may receive traditional food from their community, which supports their wellbeing.

10 Food Security and Sovereignty

Food security is defined by the United Nations Food and Agriculture Organization as: “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Food and Agricultural Organization of the United Nations (FAFO) 2022).

There are four main dimensions of food security (Leroy et al. 2015; Nunavut Food Security Coalition 2014):

- Availability (i.e., physical quantities of food that are produced and distributed; available food must be of adequate quantity, quality, and safety)
- Access (i.e., legal, political, economic, and social ability to secure food of adequate quantity, quality, and safety)
- Utilization (i.e., the nutritional and social values of food and knowledge about how to obtain, process, store, and consume food), and
- Stability (i.e., conditions that enable the availability, accessibility, and utilization of food at all times).

The concept of food sovereignty expands the understanding of food security to include “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems” (Nyéléni 2007). Inuit food sovereignty reflects the importance of the land and environment and Inuit culture, values, and well-being in the food system (Panikkar and Lemmond 2020; Nunavut Food Security Coalition 2014).

10.1 Inuit Food System

Historically, Inuit were self-reliant and secured country foods from seasonal harvesting locations throughout the year. Inuit self-determination in the food system was then impacted by colonial policies that affected Inuit mobility, participation in harvesting activities, and the transfer of knowledge required for traditional harvesting, and it continues to be impacted by the legacy of colonialism on Inuit culture and society (ITK 2021a).

Today, the Inuit food system is a mixed food system comprised of the natural environment, built environment (e.g., supply chain infrastructure and retailers), policies and regulations, and organizations and community networks that enable harvesting, distribution, and trade of country foods, store-bought foods, and locally produced and harvested foods (ITK 2021a). Traditional foods are central to Inuit identity, culture, and way of life (ITK 2021a; Gilbert et al. 2021). They also support physical health through diet and nutrition, mental health through spiritual connection to the land, and cultural continuity through the intergenerational transmission of Inuit Knowledge (ITK 2021a; Nunavut Food Security Coalition 2014; Desautels et al. 2023). The Inuit food system also includes a strong tradition of sharing country foods (Desautels et al. 2023).

During interviews conducted for the primary research program, participants shared that many community members of all ages continue to eat country food as well as store-bought foods. One community member who is employed by the Kitikmeot Inuit Association described the shift in participation in the traditional food system to include a wider range of sub-populations in Kugaaruk:

> Like the ‘70s, the ‘80s, I noticed it was more of the older men that were harvesting the country food with their younger sons, or the eldest son. The ‘90s, it started changing towards not just the older men, not just the Elders; the younger adults started taking the role of hunting for the game too. So it's pretty much changed from Elders and down to the younger generation, and now we have women started taking part in hunting and harvesting as well. (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024)

An Elder in Kugaaruk said most children still eat country food (Community Elder, Kugaaruk, pers. comm., October 30, 2024). Conversely, community members said that Elders eat the same amount of country food that they always have, but “younger people's mostly from the store” (Community Elder, Kugaaruk, pers. comm., October 31, 2024). A community member in Gjoa Haven described the shift in consumption patterns between Elders and youth:

> My mother is just 80 years old, and her main intake is country food. She's not very well adapted to the modern way of eating. The flavoring system is very hard for her digestive system, because she needs country food every day. And my kids need pizza and pepperoni and cheese and cereal, all the other modern things that the southern brought up here, right? (Community member, Gjoa Haven, pers. comm., November 14, 2024)

The same community member described some of the challenges in obtaining sufficient food from both the traditional and market food systems:

> It's very hard in this modern day of Inuit life: either you go full out traditional and you don't have income like everybody else, [so] it's very hard to manage to keep the freezer full…For the people that have the transportation, they don't have much time to go out because they're stuck in another path of modern way of living. So it's a hard balance to keep, and it's a tough one to keep in line so you won't either lose your job or no equipment, gas, oil, the machine, accessories, rifles, lantern, stove, all the little things that break or whatever, they always need maintenance. And to require maintenance, you need to buy some stuff. I can't find [the] balance. (Community member, Gjoa Haven, pers. comm., November 14, 2024).

10.2 Individual and Household Food Insecurity

Food insecurity is the inverse of food security: “food insecurity is experienced by households and individuals when there is uncertainty about future food availability and access, insufficiency of the amount and kinds of foods (quality) required for a healthy lifestyle, or the need to use socially unacceptable ways to acquire food” (Leroy et al. 2015).

The rate of food insecurity among Inuit in Nunavut is extremely high, with 77.6% of Nunavummiut aged 15 and over and 78.7% of Nunavummiut children experiencing food insecurity in 2017-2018 (ITK 2021a; Tarasuk and Mitchell 2020). The 2017/2018 Canadian Community Health Survey reported that 25.8% of

Nunavut households experience moderate food insecurity and 23.7% experience severe food insecurity; these rates are 4.5-8 times greater than for households in the rest of Canada and one of the highest rates for Indigenous populations in a developed country (ITK 2021a).

During interviews for primary research, many community members and representatives of community organizations shared that there are high rates of food insecurity in Kitikmeot communities. One community member shared:

> We have so many hungry people out there… so many people we have out here, they have no food there. Nothing. Some people will sleep hungry. (Community Member, Kugluktuk, pers. comm., November 8, 2024)

One participant said that many community members ask for help from their social networks (e.g., friends, family, and other community members) to obtain enough food:

> And that is very, very prominent. And food banks are well used in every community. So yeah, I think housing is very, very cheap – for public housing, like Inuit housing – but it's still not enough to support food and multiple children and all that. (Community Member, Kugaaruk, pers. comm., October 30, 2024)

Rates of food insecurity vary by sub-population. Inuit women have a higher prevalence of living in food insecure households than Inuit men, with 56% of Inuit women reporting to be food insecure (ITK 2021a). Inuit households with children report both high levels of moderate food insecurity (36%) and severe food insecurity (34%) (ITK 2021a). During interviews for primary research, one community member shared:

> Kids go to school hungry; they can't learn if they're hungry. (Community member, Taloyoak, pers. comm., November 20, 2024)

10.2.1 Factors Influencing Food Insecurity

Food insecurity is most often a consequence of poverty, which is influenced by employment, education, and income status and household characteristics (Council of Canadian Academies (CCA) 2014; ITK 2021a). In Nunavut, the relationship between un- or under-employment and food security is strong, with 83.3% of households that rely on social assistance report being food insecure (Nunavut Food Security Coalition 2014). Household characteristics that are associated with a higher level of food insecurity include lone-parent households (which are more likely to have lower income levels than couple-headed households and may not have access to country foods if they do not have hunters in their households), households with children, and individuals living in overcrowded households (ITK 2021a). At the national level, women, Indigenous women, and 2SLGBTQQIA+ communities also have higher rates of food insecurity than their counterparts in the general population (CCA 2014).

Food insecurity in Nunavut can also be attributed to historical factors (i.e., diminished Inuit self-determination and erosion of hunting and cultural practices), geographical remoteness (i.e., increased shipping distances and reliance on planes or other unconventional methods of delivery, resulting in variable grocery supplies and high cost of market food in communities), high cost of living (e.g., for rent, goods, transportation, and services, in addition to market foods), demographic changes, environmental changes, and harvest restrictions (ITK 2021a; Burton 2021; Ford et al. 2019).

10.2.2 Food Insecurity and Health and Well-being

Food insecurity affects individual health and well-being, contributing to poor physical health outcomes such as malnutrition, obesity, chronic diseases, and shorter lifespans (ITK 2021a). Food insecurity can also contribute to poor mental health outcomes for all individuals and developmental, behavioural, and learning challenges for children (ITK 2021a). Food insecurity at the household and community level can affect family and community stability and cultural integrity and continuity (Nunavut Food Security Coalition 2014).

During interviews conducted for the primary research program, one community member described the relationship between food security and health and well-being for Inuit, saying:

> Inuit have always been concerned with finding food and feeding their family, from when they were nomadic, following wildlife, to now. If a family has enough food, they are happy. (Community member, Taloyoak, pers. comm., November 20, 2024)

10.3 Country Foods

10.3.1 Availability

Harvesting country foods is a pillar of Inuit identity, culture, way-of-life, and health. The majority of men (74%) and women (59%) in Nunavut participate in harvesting activities, including hunting, fishing, trapping, or gathering plants (ITK 2021a; Panikkar and Lemmond 2020). Traditional foods also provide a major source of food for communities in the Kitikmeot Region (ITK 2021a). For example, country foods provide approximately two-thirds of the dietary intake for community members in Cambridge Bay and Kugluktuk (Panikkar and Lemmond 2020).

The most frequently harvested country foods in the Kitikmeot Region are wild game including caribou and muskox; fish including Arctic char, trout, and whitefish; marine mammals including beluga, other whales, and seals; birds and their eggs including eider duck, geese, ptarmigan, and swan; and wild berries and edible plants such as cloudberries, bearberries, blueberries, mountain sorrel, and seaweed (Nancarrow and Chan 2010; Desautels et al. 2023). Caribou provide the top source of protein for most Inuit (ITK 2021a) and is often a highly desired species. Community members in Cambridge Bay and Kugluktuk derived 40% of their dietary intake from caribou followed by fish (13-15%) and muskox, marine mammals, and birds (8-10%) (GN 2023).

The availability of wildlife on the land and country foods in Kitikmeot communities has declined in recent years, particularly for caribou and muskox (ITK 2021a; Tomaselli et al. 2018). For example, one community member reported that the population of caribou on Victoria Island has substantially declined because herds have moved to the mainland in search of food (Community Elders, Cambridge Bay, pers. comm., November 3, 2024). Similarly, muskox that live on the islands became affected by parasites resulting in a substantial population loss in 2015 (Community Member, Cambridge Bay, pers. comm., November 3, 2024). Community members in Gjoa Haven noted that wildlife populations have declined and their distribution has changed, which affects harvest rates (Desautels et al. 2023). During community-based primary research, a community member from Gjoa Haven shared that Sherman Inlet was ideal for seal hunting. However, it was reported that seals have been difficult to spot as marine traffic has increased (Gjoa Haven Hunters & Trappers, Gjoa Haven, pers. comm., November 16, 2024).

Kitikmiut also reported that there are many fish that appear to have diseases. During community-based primary research, a community member from Kugluktuk shared that people who set nets are not catching as much as they used to because there is an increase in algae in the rivers. They added that fish often avoid areas with algae (Community Member, Kugluktuk, pers. comm., November 8, 2024).

Conversely, a community member from Kugaaruk shared that beluga whales (*kilalugak*) have increased in numbers compared to recent years (Community Member, Kugaaruk, pers. comm., November 1, 2024). This observation has also been made in the past by other Kitikmiut Knowledge Holders, who have noted the reappearance of whales and polar bears in the Kitikmeot Region—species that had been absent for several years (Banci and Spicker 2024).

Many Kitikmeot communities organize a community hunt to harvest country foods for distribution in the community (Man Chan et al. 2006). However, the frequency of community hunts (approximately once a year) is considered inadequate for community need and lack of community freezers in some communities limit the availability of country foods from community hunts throughout the year (Man Chan et al. 2006; Desautels et al. 2023). Overall, there is less country food available in communities than there used to be (Desautels et al. 2023).

10.3.2 Accessibility

Barriers to accessing country foods can include legal restrictions, economic barriers, and social change in Nunavut communities. Legal restrictions include harvesting limits for caribou herds (e.g. when population numbers are low), quota systems for muskox and polar bears, and requirements for gun licenses for harvesting and food safety certificates to process and distribute country foods (Man Chan et al. 2006; Desautels et al. 2023). During community-based primary research, a community member from Cambridge Bay highlighted the difficulties of accessing traditional food due to observed changes in wildlife populations (Community Member, Cambridge Bay, November 3, 2024, pers. comm.). The community member also stated that changes in caribou populations have led to the implementation of regulating the number of caribou that a person can harvest for the year. The tags are shared between Cambridge Bay and Kugluktuk, with only 75-150 tags available between the two communities (Community Member, Cambridge Bay, pers. comm., November 3, 2024).

The largest barrier to accessing country foods is the cost of harvesting, including purchasing hunting equipment (e.g., all-terrain vehicles, boats, snowmobiles, guns) and supplies (e.g., gas, provisions, bullets, nets) (Little et al. 2021; Desautels et al. 2023). The cost of harvesting is a barrier considering the cost of living and income levels for many Nunavummiut, with lone-parent families, families on income assistance, large families, un- and under-employed individuals, and Elders on fixed incomes experiencing greater difficulty in participating in harvesting as a result of limited income and/or resources. Harvesters may also be limited by waged employment, resulting in more limited time to harvest on the land, and must also consider the opportunity cost of missing work to harvest (Desautels et al. 2023). Certain programs such as the Nunavut Harvesters Support Program (described in Section 6.4.2.1) assist community members with the cost of harvesting; however, costs are considered greater than funding available (Man Chan et al. 2006). The GN Department of Economic Development and Transportation funds community freezer programs to store country food in certain communities, including Taloyoak (ITK 2021a). During community-based primary research, a community member from Kugluktuk stated that it has become increasingly difficult to access camps and cabins due to the rising cost of fuel for snowmobiles (Community Member, Kugluktuk, pers. comm., November 8, 2024).

Households with Elders, children and youth, or that do not have an active hunter also experience limited access to country foods at disproportionate rates (Desautels et al. 2023; Gilbert et al. 2021). Elders may be limited by the physical demands of harvesting and many youth often do not have the experience, training, and resources to harvest country foods, including navigating on the land, processing and storing country foods, and food safety (Desautels et al. 2023).

10.3.3 Utilization

Nunavummiut perceive country foods as healthier, fresher, and more natural than store-bought foods (Gilbert et al. 2021). Traditional foods are of high nutritional value, providing a substantial proportion of protein, antioxidants, vitamins, and micronutrients (e.g., iron, niacin, vitamins D, B6, and B12), and are considered protective against cardiovascular diseases and diabetes (ITK 2021a; Little et al. 2021, Nancarrow and Chain 2010). Harvesting and consuming country foods also convey physical and mental health benefits to Nunavummiut (Little et al. 2021; Gilbert et al. 2021).

Inuit in Kitikmeot communities have noted a decline in the quality of country foods that are typically consumed, including caribou, muskox, and fish. A decline in quality may be from diseases, contaminants, or other signs of physical illness linked to environmental changes (Panikkar and Lemmond 2020; Gilbert et al. 2021; Tomaselli et al. 2017).

Elders rely on and prefer country foods to a greater extent than other sub-populations (Little et al. 2021). Youth typically consume less country foods than Elders, which may be attributed to the convenience and availability of store-bought foods, lack of traditional knowledge and skills, and changes in dietary preference, lifestyle, and cultural practices (Little et al. 2021). Youth in Gjoa Haven noted that they enjoy country foods and would like to eat more of it, recognizing that it can be healthier than store-bought foods (Desautels et al. 2023).

10.3.4 Stability

The sustainability of the country food system depends on the stability of both wildlife and harvesters, which is threatened by climate change and disruption in the intergenerational transmission of traditional knowledge (Panikkar and Lemmond 2020). Climate change is affecting Arctic regions at a rate more than twice the global average, resulting in changes to the temperature, precipitation, and seasonality of the region (ITK 2021a). Climate change is also affecting communities within the Kitikmeot differently. For example, later freeze-up of the Northwest Passage and less snow has resulted in a decline in caribou available near Kugluktuk, whereas community members in Cambridge Bay have not noticed a change in the number of caribou nearby the community and community members in Kugaaruk have reported an increase in the number of caribou, polar bear, seal, and whale populations nearby (Panikkar and Lemmond 2020; Nancarrow and Chan 2010). Community members in Kugluktuk and Cambridge Bay have reported a decline in Arctic char populations and quality and an increase in whitefish available for harvest (Panikkar and Lemmond 2020).

Community members in Kugluktuk and Cambridge Bay have also noted the presence of development such as mining, shipping, and tourism and the effects of noise, dust, and vessel routes on the populations, distribution, and sizes of wildlife (Panikkar and Lemmond 2020; Gilbert et al. 2021).

Long-term food security and food sovereignty for Inuit in the Kitikmeot Region depends on younger generations' ability to harvest, process, and store country foods (Desautels et al. 2023). Overall, community members in the Kitikmeot Region have noted a decline in harvesting among youth (Gilbert et al. 2021). Disruption of the intergenerational transmission of Inuit Knowledge, language, and skills have contributed to decreased participation in harvesting among youth in Kitikmeot communities (Man Chan et al. 2006; Desautels et al. 2023; Panikkar and Lemmond 2020). This disruption is influenced by the legacy of colonization, changes in dietary preferences and cultural practices of youth, and changes in way-of-life of Inuit and may be compounded by substance abuse and suicide among youth (Panikkar and Lemmond 2020).

It has been reported that because youth are less interested in traditional activities, some have lost their taste for country foods. The lack of interest in hunting has led to a decline in associated knowledge transfer and skills (Prno et al. 2011). Some youth were reported to not have as much knowledge about safe travel conditions or necessary skills to survive on the land (Prno et al. 2011).

10.4 Store-bought Foods

10.4.1 Availability

All five communities in the Kitikmeot Region are served by market food retail businesses including the Arctic Co-operatives Limited (ACL) and the North West Company (ITK 2021a). ACL ("Co-op") is a co-operative business model with community-based retail stores across Canada, including northern Canada. It also coordinates annual marine re-supply of goods to communities. The North West Company ("Northern") is a multi-national private corporation with retail stores across Canada, including northern Canada. Both ACL and the North West Company headquarters are located in Winnipeg, with additional distribution centres in southern Canada and Yellowknife (ITK 2021a).

Due to existing transportation infrastructure limitations in the Kitikmeot Region (see Section 8.3), store-bought foods are shipped into communities during annual community re-supply or flown in by Canadian North cargo flights or charter planes (ITK 2021a). Dry goods and heavy, shelf-stable items (i.e., non-perishable) such as canned goods are shipped to communities during annual re-supply. Dry goods are transported to Montreal or other southern dispatching locations between January to July each year for shipment to the Kitikmeot Region in August and September. Community resupply by sealift has also operated out of Hay River in previous years.

Fresh and frozen products are packaged in distribution centres across Canada and trucked to Thomson, Manitoba, and flown to the Kitikmeot Region on a weekly basis. Air transportation is often delayed or cancelled due to weather or mechanical issues, which affects the availability of store-bought foods. The manager of the Co-op in Kugaaruk shared that planes are delayed or cancelled “All the time… planes are always delayed, canceled, everything else” (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

Co-ops and Northern stores maintain warehouses, freezers, and coolers in communities to store food. The manager of the Co-op in Kugaaruk explained:

> We're a large store. We own warehouses all over the community here. We have, decent sized freezer, decent sized cooler, so we can carry some extra, so if we don't get a plane, we could probably go a week and we'd be okay. Not all stores have that luxury. (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024)

The presence of both the Co-op and Northern stores in communities provides some resiliency in the market food system if air freight is delayed or cancelled for one of the stores. The manager of the Co-op in Kugaaruk explained:

> The Northern being here is good for the community, because I don't have any milk right now [in stock at the Co-op]. So they [community members] have somewhere, they have an outlet where they go and get milk. It's really important that they are here because it's food security for the community… And just some things the Northern carries that we don't, some things that we carry the Northern doesn't, so it is good for the community. (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024)

As a result of the long distances that goods must travel to communities, store-bought foods can be of low quality and selection can be limited (ITK 2021a). They can also be damaged, spoilt, or expired (Man Chan et al. 2006). One community member who is employed by the Kitikmeot Inuit Association in Kugaaruk shared:

> At this time of the year [winter], with the cancellations of airlines, with weather being a factor, fresh produce, fresh vegetables, they come in a week later, within a couple days they're molded because they're sitting in the warehouse. They're outside in the cold. Then you go back in the warehouse and you go back out again three more times. With fresh produce and fruits, they're molded by the time they get here. (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024)

10.4.2 Access

Barriers to accessing store-bought food include physical access (e.g., supply chains and transportation infrastructure) and economic access. Community members access store-bought foods at community retail stores as described in Section 10.4.1 or through direct orders from food suppliers in southern Canada (ITK 2021a). Direct orders require a credit card, which is inaccessible to many Inuit households (ITK 2021a).

Accessing store-bought foods from community retail stores and food suppliers in southern Canada is further limited by the cost of food. Food prices in Nunavut are extremely high and have increased in recent years due to inflation. Table 10.1 shows the price per kilogram and litre of specific food items for each Kitikmeot community, the regions of Nunavut, Nunavut, and Canada in 2018. The average per unit cost of retail food in Nunavut is higher for the majority of items shown in Table 10.1 than in southern Canada. For example, the per unit cost of margarine in the Kitikmeot Region and in Nunavut is approximately twice that in southern Canada; the per unit cost of orange juice in the Kitikmeot Region and in Nunavut is approximately three times that in southern Canada; and the per unit cost of spaghetti noodles in the Kitikmeot Region and in Nunavut is approximately 6.5 times that in southern Canada. Some items, such as butter, whole wheat bread, ground beef, pork chops, ultra-high temperature milk, tomato juice, vegetable juice, and soft drinks, are less expensive per unit in the Kitikmeot Region than in other regions of Nunavut or territorially; however, most of these items are still more expensive per unit than in southern Canada. Items such as yogurt, flour, apples, and grapes are more expensive in the Kitikmeot Region than in all other regions of Nunavut, the territory, and southern Canada (Nunavut Bureau of Statistics 2017).

Community members in all Kitikmeot communities said that the cost of store-bought foods is extremely high. One Hamlet staff member in Cambridge Bay described the cost of living as “astronomical” (Hamlet Staff, Cambridge Bay, pers. comm., November 7, 2024) while one Kitikmeot Inuit Association staff member described the impact of the cost of living on families:

> Cost of living has definitely gone up over the last year for sure. We've seen a difference. It is very hard to support a family. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024)

The cost of retail food in Nunavut is affected by transportation costs, energy prices, weather delays, and additional costs for food storage and building operation and maintenance (ITK 2021a, Natcher and Ingram 2022). Depending on community location and supplier, transporting food by sealift costs approximately $1 per pound while transporting food by air freight costs approximately 3-5 times that amount (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024; Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024). One community member in Cambridge Bay observed that shipping goods in by sealift from Hay River was less expensive than from Montreal:

> We had barges here before [from] Hay River, which made it cheaper to ship freight from Hay River, even though we transported [goods] across the country…Even though something was [trucked from] Nova Scotia, for example, it was cheaper still to put it on the barge in Hay River and get it here than to put it on the barge in Montreal and get it here. (Hamlet Staff, Cambridge Bay, pers. comm., November 7, 2024)

Table 10.1 Prices of Select Food Items Per Kilogram and Litre, by Community and Region, 2018

Item and Size(s)[1]	Kitikmeot					Regional and Nunavut Averages				Canada
	Cambridge Bay	Gjoa Haven	Kugluktuk	Kugaaruk	Taloyoak	Qikiqtaaluk	Kivalliq	Kitikmeot	Nunavut	Ottawa
	Per Kilogram ($)									
Butter [454g]	14.29	14.29	12.53	4.99	15.06	20.29	15.91	12.23	17.45	14.30
Cheddar Cheese [270-300g]	33.30	24.15	20.93	33.30	33.15	29.02	27.92	28.97	28.67	18.30
Margarine [907g]	6.02	5.58	4.86	8.26	11.51	7.74	5.88	7.25	7.12	3.85
Processed Sliced Cheese [450-500g]	19.98	18.70	18.24	19.99	17.70	18.10	19.82	18.92	18.74	12.98
Skim Milk Powder [500g]	11.49	11.54	11.44	14.99	11.54	13.75	11.24	12.20	12.54	6.99
Yogurt [650g]	5.80	18.70	9.98	16.98	10.50	10.90	8.51	12.39	10.53	7.94
Corn Flakes [700g-1.35kg]	10.47	11.80	21.32	17.00	12.39	14.62	12.14	14.60	13.86	10.62
Flour [1kg]	5.79	3.64	3.64	4.48	10.30	3.81	4.89	5.57	4.51	3.69
Flour [2.5kg]	7.20	5.36	5.60	…	5.92	13.46	12.83	6.02	12.04	2.13
Macaroni and Cheese Dinner [200-225g]	17.45	17.45	17.45	22.45	16.95	16.21	16.39	18.35	16.69	8.40
Quick Oatmeal [900g-1kg]	5.72	5.20	6.35	9.29	6.80	6.21	5.80	6.67	6.19	4.43
Soda Crackers [450-454g]	18.78	21.76	17.76	19.53	19.51	17.64	16.49	19.47	17.69	8.87
Spaghetti Noodles [900g]	7.98	6.71	4.43	11.78	4.43	6.58	8.25	7.07	7.22	1.10
White Bread [570g]	6.18	7.35	9.72	8.58	5.25	7.57	6.19	7.42	7.15	4.62
Whole Wheat Bread [570g]	5.67	6.20	5.59	…	5.39	6.48	6.85	5.71	6.46	5.27

Item and Size(s)[1]	Kitikmeot					Regional and Nunavut Averages				Canada
	Cambridge Bay	Gjoa Haven	Kugluktuk	Kugaaruk	Taloyoak	Qikiqtaaluk	Kivalliq	Kitikmeot	Nunavut	Ottawa
	Per Kilogram ($)									
Apples [0-1.36kg]	9.80	10.52	7.89	11.54	8.90	8.33	7.16	9.73	8.28	5.00
Bananas [0-1.36kg]	2.26	5.99	4.85	5.76	6.65	5.68	5.10	5.10	5.39	1.43
Frozen Corn [750g]	6.12	8.25	8.59	9.33	7.99	7.53	7.38	8.06	7.59	3.99
Frozen Mixed Vegetables [750g]	5.39	6.19	4.52	9.32	…	5.72	6.57	6.36	6.11	5.32
Grapes [0-2kg]	18.39	14.99	…	…	14.39	13.52	14.41	15.92	14.21	6.59
Onions [0-1.36kg]	3.30	5.19	…	…	6.60	5.44	5.66	5.03	5.42	2.93
Potatoes [2.27kg Bags]	3.52	3.96	3.36	3.96	4.16	3.75	3.41	3.79	3.66	1.93
Tomatoes [0-2kg]	6.99	7.15	7.79	…	7.29	8.17	6.86	7.31	7.62	2.18
Bacon [375-500g]	17.42	23.68	19.80	22.75	20.49	21.73	21.26	20.83	21.41	13.69
Bologna [375-500g]	11.78	17.98	15.71	9.04	15.78	15.95	16.17	14.06	15.59	11.98
Canned Luncheon Meat [340g]	19.09	14.09	19.91	18.70	19.09	21.12	17.68	18.18	19.57	11.53
Canned Pink Salmon [213g]	23.43	21.55	21.55	31.41	20.73	28.20	25.15	23.73	26.45	7.87
Chicken Legs or Drumsticks [0-2kg]	23.08	12.84	…	…	…	13.68	20.72	17.96	16.22	11.49
Ground Beef [0-2kg]	15.73	19.71	15.08	19.82	18.49	15.94	15.31	17.77	16.13	23.65
Peanut Butter [1kg]	11.19	12.99	11.89	10.65	11.67	8.69	10.77	11.68	9.87	2.99
Pork Chops [0-2kg]	23.99	15.99	14.52	19.64	18.81	17.26	17.51	18.59	17.60	24.11
Wieners [450g]	11.02	15.89	15.84	15.16	13.78	13.71	13.28	14.34	13.71	8.98

Item and Size(s)[1]	Kitikmeot					Regional and Nunavut Averages				Canada
	Cambridge Bay	Gjoa Haven	Kugluktuk	Kugaaruk	Taloyoak	Qikiqtaaluk	Kivalliq	Kitikmeot	Nunavut	Ottawa
	Per Kilogram ($)									
Chocolate Bars [50-54g]	36.18	51.18	52.18	54.36	49.91	57.76	48.07	48.76	53.06	27.09
Frozen French Fries [600g-1kg]	9.22	10.00	9.46	11.52	10.75	10.33	9.37	10.19	10.03	5.05
Frozen Pizza [800-849g]	12.53	21.27	31.08	16.49	12.48	20.88	18.39	18.77	19.76	9.98
Frozen Pre-Cooked Dinners [250-299g]	18.43	28.14	…	24.22	23.69	27.80	21.68	23.62	25.13	9.96
Pilot Biscuits [400g]	10.53	13.56	17.68	26.60	17.93	17.07	16.67	17.26	16.99	…
Potato Chips [240-259g]	12.58	25.20	21.63	11.63	22.97	27.10	22.36	18.80	24.11	11.63
	Per Litre ($)									
Milk 2% [2L]	2.80	3.43	2.48	2.50	3.98	3.34	2.83	3.04	3.14	2.99
Ultra-high Temperature Milk [1L]	4.09	3.79	4.67	…	5.99	5.03	5.30	4.64	5.04	…
Apple Juice [960ml-1L]	5.59	5.49	5.59	4.76	6.65	6.92	5.14	5.62	6.09	1.99
Orange Juice [960ml-1L]	5.99	5.49	5.59	…	6.65	5.78	5.46	5.93	5.71	1.99
Tomato Juice [540ml]	4.77	6.65	4.79	…	…	6.41	6.32	5.40	6.25	2.20
Vegetable Juice [945ml-1L]	5.36	5.02	5.35	…	5.07	5.42	5.76	5.20	5.44	3.46
Soft Drinks, Cola [355ml]	1.89	1.99	1.89	…	…	3.36	2.62	1.92	2.92	…
Soft Drinks, Cola [12x355ml]	5.16	5.74	2.99	…	8.60	6.20	5.87	5.62	5.96	…

Source: Nunavut Bureau of Statistics (2017)

Even though there are Co-op and Northern stores in each Kitikmeot community, competition has not reduced prices of store-bought food. For example, the Co-op has operated in Kugaaruk for approximately 50 years and the Northern opened a new store there in 2023; however, community members observed that food is still expensive and hard to afford in Kugaaruk (Tammaaquik Women's Centre, Kugaaruk, pers. comm., October 29, 2024).

Community members also described fluctuations in food prices, making budgeting for groceries difficult. One community member described:

> They said they had bok choy coming in at $110, but they put a subsidy on it, so it goes down to $10, but then other times you go, and it's $30. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

Each of the five communities in the Kitikmeot are eligible for retail subsidies through the federal Nutrition North Canada (NNC) program (NNC 2022). Since 2011, the NNC has provided subsidies on healthy store-bought food and other essential items to retailers in northern communities to offset the high cost of transportation of store-bought food (NNC 2022). Subsidy rates are determined by the type of food/item, location of the community, and type of transportation used to deliver food/items to communities (e.g., sealift/barge, air freight; NNC 2022). NNC subsidies are applied to fresh and nutritional food; with the subsidy applied, the cost of transporting food to communities by air freight is lowered to approximately the same cost as transporting food by sealift (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024). The manager of the Northern store in both Kugaaruk and Gjoa Haven described the NNC subsidy as "very important, conferring significant savings to community members on perishable items (Northern Store, Kugaaruk, pers. comm., October 31, 2024).

Additional financial support is available to community members to access nutritious food through the Inuit Child First Initiative (ICFI) food voucher program, which began in 2024 (ITK 2022). The ICFI mirrors the Jordan's Principle Child First Initiative, and was often referred to by community members as "Jordan's Principle" or "JP" during primary research. All Inuit children are eligible for funding under the ICFI and funding may be administered by community partners such as hamlets or community service organizations (ITK 2022). ICFI funding was administered by community hamlets in all Kitikmeot communities except Kugaaruk to community members with children under the age of 18 for the purchase of certain, nutritious food and other essential items such as diapers (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024, pers. comm.; Northern Store, Cambridge Bay, pers. comm., November 5, 2024). One community member described the program:

> The communities were allotted, through Jordan's Principle, they're giving money to families per child per household. So if the child is three and under, it's $750 for that child per month, and you can allocate it to a store that you want to shop at. So you get that much in store on JP for that month. If the child is over three, it's $500. So that's great. (Community Member, Cambridge Bay, pers. comm., November 4, 2024)

However, community members observed that the price of store-bought foods at the Co-op and Northern store increased during the same period that ICFI became available:

> What we found out was that as soon as the program was set up in those communities, both stores, the Co-op store and the Northern store…raised their prices. And to me, that's unfair, where a single man or a single woman that chooses not to have a family, they end up paying the price because the cost went up. And if they're living on income support, you're allowed only a small amount of funds to buy food…A single person is eligible up to $800 a month income. But if you raise the [price of] goods in both stores, then $800 can't cover. Either way, it is a good thing for the Jordan's Principle program. But the other way, if the Co-op or the Northern increase their prices, then yeah, it's bad (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024.

ICFI funding has also been used to fund food programs at schools in Kitikmeot communities (Community Member, Cambridge Bay, pers. comm., November 3, 2024). Funding for the ICFI was scheduled to sunset on March 31, 2025, and received a one-year extension to March 31, 2026 by the Government of Canada (APTN 2025, CBC 2025). However, as of April 2025, the food voucher program has ended and any further food-based funding requests through the ICFI will be assessed on a case-by-case basis depending on the needs of the child (Antunes 2025). A Kitikmeot Inuit Association staff member in Cambridge Bay described the impact that cessation of this program would have on community members:

> A family with five kids could be pulling in an extra $2400 a month, which is fantastic. That's really helpful. But on the downside, that's not a permanent thing, they're hoping it will last a year. If you had an extra $2400 a month and then it suddenly got cut off, you would feel it[…] I think that's going to be a really big hit to people who have gotten used to being able to provide better food for their children (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., October 29, 2024).

Community-led solutions such as food banks and sharing networks have also helped with making food available to community members in need. Some of these programs have disappeared in recent years, such as in Kugaaruk:

> "There used to be a food bank, but it is not in the community anymore" (Tammaaquik Women's Centre, Kugaaruk, pers. comm., October 29, 2024).

The economic inaccessibility of store-bought food is further exacerbated by low incomes in the Kitikmeot Region (ITK 2021a). Most Inuit households are unable to afford the cost of the Revised Northern Food Basket (RNFB), which is the approximate cost of selected, nutritious food items for a family of four. Very low-income households can only afford 6-13% of the RNFB (ITK 2021a). Table 10.2 shows the proportion of weekly median income needed to afford the RNFB for an individual for each community in the Kitikmeot Region. The proportion is lowest in Cambridge Bay (24%) among the Kitikmeot communities where data are available, with 30-33% of weekly income needed to afford the RNFB in Gjoa Haven, Kugluktuk, and Taloyoak. In comparison, the average Canadian household spends 14.3% of its income on food, including groceries and restaurant meals (ITK 2021a).

Table 10.2 Food Costs and Incomes for Kitikmeot Communities

Community	Weekly Median Income (2019/2020 average)	Weekly Cost of the RNFB (2019/2020 average)	Proportion of income needed to afford the RNFB
Cambridge Bay	$488.65	$105.44	22%
Gjoa Haven	$423.19	$115.00	27%
Kugaaruk	$426.39	n/a	n/a
Kugluktuk	$365.92	$109.26	30%
Taloyoak	$440.47	$120.21	27%

Notes:

Weekly median income is reported for Inuit 15 years and older and adjusted based on the 2015-2019/2020 Consumer Price Index for Iqaluit, Nunavut (Statistics Canada 2024k)

n/a – not available

Source: ITK (2021a)

The manager of the Northern in Gjoa Haven confirmed that incomes are not adequate for the cost of store-bought foods:

> Food is costly here, especially for the locals that rely on social [assistance], don't have a job. Or even if they have a job, the salary is not enough to feed all the family. It's always a struggle. So it's a reality, people – they live day to day…There's some people that ha[ve a] good job...But I would say 80% live day to day. (Qikiqtaq Co-op, Gjoa Haven, pers. comm., November 15, 2024)

A community member who is employed by the Kitikmeot Inuit Association in Cambridge Bay described the cost of store-bought food:

> It went up a lot. If we didn't have that JP [Jordan's Principle] funding, I'd probably be living paycheque to paycheque. (Kitikmeot Inuit Association, Cambridge Bay, pers. comm., November 4, 2024)

Some community members said they purchase store-bought foods when they travel to southern hubs like Yellowknife because it is cheaper than purchasing store-bought foods in Kitikmeot communities: "even with the cost of us shipping [it] here, [we] find it a lot cheaper than here" (Community Elders, Cambridge Bay, pers. comm., November 3, 2024). Another community member shared:

> It's either you buy what they have here at their price, or if you want it, you pay for that price, plus the shipping… Cargo, shipping…Every little thing adds up, and it's tough. It's really tough. (Community Member, Cambridge Bay, pers. comm., November 4, 2024)

10.4.3 Utilization

Due to the availability, quality, and cost of healthy store-bought foods such as fruits and vegetables in Nunavut communities, the most frequently consumed store-bought foods are often of low nutritional value (e.g., convenience and confectionary foods, non-perishable foods). Approximately 20% of calories consumed by Nunavummiut contain little to no micronutrients (ITK 2021a). For example, the manager of the Co-op in Kugaaruk shared that soft drinks are the biggest selling item at the store (Koomiut Co-op, Kugaaruk, pers. comm., October 31, 2024).

Inuit are also experiencing a nutritional transition, resulting in changes in dietary patterns from country foods to more store-bought foods, including processed foods high in salt, sugar, and fat (Little et al. 2021). Diets high in processed food are associated with higher rates of cardiovascular diseases, Type 2 diabetes, and obesity. One community member who is employed by the Kitikmeot Inuit Association in Kugaaruk shared:

> This community is heavily into pops, Pepsi, sweets, chocolate, junk food, chips; whatever conditions that causes: diabetes, so you get more people heading out to medical. (Kitikmeot Inuit Association, Kugaaruk, pers. comm., October 29, 2024)

Youth have been disproportionately affected by the nutritional transition and highly consume more store-bought foods of low nutritional value (Little et al. 2021). The consumption of healthy store-bought foods is also limited by a lack of knowledge and skill to cook these foods (Nunavut Food Coalition 2014).

Interventions such as Jordan's Principle funding through the Inuit Child First Initiative may improve utilization of store-bought foods. The manager of the Northern in Cambridge Bay explained the impact of Jordan's Principle funding on consumer patterns at the store, although the availability, selection, and quality of store-bought foods may still limit healthy eating patterns:

> I think people are eating better, and I think the kids are getting more nutritional value out of it as well… I think you'll get people that will gravitate into probably consuming better, and that should be the goal, right? But availability of better product should always be [the goal], and that's why I go back to getting healthier and better quality here…You gotta go for better quality, better variety, and the consistency. Consistency is [a] huge [factor] here too. Consistency is just not there. (Northern Store, Cambridge Bay, pers. comm., November 5, 2024)

10.4.4 Stability

The stability of the market food system in Nunavut depends on the stability of supply chains to transport food to communities (ITK 2021a). As outlined in Section 8.3, transport of food to communities by air freight is often affected by weather delays and maintenance issues, and disruption of this supply chain can affect the availability, selection, and quality of store-bought foods.

Annual community re-supply by sealift may be disrupted by weather, tidal conditions, water levels, and climate change. For example, the 2018 barge re-supply to Cambridge Bay and Kugluktuk from Hay River was cancelled as a result of impassable ice and bad fuel, resulting in the need to airlift goods and fuel into the communities for $4 million (ITK 2021a; Cabin Radio 2024a). The 2021, 2023, and 2024 barging seasons to Cambridge Bay and Kugluktuk from Hay River were disrupted by low water levels in the Mackenzie River (Cabin Radio 2024a). Disruption to community resupply by sealift can also affect the cost of store-bought foods in Kitikmeot communities. For example, one community member in Cambridge Bay explained:

> Usually when the barge comes in, prices go down. You're all stocked up and ready to go...This year, the barge wasn't a happy thing, as it normally is. They brought a lot of stuff in, but the prices didn't go down like it normally does. It was good that we got stocked up. But its price never went down, so might as well fly them at that point because of the same price. (Community Member, Cambridge Bay, pers. comm., November 3, 2024)

10.5 Local Food Production

10.5.1 Availability

Local production of food is a small component of the Inuit food system, although a number of local food production initiatives exist in Nunavut (ITK 2021a). These initiatives include community greenhouses and hydroponics and commercial harvesting and processing of country foods (ITK 2021a).

In Gjoa Haven, the Naurvik initiative produces fruit and vegetables grown in two repurposed shipping containers with a total growing area of 168 square feet. Naurvik has produced lettuce, peas, peppers, mint, corn and strawberries (Arctic Research Foundation 2024).

Inshore and freshwater commercial fisheries in the Kitikmeot Region (and west Kitikmeot) consist of small-scale inshore fishing operations focusing primarily on harvest of Arctic char (Bernauer 2021). The Cambridge Bay Arctic char fishery is the only commercial inshore fishery operating currently in the Kitikmeot Region and is the world's largest wild Arctic char fishery (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024). There is one commercial producer of country foods in the Kitikmeot Region: Kitikmeot Foods Ltd., located in Cambridge Bay, which harvests and processes Arctic char for commercial sale (ITK 2021a). Kitikmeot Foods Ltd. used to harvest and process caribou and muskox for sale, but changes in wildlife populations and distribution have caused Kitikmeot Foods Ltd. to cease this component of their operations (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024).

10.5.2 Access

Food grown at Naurvik is distributed to community members in Gjoa Haven, including Elders, members of the search and rescue team, and others in need at no cost (Arctic Research Foundation 2024).

Kitikmeot Foods Ltd. sells Arctic char to customers within Nunavut and outside of the territory, with approximately 80% of product exported outside of Cambridge Bay (Nunavut Development Corporation n.d.a; Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024). Inuit, including Elders, living outside of Cambridge Bay and Nunavut are able to access country foods through Kitikmeot Foods Ltd.:

> We see a lot of Elders that are in facilities in the south utilizing our service. It's a place where they can rely on getting country food shipped to them. There's also people that work in the South that are beneficiaries, that utilize our service as well, people that are even in prison, they order country food through us and the facility organizers pay for their orders […] and people in hospitals […] We do see those orders come through from all over Canada. (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024)

Nutrition North Canada subsidizes the consumer cost of commercially produced country foods from recognized food processes, including Kitikmeot Foods Ltd. (NNC 2022). The amount of country foods subsidized through the NNC program is significantly less than market foods (Galloway 2017).

10.5.3 Utilization

Naurvik produces fruits and vegetables that are fresher than store-bought fruits and vegetables and provide higher nutritional value than convenience and confectionary store-bought foods. Naurvik is working toward growing plants used in traditional Inuit food practices (Arctic Research Foundation 2024).

Commercially produced country foods offer the same nutritional and cultural benefits as country foods harvested by community members (see Section 10.3.3).

10.5.4 Stability

The stability of local food production initiatives is dependent on funding and operational capacity. Naurvik is currently funded by the Canadian government and Arctic Research Foundation. It is powered by renewable energy (i.e., solar and wind) and staffed by local technicians (Arctic Research Foundation 2024). The program has cost $80,000 to-date to construct and operate and has the potential to expand to other communities (The Canadian Press 2020).

The stability of commercially produced country foods depends on the same factors as the sustainability of the country foods system (see Section 10.4.4). It is also dependent on profitability considerations and the operational capacity of Kitikmeot Foods Ltd., which is a subsidiary of Nunavut Development Corporation (NDC; Nunavut Development Corporation n.d.a). Kitikmeot Foods Ltd. staff shared that they receive business and financial advice from NDC to support their operations (Kitikmeot Foods, Cambridge Bay, pers. comm., November 4, 2024).

10.6 Inuit Self-determination in Food Systems

Strengthened food sovereignty, with a foundation in Inuit way-of-life, culture, and traditional knowledge, is a desired outcome of Inuit self-determination (ITK 2021a). The Nunavut Food Security Coalition met for the first time on June 26, 2012, in Iqaluit, which led to the development of the Nunavut Food Security Strategy and Action Plan (2014 - 2016). The plan identifies six food security areas for action, including:

- Country food, including promotion of and support for country food harvesting and consumption
- Store-bought food, including consumption of healthy store-bought food and implementation of measures to reduce the cost of store-bought food
- Local food production, including support for greater production and promoting innovation
- Life skills, including supporting the development of life skills such as language, literacy, and numeracy
- Programs and community initiatives, including support for programs and community initiatives that improve access to food
- Policy and legislation, including advocating for policies and legislation that promote food security. Policy areas that influence food security may include housing, income assistance, education, training, employment, and transportation.

In February 2020, a working group representing the Kitikmeot communities identified six initiatives to improve food security and sovereignty in the region. The working group has met several times since to discuss infrastructure needs, programs, and initiatives to improve food security and strengthen food sovereignty for people in the Kitikmeot (Desautels et al. 2023).

11 Yellowknife

11.1 Government

11.1.1 Government of the Northwest Territories

The City of Yellowknife is located within the NT, one of three territories within Canada. The NT has its origins in the territories obtained from the Hudson's Bay Company in 19th Century. As new provinces entered confederation (Manitoba, British Columbia, Alberta and Saskatchewan between 1870 and 1905), the borders of the NT and the Yukon territory to the west were gradually limited to the area north of the 60th parallel. In 1999, the NT borders were again reduced with the formation of Nunavut within the Arctic islands and the eastern portion of the territory.

Indigenous and treaty rights in the NT are defined under Section 35 of the *Constitution Act,* 1982, Treaty 8, Treaty 11, and comprehensive land claim agreements with certain Indigenous Governments. Yellowknife is located within Treaty 8 (1899) and Treaty 11 (1921) territory; signatories to Treaty 8 include six First Nations in NT: Yellowknives Dene First Nation, Łutsël K'é Dene First Nation, Salt River First Nation, Smith's Landing First Nation, K'atl'odeeche First Nation, and Deninu Kue First Nation (GOC 2024e). Signatories to Treaty 11 include Tłı̨chǫ, Dehcho, Sahtu and Gwich'in peoples. In 2003, representatives of the Dogrib Treaty 11 Council signed a Land Claims and Self-government Agreement, establishing Tłı̨chǫ Government and Mǫwhí Gogha Dè Nı̨ı̨tłèè, the traditional area of the Tłı̨chǫ and where traditional land use activities are exercised (Tłı̨chǫ Government 2017). Mǫwhí Gogha Dè Nı̨ı̨tłèè extends into southwestern Nunavut, including Contwoyto Lake. Additionally, the North Slave Métis Alliance represents Métis in the North Slave Region, and their citizens have used and occupied the region since before the signing of Treaty 11 (North Slave Métis Alliance (NSMA) 2024).

The territorial government is The Government of Northwest Territories (GNWT). GNWT obtained greater influence over its own internal affairs through the *Northwest Territories Lands and Resources Devolution Agreement*, signed June 25, 2013. The agreement transferred responsibility for public land, water, and resources management to the territory from the federal government. The agreement with the Government of Canada also allowed greater involvement of the regional land and water panels (Gwich'in and Sahtu Land Use Planning Boards) in development decisions in areas of their jurisdiction. Further steps towards greater representation from Dehcho, Gwich'in, Sahtu, and Tłı̨chǫ regions are still planned with changes to be phased in over time (GNWT 2024d; GOC 2024e).

The GNWT has a responsibility for education, employment, infrastructure, health and social services, industry, tourism, and investment, among other departments (GNWT 2024a). The Government of Northwest Territories also oversees other agencies such as Aurora College, Prosper NWT (formerly Northwest Territories Business Development and Investment Corporation), and Northwest Territories Health and Social Services Authority (NTHSSA).

Because the Project is located entirely within Nunavut, a comprehensive description of socio-economic conditions within NT is not provided in this baseline report. Information on the City of Yellowknife is provided because it serves as a regional commercial and social services centre, as well as a transportation hub.

11.1.2 City of Yellowknife

The City of Yellowknife is one of 33 communities in the NT which have designated authorities as hamlets, villages or cities in five regions (GNWT 2024e). The city boundaries extend from north of Yellowknife Bay, the eastern portion of Yellowknife Bay, south including most of Kam Lake, and west including the Yellowknife Airport boundaries and the properties on the Deh Cho Boulevard.

The City Yellowknife's governance structure includes a mayor and eight councillors that serve a four- year term. The City of Yellowknife oversees local economic development and strategy, including promoting investment in Yellowknife and business services. The Council Strategic Directions 2023-2026 document outlines focus areas for the City over the council term. Among the recommendations relevant to the Project are a focus on continuing to nurture positive and respectful relationships with Indigenous governments, organizations, and peoples, addressing the need for more diverse housing and accommodation options, and initiatives to promote a sustainable future. For the latter, it identifies the need for resilient growth, and land development must support economic readiness and community priorities along with alignment with regional and territorial economic opportunities (City of Yellowknife 2024a). The City of Yellowknife also has an Economic Development Strategy 2020-2024, as described in Section 11.4.2.

11.2 Community Profile

Yellowknife was founded in 1934 and its origins are traced to early gold mining in the area. Early gold mines included the Con Mine and Giant Mine, and the town site developed between these two mines with access from the Yellowknife River. The city has developed into an important hub for the Northern Canadian region since becoming the territorial capital in 1967 (City of Yellowknife, 2024b).

Yellowknife has long served as a gathering place for the Indigenous peoples of the area and today 25% of the city's population identifies as Indigenous, including First Nation, Inuit, and Métis. Yellowknife is located on Chief Drygeese territory, the traditional land of the Yellowknives Dene First Nation, which includes Yellowknife and the communities of Dettah and Ndilo. It is also located within the traditional land of the North Slave Métis Alliance and the North Slave Region, which includes Tłicho communities and Łutselk'e. (City of Yellowknife 2024b)

11.3 Population and Demographics

In 2021, Yellowknife had a population of 20,340, a 3.9% increase from 2016 (Statistics Canada 2021a). Yellowknife's population growth contrasts with the rest of NT, which experienced an overall decline in population of -1.7% from 2016 to 2021, from 41,786 persons to 41,070 persons (Statistics Canada 2022a). As of July 2014, Yellowknife had a population of 21,788 persons, or 49% of NT's total population of 44,731 persons (NWT Bureau of Statistics 2024). Nearby Dettah has a population of 213. Yellowknife, and Dettah are included as "Yellowknife Region" for statistical purposes by the Northwest Territories Bureau of Statistics (NWT Bureau of Statistics) Ndilo is included within "Yellowknife" by NWT Bureau of Statistics.

The Yellowknife Region two highest age ranges are age 25-44 (7,666 people; 34%) and age 45-59 (4,407 people; 20%). The Yellowknife Region is nearly evenly split demographically at 10,960 male and 10,893 female in 2023 although NT has a higher proportion of males (23,032) than females (21,940) (NWT Bureau of Statistics 2024).

The Yellowknife Region is primarily non-Indigenous, with 16,394 (75%) identifying as non-Indigenous, and 5,459 (25%) identifying as Indigenous. Of the total population 4% are Inuit, 5% are Métis, and 15% are First Nations. NT, conversely, has a total population that is 50% non-Indigenous (22,507) and 50% Indigenous (22,465).

11.3.1 Family Structure

11.3.1.1 Marital Status

Marital status statistics indicate that there are proportionately fewer married couples in Yellowknife and a greater portion living as common law compared to Canada (Table 11.1).

Table 11.1 Marital Status within the RAA and Canada, 2021

Location	Married (%)	Living common-law (%)	Not married and not living common-law (%)
Yellowknife	40.4	16.2	43.4
Canada	44.3	12.6	43.1

Source: Statistics Canada (2021a)

11.3.1.2 Lone Parent Families

The rate of lone parent families in Yellowknife is presented in Table 11.2. Within Yellowknife, the proportion of lone parent families is two percentage points higher than nationwide. Across all communities in Yellowknife, one parent families are predominately parented by a woman+, indicating the gendered roles of parenthood.

Table 11.2 Lone Parent Families within the RAA, 2021

Location	Lone Parent Families		
	Total	In which the parent is a woman+ (%)	In which the parent is a man+ (%)
Yellowknife	18.5	14.0	4.5
Canada	16.4	12.7	3.7

Source: Statistics Canada (2022a), Census Profile, 2021 Census of Population

11.4 Economy and Employment

11.4.1 Economic Activity

In 2023, the NT generated $4.3 billion in GDP, which was the largest contribution of Canada's territories (Statistics Canada 2024e). GDP statistics from May 1, 2025 indicated that in 2024, the Northwest Territories economy fell by 1.1% and was the only provincial or territorial jurisdiction to experience declines in both 2023 and 2024 (NWT Bureau of Statistics 2025). Yukon saw the only other decline in 2024, while Nunavut had the largest GDP growth among provinces and territories (7.5%) (NWT Bureau of Statistics 2025).

GDP information by sector is provided in Section 11.4.3.

11.4.1.1 Mining

The NT economy in the 20th century was largely driven by the development of non-renewable natural resources including minerals (e.g. gold, diamonds), oil and gas. There continues to be substantial mineral potential associated with diamonds, gold, rare earth metals, lead, zinc, uranium, tungsten, rare earths, cobalt, bismuth, silver, nickel, copper, iron, sand, gravel and stone (City of Yellowknife 2020).

Diamond mining has been a significant contributor to the NT economy in recent years, with a combined total spend of $27.7 billion across the territory's mines from 1996 to 2023 (GNWT 2023a). Three diamond mines currently operate in the NT. The Gahcho Kué mine is located about 170 miles northeast of Yellowknife while the Ekati and Diavik mines are each located about 200 miles north of Yellowknife. The Gahcho Kué mine started production in 2015 and plans to continue operations until 2030. The Ekati mine started production in 1998 and plans to continue operations until 2028, with additional plans to extend the mine's production to 2040. The Diavik mine has reached peak production and has planned expansions to extend the mine's production to 2026; however, closure planning has started at Diavik mine (GNWT 2023a). If expansions are not viable, then the three producing diamond mines are scheduled for closure between 2026 and 2030, which will substantially reduce revenue for the NT and affect labour and business procurement created by the diamond mines (Impact Economics 2024).

The impending closure of NT's diamond mines, as identified during primary research, is a source of concern for future employment and economic activity in Yellowknife and NT. At the same time, the same participants identified that future regional projects such as the Mackenzie Valley Highway or the Grays Bay Port and Road Project could be a source of jobs for construction or skilled trades if the mines are no longer employers in the future (City of Yellowknife, pers. comm., June 2, 2025; Det'on Cho Corporation, pers. comm., May 22, 2025; North Slave Métis Alliance, pers. comm., May 23, 2025).

The mineral industry also generates significant economic activity related to exploration, remediation, purchase of products and services, construction and accommodation and food service. Yellowknife serves as a major supply, transportation and logistics hub for the mining industry as well as an important community for mining industry workers (City of Yellowknife 2020).

The Government of the Northwest Territories is advancing development of the Slave Geological Province Corridor project, which is located on the Nunavut/NT border. The Slave Geological Province possesses similar geology to the Abitibi Geological Province that straddles the Ontario-Quebec border. The Abitibi region has spawned over 100 producing mines during the past 100 years and continues to offer multiple opportunities for new development (GNWT 2025).

11.4.1.2 Public Administration

Public administration is the largest employer in Yellowknife and NT. In 2021, public administration represented 29.8% (3,675 workers) of all workers in Yellowknife and 28.2% (6,185 workers) across the territory (Statistics Canada 2022a). The Government of Northwest Territories is the largest employer, although the Government of Canada also has a notable presence in the city. According to the Government of Northwest Territories Public Service Annual Report 2022/2023 there were 6,481 Government of Northwest Territories employees, of which 3,422 were located in Yellowknife (GNWT 2023b).

11.4.1.3 Tourism

Tourism is a growing industry for Yellowknife. The city hosts multiple festivals and events each year and promotes year-round recreational opportunities, including fishing, cross-country skiing, and aurora borealis viewing (GOC 2020). Between April 2019 and March 2020 there were 117,620 visitors to the NT, of which 85,320 travelled for leisure. In total, visitors spent $204.6 million during this period (City of Yellowknife 2020).

City of Yellowknife staff indicated that the tourism sector is recovering and the airport is also back to pre-COVID-19 capacity. Tourism remains a focus area of the City's Economic Development Policy, however the sector has been limited by staffing shortages (City of Yellowknife, pers. comm., June 2, 2025).

11.4.2 Economic Development

The City of Yellowknife Economic Development Strategy for 2020-2024 was developed in 2020. The strategy sets out short-term and long-term objectives for Yellowknife's economic development. City Economic Development staff confirmed that the strategy remains in place as of 2025. City Council decided to extend the plan as many of the initiatives are underway or were delayed during the COVID-19 pandemic or the forest fire disruptions (City of Yellowknife, pers. comm., June 2, 2025).

The short-term focus of the strategy is to mitigate the impact of the anticipated diamond mine closures. The strategy recognizes the historical and ongoing importance of the resource sector, and attracting further investment related to the resource sector will be an important contributor to offsetting some of the anticipated job losses. The longer-term vision is to create a more diversified and integrated economy in Yellowknife. The strategy recognizes the potential to grow the tourism and cultural sectors, establish Yellowknife as centre for post-secondary education and research, and further develop the city as a supply hub for a wide range of products and services (City of Yellowknife 2020, City of Yellowknife, pers. comm., June 2, 2025).

In 2025, Yellowknife Economic Development staff indicated that focus areas continue to be grow the tourism, agriculture, and mineral resources sectors. The City of Yellowknife is also conducting a strategy plan to prepare for population surges during construction project peaks. The Plan assisted the City in implementing a tourism strategy, visitor services strategy, and hotel tax policy to increase the economic impact of the tourism sector (City of Yellowknife, pers. comm., June 2, 2025).

Giant Mine remediation project is a major employment opportunity for many Yellowknife companies are involved in the project, as well as organizations that employ Yellowknives Dene First Nation through the Det'on Cho Corporation and the North Slave Métis Alliance, among others. (City of Yellowknife, June 2, 2025, pers. comm.; Det'on Cho Corporation, pers. comm., May 22, 2025; North Slave Métis Alliance, pers. comm., May 23, 2025).

In 2020, Yellowknives Dene First Nation and the City of Yellowknife published the Joint Economic Development Strategy. The strategy aims to make the most of economic development efforts and ensure city and First Nation priorities are aligned, and benefits are felt by all members of the community. (Yellowknives Dene First Nation and City of Yellowknife 2020).

The Joint Economic Development Strategy identified three strategic directions:

- Local Businesses and Entrepreneurship Support – Economic diversification by creating the conditions and partnerships necessary to foster innovation and entrepreneurship in new sectors, and support new business grow within Yellowknife, Dettah and Ndilo
- Workforce Development – Imagines Dettah, Ndilo and Yellowknife as places where talent thrives and strong employment pathways exist for recent graduates.
- Tourism – Actions that will assist the region's tourism economy in recovering from the COVID-19 pandemic. It also aims to prepare the sector to act as an essential economic pillar of the future economy, reducing reliance on the mining and minerals sector.

11.4.3 Gross Domestic Product

In 2023, NT had a total GDP of $3.3 billion (Table 11.3). Between 2022 to 2023, NT reported a reduction in GDP growth at -0.1% (Statistics Canada 2024e). The services-producing industries increased 0.7% while goods-producing industries reduced 1.9%. The largest contributor to a decrease in goods-producing industries was in the mining, quarrying, and oil and gas extraction sector which declined 5.6% (Statistics Canada 2024d).

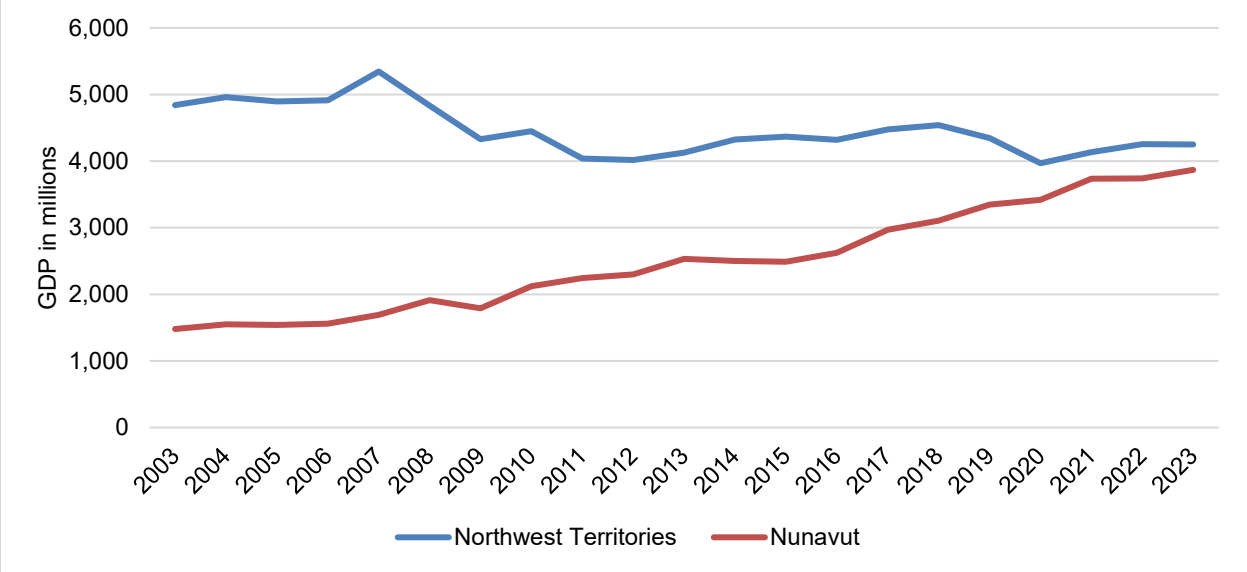
Table 11.3 Gross domestic product (GDP) at basic prices, Northwest Territories, Chained (2017) Dollars, 2019-2023 ($million)

	2019	2020	2021	2022	2023	Growth Rate (%)	
						2022-2023	2019-2023
Northwest Territories	4,347.0	3,968.3	4,135.1	4,253.7	4,250.9	-0.1	-2.2

Source: Statistics Canada (2024e)

Between 2003 to 2023, NT's GDP peaked at $5.3 billion in 2007, and was at its lowest level, in 2020 at $4.0 billion (Figure 11.1, Statistics Canada 2024e). Over the 20-year period, NT's GDP declined by 12.2%. This decline was driven by the contributions of goods-producing industries, which declined from $2.1 billion in 2003 to $1.1 billion in 2023. Of which, contributions to GDP from the oil and gas extraction industry declined from $745.5 million in 2003 to $83.6 million in 2023, and contributions to GDP from the mining and quarrying industry declined from $711.3 million in 2003 to $601.9 million in 2023. Over the same period, the service-producing industries increased from $2.5 billion to $3.1 billion in 2023.

Figure 11.1 Gross domestic product (GDP) at basic prices, Northwest Territories, Chained (2017) Dollars, 2003-2023 ($million)



Source: Statistics Canada (2024e)

11.4.3.1 Gross Domestic Product by Industry

In 2023, the industries with the greatest contributions to NT GDP were public administration ($847.7 million or 19.8%), Industrial production ($788.9 million or 18.6%), and followed by mining, quarrying and oil and gas extraction ($788.9 million or 16.5%) and real estate and rental and leasing ($450.8 million or 10.6%) (Table 11.4) (Statistics Canada 2024e).

Table 11.4 Gross domestic product (GDP) at basic prices, by industry, 2023

	Northwest Territories	
	$m	**%**
All Industries	**4,250.9**	**100**
Goods-producing industries	**1,159.6**	**27.3**
Agriculture, forestry, fishing and hunting	25.9	0.6
Mining, quarrying, and oil and gas extraction	702.0	16.5
Utilities	66.2	1.6
Construction	360.4	8.5
Manufacturing	13.4	0.3
Service-producing industries	**3,101.0**	**72.9**
Wholesale trade	44.1	1.0
Retail trade	179.0	4.2
Transportation and warehousing	227.1	5.3
Information and cultural industries	119.0	2.8
Finance and insurance	139.9	3.3
Real estate and rental and leasing	450.8	10.6
Professional, scientific and technical services	111.2	2.6
Management of companies and enterprises	1.5	0.0
Administrative and support, waste management and remediation services	59.5	1.4
Educational services	309.9	7.3
Health care and social assistance	431.9	10.2
Arts, entertainment and recreation	6.4	0.2
Accommodation and food services	98.2	2.3
Other services (except public administration)	74.2	1.7
Public administration	843.7	19.8

Note:
Totals may not sum due to rounding
Source: Statistics Canada (2024e)

During 2024, GDP declined in the mining, oil and gas extraction industry in NT. The NWT Bureau of Statistics identified that oil and gas extraction and diamond mining fell by 3.9% and 11.6% respectively as part of GDP. Support activities for these sectors has also declined since 2023 at a rate of -19.9%. (NWT Bureau of Statistics 2025).

By contrast, most service sector industries increased in the territory in 2024, including education services, wholesale trade, and transportation – notably an increase in air transportation. Public administration GDP also rose over the period (NWT Bureau of Statistics 2025).

11.4.4 Cost of Living

The CPI for Yellowknife rose 3.3% on an annual average basis in 2023, slightly lower than the national average of 3.9%. From 2002 to 2023, the CPI for Yellowknife rose 56.9% compared to 57.1% nationally (Statistics Canada 2024f).

Goods in Yellowknife experienced greater increases in prices compared to the national average during the period of 2002 to 2023 (Table 11.5). Prices of goods increased by 54.9% compared to 43.8% on average nationally (Table 11.5). In contrast, services in Yellowknife experienced lower increases in prices compared to the national average over the same period. Prices of services increased 55.6% in Yellowknife, compared to 70.1% on average nationally (Statistics Canada 2024f).

Table 11.5 Consumer Price Index by Product and Product Group, 2023, Not Seasonally Adjusted (2002 = 100)

	Yellowknife, Northwest Territories	Canada
All-items	156.9	157.1
• Food	176.3	183.3
• Shelter	183.6	172.5
• Household operations, furnishings and equipment	110.7	132.0
• Clothing and footwear	114.1	96.4
• Transportation	167.2	169.0
– Gasoline	188.7	228.4
• Health and personal care	138.1	145.8
• Recreation, education and reading	118.6	126.4
• Alcoholic beverages, tobacco products and recreational cannabis	195	190.5
All-items excluding food and energy	143.1	147.3
All-items excluding energy	149.5	153.5
Energy	243.8	205.5
• Goods	154.9	143.8
• Services	155.6	170.1

Source: Statistics Canada (2024f)

Shelter, clothing and footwear and energy prices in Yellowknife all rose at a rate greater than the national average between 2002 and 2023. The largest difference was in energy prices where prices in Yellowknife (243.8) were 38.3 index points greater than the national average (205.5) (Statistics Canada 2024f).

City of Yellowknife Economic Development staff confirmed that Yellowknife has similar food prices to the rest of Canada due to the presence of national chains stores that use the local highway. The staff indicated that heating and energy costs are higher than the rest of Canada which is a burden on household expenses. Heating is also costly due to the reliance on diesel. (City of Yellowknife, pers. comm., June 2, 2025).

11.4.5 Business Investment

Business investment opportunities are provided by the territorial government, City of Yellowknife, the Akaitcho Business Development Corporation and the Métis-Dene Development Fund.

The GNWT Department of Industry, Tourism and Investment offers programs, services and incentives designed to help business growth (GNWT n.d.a). Prosper NWT, established under the *Prosper NWT Act*, is intended to support the economic objectives of the NT by "encouraging the creation and development of businesses, providing financial assistance to businesses, directly investing in businesses and providing management support" (Prosper NWT n.d.). In 2023/2024, Prosper NWT approved eight credit facilities, totaling $3.7 million, and 239 contributions, totaling $0.9 million (Prosper NWT 2024).

Other GNWT financial supports include:

- An entrepreneurial support program which provides funding up to $25,000 to entrepreneurs and small businesses to help with start-up, business expansion, market and product development, capacity building and operational support (GNWT n.d.b).
- A Community Futures Program with Community Futures Development Corporations which act independent of government as non-profit organizations. Each Corporation offers business loans and loan guarantees including term loans up to a maximum of $200,000 (GNWT n.d.c).
- Industry specific funding for tourism and commercial fisheries (GNWT n.d.a).

The City of Yellowknife offers grant programs to local businesses when budgets allow or funding becomes available. In 2023, the City of Yellowknife awarded $230,000 in Covid-19 Recovery funding to local businesses, festivals and events to help the economy recover (City of Yellowknife n.d.).

The Akaitcho Business Development Corporation is a non-profit community lending organization based in NDilo, Dettah, and Yellowknife. The Akaitcho Business Development Corporation builds partnerships with other community organizations to provide technical advice, business skills development counselling and access to business capital (Akaitcho Business Development Corporation n.d.a). Financial services available to businesses include loans of up to $200,000, an Indigenous Women Entrepreneurs Micro-Loan, and a Women Entrepreneur Loan Fund (Akaitcho Business Development Corporation n.d.b).

The Métis-Dene Development Fund, 100% Indigenous owned, assists small to medium-sized Indigenous and non-Indigenous businesses in the NT by providing capital, strategic advice and ongoing administrative and financial services (Métis-Dene Development Fund n.d.a). Services include term loans,

working capital loans and lines of credit, an Entrepreneurship and Business Development Fund and Indigenous Women's Entrepreneur Program (Métis-Dene Development Fund n.d.b). Since 1991, their fund has loaned over $25 million to more than 300 businesses in key northern industry sectors, such as construction, oil and gas, and tourism (Métis-Dene Development Fund n.d.a).

11.4.6 Benefits, Royalties and Taxation

11.4.6.1 Municipal Government

In 2023, total revenue for the City of Yellowknife was $80.5 million, total expenditure was $85.5 million, with expenditures exceeding revenue by $5.0 million (Table 6.27). After accounting for other items, the total year-end accumulated surplus was $388.2 million (City of Yellowknife 2023).

11.4.7 Labour and Employment

11.4.7.1 Labour Force

The total labour force has a participation rate of 79% in Yellowknife (82% among men+) with the Indigenous population having a lower participation rate of 67.4% (73.2% among men+). Yellowknife's total population also has a lower unemployment rate compared to the Kitikmeot Region and Nunavut, at 5.8% (5% among women+) with the Indigenous unemployment rate at 11% (9.6% among women+) (Statistics Canada 2022a). Kitikmeot and Nunavut statistics are provided in Section 6.2.2, and Table 11.6 and Table 11.7.

Table 11.6 Labour Force, Yellowknife, Total Population, 2021

Topic	Yellowknife		
	Total	**Men+**	**Women+**
Total - Population aged 15 years and over	15,795	7,810	7,980
In the labour force	12,475	6,405	6,070
Employed	11,755	5,990	5,765
Unemployed	720	410	305
Not in the labour force	3,320	1,410	1,905
Participation rate	79%	82%	76.1%
Employment rate	74.4%	76.7%	72.2%
Unemployment rate	5.8%	6.4%	5%

Notes:
1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Total Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 11.7 Labour Force, Yellowknife, Indigenous Population, 2021

Topic	Yellowknife		
	Total	Men+	Women+
Total - Population aged 15 years and over	3,450	1,475	1,970
In the labour force	2,325	1,080	1,245
Employed	2,065	940	1,125
Unemployed	255	140	120
Not in the labour force	1,125	395	725
Participation rate	67.4%	73.2%	63.2%
Employment rate	59.9%	63.7%	57.1%
Unemployment rate	11%	13%	9.6%

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Total Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

11.4.7.2 Occupation

The most common occupations among the total population in Yellowknife is "Occupations in education, law and social, community and government services" at 21.6 percent of the population (Table 11.8). (Statistics Canada 2022a). This rate is also the same (21.6 percent) for the Indigenous Census profile for Yellowknife.

Feedback from multiple primary research interviews suggests that individuals interviewed view the community as transitional community where people seem to come and work for a couple years, gain work experience and then move out (Deton'cho Corporation, pers. comm., May 22, 2025; City of Yellowknife, pers. comm., June 2, 2025). The interviews noted that there tends to be a high turnover of people relocating for a few years. Skilled immigrants are contributing to the population, but not necessarily staying long-term (City of Yellowknife, pers. comm., June 2, 2025). Each interview for organizations in the Yellowknife area indicated finding and keeping skilled employees is a consistent challenge.

Primary research indicates that the anticipated closure of the diamond mines will have a negative impact on the local labour force without another project to take its place. The mines employ a variety of workers including skilled positions. Skilled workers are in high demand, however there is no other approved project at the current time that would be large enough to keep all of those skilled workers employed (Deton'cho Corporation, Yellowknife, pers. comm., May 22, 2025). The result would be that skilled workers would leave Yellowknife and the Northwest Territories.

Table 11.8 Employment by Occupation Percentage, Yellowknife Total Population, 2021

Employment by Occupation	Yellowknife			Canada		
	Total/ (Rates %)	Men+	Women+	Total	Men+	Women+
Legislative and senior management occupations	1.9	2	1.8	1.3	1.8	0.8
Business, finance and administration occupations	19.5	11	28.4	17.1	10.6	24.2
Natural and applied sciences and related occupations	8.6	11.6	5.3	8.2	11.9	4.2
Health occupations	6.2	3	9.5	7.8	3.0	13.0
Occupations in education, law and social, community and government services	21.6	17.9	25.5	12.0	7.5	17.0
Occupations in art, culture, recreation and sport	2.6	1.9	3.2	3.1	2.7	3.5
Sales and service occupations	19.9	18.8	21	23.9	20.6	27.5
Trades, transport and equipment operators and related occupations	15.6	27.6	2.8	16.8	29.3	3.1
Natural resources, agriculture and related production occupations	2.1	3.5	0.6	2.8	4.1	1.3
Occupations in manufacturing and utilities	1	1.6	0.5	4.4	6.1	2.6

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 'Indigenous Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 11.9 Employment by Occupation, Yellowknife, Indigenous Population, 2021

Employment by Occupation	Yellowknife			
	Total	Total Percentage	Men+	Women+
Legislative and senior management occupations	235	1.9	125	110
Business, finance and administration occupations	2,435	19.5	705	1,725
Natural and applied sciences and related occupations	1,070	8.6	745	325
Health occupations	770	6.2	195	575
Occupations in education, law and social, community and government services	2,695	21.6	1,145	1,550
Occupations in art, culture, recreation and sport	320	2.6	120	195
Sales and service occupations	2,485	19.9	1,205	1,275
Trades, transport and equipment operators and related occupations	1,940	15.6	1,765	170
Natural resources, agriculture and related production occupations	265	2.1	225	35
Occupations in manufacturing and utilities	130	1.0	105	30
All Occupations	12,335	98%	99.0	98.7
Other Occupations – Not applicable	140	1.1	1.0	1.2

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.
3. Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

2021 ‘Total Population’ data from 2021 Census of the Population – Census Profile.

Values shown in “Total” columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada’s 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

11.4.8 Income and Income Inequality

As of 2021, the highest median total income across the LAA and RAA was found in Yellowknife at $55,200 (the same amounts were documented among both the Indigenous and non-Indigenous population) with men+ earning $76,500 ($51,600 among Indigenous men+) and women+ earning $67,000 ($56,000 among Indigenous women+). Individual income in Yellowknife is high relative to the Canadian average, with mean income being about $20,000 more in Yellowknife (Statistics Canada 2022a). Further information on income for the total population is provided in Table 11.10 and further information for the Indigenous population is provided in Table 11.11.

Mean total income and mean employment income in Yellowknife are lower for Indigenous persons compared to non-Indigenous persons, and lowest among indigenous women+ compared to Indigenous men+. Information on employment income equity for Canada and Nunavut are provided in Section 6.3.

Table 11.10 Individual Income (Annual – Before Tax), Total Population, 2021

Topic		Median total income in 2020	Median employment income in 2020	Mean total income in 2020	Mean employment income in 2020
Yellowknife	Total	$72,000	$73,500	$79,300	$78,000
	Men+	$76,500	$79,000	$84,900	$83,900
	Women+	$67,000	$69,000	$73,900	$72,200
Canada	Total	$41,200	$37,200	$54,450	$50,280
	Men+	$46,400	$43,200	$62,650	$58,050
	Women+	$36,800	$32,000	$46,560	$42,000

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

Total income is presented for persons aged 15 years and older and is the sum of regular and recurring monetary receipts from part-time and full-time employment income (e.g., wages, tips, and commissions), income from investment sources (e.g., dividends, guaranteed investment certificates, and mutual funds), income from employer and personal pension sources (e.g., private pensions and payments from annuities and registered retirement income funds), other regular cash income (e.g., child support payments and spousal support payments), and income from government sources (e.g., social assistance, Employment Insurance benefits, Old Age Security benefits, and Canada Pension Plan benefits and disability income).

Employment income is the sum of wages, salaries, tips, commissions, and net income from self-employment.

Values shown in “Total” columns are the sum of male and female census subdivision subsets taken from Statistics Canada’s 2021 Census. Due to Statistics Canada rounding (Statistics Canada 2019) totals may not exactly align with those shown on census subdivision Census Profiles and may not sum across tables.

Totals may not sum across tables due to Statistics Canada data suppression.

Source: Statistics Canada (2022a)

Table 11.11 Individual Income (Annual – Before Tax), Indigenous Population, 2021

Topic		Median total income	Median employment income	Mean total income	Mean employment income
Yellowknife	Total	$55,200	$28,600	$64,600	$44,800
	Men+	$51,600	$34,800	$66,700	$49,200
	Women+	$56,000	$25,400	$63,100	$40,600
Canada	Total	$35,200	$34,000	$55,000	$54,500
	Men+	$46,400	$43,200	$62,650	$58,050
	Women+	$38,000	$31,800	$55,900	$53,150

Notes:

[1] This category includes men (and/or boys), as well as some non-binary persons.

[2] This category includes women (and/or girls), as well as some non-binary persons.

[3] Indigenous and non-Indigenous totals may not sum to equal total population counts as they are based on a 25% population sample size.

Total income is presented for persons aged 15 years and older and is the sum of regular and recurring monetary receipts from part-time and full-time employment income (e.g., wages, tips, and commissions), income from investment sources (e.g., dividends, guaranteed investment certificates, and mutual funds), income from employer and personal pension sources (e.g., private pensions and payments from annuities and registered retirement income funds), other regular cash income (e.g., child support payments and spousal support payments), and income from government sources (e.g., social assistance, Employment Insurance benefits, Old Age Security benefits, and Canada Pension Plan benefits and disability income).

Employment income is the sum of wages, salaries, tips, commissions, and net income from self-employment.

Values shown in “Total” columns are the sum of male and female census subdivision subsets taken from Statistics Canada’s 2021 Census. Due to Statistics Canada rounding (Statistics Canada 2019) totals may not exactly align with those shown on census subdivision Census Profiles and may not sum across tables.

Totals may not sum across tables due to Statistics Canada data suppression.

Source: Statistics Canada (2022a)

11.4.9 Household Economy

11.4.9.1 Household Income

In 2020, the median total income of households in Northwest Territories was $127,000 ($109,000 after tax), which was greater than the Canadian median household income of $84,000 ($73,000 after tax) (Table 11.12). The median household income in Yellowknife in 2020 was $148,000 ($126,000 after tax) (Statistics Canada 2022a).

In the same year, the mean total income of households in Northwest Territories was $144,800 ($121,700 after tax), which was greater than the Canadian mean household income of $106,300 ($87,700 after tax). The mean household income in Yellowknife in 2020 was $165,400 ($137,000 after tax) (Statistics Canada 2022a).

Table 11.12 Income of Households, Total Population, Northwest Territories, 2020

Income of households in 2020	Median total income of household in 2020 ($)	Median after-tax income of household in 2020 ($)	Average total income of household in 2020 ($)	Average after-tax income of household in 2020 ($)
Canada	84,000	73,000	106,300	87,700
Northwest Territories	127,000	109,000	144,800	121,700
Yellowknife	148,000	126,000	165,400	137,000

Source: Statistics Canada (2022a)

11.4.9.2 Income of Economic Families

In 2020, the median total income of economic families in the Northwest Territories was $151,000 ($130,000 after tax), which was greater than the median total income for Canadian economic families at $105,000 ($91,000 after tax) (Table 11.13). The average family size of economic families was also greater for Northwest Territories, at 3.2 people, than the Canadian average of 3.0 people. The median total income of economic families in Yellowknife in 2020 was $174,000 ($146,000 after tax). The average size of economic families in Yellowknife was 3.1 people (Statistics Canada 2022a).

Table 11.13 Income of Economic Families, Total Population, Northwest Territories, 2020

Income of economic families in 2020	Median total income of economic family in 2020 ($)	Median after-tax income of economic family in 2020 ($)	Average family size of economic families
Canada	105,000	91,000	3.0
Northwest Territories	151,000	130,000	3.2
Yellowknife	174,000	146,000	3.1

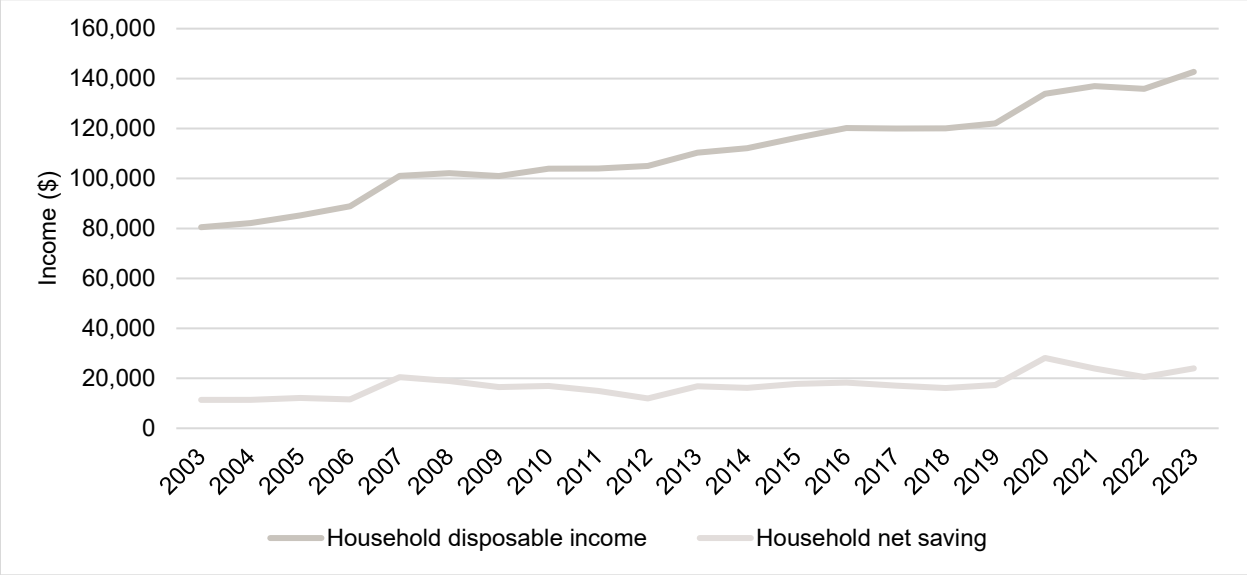
Source: Statistics Canada (2022a)

11.4.9.3 Household Savings

Average household disposable income and savings in NT increased between 2022 and 2023 (Figure 11.2). Average household disposable income was $142,705 in 2023, compared to $135,933 in 2022, representing growth of 5.0%. Average household net saving was $24,014 in 2023, compared to $20,535 in 2022, representing growth of 16.9% (Statistics Canada 2024g).

Between 2003 and 2022, average household disposable income increased 77.3% and average household net savings increased 110.8% (Statistics Canada 2024g).

Figure 11.2 Average Household Disposable Income and Net Savings, Northwest Territories



Source: Statistics Canada (2024g)

As described in Section 11.4.2, the most common occupations in Yellowknife are in education; law; social, community, and government services; and business, finance, and administrative positions. Community members who are employed in professional occupations such as these may experience higher disposable income and savings rates while community members who are un-, under-, or precariously employed may have substantially lower disposable income and savings rates.

11.4.10 Businesses

11.4.10.1 Businesses by Community

In December 2023, there were 827 businesses operating in Yellowknife (Table 6.17). The industries with the greatest number of businesses were construction (102 businesses), professional, scientific and technical services (91 businesses) and retail trade (88 businesses) (Statistics Canada 2024i).

Of the total businesses in Yellowknife in December 2023, 39% had 1 to 4 employees, and 22 businesses had more than 200 employees (Table 6.18) (Statistics Canada 2024i).

Indigenous-Owned Businesses

The Yellowknife Chamber of Commerce maintains a directory of businesses that are Indigenous owned 51% or more and 18 businesses are listed. The Yellowknives Dene include a business directory on their website with 41 entries. In each directory, the types of companies vary from Indigenous government owned entities, as well as companies in tourism, air travel, healthcare, engineering, investing, consulting, photography, logistics, restaurants, utilities and natural resources (Yellowknives Dene Business Directory 2025; Yellowknife Chamber of Commerce 2025).

Interviews with Det'on Cho Group of Companies, Tłı̨chǫ Investment Corporation, and the North Slave Métis Alliance (NSMA) individuals identified that each organization operates Indigenous-owned businesses that service the mines and other construction sites.

Det'on Cho has a partnership with Nuna Logistics, constructing the northern part of the TCWR and they provide labourers and flooders. They also operate a civil construction company and an environmental consulting group. The organization is also involved in land testing and monitoring as well. We have a drilling company. The logistics company provides operations and coordination support for the TCWR, they do dispatch, and servicing for all three diamond mines. Not having to rely on air support to move freight is helpful. The organization also offers waste removal services. The organization works to employ members in these companies, the diamond mines and the Giant Mine reclamation. (Det'on Cho, pers. comm., May 22, 2025).

NSMA indicated it has no formal written economic development strategy, but its priority sectors are road building, environmental consulting, monitoring and engineering. NSMA's main goal is to transition from reliance on diamond mining (e.g., Diavik) toward broader infrastructure and service-based opportunities. NSMA views itself as a pro-economic development Indigenous government, seeking to participate in all projects impacting its territory. NSMA works with employers in government, mines, and its own businesses such as Metcor Environmental to place its members. As a result, NSMA members have high employment rates and currently serve in large projects like the Giant Mine reclamation and it is partnered in a camp catering company. (North Slave Métis Alliance (NSMA), pers. comm., May 23, 2025).

Tłı̨chǫ Investment Corporation identified that it has a well-trained workforce and is a major employer with 400+ staff, 70% of which are from local communities. Tłı̨chǫ has a 10-year economic roadmap (~to 2035), centered on current opportunities like reclamation and mine operations/closures. It notes significant uncertainty beyond 2035 about whether diamond mining will end. Infrastructure (like roads) is not explicitly included due to long-standing uncertainty over their realization. The organization has been involved in winter roads (to mines and seasonal community access) as well as construction of the Whatì all-season road (in partnership with Kiewit). (Tłı̨chǫ Investment Corporation, pers. comm., May 23, 2025).

Each of the Indigenous organizations indicated that housing is a major issue. NSMA is building its own worker accommodations to house members employed through its companies. The Indigenous organizations prioritize member hiring, but will work with other Indigenous groups and/or seek out northern staff where they can to fill contract staffing needs (North Slave Métis Alliance (NSMA), pers. comm., May 23, 2025).

Inuit Owned Businesses

In July 2024, there were five Inuit-owned businesses located in Yellowknife on the Nunavut Tunngavik Inuit Firm Registry Database (Nunavut Tunngavik Incorporated n.d.).

11.5 Education

Yellowknife Education District No.1 is the public school board for Yellowknife. The district has six elementary schools (including K'àlemì Dene School), one middle school, and one high school. Other schools fall under the Yellowknife Catholic Schools board, which operates two schools and one high school (Yellowknife District No.1 2024; Yellowknife Catholic Schools 2024).

Aurora College's North Slave Campus is located in Yellowknife. This post-secondary institution provides literacy and career, university, and college preparation programs. Other programs include early learning and childcare, adult education, office administration, Northern Leadership Development Program, and nursing programs, including a B.Sc. in Nursing, Practical Nurse, Personal Support Worker, and Community Health Representative (Aurora College 2024). Not all post-secondary programs are available in Yellowknife, Aurora College has skilled trades programs in Fort Smith, and some people head to Alberta for college or university (Deton'cho Corporation, Yellowknife, pers. comm., May 22, 2025).

Many interviews identified that limited direct skills training is available in Yellowknife, but skills training is available in Northwest Territories and expanding. Some technical training must be done outside the city or in Fort Smith. Skills programs exist (e.g., SNAP) allowing high schoolers to earn apprenticeship hours. The City has been seeking a polytechnic university presence in Yellowknife, although a previous campus plan fell through. Changes to Aurora College structure and courses/trainings offered may offer more opportunities for skills training. (City of Yellowknife, pers. comm., June 2, 2025).

Skilled trades (e.g., apprentices, engineers) remain a challenge to find and retain. Tłı̨chǫ Investment Corporation is collaborating with Aurora College and others on training such as heavy equipment operator programs. The organization's emphasis is on training that leads directly to employment or includes earning while learning (Tłı̨chǫ Investment Corporation, pers. comm., May 23, 2025)

Yellowknife contains 66 operating licensed childcare centres, 48 of which participate in the Child Care Fee Reduction Subsidy program. Five of the 66 centres are also classified as Family Day Home programs (GNWT n.d.d). No data was found regarding current capacity of the centres.

Educational attainment levels for Yellowknife are high compared to the LAA and RAA (Table 11.14). The most common category is residents having at least a bachelor's degree (32%), which is higher among women+ (37%) compared to men+ (27%). Detailed educational attainment information for the Kitikmeot communities is provided in Section 7.4, for comparison.

In Yellowknife, the highest proportion of its Indigenous population does not have a high school diploma (32%), following by having a high school diploma (31%), as their highest level of educational attainment. Further information is provided in Table 11.15.

Table 11.14 Educational Attainment, Total Population (Aged 15+), Yellowknife and Canada, 2021

Total Population							
Educational Attainment		**No certificate, diploma or degree**	**High (secondary) school diploma or equivalency certificate**	**Apprenticeship or trades certificate or diploma**	**College, CEGEP or other non-university certificate or diploma**	**University certificate or diploma below bachelor level**	**Bachelor's degree or higher**
Yellowknife	Total	14.2	27	6.6	16.7	3.4	32.2
	Men+[1]	15	28.8	10.4	15.9	2.9	26.9
	Women+[2]	13.4	25.2	2.8	17.4	3.8	37.4
Canada	Total	16.2	26.7	8.7	18.8	3	26.7
	Men+	17.1	27.1	12.2	16.4	2.5	24.8
	Women+	15.3	26.3	5.4	21.2	3.4	28.5

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.

2021 'Total Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

Table 11.15 Educational Attainment, Indigenous Population (Aged 15+), 2021

Indigenous Population							
Educational Attainment		No certificate, diploma or degree	High (secondary) school diploma or equivalency certificate	Apprenticeship or trades certificate or diploma	College, CEGEP or other non-university certificate or diploma	University certificate or diploma below bachelor level	Bachelor's degree or higher
Yellowknife	Total	1090	1060	230	550	90	430
	Men+[1]	490	485	165	185	35	120
	Women+[2]	600	580	65	365	55	310

Notes:

1. This category includes men (and/or boys), as well as some non-binary persons.
2. This category includes women (and/or girls), as well as some non-binary persons.

2021 'Indigenous Population' data from 2021 Census of the Population – Census Profile.

Values shown in "Total" columns are the sum of male and female Census Subdivision (CSD) subsets taken from Statistics Canada's 2021 Census Profile (Census of the Population). Due to Statistics Canada rounding (Statistics Canada 2022a) totals may not exactly align with those shown on CSD Census Profiles and may not sum across tables.

Source: Statistics Canada (2022a)

11.6 Infrastructure and Services

11.6.1 Transportation

The City of Yellowknife is located on the north shore of Great Slave Lake. Historically the Indigenous peoples of this area walked overland and utilized the lakes and rivers for navigation and to obtain supplies using canoes. Float planes also became an important mode of transportation in the early 20th century.

The City of Yellowknife considers itself a supply and transportation hub for the northern region of Canada. The Government of the Northwest Territories operates the Yellowknife Airport with regular commercial aircraft connections (e.g., Air Canada, West Jet, Canadian North, Air Tindi) as well use by other charter and cargo aircraft. The Yellowknife Airport is a full-service airport that supports commercial, corporate, and general aviation. It is the central hub for the NT airport system and provides regularly scheduled air service to local communities, western Nunavut, and southern Canada.

The total number of annual aircraft movements at the Yellowknife Airport in 2023 was 53,152, up 8.1% from 49,152 in 2022. The number of passenger movements has been growing since its low of COVID-19 travel in 2021 (163,248 passengers), reaching 408,764 passengers in 2023. (NWT Bureau of Statistics 2024).

The Yellowknife airport is undergoing efforts to pursue developing a new terminal building in conjunction with funding partners such as GNWT. The Yellowknife airport is near capacity and the terminal is becoming outdated and causes operational challenges the airport apron and de-icing airplanes (Yellowknife Airport, Yellowknife, pers. comm., May 5, 2025), The airport is also working with the federal Department of National Defence to determine its interests in expansion within the airport area. An interview with the Regional Airport Manager also indicated that cargo airlines are also interested in expansion plans since storage space or hangers can be a limitation on deliveries. A timeline for expansion of the terminal or other infrastructure is not confirmed as it depends on funding and other NT transportation priorities (Yellowknife Airport, pers. comm., May 5, 2025). There are many competing projects in the region, and the Yellowknife airport is a logistics hub for them all (Yellowknife Airport, Yellowknife, pers. comm., May 5, 2025).

The city is also connected to the Canadian road network through NT Highway 3 which connects to southern locations. The closest major Canadian city to Yellowknife is Edmonton, which is approximately 1,450 km to the south, or approximately 14 hours direct drive.

NT Highway 4 is known locally as the Ingraham Trail. The approximately 70 km all-season highway serves as a connection to territorial parks, an all-season road access to Dettah, and some dispersed properties to the east, although there are no communities. The Tibbitt to Contwoyto Winter Road provides seasonal limited access from the northern terminus of NT Highway 4 to the diamond mines north of Yellowknife. In the winter, an ice road also connects Yellowknife to the community of Dettah across Yellowknife Bay.

Canadian National (CN) operates a rail line from High Level, Alberta, to Enterprise, NT, south of Great Slave Lake. Rail infrastructure exists between Enterprise and Hay River, NT, but wildfires in 2023 damaged this rail line and CN has discontinued its use (Cabin Radio 2024b).

The GNWT operates Marine Transportation Services (MTS) for marine resupply by barge along the Mackenzie River. MTS originates in Hay River and provides community resupply to communities in the Western Arctic in NT and the Kitikmeot communities of Cambridge Bay and Kugluktuk (GNWT 2024e). However, the resupply of communities via MTS from Hay River has been challenged in recent years. For example, the 2018 barge re-supply to Cambridge Bay and Kugluktuk from Hay River was cancelled as a result of impassable ice and bad fuel, resulting in the need to airlift goods and fuel into the communities for $4 million (ITK 2021a; Cabin Radio 2024a). The 2021, 2023, and 2024 barging seasons to Cambridge Bay and Kugluktuk from Hay River were disrupted by low water levels in the Mackenzie River (Cabin Radio 2024a).

Primary research indicates that fixed wing aircraft and helicopter charters operating out of Yellowknife or Inuvik operate in the study area within Nunavut. Two operators mentioned in interviews are Air Tindi and Great Slave Helicopters (GSH), that provide charters for construction, tourism and other operations in the area around Yellowknife and the Kitikmeot Region.

GSH identified that helicopters have the advantage of not requiring airstrips, but if operating in remote locations they need fuel caches. Some fuel caches are brought by the TCWR in the winter in preparation for summer construction seasons. (Great Slave Helicopters, pers. comm., May 14, 2025; Yellowknife Airport, pers. comm., May 5, 2025) Interviews consistently noted that weather delays, limited

accommodations in Kitikmeot communities, fuel and fuel costs are significant factors affecting charters and logistics when operating north of Yellowknife and the Kitikmeot Region. (Great Slave Helicopters, pers. comm., 2025;, Yellowknife Airport, pers. comm., pers. comm., May 5, 2025; Black Feather, pers. comm., June 18, 2025). Interviews identified that because the construction seasons are short, proactive planning is needed to increase fuel reserves in advance of construction.

11.6.2 Telecommunications and Internet

Yellowknife is well connected with telecommunications assets. Northwestel offers northern customers with internet, television, and phone services. Many of the services are offered through Bell Canada-affiliated services. Cellphone connectivity is offered in the community by most major carriers.

11.6.3 Utilities

Water and wastewater services are provided by the City of Yellowknife through the Public Works and Engineering Department. Water is obtained from surface water sources at Yellowknife Bay on Great Slave Lake and the Yellowknife River, based on demand (City of Yellowknife, Water 2024). Most water and wastewater services in Yellowknife are directly provided to homes through underground infrastructure.

Certain neighbourhoods and commercial buildings at the Yellowknife Airport and along Old Airport Road receive truck water delivery and sewage pump out. Approximately 680 residents (4%) of the community and 1,600 individuals at commercial/industrial businesses receive truck water delivery and sewage pump out.

Electrical generation is provided by Northwest Territories Power Corporation at the hydroelectric dam on Jackfish Lake. Local electricity distribution is provided through Nak Power (Yellowknife) Ltd. – Northland Utilities.

Yellowknife's waste management system includes a solid waste facility, as well as programs for recycling and organics. The landfill began accepting waste in 1974. At the time of writing Yellowknife's 2018 Strategic Waste Management Plan, it was estimated that there was 10 years of capacity remaining at the current disposal rate (City of Yellowknife 2018). In the spring of 2024 the City of Yellowknife began a $6.7 million plan to extend the landfill's lifespan by ten years (Lamberink 2024).

11.6.4 Health

NTHSSA provides health and social services to all areas of the NT.

The Stanton Territorial Hospital in Yellowknife is the largest hospital in the NT. The hospital offers a full spectrum of health care services for NT patients as well as residents of the Kitikmeot Region of Nunavut. The hospital has a 25-bed medicine unit that provides inpatient care to adult patients with cardiac and respiratory conditions, diabetes, and neurological disorders and an 11-bed surgical unit providing postoperative care. It also has obstetrics, pediatrics, and psychiatry units with a total of 27 beds (NTHSSA 2024).

In addition to the Stanton Territorial Hospital, Yellowknife has a Primary Care Centre, which provides access to primary care practitioners, public health services, mental health and adult services, diagnostic imaging and lab services, diabetic care, and outpatient psychiatry. There is also the Frame Lake Community Health Clinic and the Stanton Medical Center, as well as an audiology clinic and an eye clinic. (NTHSSA 2024).

In 2022, there were 57 physicians with a postal code in NT, consisting of 45 family medicine physicians and 12 specialists. NT also relies on itinerant physicians for care and in 2022-2023, NT had 1,131 visiting doctors including 663 family medicine physicians and 468 specialists (CIHI 2023).

11.6.5 Emergency Services

11.6.5.1 Policing

There are 21 RCMP detachments in NT, 11 of which are located in fly-in remote communities. There is one detachment in Yellowknife.

In 2022, NT had the highest overall police-reported crime, property crime, and 'other' Criminal Code offenses rates across Canada, along with the second-highest rate of violent crime offenses. Property crime constitutes the greater part of the NT's crime rate. The comparatively high reported crime rate in NT is influenced in part by the small population and the high ratio of police per capita (the highest of all provinces and territories) which likely contributes to a higher level of reporting (GNWT 2023b). More detailed information about crime statistics in Yellowknife is presented in Section 11.7.8.

Between 2019 and 2023, the number of police officers increased slightly from 194 to 195 and the police-civilian ratio increased from 1:2.3 to 1:2.6. The number of police officers per 100,000 population in NT was 436.5 in 2019 and 433.6 in 2023. The Crime Severity Index increased from 389 in 2019 to 437 in 2023 (Statistics Canada 2023b).

11.6.5.2 Fire Services

Yellowknife Fire Division (YKFD) provides fire, rescue and EMS to the residents of Yellowknife. It is staffed by a full-time complement of personnel who are trained in fire/rescue and EMS. These include 28 operational staff, 20 paid-on-call volunteer positions and four volunteer public educators. The dispatch unit has a staff of four dispatchers and a dispatch supervisor. The YKFD receives approximately 5,000 calls per year for emergency medical assistance, motor vehicle incidents, fire alarm investigation, fires, hazmat (dangerous goods), rescue and miscellaneous calls for assistance with explosions, smoke odors, among others. The majority of calls are for emergency medical response (ambulance) (Behr Energy Services Ltd. 2016).

Five year average call volumes (January to December 2019-2023) indicate average call volumes of 5,157 per year, of which 4,035 were for EMS (City of Yellowknife Fire Services 2024).

11.6.6 Housing

11.6.6.1 Housing Stock

Residential construction in Yellowknife is challenging due to existing land titles and protections, which limit the usable land within the city. Housing development is made more difficult by environmental conditions, including rock outcrops, permafrost and unstable soil, as well as high construction costs and a short construction season (CMHC 2024d).

In the second quarter of 2023, the average home price in Yellowknife rose to $505,286. This was an increase of 3.8% from the previous year and lower than the national average of $678,288 in 2023. In 2022, 295 resale homes were sold, a decline of 19.4% from 2021. Despite the decline from the previous year, the number of sales was higher than pre-pandemic levels. Demand for housing in Yellowknife has been driven by a strengthening labour market throughout 2022 as post-pandemic activity increases and a large inflow of international migrants occurs (CMHC 2024c). Housing is expensive, but considered relatively stable in comparison to other Canadian cities. The City of Yellowknife received $8.1 M from the Housing Accelerator Fund to develop infill housing. (City of Yellowknife, pers. comm., June 2, 2025).

11.6.6.2 Rental Accommodations

The number of private apartments for rent in Yellowknife declined from 1,750 units in 2021 to 1,702 units in 2022. By October 2023, this number had increased to 1,802 (CMHC 2024d).

In October 2022, Yellowknife's vacancy rate for all rental units nearly doubled from the previous year from 1.8% to 3.5%. This is likely due to the high flow of migrants into and out of Yellowknife and the varying housing needs of these residents. This may also be explained by the addition of 40 newly acquired condominium apartments that were not previously accounted in for in the CMHC dataset. Despite higher vacancy rates in 2022 compared to 2021, the overall vacancy rate was comparable to those observed over the last decade.

As of June 2023, there were 70 rental apartment units under construction. Upon completion, these units will increase the stock of rental apartments by roughly 4.1%. There were additional rental apartments proposed in 2022, including the proposed conversion of the Bellanca Building in downtown Yellowknife to create 72 additional rental units. Also in 2022, the Yellowknife City Council approved the sale of a downtown parking lot, known as the 50/50 lot, to a developer proposing to build a 12-story building with 180 housing units (CMHC 2024d).

Indigenous organizations indicate that there is not enough housing for employees seeking to work, and that paying individuals to stay in hotels can be cost prohibitive. Individuals onsite will often live in camps at the property. High costs associated with hotels in Yellowknife have led organizations like the Tłı̨chǫ Investment Corporation to build temporary housing in Behchokǫ̀ and 250-bed facility in Yellowknife with a partner to address the housing shortage for its members. It also uses shuttle services are helping community members access work sites (e.g., Giant Mine). (Tłı̨chǫ Investment Corporation, pers. comm., May 23, 2025) NSMA is also constructing its own temporary accommodations for its members in Yellowknife. (North Slave Métis Alliance (NSMA), pers. comm., May 23, 2025).

11.6.6.3 Affordability

Housing affordability is an ongoing concern affecting the NT. Rental rates and house prices increased throughout 2022.

In 2021, 10.2% of total private households in Yellowknife were in core housing need (defined in Section 8.1.1). Core housing need is most prevalent among renters in Yellowknife and the main contributing factor to core housing need in 2021 was affordability (CMHC 2024c). According to CMHC, core housing need is highest amongst lone parent households, seniors, and Indigenous peoples (CMHC 2024d).

The housing needs of Yellowknife's senior population is an ongoing concern, as this demographic continues to grow. To help meet these needs, an additional 102 units of seniors' housing are being constructed as part of the Avens seniors' facility expansion. The new units were to begin accepting residents in October 2024 (Williams 2024).

Table 11.16 Core Housing Need Characteristics, Private Households, Percent, Yellowknife and Canada, 2021

		Total Number of Housing Units	In Core Housing Need	Not in Core Housing Need	Major Repairs Needed	Not Suitable (Crowded)
Yellowknife	Owned	56.9	4.5	95.5	9.1	4.8
	Rented	43.1	18.2	81.8	12.5	13.1
	Total	**100**	**10.3**	**89.7**	**10.6**	**8.4**
Canada	Owned	66.5	5.3	94.7	5.3	3.0
	Rented	33.5	20.0	80.0	7.3	9.9
	Total	**100**	**10.1**	**89.9**	**6.1**	**5.4**

Source: CMHC (2024c)

New affordable housing supply is anticipated in Yellowknife with recent announcements by the municipal, territorial, and federal governments. For instance, in 2023, $7.9 million in funding was announced by the federal government to create 36 affordable permanent homes for Indigenous peoples, women with children and those who are experiencing or at risk of experiencing homelessness (CMHC 2023).

11.6.6.4 Temporary Accommodation

Yellowknife has approximately six hotels, two motels, six apartment hotels, and an estimated several dozen bed and breakfasts, according to the Yellowknife Visitors Centre. The Visitor's Centre is located in the Centre Square Mall, and operates a tourism website "Extraordinary YYK" which produces a visitors guide. The organization estimates the City has capacity for over 1,000 visitors (City of Yellowknife 2024c).

An interview noted that rental accommodations and hotels are less affected during construction seasons since the peak tourism period for Yellowknife is in the winter for the Auora tours (Det'on Cho, pers. comm., May 22, 2025).

11.7 Community Health and Well-being

This section provides an overview of the physical, mental, and social health status in the NT, and specifically for Yellowknife, where data were available.

11.7.1 Perceived Health

Self-reported perceived health for residents in NT is displayed in Table 11.17. NT residents have lower rates of "very good or excellent" perceived health and similar rates of "fair or poor" perceived health compared to national rates. Females in the NT have higher rates of perceived health as "very good or excellent" compared to males whereas, males at the national level have higher rates of perceived health as very good or excellent.

Table 11.17 Perceived Health Northwest Territories and Canada; 2019/2020; total percent 12 years and over

	Canada			Northwest Territories		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
Perceived health, very good or excellent	61.8	62.6	61	57.0	54.1	60.0
Perceived health, fair or poor	10.8	10.4	11.2	10.7	12.5	8.8[a]

Notes:
[a] denotes the information is to be used with caution
Source: Statistics Canada (2022a)

11.7.2 Life Expectancy

Life expectancy in NT is lower compared to national averages. From 2020 to 2022, NT residents had a life expectancy of 75.4 years for both sexes (73.2 years for males; 77.6 years for females) (Statistics Canada 2023c). This compares with life expectancy for both sexes in Canada overall, which was 81.3 years (79.1 years for males; 83.6 years for females) (Statistics Canada 2023c).

11.7.3 Premature Mortality

Northwest Territories has a greater rate of age-standardized premature mortality compared to national rates (Table 11.18). From 2019 to 2021, the premature mortality rate in NT was 1.7 times greater than the premature mortality rate in Canada.

Table 11.18 Premature mortality age standardized rate (per 100,000) from 2015 to 2021 for both sexes in Northwest Territories, and Canada

	2015 to 2017	2016 to 2018	2017 to 2019	2018 to 2020	2019 to 2021
Canada	278.8	278.3	274.6	275.6	281.3
Northwest Territories	390.1	396.2	394.9	436.3	465.3

Notes:

Mortality is the death rate, which can be measured as total mortality (all causes of death combined) or by selected cause of death. All counts and rates are calculated using the total population (all age groups). Premature deaths are those of individuals who are younger than age 75.

Source: Statistics Canada (2023d)

11.7.4 Physical Health

Chronic conditions and diseases in Northwest Territories and Canada in 2019/2020 are displayed in Table 11.19. In 2019/2020, the percent of body mass index reported as overweight for both sexes was lower in NT compared to the national average; however, the proportion of persons with a body mass reported as obese was nine percent higher in NT. The proportion of youth in NT who reported being overweight or obese was nearly 10% greater compared to the national average. Females in NT have a lower rate of self-reported overweight body mass index (BMI) compared to men, although have a greater rate of self-reported obese BMI compared to men. The proportion of individuals with diabetes in NT is comparable to the national average. The proportion of persons with arthritis, asthma and high blood pressure were lower in the NT compared to the average national rates.

In 2016, NT had over seven times (30.7 per 1,000 persons) the national rate (4.1 per 1,000 persons) of STI's with gonorrhea being over 16 times the national rate (GNWT 2019). Rates were disproportionately high among Indigenous peoples (GNWT 2019).

Table 11.19 Chronic conditions and diseases in Northwest Territories and Canada; 2019/2020; percent; total 12 years and over

	Canada			Northwest Territories		
	Both sexes	**Males**	**Females**	**Both sexes**	**Males**	**Females**
BMI, adjusted self-reported, adult (18 years and over), overweight	35.7	40.4	30.9	31.5	34.8	27.9[E]
BMI, adjusted self-reported, adult (18 years and over), obese	28.0	28.5	27.4	37.1	35.0	39.4
BMI, self-reported, youth (12 to 17 years old), overweight or obese	23.9	27.3	20.3	33.7[E]	29.4[E]	38.3[E]
Arthritis (15 years and over)	19.5	16.0	22.9	15.0	17.5[E]	12.4[E]
Diabetes	7.5	8.6	6.4	8.7[E]	10.6[E]	6.8[E]
Asthma	8.3	7.0	9.5	7.0[E]	6.2[E]	7.8[E]
Chronic obstructive pulmonary disease (COPD; 35 years and over)	3.9	3.8	4.1	F	F	F
High blood pressure	17.3	18.0	16.6	13.2	16.9[E]	9.4[E]

Notes:

[E] denotes to use with caution

F denotes too unreliable to be published

BMI is calculated by dividing the respondent's body weight (in kilograms) by their height (in metres) squared. The index for body weight classification for the population aged 18 and older is: less than 18.50 (underweight); 18.50 to 24.99 (normal weight); 25.00 to 29.99 (overweight); 30.00 to 34.99 (obese, class I); 35.00 to 39.99 (obese, class II); 40.00 or greater (obese, class III).

Source: Statistics Canada (2022d)

11.7.5 Mental Health and Social Well-being

Information on perceived mental health, perceived life stress, mood disorder, sense of belonging to a local community and life satisfaction for NT residents is displayed in Table 11.20. Perceived mental health as “very good or excellent” is lower in NT compared to the national rate. However, for both NT and Canada overall, females had lower rates of “very good or excellent” perceived mental health. In NT, perceived life stress is comparable to the Canadian average; however, a notable difference is that males appear to be less stressed (14.0%) and females have more stress (26.4%). NT has a similar proportion of residents diagnosed with mood disorders, compared to Canada overall. The sense of belonging to local community (“somewhat strong or very strong”) is greater among NT residents than the national average. Life satisfaction being reported as “satisfied or very satisfied” is lower among NT residents compared to national averages, however 91.7% of NT report having a life satisfaction as “satisfied or very satisfied”.

Table 11.20 Perceived mental health, perceived life stress, mood disorder, sense of belonging and life satisfaction in Northwest Territories and Canada; 2019/2020; total percent 12 years and over

	Canada			Northwest Territories		
	Both sexes (%)	Males (%)	Females (%)	Both sexes (%)	Males (%)	Females (%)
Perceived mental health, very good or excellent	66.0	69.4	62.8	58.9	65.5	52.2
Perceived mental health, fair or poor	8.9	8	9.7	12.4	11.3[a]	13.5[a]
Perceived life stress, most days quite a bit or extremely stressful	20.8	19.4	22.2	20.1	14.0[a]	26.4
Mood disorder	9.0	7.0	11.0	8.6[a]	7.8[a]	9.5[a]
Sense of belonging to local community, somewhat strong or very strong	70	68.7	71.2	79.7	74	85.5
Life satisfaction, satisfied or very satisfied	93.3	93.5	93.1	91.7	91	92.5

Notes:
[a] denotes the information is to be used with caution
"-" data is unavailable or too unreliable to be published
Source: Statistics Canada (2022d)

From 2013-14 to 2017-18, the age-standardized hospitalization rate for a self-injury was 14.9 per 10,000 in NT (GNWT 2019). Self-injury hospitalizations in NT are highest among Indigenous peoples and females (GNWT 2019). In the NT from 2013 to 2017, the age-standardized suicide rate was 2.3 deaths per 10,000 compared to the Canadian rate of 1.2; suicides were highest among males and Indigenous peoples (GNWT 2019).

11.7.6 Substance Use

The rates of drinking, smoking and illicit drug use in Yellowknife and the NT are described in the following sections.

11.7.6.1 Drinking and Smoking

The prevalence of smoking and heavy drinking in NT in 2019/2020 is displayed in Table 11.21. In NT, the proportion of smokers is more than 77% above the national rate, while the proportion of people indulging in heavy drinking (27.7%) is 58% above the national average.

Table 11.21 Current smoking and drinking in Canada and Northwest Territories; 2019/202; total percent 12 and older

	Canada			Northwest Territories		
	Both sexes (%)	**Males (%)**	**Females (%)**	**Both sexes (%)**	**Males (%)**	**Females (%)**
Current smoker, daily or occasional	13.9	16.6	11.2	24.7	23.2	26.3
Current smoker, daily	9.5	11.2	7.9	19.9	19.6	24.3
Heavy drinking	17.5	21.3	13.7	27.7	31.1	24.3

Notes:
[a] denotes the information is to be used with caution
"-" data is unavailable or too unreliable to be published
Source: Statistics Canada (2022d)

11.7.6.2 Illicit Drugs

NT has over twice the rate of mental health hospitalizations compared to Western Canada as a whole[1], of which the main cause is related to substance use (GNWT 2019). The rates of police-reported crime for selected drug offences in 2020 for NT and Canada are displayed in Table 11.22. The rate of crime for cocaine offenses in NT are more than 16 times higher than the national average. However, drug offenses for opioids and heroin are either absent or below national averages.

Table 11.22 Rates (per 100,000 persons) of Police-reported crime for selected drug offences, 2020

Drug	Canada	Northwest Territories
Cocaine	40	669
Methamphetamine	37	11
Ecstasy	2	4
Opioids	14	2
Heroin	7	2
Other drugs	43	71
Total Drugs	176	819

Source: Statistics Canada (2021c)

[1] Western Canada refers to British Columbia, Alberta, Saskatchewan. Manitoba, Yukon, Northwest Territories and Nunavut (GNWT 2019)

Table 11.23 shows total drug violations for adults, including men and women, in Yellowknife and NT from 2013 to 2023.

Table 11.23 Total drug violations for total population, men, and women in Yellowknife and NT, 2013-2023

Year	Yellowknife			Northwest Territories		
	Total	Men	Women	Total	Men	Women
2013	25	21	4	128	96	32
2014	42	37	5	119	101	18
2015	63	56	7	118	101	17
2016	20	17	3	97	79	18
2017	33	25	8	68	55	13
2018	27	22	5	50	42	8
2019	**16**	**14**	**2**	**30**	**27**	**3**
2020	**23**	**16**	**7**	**39**	**29**	**10**
2021	**22**	**18**	**4**	**28**	**23**	**5**
2022	**34**	**24**	**9**	**42**	**29**	**12**
2023	**12**	–	–	**51**	–	–

Note:
– Indicates that data are not available
Source: Statistics Canada (2024j)

11.7.7 Family Violence

In NT in 2017, women were victims of interpersonal violence at a rate of about 20 per 1,000, which is nearly 10 times the national rate (GNWT 2019). From 2016 to 2019, over 98% of women admitted to family violence shelters were Indigenous (GNWT 2019). In 2016-17 to 2018-19, Yellowknife had a shelter admission rate of 9.6 per 1,000 and the top reasons for admission were related to emotional/psychological abuse, physical abuse, inability to find housing, drug and alcohol addiction and threats (GNWT 2019).

11.7.8 Criminal Code Violations

In 2023, the rates of all criminal code violations (per 100,000) were 7.3 times greater in Yellowknife compared to Canada overall (Table 11.24). On a per capita basis, violent criminal code violations are five times more prevalent in Yellowknife; sexual assault is three times more prevalent in Yellowknife; and sexual violations against children is over two times as prevalent in Yellowknife compared to the national rates per 100,000 persons.

Table 11.24 Rates (per 100,000 population) of criminal violations in Canada and Yellowknife, 2023

Indicator	Canada	Yellowknife
All Criminal Code Violations	5843.05	42470.14
Violent Criminal Code Violations	1427.94	7166.06
Homicide	1.94	13.73
Sexual Assault, Level 3	0.25	0
Sexual Assault, Level 2	1.86	0
Sexual Assault, Level 1	89.23	269.99
Sexual Violations Against Children	28.69	64.06
Other Assaults	5.88	4.58
Forcible Confinement or Kidnapping	9.91	32.03
Abduction	0.96	0
Offences in Relation to Sexual Services	2.08	22.88
Human Trafficking	1.09	4.58

Source: Statistics Canada (2023f)

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12.2 Personal Communications

Black Feather, personal communications, May 14, 2025.

Black Feather, personal communications, June 18, 2025.

Business Owner, Cambridge Bay, personal communications, November 4, 2024.

Cambridge Bay Career Services, personal communications, 2024.

Cambridge Bay Coast Guard Auxiliary member, personal communications, November 5, 2024.

Cambridge Bay Housing Association, Cambridge Bay, personal communications, November 5, 2024.

Cambridge Bay Kitikmeot Inuit Association, personal communications, November 4, 2024.

Cambridge Bay Wellness Centre, Cambridge Bay, personal communications, November 5, 2024.

Canadian Coast Guard Auxiliary, Kugluktuk, personal communications, November 8, 2024.

Canadian Coast Guard, Cambridge Bay, personal communications, December 3, 2024.

City of Yellowknife 2020, City of Yellowknife, personal communications, June 2, 2025.

City of Yellowknife, personal communications, June 2, 2025.

Community Elder, Gjoa Haven, personal communications, November 16, 2024.

Community Elder, Kugaaruk, personal communications, October 30, 2024.

Community Elder, Kugaaruk, personal communications, October 31, 2024.

Community Elders, Cambridge Bay, personal communications, November 3, 2024.

Community Elders, Kugluktuk, personal communications, November 8, 2024.

Community Member, Cambridge Bay, personal communications, November 3, 2024.

Community Member, Cambridge Bay, personal communications, November 4, 2024.

Community Member, Gjoa Haven, personal communications, November 14, 2024.

Community Member, Kugaaruk, personal communications, October 30, 2024.

Community Member, Kugaaruk, personal communications, November 1, 2024.

Community Member, Kugluktuk, personal communications, November 8, 2024.

Community Member, Taloyoak, personal communications, November 20, 2024.

Coppermine Outfitters, Kugluktuk, personal communications, November 8, 2024

Det'on Cho Corporation, personal communications, May 22, 2025.

Det'on Cho, personal communications, May 22, 2025.

Deton'cho Corporation, Yellowknife, personal communications, May 22, 2025.

Deton'cho Corporation, personal communications, May 22, 2025.

Gjoa Haven Hunters & Trappers, Gjoa Haven, personal communications, November 16, 2024.

GN Staff, Kugluktuk, personal communications, November 7, 2024.

Great Slave Helicopters, personal communications, 2025.

Great Slave Helicopters, personal communications, May 14, 2025.

Hamlet Staff, Cambridge Bay, personal communications, November 5, 2024.

Hamlet Staff, Cambridge Bay, personal communications, November 7, 2024.

Hamlet Staff, Gjoa Haven, personal communications, November 14, 2024.

Hamlet Staff, Gjoa Haven, personal communications, December 5, 2024.

Hamlet Staff, Kugaaruk, personal communications, October 31, 2024.

Hamlet Staff, Kugluktuk, personal communications, November 7, 2024.

Hamlet Staff, Taloyoak, personal communications, November 19, 2024.

Judy Hill Memorial Health Centre, Taloyoak, personal communications, November 20, 2024.

Kativik Health Centre, Gjoa Haven, personal communications, November 14, 2024.

Kikiak Contracting, Kugluktuk, personal communications, November 9, 2024.

Kikitak Housing Association, Gjoa Haven, personal communications, November 15, 2024.

Kitikmeot Community Futures Incorporated, Cambridge Bay, personal communications, November 6, 2024.

Kitikmeot Community Futures, Cambridge Bay, personal communications, November 6, 2024.

Kitikmeot Foods, Cambridge Bay, personal communications, November 4, 2024.

Kitikmeot Friendship Society, Cambridge Bay, personal communications, November 14, 2024.

Kitikmeot Inuit Association, Cambridge Bay, personal communications, October 29, 2024.

Kitikmeot Inuit Association, Cambridge Bay, personal communications, November 4, 2024.

Kitikmeot Inuit Association, Kugaaruk, personal communications, October 29, 2024.

Kitikmeot Inuit Association, Kugluktuk, personal communications, November 7, 2024.

Kitikmeot Inuit Association, Taloyoak, personal communications, November 18, 2024.

Kitikmeot Regional Health Centre, Cambridge Bay, personal communications, November 6, 2024.

Koomiut Co-op, Kugaaruk, personal communications, October 31, 2024.

Kugaaruk Co-op, Kugluktuk, personal communications, October 31, 2024.

Kugluktuk Co-op, Kugluktuk, personal communications, November 8, 2024.

Kugluktuk Housing Association, Kugluktuk, personal communications, November 8, 2024.

Kugluktuk, personal communications, November 8, 2024.

Kurtairujuark Hunters & Trappers, Kugaaruk, personal communications, October 29, 2024.

Netsilik Ilihakvik Teacher, Taloyoak, personal communications, November 20, 2024.

Netsilik Ilihakvik, Taloyoak, personal communications, November 19, 2024.

North Slave Métis Alliance, personal communications, May 23, 2025.

Northern Store, Cambridge Bay, personal communications, November 5, 2024.

Northern Store, Kugaaruk, personal communications, October 31, 2024.

Nunavut Arctic College, Cambridge Bay, personal communications, December 16, 2024.

Nunavut Arctic College, Taloyoak, personal communications, November 19, 2024.

Nunavut Housing Corporation, Cambridge Bay, personal communications, November 6, 2024.

Omingmak Centre, Men's Shelter, Cambridge Bay, personal communications, November 5, 2024.

Plummer’s Arctic Lodges, personal communications, December 17, 2024.

Qikiqtaq Co-op, Gjoa Haven, personal communications, November 15, 2024.

RCMP, Cambridge Bay, personal communications, November 4, 2024.

RCMP, Gjoa Haven, personal communications, November 14, 2024.

RCMP, Kugaaruk, personal communications, October 29, 2024.

RCMP, Kugluktuk, personal communications, November 8, 2024.

RCMP, Taloyoak, personal communications, November 18, 2024.

Sabina 2013; Northern Store, Kugaaruk, personal communications, October 31, 2024.

Sabina 2013; RCMP, Taloyoak, personal communications, November 18, 2024.

Taloyoak Housing Authority, Taloyoak, personal communications, November 18, 2024.

Tammaaquik Women’s Centre, Kugaaruk, personal communications, October 29, 2024.

Tłı̨chǫ Investment Corporation, personal communications, May 23, 2025.

Two Oceans Outfitting, Taloyoak, personal communications, November 20, 2024.

Yellowknife Airport, Yellowknife, personal communications, May 5, 2025.

Yellowknife Airport, personal communications, May 5, 2025.

Appendix A People and Communities Interviews

Table A.1 People and Communities Interviews

Community	Organization	Status	Date of interview
Kugaaruk	Hamlet of Kugaaruk	Interview Complete	31-Oct-24
	Kugaaruk Health Centre	Not Complete	N/A
	Tammaaquik Women's Centre	Interview Complete	29-Oct-24
	Social Services Office	Not Complete	N/A
	Kugaaruk Housing Authority	Not Complete	N/A
	Kugaaruk Hunters and Trappers Organization	Interview Complete	29-Oct-24
	Kugaaruk Community Liason Officer	Interview Complete	29-Oct-24
	Kugaaruk RCMP Detachment	Interview Complete	29-Oct-24
	Arvilligruaq Illiniarvik School	Not Complete	N/A
	Kugaaruk Northern Store	Interview Complete	31-Oct-24
	Kugaaruk Co-op	Interview Complete	31-Oct-24
	Kugaaruk Community Member	Interview Complete	30-Oct-24
	Community member	Interview Complete	31-Oct-24
	Community member	Interview Complete	1-Nov-24
Cambridge Bay	Arctic Islands Lodge	Not Complete	N/A
	Enokhok Inn	Not Complete	N/A
	Kitikmeot Community Futures Incorporated	Interview Complete	6-Nov-24
	Nunavut Arctic College	Interview Complete	16-Dec-24
	Hamlet of Cambridge Bay	Interview Complete	5-Nov-24
	Kitikmeot Corporation	Not Complete	N/A
	Kitikmeot Regional Health Centre	Interview Complete	6-Nov-24
	Kitikmeot Friendship Society	Interview Complete	14-Nov-24
	Cambridge Bay Wellness Centre	Interview Complete	5-Nov-24
	Youth Shelter	Not Complete	N/A
	Nunavut Housing Corporation - Kitikmeot District Office	Interview Complete	6-Nov-24

Community	Organization	Status	Date of interview
Cambridge Bay (cont'd)	Cambridge Bay Housing Association	Interview Complete	5-Nov-24
	Kitikmeot Region Properties Inc.	Not Complete	N/A
	Ekaluktutiak Hunters and Trappers Organization	Interview Complete	12-Nov-24
	KIA Community Liason Officer	Not Complete	N/A
	Municipality of Cambridge Bay Business Development Officer	Interview Complete	4-Nov-24
	Kitikmeot Inuit Association Inuit Employment and Training	Interview Complete	29-Oct-24
	Lands and Resources Department Office	Not Complete	N/A
	Cambridge Bay RCMP Detachment	Interview Complete	4-Nov-24
	Municipality of Cambridge Bay By-Law	Not Complete	N/A
	Community Members	Interview Complete	3-Nov-24
	Kitikmeot Foods	Interview Complete	4-Nov-24
	Canadian Coast Guard	Interview Complete	3-Dec-24
	High School Student	Interview Complete	4-Nov-24
	Cambridge Bay Community Member	Interview Complete	4-Nov-24
	KIA Career Services	Interview Complete	4-Nov-24
	Business Owner	Interview Complete	4-Nov-24
	Omingmak Shelter	Interview Complete	5-Nov-24
Kugluktuk	Hamlet of Kugluktuk	Interview Complete	7-Nov-24
	Kugluktuk Health Centre	Not Complete	N/A
	Society for Building a Healthy Kugluktuk	Not Complete	N/A
	Kugluktuk Women's Crisis Centre	Not Complete	N/A
	Kugluktuk Social Services Office	Not Complete	N/A
	Kugluktuk Housing Association	Not Complete	N/A
	Hunters and Trappers Organization	Not Complete	N/A
	KIA Community Liason Officer	Interview Complete	7-Nov-24
	Coppermine Outfitters/Coppermine Tours & Lodge	Interview Complete	8-Nov-24
	Great Bear Lake Lodge	Not Complete	N/A

Community	Organization	Status	Date of interview
Kugluktuk (cont'd)	Kuguktuk RCMP Detachment	Interview Complete	8-Nov-24
	Kugluktuk High School	Interview Complete	8-Nov-24
	Kugluktuk Co-op	Interview Complete	8-Nov-24
	Government of Nunavut Staff	Interview Complete	7-Nov-24
	KIA Staff	Not Complete	N/A
	Coast Guard Auxiliary	Interview Complete	8-Nov-24
	Kugluktuk Community Member	Interview Complete	8-Nov-24
	Elders	Interview Complete	8-Nov-24
	Kikiak Contracting	Interview Complete	9-Nov-24
	Kugluktuk Community Members	Interview Complete	9-Nov-24
Gjoa Haven	Nunavut Economic Development Office	Not Complete	N/A
	Assistant Chief Administrative Officer	Interview Complete	14-Nov-24
	Chief Administrative Officer	Interview Complete	5-Dec-24
	Gjoa Haven Lands Administration Office	Not Complete	N/A
	Kativik Health Centre	Interview Complete	14-Nov-24
	Gjoa Haven Hunters & Trappers	Interview Complete	16-Nov-24
	CLO	Not Complete	N/A
	Gjoa Haven RCMP Detachment	Interview Complete	14-Nov-24
	Gjoa Haven Community member	Interview Complete	14-Nov-24
	Housing Association	Interview Complete	15-Nov-24
	Gjoa Haven Community member	Interview Complete	16-Nov-24
Taloyoak	Boothia Inn	Not Complete	N/A
	Assistant Senior Adminitrative Officer	Interview Complete	19-Nov-24
	Judy Hill Memorial Health Centre	Interview Complete	20-Nov-24
	Ikajuqtauvvik Crisis Centre	Not Complete	N/A
	Social Services Office	Not Complete	N/A
	Kitikiak Housing Association	Interview Complete	18-Nov-24

Community	Organization	Status	Date of interview
Taloyoak (cont'd)	Taloyoak Hunters & Trappers Association	Interview Complete	19-Nov-24
	KIA Community Liason Officer	Interview Complete	18-Nov-24
	Two Oceans Outfitting	Interview Complete	20-Nov-24
	Taloyoak RCMP Detachment	Interview Complete	18-Nov-24
	Netsilik School	Interview Complete	19-Nov-24
	Netsilik School	Interview Complete	20-Nov-24
	Nunavut Arctic College	Interview Complete	19-Nov-24
	Taloyoak Community Member	Interview Complete	20-Nov-24
Yellowknife	Tlicho Investment Corporation	Interview Complete	23-May-25
	Deton'Cho Corporation	Interview Complete	22-May-25
	City of Yellowknife	Interview Complete	6-Feb-25
	North Slave Métis Alliance	Interview Complete	23-May-25
	Tlicho Community Services Agency	Not Complete	N/A
	Yellowknife Airport	Interview Complete	5-May-25
	Great Slave Helicopters	Interview Complete	15-May-25
	Black Feather	Interview Complete	18-Jun-25
	Denendeh Investments Incorporated	Not Complete	N/A
	Kitikmeot Corporation	Not Complete	N/A
	Yellowknife Chamber of Commerce	Not Complete	N/A
	Peterson's Point Lake Lodge	Not Complete	N/A
	Aurora College	Not Complete	N/A
	Jackpine	Not Complete	N/A
	Nova Hotels	Not Complete	N/A
	Government of Northwest Territories; Marine Transportation Services	Not Complete	N/A
	Chateau NOVA	Not Complete	N/A
	Larga Kitikmeot (Nunasi Corporation)	Not Complete	N/A
	Arctic Indigenous Wellness	Not Complete	N/A

Appendix 26A

Human Health and Ecological Risk Assessment

Grays Bay Road and Port Project Human Health and Ecological Risk Assessment

Prepared for:

West Kitikmeot Resources Corp

Prepared by:

Nunami Stantec Limited

March 2026

Project No.: 123514868

Sign-off

This Report titled Grays Bay Road and Port Project: Human Health Risk Assessment Report was prepared and reviewed by the following:

Prepared by:

Lee, Rick

Digitally signed by Lee, Rick
Date: 2026.02.25 10:35:31 -08'00'

Signature

Rick Lee, M.Sc, R.P.Bio (British Columbia), MBA

Printed Name

Reviewed by:

Digitally signed by Noble, Tania
Date: 2026.02.25 15:31:14 -04'00'

Signature

Tania Noble, M.Eng.

Printed Name

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Abbreviations

AQG	Air quality guidelines
AQHI	Air Quality Health Index
CAAQS	Canadian Ambient Air Quality Standards
CCME	Canadian Council of Ministers of the Environment
CMS	Conceptual site model
COPC	Chemical of potential concern
dBA	A-weighted decibels
DPM	Diesel particulate matter
ECCC	Environment and Climate Change Canada
ERA	Ecological risk assessment
FCSAP	Federal Contaminated Sites Action Plan
HHERA	Human health and ecological risk assessment
HHRA	Human health risk assessment
L_d	Daytime noise level
L_{dn}	Day-night noise level
L_{MAX}	Maximum noise level
L_n	Nighttime noise level
NO_2	Nitrogen dioxide
NO_x	Nitrogen oxides
PAH	Polycyclic aromatic hydrocarbons
PCDD/F	Polychlorinated dibenzo-p-dioxins and furans
PDA	Project Development Area
PM_{10}	inhalable particulate matter with an aerodynamic diameter less than 10 micrometres
$PM_{2.5}$	respirable particulate matter with an aerodynamic diameter less than 2.5 micrometres
Project, the	The Grays Bay Port and Road Project
SO_2	sulphur dioxide
TRV	Toxicological reference value
VC	Valued Component

VOC.....Volatile organic compounds

WHO.....World Health Organization

Symbols and Units of Measure

µg/m³ ..... microgram per cubic metre

µm ..... micrometre

km..... kilometre

1 Introduction

This Human Health and Ecological Risk Assessment (HHERA) evaluates potential future health risks resulting from environmental changes caused by the Grays Bay Road and Port Project (the Project). The HHERA is divided into two complementary components: a Human Health Risk Assessment (HHRA) and an Ecological Risk Assessment (ERA).

The HHRA evaluates the potential future health risks to people from environmental changes caused by the Project, particularly changes with respect to environmental pollutants in the air, soil, water, and country food. The HHRA focuses on characterizing the health risk under existing conditions and various Project scenarios, following Health Canada's risk assessment guidance. By systematically identifying potential chemical and physical stressors (i.e., noise), and characterizing plausible exposure pathways, the HHRA provides a science-based evaluation of potential health risks and effects to human receptors from the Project.

The ERA evaluates the potential future health risks to ecological receptors, including plants, animals, and ecological communities, from changes in environmental quality associated with Project activities. The ERA focuses on characterizing potential risks under baseline conditions and various Project scenarios, emphasizing exposure to environmental pollutants in air, soil, water, and biota. By systematically identifying potential environmental pollutants from Project activities, characterizing plausible exposures, and considering the types of ecological receptors in the region, the ERA evaluates the likelihood and magnitude of adverse effects on ecological health from Project activities.

2 Risk Assessment Methods

2.1 Regulatory Guidance

The Project will undergo an environmental assessment under the Nunavut Impact Review Board process, as established by the *Nunavut Planning and Project Assessment Act*. As part of this assessment process, an investigation into how the Project could affect human health from exposure to environmental pollutants and hazards is required, as described in the *Guidelines for the Preparation of an Impact Statement for West Kitikmeot Resource Corp's Grays Bay Road and Port Proposal* (Section 8.3 - Human Health and Environmental Risk Assessment). This assessment helps identify potential pathways of chemical exposure, evaluate associated toxicological health risks, and determine whether mitigation measures are necessary to protect public health.

2.1.1 Human Health Risk Assessment Regulatory Guidance

There is currently no Nunavut-specific HHRA guidance available for use in environmental assessments. However, the Nunavut Impact Review Board website refers proponents to ***Health Canada's Guidance for Evaluating Human Health Impacts in Environmental Assessment: Human Health Risk Assessment*** (Health Canada 2019) as an external reference source when preparing HHRAs in Nunavut[1]. Although this website reference has not been updated, more recent versions of Health Canada's HHRA guidance (released in 2023) and supplemental guidance are available to support the assessment of human health effects. These updated guidance documents are applied to this risk assessment where applicable and include the following:

- Guidance for Evaluating Human Health Effects in Impact Assessment: Human Health Risk Assessment (Health Canada 2023a)
- Guidance for Evaluating Human Health Effects in Impact Assessment: Air Quality (Health Canada 2023b)
- Guidance for Evaluating Human Health Effects in Impact Assessment: Noise (Health Canada 2023c)
- Guidance for Evaluating Human Health Effects in Impact Assessment: Drinking and Recreational Water Quality (Health Canada 2023d)
- Guidance for Evaluating Human Health Effects in Impact Assessment: Country Foods (Health Canada 2023e)

The HHRA focuses on exposures to Project-related chemical pollutants in air, water, soil, and traditional country foods, as well as noise from Project-related activities.

[1] Nunavut Impact Review Board: External Reports - https://www.nirb.ca/content/external-reports

The results of the HHRA support the Community Health and Well-being Valued Component (VC) (Volume 9, Section 26 of the IS) by providing a technical assessment of the following potential effect:

- Change in health from exposure to pollutants and hazards

Other broader determinants of health, including social, cultural, or economic factors related to health are assessed separately within the Community Health and Well-being VC.

2.1.2 Ecological Risk Assessment Regulatory Guidance

There is currently no Nunavut-specific ERA guidance available for use in environmental assessments, and the Nunavut Impact Review Board website does not refer proponents to specific external reference sources when preparing ERAs in Nunavut. Therefore, the ERA follows federal guidance, including:

- Canadian Council of Ministers of the Environment (CCME), Ecological Risk Assessment Guidance Document (CCME 2020)
- Federal Contaminated Sites Action Plan (FCSAP) draft Ecological Risk Assessment Guidance (FCSAP 2025), and applicable modules from the previous FCSAP Ecological Risk Assessment Guidance (FCSAP 2012)

The ERA focuses on wildlife exposures to Project-related chemical pollutants in air, water, soil, and biota.

2.2 Risk Assessment Framework

2.2.1 Human Health Risk Assessment Framework

The purpose of a HHRA in an impact assessment is to predict and characterize the potential future human health risks from project-related increases in chemical concentrations or hazards. The HHRA estimates the likelihood and magnitude of health risks or effects that could result from exposure to pollutants and other hazards introduced by the Project through various pathways (e.g., air, water, soil, country foods), provides a scientific basis for decision-making, and supports the identification of mitigation measures, monitoring plans, and risk management strategies to reduce or eliminate unacceptable risks.

In multi-media contexts (air, soil, water, food), an HHRA integrates the exposure pathways to provide a comprehensive picture of potential health impacts. Unlike contaminated site assessments, HHRAs in impact assessments are predictive, relying on modelled data rather than measured contamination because the project has not yet occurred. The assessment evaluates potential human health risks under existing conditions and Project construction, operation, and maintenance.

The HHRA applies the risk assessment framework for environmental assessments as prescribed by Health Canada (2023a) and includes the following stages:

- **Problem Formulation:** The problem formulation identifies and describes the three main components of health risk: the human receptor (i.e., the population or subgroups potentially at risk), the Project-related pollutants or hazards (e.g., noise), and the exposure pathways linking them. An important part of the problem formulation is the screening of chemicals of potential concern (COPCs). COPC screening involves comparing predicted or measured concentrations of Project-related pollutants to health-based criteria to determine which substances warrant a detailed quantitative assessment. Chemical concentrations above a screening threshold, or that otherwise present a plausible risk based on toxicity, persistence, or bioaccumulation, are carried forward in the HHRA.

  The overall objective of problem formulation is to develop a conceptual site model that identifies the relevant exposure pathways and focuses the HHRA on the most plausible mechanisms through which the Project could affect human health.
- **Toxicity Assessment:** The toxicity assessment describes the potential human health effects associated with each COPC carried forward from the problem formulation stage. For each COPC, the toxicity assessment summarizes relevant toxicological information, including known or potential health effects. Toxicological reference values (TRVs) are assigned where available. TRVs represent exposure levels below which adverse health effects are not expected to occur.
- **Exposure Assessment:** The exposure assessment quantifies the exposure dose or exposure concentration for each COPC. Doses are used when a COPC is absorbed through ingestion or dermal contact, expressed as the amount of substance per unit of body weight. Exposure concentrations are used for inhalation exposures, expressed as $\mu g/m^3$, which is the amount of a substance per unit volume of air. Exposures may be assessed over short-term (acute) and long-term (chronic) averaging periods to evaluate different types of health effects.
- **Risk Characterization:** The risk characterization compares the results of the exposure and toxicity assessments to determine whether the estimated exposures to COPCs or noise represent unacceptable health risks according to thresholds established by Health Canada and other regulatory authorities.
- **Uncertainty Assessment:** The uncertainty assessment identifies sources of variability and uncertainty in the HHRA, such as limitations in available data, model assumptions, and the use of conservative exposure parameters. Evaluating uncertainty provides context for interpreting the confidence in the HHRA results and conclusions.

The HHRA is an iterative process in which potential risks are initially evaluated using conservative assumptions to minimize the likelihood of underestimating health risks. Where early iterations indicate the potential for unacceptable risks, these assumptions may be refined to reflect more realistic conditions, or Project design and mitigation measures may be adjusted. The HHRA is then repeated as necessary to confirm that the final Project design does not result in unacceptable risks to human health.

2.2.2 Ecological Risk Assessment Framework

The purpose of an ERA in an impact assessment is to predict and characterize the potential future health risks to the environment from environmental changes caused by a proposed project. An ERA estimates the likelihood and magnitude of ecological risks or effects that could result from exposure to pollutants and other hazards introduced by the Project through various pathways (e.g., air, water, soil, biota). ERAs in impact assessments are based on model estimates of future project scenarios. The ERA may evaluate ecological risks under multiple scenarios using defined model assumptions and inputs, including baseline conditions and scheduled Project activities during construction and operation of the Project.

The ERA is generally consistent with the risk assessment framework from FCSAP ERA guidance (2025) and includes the following stages:

- **Problem Formulation:** The problem formulation identifies and describes the three main components of health risk: the ecological receptor (i.e., the ecological community or wildlife potentially at risk), the Project-related pollutants or hazards, and the exposure pathways linking them. An important part of the problem formulation is the screening of COPCs. COPC screening involves comparing predicted or measured concentrations of Project-related pollutants to ecological health-based criteria to determine which substances a warrant detailed quantitative assessment. Chemicals concentrations above a screening threshold, or that otherwise present a plausible risk to ecological health based on toxicity, persistence, or bioaccumulation are carried forward in the ERA. The overall objective of problem formulation is to develop an ecological conceptual site model that identifies the relevant exposure pathways and focuses the ERA on the most plausible mechanisms through which the Project could affect ecological health.
- **Toxicity Assessment:** The toxicity assessment describes the potential ecological effects associated with each COPC carried forward from the problem formulation stage. For each COPC, the toxicity assessment summarizes relevant toxicological information, including known or potential health effects. Ecological TRVs or ecological health-based limits are assigned where available. Ecological TRVs represent exposure levels below which adverse ecological health effects are not expected to occur.
- **Exposure Assessment:** The exposure assessment quantifies the exposure dose or exposure concentration for COPCs for each operable exposure pathway in the conceptual site model. The objective is to characterize the amount of COPC to which ecological receptors could be exposed.
- **Risk Characterization:** The risk characterization qualitatively and/or quantitatively compares the results of the exposure and toxicity assessments to determine whether the estimated exposures to COPCs represent unacceptable health risks to ecological receptors according to thresholds established by CCME, FCSAP, or other regulatory authorities.
- **Uncertainty Assessment:** The uncertainty assessment identifies sources of variability and uncertainty in the ERA, such as limitations in available data, model assumptions, and the use of conservative exposure parameters.

3 Characterization of the Project and Region

This section provides a summary of the Project, including its infrastructure, schedule, and activities during construction and operations, as well as key regional characteristics relevant to the HHERA. It outlines where Project activities will occur, where workers may be located when off-duty, and nearby communities or population centers where people could be exposed to Project-related pollutant emissions. Regional characteristics such as local climate and land use are also described to support an understanding of potential exposure pathways. Together, this information provides the context needed to assess potential human health and ecological risks associated with the Project.

3.1 Project Description

The Project has two primary components: the development and operation of a deep water port at Grays Bay, referred to as Grays Bay Port; and the construction and operation of an all-season, controlled access road referred to as the Grays Bay Road. The Grays Bay Road will connect the Grays Bay Port at the northern terminus to Jericho Station, near the former Jericho Mine site. Jericho Station will serve as a permanent truck stop, and check-in point to control access for north- and south-bound vehicles travelling the Grays Bay Road, and will seasonally extend to the northern terminus of the Tibbitt to Contwoyto Road that provides road access further southward.

The Project Development Area (PDA) refers to the collective locations of the Project's land and marine components. This includes the Grays Bay Port (including land and marine infrastructure), Grays Bay Road, Jericho Station, the Aerodrome and the Grays Bay Winter Road.

3.1.1 Construction

Construction of the Project is expected to take approximately five years. During this time, a variety of activities will occur to build the port, road, and associated facilities. These activities will take place on land, along the coastline, and in the marine environment. Project construction will generally include the following structures and activities:

- **Site preparation and earthworks** – Clearing of vegetation and leveling of the topography at Grays Bay Port.
- **Material and equipment staging** – Initial construction efforts will focus on establishing basic infrastructure including camps, temporary airstrips, temporary barge landing, fuel storage facilities, and laydown areas. Materials needed for construction, including equipment, fuel, explosives, parts, supplies, and prefabricated structures (e.g., mobile camps, culverts, bridge components), will be transported to Grays Bay during the open water season of the second year of construction and annually thereafter.

- **Camps** – Camps will be used for all construction work. The accommodation camps at Grays Bay Port and Jericho Station will accommodate approximately 80 personnel each. Road construction is planned to occur concurrently from both the north and south ends working towards the middle. This will require two mobile camps that will utilize a “leapfrog” pattern where camps are relocated approximately every three months as construction progresses. Stationary and mobile camps will include diesel power generators, fuel, and propane to support heat and power requirements for all camp facilities. The stationary camp at Grays Bay Port will have two diesel generators, while the Jericho Station and mobile camps will have one.
- **Marine-based infrastructure** – Construction of the wharf area, barge landing area, and small craft harbour is expected to begin during the second year of construction
- **Quarry development** – An initial quarry will be established to provide aggregate for the temporary airstrip, initial roadworks, initial laydown areas, and initial structures. To construct the Grays Bay Road, quarries will be spaced approximately every 7 km and ideally located within 500 metres of the road alignment. Approximately every third quarry (i.e., approximately every 21 km) will be developed as a permanent quarry to be used for road surfacing and maintenance during operations. Mitigation plans to reduce acid rock drainage and metal leaching materials will be developed. Permanent quarries will not be developed at locations that require extensive mitigation for high potential acid rock drainage and metal leaching materials.

Overall, the construction phase will involve a wide range of activities, from quarrying and road building to marine construction and temporary site development. These activities are expected to take place 24 hours a day, coordinated over five years to establish the infrastructure required for the Project to operate.

3.1.2 Operation and Maintenance

The Project components constructed by WKR are multi-user, multi-use facilities that will be of private / contracted user benefit in perpetuity. The facilities are anticipated to operate permanently, with a design life of 75 years for major components. Operations will include port activities at Grays Bay, the use of the all-season road, and the staging and refueling facilities at Jericho Station.

Grays Bay Port

The marine infrastructure at the Grays Bay Port will operate mainly during the ice-free season from July to October. Marine-based infrastructure will not be available for use between December to May due to the presence of sea ice, which limits marine access during the winter period.

About 10 to 20 permanent staff will work from offices at the port. Day-to-day activities at the port will include:

- Communications, coordination, and scheduling of third-party vessel calls and moorage
- Vessel berthing assistance through the operation of harbour tugs and lines personnel at mooring locations
- Ship loading and unloading of equipment and supplies required for Project operation
- Fuel transloading from tankers to the bulk fuel storage facility

- Port infrastructure maintenance including pad site erosion and control and building and ancillary utilities operation and maintenance
- Winter maintenance will focus on snow clearing to maintain traffic safety, while summer work will include dust suppression, embankment repairs, and upkeep of watercourse crossings.
- Aggregate quarrying, crushing, and stockpiling for road surface and laydown area maintenance
- Waste management
- Wastewater management
- Power generation and operation
- Emergency response support for vessels and road users
- Environmental monitoring
- Spill and emergency response

Local and regional residents will be able to use the small craft harbour in summer (July to September) when the seasonal floats are installed.

Grays Bay Road

The all-season road will be managed from Grays Bay Port for the northern half and from Jericho Station for the southern half. Permanent operations of the road will include:

- Administration and control of road
- Road maintenance, including snow clearing, grading, and watercourse crossing maintenance and repair
- Resupply of materials required for road operations
- Quarry operations
- Road traffic monitoring
- Environmental monitoring
- Spill and emergency response

Jericho Station

Jericho Station will support the southern section of the road. Approximately 12 permanent staff will work there during the operating season. The main functions will include:

- Administration and access management of the road
- Accommodation capacity of around 40 persons
- Bulk fuel storage and transfer
- Road maintenance, including snow clearing, grading, and watercourse crossing maintenance and repair
- Resupply of materials required for road operations
- Quarry and maintenance yard operations

- Airstrip maintenance and air traffic control
- Road traffic monitoring
- Spill and emergency response

3.2 Regional Characterization

3.2.1 Geographical Setting

The Kitikmeot region is the westernmost region of Nunavut. It encompasses 447,727 km^2 of the central Arctic, which is approximately 4.5% of Canada's land mass – an area larger than the Province of Newfoundland and Labrador. The Kitikmeot region is the most isolated from the territory's capital of Iqaluit. Kitikmeot primarily reside in five incorporated hamlets: Cambridge Bay (*Ekaluktutiak)*, Kugluktuk, Gjoa Haven, Taloyoak, and Kugaaruk. The region is also home to two unincorporated communities, Bathurst Inlet (*Kiligiktokmik)* and Bay Chimo (Omingmaktok), where the populations have dwindled to the point where they are generally inhabited on a seasonal basis only. The Kitikmeot communities are accessible only by air, or by sea during the short open-water season. At present, there are no permanent roads between communities or connecting the communities in the region to southern Canada.

The Project spans from Kogloktoakyok (Grays Bay) in the north, to Jericho Station, northwest of Tahikyoak (Contwoyto Lake) in the south. From south to north the Project crosses four watersheds, which are associated with the following main rivers: the Ayapakpaktokvik (Burnside River), the Hivogahik (Hood River), the Hannigayok (James River) and the Kogloktoakyok (Kennarctic River). Hydrological information for each of these watersheds is available from the Hydrological Baseline Report (Nunami Stantec, 2025).

The physiographic region is characterized by homogenous large areas of bare and massive rocks, forming broad treeless uplands, plateaus, and lowlands (Government of Canada 2019). The topography of the region is described as undulating to moderately rugged. Overall, the topography is fairly subdued, with most bedrock-controlled hills generally showing under 100 m of total elevation gain/loss.

3.2.2 Climate and Meteorology

The Koppen-Geiger climate classification indicates that the Project is mainly in the boreal climate zone, characterized by a snow climate, fully humid precipitation, and cool summers (Kottek et al. 2006). The northern section is in the polar tundra climate zone. Environment and Climate Change Canada operates meteorological stations with long-term records in Lupin and Kugluktuk. Lupin is 30 km southeast of Jericho Station while Kugluktuk is located on the Nunavut coast 180 km west of the proposed Grays Bay Port. BGS Engineering Inc. (BGC 2013) compared air temperatures from the short and sporadic records from Izok Lake, High Lake, and Grays Bay with the Environment and Climate Change Canada stations and determined the Lupin record is closest in average daily air temperatures and provides a good approximation of historical air temperature.

For the most recent Climate Normals period, 1991–2020, the mean annual air temperature in Lupin was 10.3°C. Mean monthly air temperatures are below 0°C for eight months (October – May), with the coldest mean monthly air temperatures of -28.9°C and -28.3°C recorded in January and February, respectively. During the summer, the warmest mean monthly air temperature of 12.0°C was recorded in July. In the 1982–2025 station record, extreme temperature ranges for Lupin from -49.0°C to 31.0°C. During the

1991–2020 period, the average number of freezing degree days and thawing degree days in Lupin were 4741.1 and 973.2, respectively.

Mean total annual precipitation (rain + snow) in Lupin was 303.5 mm (water equivalent) during the 1991–2020 period, with 160.5 mm of rainfall and 143.3 cm of snowfall. Rainfall accounts for the majority (approximately 88 to 97%) of the precipitation recorded during the summer months (June – August) with snowfall accounting for the majority or all the precipitation recorded October to April (approximately 97 to 100%); May and September precipitation is a mix of rainfall and snowfall. The largest mean monthly total rainfall of 35.4 mm was recorded in August while the largest mean monthly total snowfall of 29.0 cm was recorded in October. In the 1982–2025 station record, extreme daily precipitation records for Lupin are 41.8 mm of rainfall and 31.8 cm of snowfall.

3.2.3 Towns and Population Centers

The Project is located in a remote part of the western Kitikmeot Region, with no permanent settlements nearby. The five nearest hamlets include Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, and Kugaaruk, with Omingmaktok and Bathurst Inlet being seasonal-use sites that lack a year-round population. Their relative positions to Grays Bay Port and Jericho Station are shown in Table 3.1.

Table 3.1 Hamlet and Seasonal-Use Sites

Community or Seasonal Settlement	Direction from Grays Bay Port	Distance from Grays Bay Port (km)	Direction from Jericho Station	Distance from Jericho Station (km)
Kugluktuk	W	180	NW	260
Cambridge Bay	NE	280	NE	440
Gjoa Haven	E	630	NE	730
Taloyoak	NE	730	NE	850
Kugaaruk	E	880	NE	970
Omingmaktok	E	130	NE	250
Bathurst Inlet	SE	170	NE	180

There are no roads connecting these communities to each other, or to the Project, or to southern Canada. Travel occurs by air year-round, or by sea during the short open-water season.

Given their distance, these communities are well beyond the spatial extent where emissions from Project construction and operation would meaningfully affect local environmental quality or result in measurable changes to pollutant concentrations.

For a more detailed description of each community, including population, history, cultural significance, and their roles within Inuit land use, readers are directed to the People and Communities Baseline Report (Appendix 25A, Section 4 – Kitikmeot Region and Communities).

4 Problem Formulation

The problem formulation establishes the foundation for evaluating potential effects associated with the Project. It defines the scope of the assessment, identifies the populations that may be exposed, the COPCs or hazards from Project activities, and the plausible pathways through which exposure could occur.

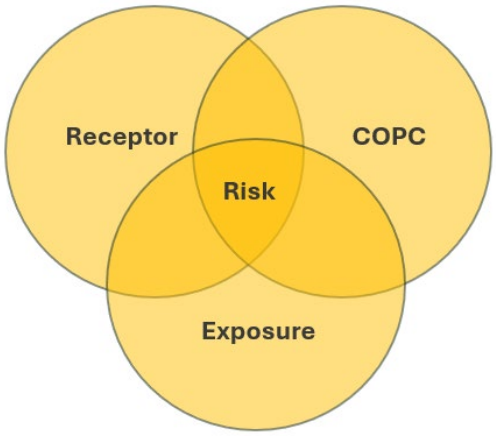
The purpose of the problem formulation is to focus the assessment on relevant exposures and guide the evaluation of data. By systematically identifying the receptors, COPCs, and exposure routes, the problem formulation provides a transparent and scientifically robust framework for subsequent risk characterization and risk management.

The problem formulation begins by identifying the three fundamental components of health risk:

1. **Receptors** – In a HHERA, a receptor is defined as the individuals or population that may be exposed to pollutants and hazards from Project activities through one or more exposure pathways. When evaluating human health, receptors may include people living in nearby towns or communities, as well as workers residing in worker accommodation camps associated with the Project. These populations may be further subdivided into sensitive groups, where applicable, such as children, seniors, or individuals with pre-existing health conditions. Human receptors may also include temporary or seasonal populations who are periodically present near the Project, such as recreational land users and traditional land users while engaging in hunting, fishing, or gathering activities. When evaluating ecological health, an ecological receptor is defined as a species of plant, animal, or ecological community (e.g., a group of interacting species linked by shared habitat such as a soil invertebrate community).
2. **Chemicals of Potential Concern** – Project activities may release chemical pollutants into environmental media such as air, water, soil, or sediment. These pollutants are initially identified based on the nature of Project activities and the associated emission sources. A COPC is a subset of these pollutants, where measured or modelled concentrations in the environment are estimated to be greater than a guideline for the protection of human or ecological health. Identifying COPCs is an important step in the HHERA because it focuses the assessment on pollutants that have the greatest potential to cause adverse effects. Pollutants that do not meet the criteria for a COPC are considered to pose a negligible risk.
3. **Exposure Routes** – Exposure routes describe the mechanism by which human and ecological receptors may come into contact with COPCs from Project activities. For the assessment of human health, exposure routes may include inhalation, ingestion (e.g., ingestion of food, water, and incidental soil ingestion), and dermal contact with environmental media. For the assessment of ecological health, exposure routes may include dietary exposures and direct contact with environmental media. Ecological risk assessments typically do not include inhalation exposure, as inhalation toxicity data for various species of wildlife are lacking for most pollutants and detailed guidance on how to assess inhalation exposure to wildlife is limited (FCSAP 2012).

In the illustration below, the three components of risk – receptors, COPCs, and exposure routes – must be present for there to be a potential human health or ecological risk. If one or more component is absent, there is no potential for adverse effects.

Figure 4.1 Components of Health Risk



These three components are integrated to develop a conceptual site model (CSM), which identifies and characterizes exposure pathways as either operable (complete) or inoperable (incomplete).

- **Operable Pathways:** An operable pathway exists when the three components of risk are present: a receptor, a COPC, and a plausible route of exposure. In this case, a COPC from Project activities can reasonably reach the receptor through a pathway at a magnitude and frequency that could cause an effect. Operable pathways warrant further quantitative assessment.
- **Inoperable Pathways:** An inoperable pathway exists when one or more of the three components of risk are absent. This may occur because there are no receptors present, no COPC are identified, or there is no plausible route connecting a receptor to the COPC. For example, hazardous materials safely contained and not accessible to humans or wildlife represent an inoperable pathway because there is no exposure. In these cases, further detailed assessment is not required.

4.1 Human Health

4.1.1 Human Receptors and Locations

The first step of the problem formulation is to identify the human receptors that may be relevant to the assessment of human health. This section presents a list of potential human receptors and human receptor locations in the Kitikmeot region. The relevance of each location and receptor group to potential exposure will be evaluated during the development of the CSM for each considered exposure pathway.

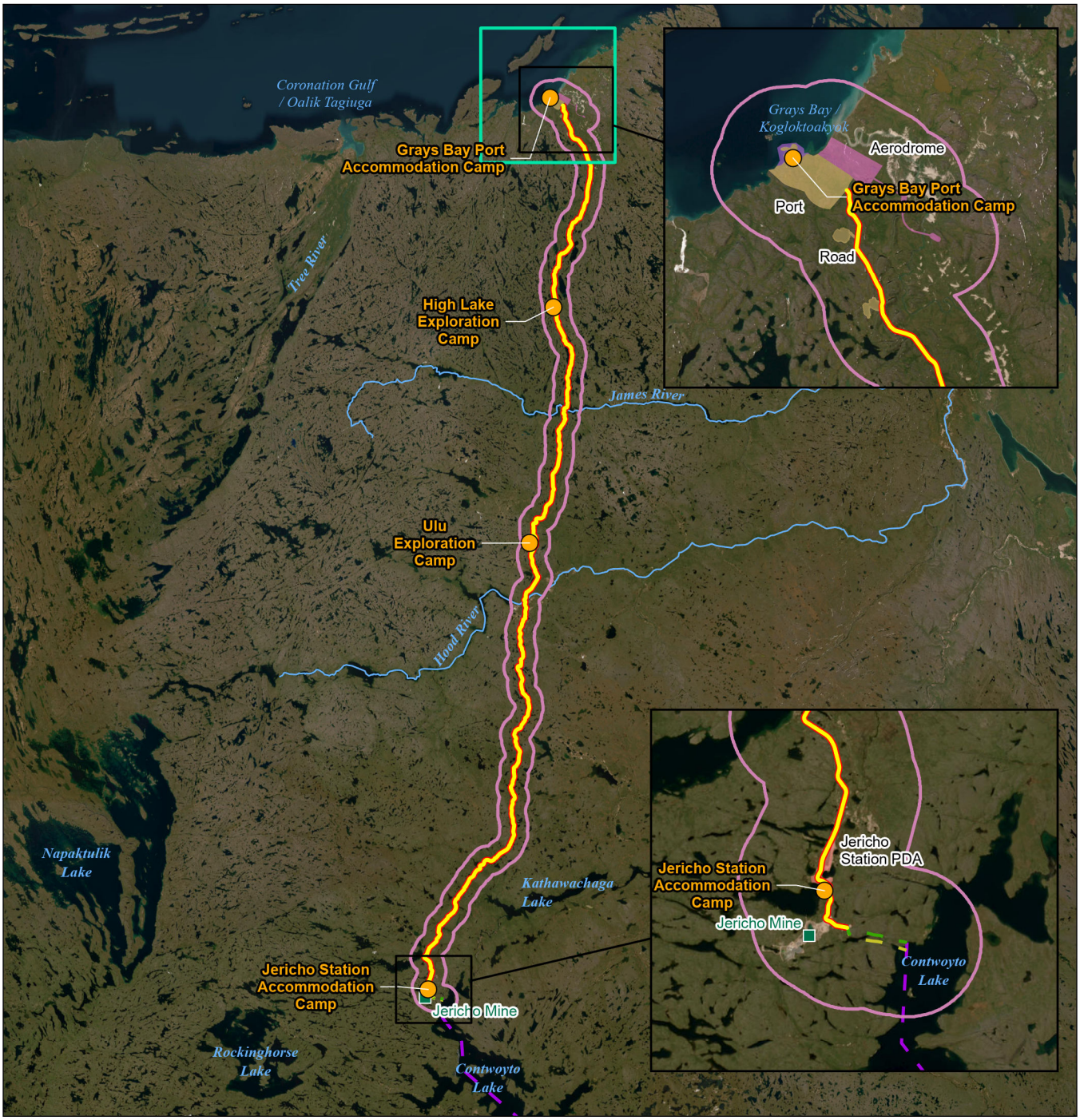
Potential human receptors include residents of the five hamlets near the Project (Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, and Kugaaruk) as described in Section 3.2.3. Human receptors at the five hamlets are assumed to comprise a mixed population of adults and children, reflecting typical community

demographics. Although these communities are located at considerable distances from the PDA, they are included as potential human receptor locations for completeness.

Project-related human receptor locations include accommodation camps to support workers during construction and operation. For Project workers, occupational exposures are managed under occupational health and safety regulations. However, during off-duty periods, workers are considered human receptors while residing at the accommodation camps. Human receptors at the accommodation camps will be working-aged adults. Age-sensitive populations, such as children (under 18) or seniors (65 years and older), are not expected to be present at the accommodation camps, as these facilities are designed solely for temporary workforce accommodation (i.e., single occupancy rooms) and do not include community services or infrastructure typically associated with residential populations (e.g., schools, childcare facilities, or hospitals). The accommodation camps include:

- **Grays Bay Port accommodation camp:** A permanent accommodation camp during the Construction and Operation and Maintenance phases to support approximately 80 permanent workers, with short-term capacity for up to 150 additional workers.
- **Jericho Station accommodation camp:** A permanent accommodation camp during the Construction and Operation and Maintenance phases to support a permanent workforce of approximately 12 people, with accommodation for up to 40 individuals.
- **Temporary road construction accommodation camps**: Temporary accommodation camps will be established during the construction phase to support the mobile road construction workforce. These camps will be relocated periodically to align with the active road construction areas, and will provide short-term lodging and basic services for workers assigned to those segments. Since the camps are mobile and construction activities progress along the road corridor, the relative position between emission sources and the camp locations will change over time, which introduces uncertainty when estimating representative exposure conditions. For the purposes of the HHERA, the Grays Bay Port accommodation camp is used as a surrogate location to represent potential risks to workers residing at temporary road construction accommodation camps.

Additionally, seasonally used mining exploration camps along the road corridor (associated with the High Lake Gold Project and Ulu Gold Project) are located approximately 45 km and 100 km south of Grays Bay, and approximately 1 km from the Project road corridor. Information on occupancy and frequency of use is limited, but these camps are included as potential human receptor locations. The location of the accommodation camps and the mining exploration camps are shown in Figure 4.2.





Notes
1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Government of Canada, Stantec, Earthstar Geographics

- Human Receptor Location
- Closed Mine Site
- Grays Bay Road
- Grays Bay Winter Road
- Grays Bay Winter Road Optional Alignment

Project Development Area (PDA)

- Aerodrome
- Jericho Station
- Port (Landside Infrastructure)
- Port (Marine-based Infrastructure)

- Air Quality Model Domain
- Noise Model Domain
- Tibbitt to Contwoyto Winter Road
- Watercourse

0 10 20 Kilometres
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N

WEST KITIKMEOT RESOURCES CORP

NUNAMI STANTEC LIMITED

Project Location
West Kitikmeot Region
Nunavut

Prepared by SL on 2025-12-22
TR by RL on 2025-12-22

Client/Project
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West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
4.2

Title
Human Receptor Locations and Model Domains for Air Quality and Noise

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Inuit, Indigenous, and Community country food harvesters are also potential human receptor because they may access land and water near the Project and the broader Kitikmeot region to conduct traditional activities such as hunting, fishing, and gathering. Country food harvesting activities refer to the harvesting of wild foods from terrestrial, freshwater, and marine environments and include hunting of large and small mammals, harvesting of birds and eggs, freshwater and marine fishing, trapping of fur-bearing animals, harvesting of marine mammals, and gathering of edible plants, berries, and other vegetation for nutritional, medicinal, and cultural use. These activities also include travel to and from harvesting areas by snowmobile, boat, all-terrain vehicle, or on foot, as well as the preparation, processing, preservation, sharing, and consumption of harvested foods in accordance with customary practices. For the purposes of the assessment, country food harvesting activities are assumed to occur throughout the region, recognizing that certain areas may be more frequently used than others, and that Inuit, Indigenous, and Community country food harvesters may reasonably practice harvesting in any location within the regional landscape and near the Project.

4.1.2 Identification of Chemicals of Potential Concern and Hazards

The second step of the problem formulation involves identifying COPCs and hazards that may warrant further evaluation. This screening process compares predicted Project-related emissions and hazards against health-based guidelines and benchmarks.

The presence of a pollutant alone does not automatically make it a COPC. Substances are carried forward for detailed assessment when predicted concentration are greater than health-based benchmarks or otherwise indicate a plausible potential for health effects. Where modelled concentrations are consistently below these benchmarks, the substance is generally considered to pose negligible risk; however, non-threshold pollutants may still warrant qualitative discussion.

4.1.2.1 Air Quality

As part of the air quality assessment, an air quality model was used to estimate ambient air pollutant concentrations resulting from Project-related activities. Details regarding the air quality model software, model inputs, model assumptions, and other technical details are described in the Air Quality Technical Model Report (Appendix 11A). Air quality modelling simulates how pollutants emitted from mobile and stationary sources are transported, dispersed, and diluted in the atmosphere based on site-specific meteorology, terrain, and engineering inputs. Model inputs include the location and type of equipment and machinery, emission rates, assumed operating schedules, and source characteristics such as release height and exhaust properties.

For the purposes of the human health assessment, the modelled ground-level air pollutant concentrations are used to represent the concentrations most relevant to potential human exposure.

The air quality model estimated concentrations of the following air pollutants from Project-related emission sources:

- Nitrogen dioxide (NO_2)
- Sulphur dioxide (SO_2)
- Coarse particulate matter (PM_{10}) (particles less than 10 micrometres in diameter)

- Fine particulate matter ($PM_{2.5}$) (particles less than 2.5 micrometres in diameter)
- Diesel particulate matter (DPM)

These air pollutants are commonly released from fuel combustion sources, including gasoline and diesel engines, diesel generator, heating systems, incinerators and other industrial activities. They are referred to as common air pollutants because they are emitted by widespread human activities, have well-established air quality guidelines, and are widely used as indicators of overall air quality conditions.

Project Emissions

The air quality model domain is a 30 km x 30 km area centered on proposed Grays Bay Port. This domain size was selected to capture dispersion from the highest emission sources and includes a 15 km section of the road to account for road construction emissions. Grays Bay Port during the Construction Phase was modelled because it represents the location and phase with the highest localized total annual emission rates of nitrogen oxides (NO_x), SO_2, PM_{10}, and $PM_{2.5}$ (during Year 3 of construction), as indicated in Table 4.1. DPM is a component of $PM_{2.5}$ and was not distinguished separately from total $PM_{2.5}$ emissions in the emission inventory for Table 4.1. However, DPM is modelled separately and presented in the following sections when screening for COPCs.

Emission inventories were also developed for Jericho Station and the northern and southern road domains, each representing half of the total 230 km access road. While total PM_{10} and $PM_{2.5}$ emissions from these road segments are higher than those at Grays Bay Port and Jericho Station, they are distributed along the roadway rather than concentrated at a single point source. As a result, particulate emissions from road construction are expected to result in much lower localized concentrations compared to Grays Bay and Jericho Station. Consequently, the Air Quality VC focused on modelling the worst-case year of the Project Construction phase (Year 3) and the Project Operations and Maintenance Phase (Year 7), which for the purposes of the HHERA are referred to as the worst-case scenarios.

Table 4.1 Project Emission Inventory Summary for Worst-Case Emission Years

Project Phase and Area	Emission Rate (tonnes/year)			
	NO_X	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Construction Phase (Year 3)				
Grays Bay Port and 15 km Road Segment	364	2.8	48	16
Northern Road Domain (115 km road segment)	126	1.3	60	18
Jericho Station and Road Segment	155	1.8	17	7.1
Southern Road Domain (115 km road segment)	148	0.9	61	18
Operation and Maintenance Phase (Year 7)				
Grays Bay Port and 15 km Road Segment	299	2.3	14	5.9
Northern Road Domain (115 km road segment)	39	0.06	39	3.7
Jericho Station and Road Segment	155	1.8	11	4.4
Southern Road Domain (115 km road segment)	39	0.1	16	3.7

Source: Appendix 11A - Air Quality Technical Model Report; Table 4.2, Table 4.3, Table 4.5, and Table 4.6

Air Quality Model Assumptions

Designing an air quality model that mirrors the precise day-to-day sequence of activities during the Construction and Operation and Maintenance phases is not feasible because construction tasks, equipment use, and work durations vary and can change in response to weather, logistics, and operational requirements. To address this variability, the emission inventory and air quality model apply conservative, standardized assumptions intended to reasonably bound potential air quality effects while providing a consistent basis for assessment.

For modelling purposes, it is conservatively assumed that all listed equipment and vehicles are operating simultaneously at all locations where they are expected to be used. Hours of operation for each piece of equipment are averaged over the day so that emissions are represented as continuous and constant over the modelling period, even though individual equipment is not operated continuously in practice. Depending on daily construction activities, some vehicles and equipment would not be in use; therefore, this assumption is expected to overestimate actual emissions on a day-to-day basis.

Similarly, because the precise timing and location of construction activities at Grays Bay and along the access road cannot be predicted with certainty, the air quality model conservatively assumes that road construction is occurring continuously along the 15 km road segment within the model domain for five consecutive years. In practice, construction of both the northern and southern road domains is expected to occur simultaneously, with work commencing at Grays Bay and Jericho Station and progressing toward the midpoint of the alignment. Each road domain is approximately 115 km in length and is anticipated to be constructed over a 36-month period, corresponding to an average construction rate of approximately 3.2 km per month. At this rate, construction of the 15 km road segment adjacent to Grays Bay would be completed in approximately five months, after which construction activities would move progressively beyond the model domain.

By assuming that construction is taking place everywhere at once, the model intentionally overestimates both 24-hour average and annual average air pollutant concentrations along the road corridor and at Grays Bay. The model essentially assumes that the road segment adjacent to Grays Bay is being constructed for the entire 5-year model period, producing a continuous emission source that overlaps the emissions from Grays Bay construction activity. This conservative approach is used to represent a reasonable worst-case scenario for air quality effects. Overall, these assumptions are intended to capture upper-bound conditions in the air quality model, while recognizing that actual conditions will be more variable, spatially limited, and generally associated with lower air pollutant concentrations than those represented in the model.

Screening for Chemicals of Potential Concern

The screening of air pollutants was conducted using air quality model results at the Grays Bay Port accommodation camp for the Construction and Operation and Maintenance phases because this location is expected to have highest predicted air pollutant concentrations. Air quality modelling was performed using five consecutive years of meteorological data to capture inter-annual variability in atmospheric dispersion and ambient concentration patterns.

For the purposes of post-processing and evaluation against health-based screening criteria, modelled concentrations were treated as five separate calendar years. Model outputs were aggregated to the relevant averaging periods, including the 1-hour, 2-hour, 24-hour, and annual average concentrations.

For screening purposes, peak concentrations were defined using percentile-based metrics that are consistent with applied health-based screening criteria. Specifically, 24-hour peak concentrations were defined as the 99th percentile of daily average concentrations (equivalent to the fourth highest day in a year), and short-term peak concentrations were defined as the 99th percentile of the 1-hour or 2-hour average concentrations in a year. For example, the concentration corresponding to the 99th percentile was identified. This procedure was applied independently to each of the five modelled years, and the resulting annual 99th percentile 24-hour average concentrations were then averaged to derive a single representative 24-hour peak concentration for comparison with the screening criteria. These metrics are intended to represent reasonably conservative upper-bound concentrations while excluding rare, anomalous events.

In the Air Quality VC, total air pollutant concentrations are estimated by summing the upper percentile of modelled Project-related concentrations (e.g., 98th or 99th percentile) with the corresponding upper percentile of baseline concentrations. This approach assumes that the peak baseline air quality conditions (i.e., the upper 99th percentile concentration) occur on every day of the year, with Project-related emissions added to it. In effect, it assumes that peak Project-related emissions are always concurrent with the worst baseline conditions. This highly conservative assumption, which is appropriate for managing regional air quality and air pollutants in the context of the Air Quality VC, is overly conservative for the assessment of potential human health effects. For the purpose of the human health assessment, a more reasonable set of assumptions is applied to characterize air pollutant concentrations, reflecting realistic temporal overlaps between baseline conditions and Project-related emissions to provide a more reasonable estimate of potential exposures and associated health risks.

Given the remote and isolated location of the Project area and the absence of major industrial sources of air pollutants that could cause major fluctuations in air quality, the use of an annual average baseline concentration was considered a reasonable and appropriate assumption, particularly when compared to the alternative assumption that the worst 24-hour baseline air quality conditions occur on every day of the year. In addition, the Air Quality Technical Model Report (Appendix 11A) obtained 24-hour (upper 98th percentile concentration) and annual average baseline concentrations for air pollutants from reported values in other environmental assessments in the Kitikmeot region. However, the underlying air quality monitoring data time-series were not available. As such, the use of the annual average baseline concentrations represent a practical and reasonable approach for characterizing baseline air quality for the purpose of the human health assessment, given the available data options.

Health Canada has published health-based reference concentrations that are recommended for the assessment of DPM (Health Canada 2016a). However, Health Canada has not published health-based values for other common air pollutants. The World Health Organization (WHO) defines its air quality guidelines (AQGs) as *"the lowest exposure level of an air pollutant above which the guideline development group is confident that there is an increase in adverse health effects"* and notes that *"adverse health effects do not occur or are minimal below this concentration level"* (WHO 2021). The WHO AQGs were used as health-based screening criteria for NO_2, SO_2, PM_{10}, and $PM_{2.5}$.

If an air pollutant concentration is greater than the screening criteria, it does not imply an unacceptable health risk. Instead, it means that the model estimates at least one short-term (1-hour, 2-hour, or 24-hour) or long-term (annual average) period when the concentration is higher than the screening criteria over a five-year model period. A single hour or a single day above a screening criteria may qualify the air pollutant as a COPC, but it does not accurately describe the air quality for the entire 5-year modelling period. The frequency, magnitude, and spatial extent of such occurrences are then considered to determine whether they represent a meaningful or sustained risk of a health effect.

Table 4.2 shows the COPC screening results, in which baseline and modelled air pollutant concentrations from Project activities are shown separately, and the sum of the baseline and modelled concentrations are compared to the screening criteria. The screening indicates that SO_2 and PM_{10} concentrations are estimated to remain below the WHO AQGs throughout the Construction and Operation and Maintenance phases. The WHO AQG for 10-minute SO_2 is not directly comparable to the air quality model outputs because the model outputs are expressed as 1-hour average concentrations. However, if even a single 10-minute interval within a 1-hour period were above the WHO AQG of 500 µg/m^3, it would result in a minimum 1-hour average of 83 µg/m^3. Since the peak modelled 1-hour SO_2 concentration of 1.0 µg/m^3 is below 83 µg/m^3, the peak 10-minute SO_2 concentration for the Project must be below 500 µg/m^3. As a result, SO_2 and PM_{10} are not identified as COPCs.

DPM is a component of $PM_{2.5}$ and is emitted from diesel combustion sources such as heavy equipment, diesel powered generators, marine vessels, and vehicles commonly used during construction activities. In the air quality model, total $PM_{2.5}$ includes both DPM and non-diesel particulate matter. DPM from diesel-powered sources was also modelled separately. As a result, DPM concentrations at the Grays Bay Port accommodation camp during the Construction Phase represent the diesel-derived fraction of total $PM_{2.5}$.

Table 4.2 shows the predicted peak 2-hour and annual average DPM concentrations at the Grays Bay Port accommodation camp are below Health Canada's reference concentrations of 10 µg/m^3 (2-hour average) and 5 µg/m^3 (annual average), respectively (Health Canada 2016a). Since the Project is in a remote area with no nearby industrial or commercial activities, baseline DPM concentrations are assumed to be zero. DPM concentrations were not calculated for the Operation and Maintenance Phase. The quality model produced results for common air pollutants such as SO_2, NO_2, $PM_{2.5}$, and PM_{10} for the Operation and Maintenance Phase. The DPM fraction of $PM_{2.5}$ was not separately quantified because it was not required under the Air Quality VC, while the HHRA evaluates the phase with the highest potential exposure, which is the Construction Phase.

The COPC screening indicates that peak NO_2 and $PM_{2.5}$ concentrations, when added to the baseline concentration, are estimated to be greater than the WHO AQG during the Construction phase. As such, both pollutants are retained as COPCs for this assessment. During the Operations and Maintenance phase, overall Project emissions are lower, resulting in lower estimated exposure concentrations. Under Operations and Maintenance conditions, NO_2 concentrations are estimated to be greater than the WHO AQG, whereas $PM_{2.5}$ is estimated to be below the WHO AQG.

Table 4.2 COPC Screening of Air Pollutants

Air Pollutant	Averaging Time	Screening Criteria [2] (µg/m³)	Baseline Concentration (µg/m³)	Grays Bay Port Accommodation Camp Project-Alone Case	
				Construction (µg/m³)	Operation and Maintenance (µg/m³)
NO_2	1-hour[1]	200	6.0	143.0	143.0
	24-hour[1]	25		94.0	85
	Annual	10		24.2	14
SO_2	10-minute[1]	500	5.0	1.0 (1-hour peak)	0.9 (1-hour peak)
	24-hour[1]	40		1.6	0.6
PM_{10}	24-hour[1]	45	3.8	32.2	4.3
	Annual	15		7.0	1.4
$PM_{2.5}$	24-hour[1]	15	2.0	14.7	2.3
	Annual	5		2.7	0.6
DPM	2-hour	10	0	3.7	Not calculated
	Annual	5	0	0.9	Not calculated

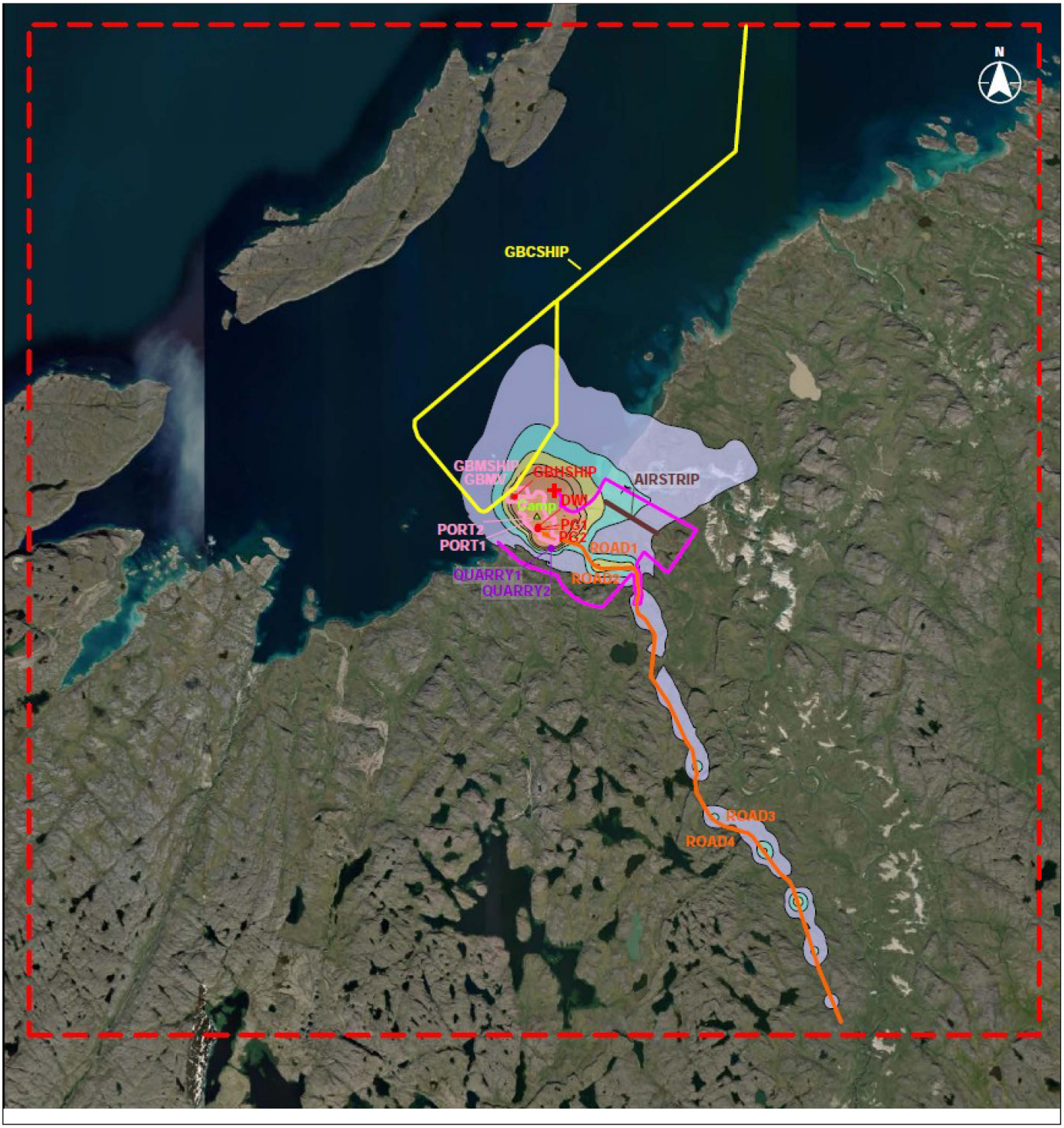
Notes:
[1] Based on the 99th percentile (i.e., 4th highest daily or 88th highest hourly concentration)
[2] Screening criteria for DPM from Health Canada (2016a). WHO AQGs used for all other air pollutants.
Bold underlined = modelled peak concentration added to baseline is above the screening criteria.

Study Area for COPCs

Since NO_2 and $PM_{2.5}$ are identified as COPCs, annual average isopleth contour maps are prepared to illustrate the spatial distribution and geographic extent of their dispersion during construction. The purpose of these isopleth maps is to show how concentrations decrease with distance from Project emission sources and to define the air quality study area as the geographic extent over which Project-related air pollutants are predicted to disperse where meaningful exposures may occur in relation to human health.

The air quality modelling was conducted within a 30 km × 30 km model domain, which represents the spatial limit of the model calculations. However, the model domain itself does not define the human health study area for air pollutant exposures. Rather, the study area for air quality is defined by the extent of the modelled dispersion isopleths, which represent the area where Project-related air pollutants are predicted to be present above the lowest discernible concentration contours.

The isopleth contour maps presented in Figure 4.3 and Figure 4.4 depict lines of equal annual average concentration for NO_2 and $PM_{2.5}$, respectively. These contours illustrate that Project emissions of these air pollutants are spatially limited and decline rapidly with distance from their primary emission sources. As shown in the figures, the geographic extent of discernible dispersion is generally confined to within approximately 4 km of Grays Bay Port for NO_2, while the dispersion of $PM_{2.5}$ remains within the land portion of the PDA. Even though the dispersion of NO_2 extends up to 4 km beyond the PDA, the area where the concentration is above the WHO AQG is contained within the PDA. Concentrations of NO_2 and $PM_{2.5}$ beyond 4 km from the PDA falls below the lowest isopleth contour line, and are assumed to represent a negligible health risk as they are also below the WHO AQG.





Notes

1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada, Stantec

PDA Boundary

30 km by 30 km Modelling Domain

Maximum Concentration: 17.3 µg/m³

Annual Average NO_2 WHO AQG: 10 µg/m³

Baseline Concentration: 6 µg/m³

2 4 6 8 10

Concentration (µg/m³)

Camp – Grays Bay Port Accommodation Camp
AIRSTRIP – Airstrip
PG1 – Power Generator 1
PG2 – Power Generator 2
DWI – Domestic Waste Incinerator
GBHSHIP – Grays Bay Hotelling Ship
GBMSHIP – Grays Bay Maneuvering Ship
GBCSHIP – Grays Bay Cruising Ship Route
GBMV – Grays Bay Marine Vessels
QUARRY – Quarry locations
ROAD – Road Construction Emission Sources
PORT – Port Construction Emission Sources

0 2 4 Kilometres

N

NUNAMI STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by SL on 2026-01-05
TR by DS on 2026-01-05

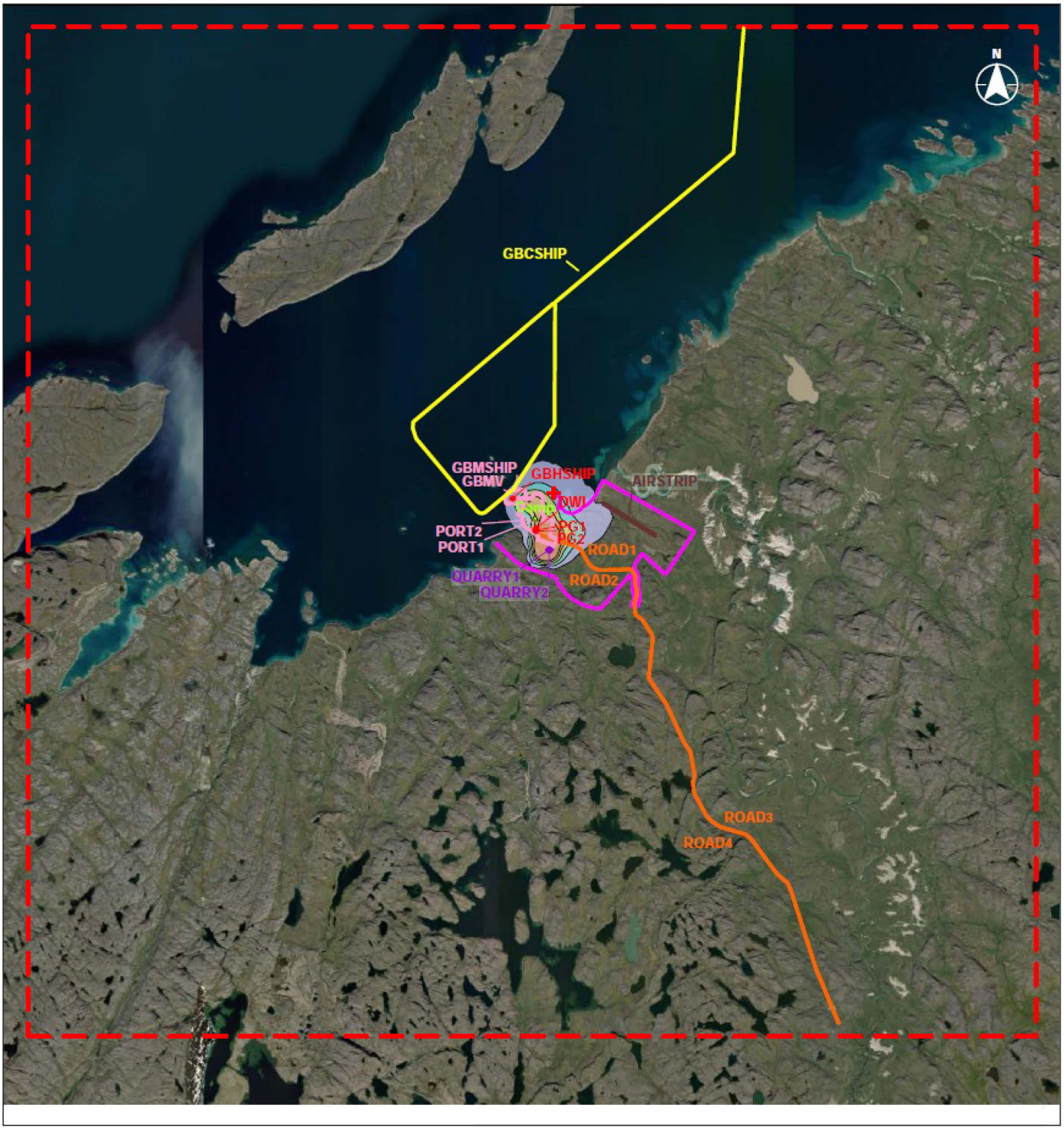
Client/Project
West Kitikmeot Resources Corp
Grays Bay Road and Port

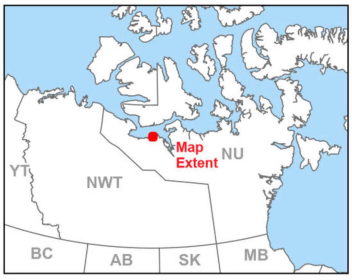
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Figure No
4.3

Title
Spatial Distribution of Modelled Annual Average NO_2 Concentrations (Construction Phase)

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Notes

1. Coordinate System: WGS 1984 UTM Zone 12N
2. Data Sources: Governments of Nunavut and Canada, Stantec

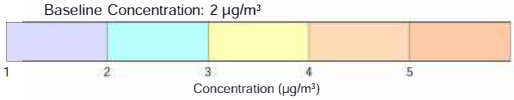
PDA Boundary

30 km by 30 km Modelling Domain

\+ Maximum Concentration: 2.33 µg/m³

Annual Average $PM_{2.5}$ WHO AQG: 5 µg/m³

Baseline Concentration: 2 µg/m³



Camp – Grays Bay Port Accommodation Camp
AIRSTRIP – Airstrip
PG1 – Power Generator 1
PG2 – Power Generator 2
DWI – Domestic Waste Incinerator
GBHSHIP – Grays Bay Hotelling Ship
GBMSHIP – Grays Bay Maneuvering Ship
GBCSHIP – Grays Bay Cruising Ship Route
GBMV – Grays Bay Marine Vessels
QUARRY – Quarry locations
ROAD – Road Construction Emission Sources
PORT – Port Construction Emission Sources



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NUNAMI
STANTEC LIMITED

WEST KITIKMEOT RESOURCES CORP

Project Location
Kitikmeot Region, Nunavut

Prepared by SL on 2026-01-05
TR by DS on 2026-01-05

Client/Project
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West Kitikmeot Resources Corp
Grays Bay Road and Port

Figure No.
4.4

Title
Spatial Distribution of Modelled Annual Average $PM_{2.5}$ Concentrations (Construction Phase)

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The limited extent of dispersion indicates that NO_2 and $PM_{2.5}$ are not COPCs for the broader Kitikmeot region. The isopleth figures also show that dispersion of COPCs along the road corridor is highly localized, despite the conservative modelling assumption that road construction occurs continuously and simultaneously along the full length of the corridor. The isopleth contours for COPCs associated with road-related emissions do not extend beyond 1 km from the road corridor. As a result, the Ulu Gold and High Lake Gold mining exploration camps are located outside the discernible dispersion distance.

Inuit, Indigenous, and Community country food harvesters located more than 4 km from the Grays Bay Port PDA and Jericho Station PDA are also outside the discernible dispersion area. The five regional hamlets are located well beyond the modelled dispersion area and are therefore not expected to experience Project-related increases in NO_2 or $PM_{2.5}$ concentrations.

Inuit, Indigenous, and Community country food harvesters could potentially experience exposure to Project-related emissions of NO_2 if harvesting activities occur within approximately 4 km of Grays Bay Port and Jericho Station. However, the exposure concentration and the exposure duration would be limited to off-duty workers residing at the accommodation camps.

Overall, the human receptors with the highest potential for both magnitude and frequency of exposure to Project-related NO_2 and $PM_{2.5}$ are off-duty workers at the Grays Bay Port accommodation camps, due to their proximity to emission sources and the amount of time spent at that location.

Consideration of Other Air Pollutants

Combustion emissions such as volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and polychlorinated dibenzo-p-dioxins and furans (PCDD/Fs) are produced by stationary (e.g., diesel power generators, waste incinerators) and mobile (e.g., vehicles) equipment during Project activities. However, emission rates and exposure concentrations of these substances are expected to be low relative to air pollutants such as NO_2 and $PM_{2.5}$.

Several factors support the exclusion of VOCs and PAHs from further evaluation:

- **Low Emission Rates** – The Air Quality VC applies the U.S. Environmental Protection Agency AP-42 Compilation of Air Emission Factors from Stationary Sources in its air quality model (US EPA 2025). This document includes a compilation of air emission factors for various industrial sources, including those from road, mining activities, stationary equipment and other industrial facilities (US EPA 2025). The emission factors published for stationary equipment such as the diesel generators at Grays Bay Port shows that VOC and PAH emissions would be orders of magnitude lower than NO_x. For example, the AP-42 document (Section 3, Table 3.3-1 and Table 3.3-2) lists the following emission rates:
  - **NO_x**: 4.41 Pounds per million British Thermal Units (lb/MMBtu)
  - **SO_x**: 0.29 lb/MMBtu
  - **Benzene (VOC)**: 0.000933 lb/MMBtu (~4,500 times lower than NO_x)
  - **Benzo(a)pyrene (PAH)**: <0.000000188 lb/MMBtu (~23 million times lower than NO_x)
  - **Total of 16 toxic PAHs**: 0.000168 lb/MMBtu (~26,000 times lower than NO_x)

- **Low potential for chronic exposure** – Workers residing at the accommodation camps are not permanent residents. Work rotations involve stays of several weeks to several months before returning to their permanent homes.
- **Low potential for ambient exposures relative to reference concentrations** – Outdoor reference concentrations for prominent VOCs from fuel combustion (benzene, toluene, and ethylbenzene) are higher than the screening concentrations for other air pollutants. For example, the reference concentrations for benzene, toluene, and ethylbenzene include:
  - **Benzene** – Annual average – 30 µg/m^3 (US EPA 2003)
  - **Toluene** – Annual average – 5,000 µg/m^3 (US EPA 2005)
  - **Ethylbenzene** – Annual average – 1,000 µg/m^3 (US EPA 1991)

  It is reasonable to assume that if the emission rates of benzene and other VOCs are approximately 4,500 times lower than those of NO_x, the resulting ambient concentration of VOCs would remain well below their respective health-based reference concentrations, which are higher than the annual averaging screening concentration for NO_2 (10 µg/m^3). Based on this information, VOCs associated with fuel combustion are unlikely to be emitted at concentrations that could pose a substantial health risk to people.

  Similarly, it is reasonable to assume that if emission rates of PAHs such as benzo(a)pyrene are millions of times lower than those of NOx, the resulting ambient concentrations would remain well below health-based toxicological reference value of 0.002 µg/m^3 (Health Canada 2025). Based on this information, PAHs associated with fuel combustion are unlikely to be emitted at concentrations that could pose a substantial health risk to people.

PCDD/F emissions associated with the Project were not quantified because they are expected to be negligible. The primary source is the on-site waste incinerator, which will be designed and operated to meet Environment and Climate Change Canada (ECCC) technical guidance (ECCC 2010). This technical guideline describes the technology and operational requirements intended to support the use of best available technology and appropriate combustion chamber temperatures and residence times such that PCDD/F emissions are expected to remain negligible. This technical guidance states that for batch waste incinerators, "*when properly operated and maintained, these systems are capable of meeting the Canadian-wide Standards for dioxins/furans*", and that stack testing can be carried out as required by the regulatory authorities to verify that these standards are met.

4.1.2.2 Surface Water and Groundwater

The Project is not expected to adversely affect surface water or groundwater quality in a manner that would adversely affect the health of people. The Project consists primarily of road construction and road use activities and does not include industrial processes or point-source discharges that would introduce pollutants directly into freshwater bodies. In this respect, the Project is similar to roads in urban and rural settings across Canada, where regular vehicle use does not typically result in contamination of surface water bodies or drinking water sources.

In the Water Resources VC (Volume 7 – Freshwater Environment, Section 19 – Assessment of Potential Effects on Water Resources of the IS), no specific chemical contamination in surface water or groundwater was identified. Potential effects to water resources during construction and operation such as dust deposition, erosion, or sediment mobilization are addressed through mitigation measures described in Section 19.5.3 (Summary of Mitigation, Management, and Enhancement Measures). These include erosion and sediment control practices, dust suppression, controlled material handling, metal leaching and acid rock drainage management plan, and water runoff management. Such measures are commonly used in road projects and are effective in preventing sediment and particulate inputs to nearby streams, lakes, and wetlands.

The Water Resources VC also characterizes the metal leaching and acid rock drainage risk as low. To limit interactions with metal leaching and acid rock drainage material, geochemical testing will be conducted to confirm that the material is suitable for application on the road. This further reduces the potential for geochemical effects to surface or groundwater during construction and operation.

The Project does not include point-source effluent discharges, such as wastewater outfalls or industrial drainage systems, that could introduce contaminants directly into freshwater bodies. In the absence of these pathways, and with erosion and sediment control measures in place, the Project has limited potential to introduce pollutants into freshwater resources.

Potable water will be supplied by an on-site freshwater treatment plant located at Grays Bay Port, which will provide treated drinking and domestic-use water for Project workers at an estimated rate of approximately 500 litres per person per day. Treated drinking water will also be trucked from Grays Bay Port to Jericho Station. The treated water will meet the Guidelines for Canadian Drinking Water Quality, providing workers with reliable access to safe potable water.

4.1.2.3 Marine Water

The Project is not expected to adversely affect marine water quality in a manner that would adversely affect the health of people and the environment. Marine shipping activity associated with port operations may result in localized and intermittent interactions with marine waters, consistent with common port activities such as vessel maneuvering, berthing, refueling, and routine maintenance. These activities are expected to be managed in accordance with standard marine operating practices and applicable regulatory requirements, which limit the potential for contaminant releases to marine waters.

During routine operations, trace releases of diesel fuel may occur. Diesel consists primarily of low molecular weight hydrocarbons and floats on the water surface rather than sinking to the benthic environment. This promotes rapid lateral spreading, increasing the exposed surface area and facilitating weathering processes such as evaporation, dispersion, and biodegradation, resulting in relatively short environmental persistence. Accordingly, routine shipping activity is not expected to represent a sustained or significant source of chemical COPCs in the marine environment.

There will also be two point sources of discharge to the marine environment:

1. **Desalination Plant Outlet** - The desalination plant will generate a residual saline stream following the production of approximately 500 litres per person pe day of potable and service water for domestic uses. The residual saline stream will be returned to the marine environment via a designated outlet. Although the discharged water will have a higher salinity than ambient marine waters, the volume is small relative to the receiving environment and is expected to be rapidly diluted through natural mixing and dispersion processes, resulting in negligible effects on marine water quality relevant to human health and ecological exposure pathways.
2. **Wastewater Treatment Discharge** - A wastewater treatment system at the Grays Bay Port will be operated to manage sanitary sewage generated during operations. Treated effluent is expected to be discharged to the marine environment following treatment, with the specific discharge location to be confirmed during the design and permitting phase. Treated domestic sewage is not anticipated to be a source of metals or persistent, bioaccumulative contaminants and is expected to meet applicable discharge permit requirements. Accordingly, wastewater treatment discharge is not considered a source of metal or persistent chemical COPCs in the marine environment relevant to human health and ecological exposure pathways.

4.1.2.4 Soil Quality

Soil quality can be affected when naturally occurring or anthropogenic substances, such as metals or hydrocarbons, are introduced or redistributed in sufficient quantities to increase concentrations above natural background levels and into a range that could be considered contaminated or of potential concern for human health. In the context of transportation projects, these substances may include trace metals and residues associated with fuel combustion, brake and tire wear, and the disturbance and redeposition of road surface materials.

It is acknowledged that all vehicle and equipment use contributes, to some extent, small quantities of metals and other substances to the environment. However, the relevance of these contributions to soil quality depends on the magnitude, frequency, and duration of activity, as well as the potential for materials to accumulate in soils over time.

For the Project, road use during the Operations and Maintenance phase will be limited to periodic, low-frequency maintenance vehicles required for inspections, snow clearing, grading, and minor repairs. Traffic volumes are expected to be very low and intermittent relative to urban roadways and public highways. As a result, the quantities of metals and other vehicle-related residues generated over time would be minimal and dispersed along a long, linear corridor, limiting the potential for localized accumulation in soil.

In addition, the road will be constructed using quarry material that generally has a low potential for metal leaching and acid rock drainage. Where materials with elevated leaching or acid generation potential cannot be avoided, road construction practices would include encapsulation using non-acid-generating materials to limit potential interactions with the surrounding environment. Permanent quarries will not be developed at locations that require extensive mitigation for high potential metal leaching or acid rock drainage materials. Road dust generated during construction and maintenance activities is therefore

expected to consist primarily of native and inert aggregate material, with vehicle-related residues deposited at low levels and largely confined to the area adjacent to the road.

The design and nature of the Project further limit pathways for soil contamination. The road is a gravel- and fill-based structure with no industrial processing activities and no point-source discharges. Construction and maintenance activities will be confined to the established road footprint, limiting disturbance to adjacent undisturbed soils and reducing opportunities for off-road transport of particulates.

Taken together, the low frequency and low intensity of maintenance traffic, the geochemical stability of construction materials, and the localized nature of dust deposition indicate that Project-related vehicle emissions and wear-related metals are unlikely to increase soil metal concentrations above natural background levels or applicable soil quality guidelines. Accordingly, the Project is not expected to result in soil contamination or create meaningful exposure pathways for human receptors or wildlife, and no COPCs have been identified for soil.

4.1.2.5 Traditional Country Foods

No COPCs have been identified for traditional country foods because pathways have not been identified for Project activities to introduce chemical contaminants into the plants or animals harvested by Inuit, Indigenous, and Community country food harvesters. Uptake of contaminants into vegetation, fish, and terrestrial wildlife would require the presence of chemical pollutants in soil or water from Project activities. Based on the assessments in Sections 4.2.2 (Surface Water and Groundwater) and 4.2.3 (Soil Quality), the Project is not expected to contaminate soils or waterbodies; therefore, no source of chemical contamination is expected that could lead to accumulation of contaminants in country foods.

The Project does not include industrial activities or processes that would release contaminants to surrounding soils or surface water. While vehicles and equipment can introduce small quantities of combustion-related residues and trace metals associated with mechanical wear, the magnitude and frequency of maintenance traffic for the Project are low. As a result, contributions would be minimal, spatially dispersed, and unlikely to accumulate in soil to levels that would constitute contamination. Potential localized sources within the PDA, such as fuel storage areas, maintenance yards, refueling points, or spill locations, will be managed through spill prevention, containment, and soil management measures to prevent or limit releases. In the unlikely event of a spill, response actions would be implemented based on the substance released, the quantity involved, the characteristics of the receiving environment, and the effectiveness of mitigation measures.

Since the Project is not expected to introduce contaminants into soils, vegetation, surface water, or wildlife, there is no mechanism for plants or animals to accumulate chemicals in their tissues. This supports the conclusion that country foods will not experience Project-related changes in chemical quality.

4.1.2.6 Noise Hazards

In the Noise and Vibration VC, Project-related noises and cumulative noises were modelled within a study area of 3.0 km from the PDA. This study area is the area where Project-related noises and future projects associated with the cumulative effects assessment are modelled with a reasonable degree of accuracy and confidence.

There is no applicable screening threshold that defines the minimum noise level to constitute a hazard to human health. However, Health Canada's risk assessment guidance provides methods for the assessment of noise in environmental assessments (Health Canada 2023a). Noise is identified as a potential hazard to human health during the Construction, and Operation and Maintenance phases of the Project.

4.1.3 Identification of Exposure Pathways

Identifying whether exposure pathways are complete or incomplete is essential for accurately evaluating potential health risks from COPC exposure. According to Health Canada (2023a), an exposure pathway consists of a contaminant source with a mechanism for release, a transport medium (e.g., air, soil, water), a point of potential contact, and an exposure route (such as ingestion, inhalation, or dermal contact). In practical terms, a pathway is considered operable only when a COPC is present at concentrations of potential concern, a human receptor is present, and a plausible mechanism exists for the receptor to come into contact with the COPC through a complete exposure route. If one or more components are absent (i.e., no COPC, no human receptor, no exposure), the pathway is considered inoperable, and no unacceptable health risk is expected through that pathway.

Distinguishing between operable and inoperable pathways focuses risk assessment on realistic scenarios where human exposure could occur. This approach improves the risk evaluations by directing resources toward mitigating genuine health risks. Identifying inoperable pathways clarifies the limits of potential contamination, reducing unnecessary concern and supporting effective risk communication. By systematically assessing each exposure pathway, health risk assessors can provide more reliable conclusions that inform risk management decisions, regulatory actions, and public health interventions.

4.1.3.1 Inhalation of Air

Exposure to air pollutants can affect human health primarily through inhalation. Short-term (acute) environmental exposures, particularly at elevated concentrations over brief periods, may result in transient respiratory irritation effects, such as throat or eye irritation, increased mucous production, coughing, shortness of breath, or temporary exacerbation of pre-existing respiratory conditions (e.g., asthma). These effects are generally reversible and resolve once exposure is reduced.

In contrast, long-term (chronic) exposures to air pollutants at sustained elevated concentrations are typically evaluated in epidemiological studies and are more commonly associated with population-level health outcomes, such as changes in respiratory or cardiovascular morbidity and mortality rates. Health risks associated with chronic exposure increase with both the magnitude and duration of exposure, and are generally assessed using long-term average concentrations, such as annual average concentrations.

Air pollutant concentrations are strongly influenced by proximity to the emission source. People closer to the Project would be expected, in principle, to experience higher concentrations than those farther away. Exposure can also vary depending on whether a person is located upwind or downwind of the source, as influenced by prevailing wind conditions. As distance from the source increases, concentrations typically dissipate, reducing potential exposures and associated health risks. As shown in the isopleth figures for NO_2 and $PM_{2.5}$, elevated concentrations are primarily confined within the PDA. Therefore, the human receptors most relevant to this exposure pathway include off-duty workers at the Grays Bay Port accommodation camps, where the effects are assessed and used to infer similar, but lower magnitude effects at the Jericho Station accommodation camp.

The presence of COPCs in the air (NO_2 and $PM_{2.5}$), human receptors within the dispersion area (off-duty workers at the accommodation camps and Inuit, Indigenous, and Community country food harvesters within 4 km of the PDA) and a mechanism of exposure (inhalation) makes this an exposure operable pathway. For people at the High Lake and Ulu mining exploration camps and at the five hamlets, inhalation of Project-related COPCs in the air is an inoperable pathway, as inferred from air dispersion modelling results along the approximately 15 km portion of the road nearest to the Grays Bay Port, which indicate negligible Project-related concentrations at these more distant receptor locations.

4.1.3.2 Ingestion and Dermal Contact with Soil

The ingestion and dermal contact with soil is characterized as an inoperable pathway. When evaluating the potential for the Project to contaminate the surrounding soil, no COPCs in soil were identified. The Project involves constructing and operating a gravel and fill-based road using geochemically stable quarry material with low potential for metal leaching or acid rock drainage where feasible. Where materials with elevated leaching or acid generation potential cannot be avoided, road construction practices would include encapsulation using non-acid-generating materials to limit potential interactions with the surrounding environment. Permanent quarries will not be developed at locations that require extensive mitigation for high potential metal leaching or acid rock drainage materials. The Project also does not include industrial processes or point-source discharges that could introduce soil contaminants. Routine road use and maintenance are not expected to elevate soil contaminant concentrations to levels that pose a health risk.

Because no COPCs have been identified, there is no reasonable mechanism for exposure to occur through ingestion or dermal contact with soil. Accordingly, these exposure pathways do not meet the criteria for an operable pathway under HHRA guidance, and ingestion and dermal contact with soil are therefore characterized as inoperable for the purposes of this assessment.

4.1.3.3 Consumption of Surface Water and Groundwater

The consumption of surface water and groundwater is characterized as an inoperable pathway. Potable use water for Project workers is supplied by an on-site freshwater treatment plant located at Grays Bay, which provides treated water that will meet the Guidelines for Canadian Drinking Water Quality. Jericho Station will be supplied by trucked water from Grays Bay. Groundwater in the Project area is not expected to be accessed for drinking or other potable uses. However, it is recognized that Inuit, Indigenous, and Community country food harvesters may harvest natural water from the land for consumption

The Project does not involve industrial discharges or activities that would introduce chemical contaminants into surface water, marine water, or groundwater, and no COPCs have been identified in these water sources. Since treated water is provided and no COPCs are present or anticipated in ambient water, there is no plausible mechanism for Project-related chemical exposure via water consumption. Accordingly, ingestion of water does not constitute an operable exposure pathway under HHRA guidance and is therefore characterized as inoperable for the purposes of this assessment.

4.1.3.4 Harvest and Consumption of Traditional Country Foods

Exposure pathways related to the harvest and consumption of traditional country foods are characterized as inoperable exposure pathways. These pathways pertain to Inuit, Indigenous, and Community country food harvesters who harvest fish (e.g., trout, whitefish), shellfish (oysters, clams), marine mammals (e.g., beluga whales and seals), wild meat (e.g., caribou, ducks, ptarmigans), and traditional plants (various species of berries) from the land and water. Inuit have the right to travel freely across the land and water to harvest wildlife and country foods, consistent with rights recognized under the Nunavut Agreement.

As described in the Food Security and Food Sovereignty VC (Section 25), the Grays Bay marine environment has a long history of Inuit fish harvesting, forming a staple of the Inuit diet. Inuit Knowledge indicates that fish harvested in the Grays Bay area have included Arctic charr, Arctic cisco, burbot, whitefish, grayling, lake trout, Arctic cod, and other species, reflecting sustained use of the marine and nearshore aquatic environment accessed by boat near Grays Bay for country food harvesting.

Future land use in the Project area is expected to increase during the Operation and Maintenance phase, as the Project will establish new permanent infrastructure, including the Grays Bay Port, Jericho Station, and an all-season road connecting these locations. The presence of this infrastructure is anticipated to improve regional access and mobility, which may facilitate increased travel through and use of the area by Inuit land users over time, including for harvesting, travel, and other traditional activities.

The Project area is largely undeveloped and in a natural, pristine state. There are no documented contaminated sites along the proposed road or port, and no Project-related COPCs have been identified in soils or surface water and groundwater. For the harvest and consumption of traditional country foods to constitute an operable exposure pathway, Project-related COPCs would need to be present in the soil or water that support wildlife and plants, providing a mechanism for contaminants to accumulate in their tissues. In the absence of Project-related COPCs, this pathway is not plausible under current or Project conditions.

Consequently, the harvest and consumption of traditional country foods is characterized as an inoperable exposure pathway for the purposes of this HHRA.

4.1.3.5 Exposure to Noise

Noise can affect human health through a variety of pathways, primarily by causing annoyance during daytime hours and sleep disturbance at night. Daytime noise can lead to irritability, reduced concentration, and decreased overall comfort, which can affect productivity and quality of life. Nighttime noise, particularly when it disrupts sleep, has been associated with short-term effects such as fatigue, impaired cognitive performance, and mood changes.

Chronic exposure to elevated noise levels has also been linked in epidemiological studies to longer-term health outcomes, including increased risk of cardiovascular effects (e.g., elevated blood pressure, ischemic heart disease) and stress-related conditions. The magnitude of health impacts depends on both the intensity and duration of exposure, as well as individual sensitivity. Sensitive populations, including the elderly, children, and individuals with pre-existing health conditions, may be more vulnerable to the effects of noise.

The Project is located in a remote area of the Kitikmeot region with no permanent Inuit communities or year-round residences nearby. However, during Construction and Operation and Maintenance, the Project will include worker accommodation camps located at Grays Bay and at Jericho Station.

Workers living at these camps are distinguished between occupational exposures (on-duty) and non-occupational exposures (off-duty):

- On-duty workers are exposed to noise as part of their work activities. As described in Section 4.1.1, on-duty workers are excluded from this HHRA. Their potential exposures are considered under occupational exposure frameworks, which differ from those applied to non-workers.
- Off-duty workers, by contrast, reside at the accommodation camps when not working. During these periods, they are considered human receptors. Health-based noise guidelines apply to off-duty workers to protect their health and well-being. Their noise exposure is therefore evaluated within the HHRA.

Noise along the road corridor during both the construction and operation phases is also evaluated at mining exploration camps located approximately 1 km from the road.

In summary, exposure to Project-related noise represents an operable exposure pathway for off-duty workers at the Grays Bay Port and Jericho Station accommodation camps during both the Construction and Operations and Maintenance phases, as all three risk factors (source, pathway, and receptor) are present. Noise exposure is also evaluated for mining exploration camps, with the assumption that Inuit, Indigenous, and Community country food harvesters near the Project would be at similar or greater distances. Consequently, the assessment of noise at these locations is considered representative of potential noise conditions experienced by off-duty workers, people at the mining exploration camps, and Inuit, Indigenous, and Community country food harvesters.

4.1.4 Conceptual Site Model

The conceptual site model for the HHRA provides a structured framework for understanding potential exposure pathways through which COPCs or other hazards could reach human receptors. The CSM identifies the environmental media, exposure route, COPCs, and human receptors relevant to the Project to distinguish between operable and inoperable pathways.

The conceptual site model shown in Table 4.3 indicates that the primary operable pathways are the inhalation of air containing NO_2 and $PM_{2.5}$, and exposure to Project-related noise. These COPCs and hazards may affect off-duty workers at the accommodation camps, people using mining exploration camps along the road corridor, and Inuit, Indigenous, and Community country food harvesters near the Project. The exposure pathways related to soil, water, and traditional country foods are characterized as inoperable pathways, primarily due to an absence of COPCs from Project activities.

Table 4.3 Conceptual Site Model for the Grays Bay Port and Road Human Health Risk Assessment

Environmental Media	Exposure Route	Project-related COPC or Hazard		Presence of Human Receptors	Operable or Inoperable Pathway
		Construction	Operation and Maintenance		
Air	Inhalation of air	$PM_{2.5}$ and NO_2	NO_2	Off-duty workers at Grays Bay and Jericho Station and Inuit, Indigenous and Community country food harvesters within 4 km of the PDA	***Operable***
Soil	Dermal contact and Incidental ingestion of soil	No	No	No	Inoperable
Water	Ingestion of surface water	No	No	Inuit, Indigenous and Community country food harvesters	Inoperable
	Ingestion of groundwater	No	No	No	Inoperable
Country Foods	Consuming vegetation harvested near the Project	No	No	Inuit, Indigenous and Community country food harvesters	Inoperable
	Consuming wild meat harvested near the Project	No	No	Inuit, Indigenous and Community country food harvesters	Inoperable
	Consumption of fish harvested near the Project	No	No	Inuit, Indigenous and Community country food harvesters	Inoperable
Other	Exposure to noise from project activities	Noise	Noise	Off-duty workers at Grays Bay and Jericho Station, High Lake and Ulu mining exploration camp users, and Inuit, Indigenous and Community country food harvesters within 3 km of the PDA	***Operable***

4.2 Ecological Health

4.2.1 Ecological Receptors

Given the extensive diversity of wildlife in the Kitikmeot region, it is not practical or necessary to assess to each species. Instead, ERAs typically select representative species to characterize potential effects for broader receptor groups (e.g., carnivorous mammals, herbivorous mammals, terrestrial plants). The selection of these representative ecological receptors is based on consideration of species that are:

- native to the Kitikmeot region
- most likely to receive a higher exposure to chemical emissions due to their habitat and home range
- representative of various levels in the aquatic and terrestrial trophic web (e.g., carnivore, herbivore, omnivore)
- suitable surrogates for federal and territorial species at risk that could be present in the region
- of cultural, economic, or social significance to Inuit, Indigenous, and Community country food harvesters and other local communities

The wildlife receptors considered in the ERA include**:**

Terrestrial Mammals

- Caribou (*Rangifer tarandus)* – large herbivorous mammal
- Polar bear (*Ursus maritimus*) - large carnivorous mammal
- Grizzly bear (*Ursus arctos*) – large omnivorous mammal
- Wolverine (*Gulo gulo*) – medium carnivorous mammal
- Arctic fox (*Vulpes lagopus*) – small omnivorous mammal
- Red fox (*Vulpes vulpes*) – small omnivorous mammal
- Snowshoe hare (*Lepus americanus*) – small herbivorous mammal

Marine Mammals

- Ringed seal (*Pusa hispida*) - carnivorous marine mammal
- Beluga whale (*Delphinapterus leucas*) – carnivorous marine mammal

Birds

- Canada goose (*Branta canadensis*) – herbivorous bird
- Red-breasted Merganser (*Mergus serrator*) – carnivorous (piscivouros) bird
- Rock ptarmigan (*Lagopus muta*) – herbivorous bird

Community receptors were also considered. A community receptor represents an assemblage of interacting species occupying a defined habitat, rather than a single species. For community receptors, direct contact with environmental media (e.g., soil, sediment or water) is typically the primary means of exposure. The assessment of community receptors provides a broader evaluation of ecosystem health and function. This complements species-specific assessments, which focus on survival, growth, reproduction, or health of individual wildlife species. Community receptor assessments are useful for identifying potential changes to ecosystem structure or function resulting from Project-related COPCs.

The community receptors considered in the ERA, including representative species and the primary route of exposure to environmental media, include:

- **Terrestrial soil invertebrate communities** – This community consists of small organisms living in or on the tundra soil, including springtails, mites, nematodes, and beetles. Due to the presence of permafrost, deeper burrowing invertebrates such as earthworms are generally absent from the Kitikmeot region. Terrestrial soil invertebrates are exposed primarily through direct contact with soil and ingestion of organic material within the soil matrix.
- **Terrestrial plant communities** – Plant species include low stature Arctic vegetation that is adapted to cold temperatures, short growing seasons, and permafrost soils. Species include Arctic willow, cotton grass, mosses, and lichens. These plants typically grow in the shallow surface layer of soil due to the presence of permafrost that limits deep root penetration.
- **Fish communities** – Species such as Arctic char (*Salvelinus alpinus*), capelin (*Mallotus villosus*), and sculpins (*Cottidae spp.*), which are exposed through direct contact with seawater and marine sediment, or freshwater and freshwater sediment.
- **Aquatic invertebrate communities** – Species including blue mussels, barnacles, sand worms, and sea stars, which are exposed to both seawater and marine sediment, and through their diet. Species of freshwater invertebrates mayflies, freshwater crustaceans such as Daphnia species, and various life stages of invertebrates such as mosquitoes.

4.2.2 Identification of Chemicals of Potential Concern

The second step of the problem formulation in the ERA involves identifying COPCs that may warrant further evaluation. Substances are carried forward for detailed assessment when predicted concentrations from Project activities are greater than health-based benchmarks or otherwise indicate a plausible potential for effects on ecological health. Where modelled concentrations are consistently below these benchmarks, the substance is considered to pose negligible risk. The screening process helps focus the ERA on pollutants with a plausible potential to affect ecological health.

It should be noted that, although human health assessments consider noise as a potential hazard to people, noise is not evaluated in ecological risk assessments, in accordance with federal guidance (CCME 2020; FCSAP 2025).

4.2.2.1 Air

During construction and operation, Project activities will produce air pollutants as discussed in Section 4.1.2.1. Air pollutants such as NO_2, SO_2, PM_{10}, and $PM_{2.5}$ were compared to health-based air quality guidelines to protect human health. These human health guidelines for inhalation exposure are not applicable to ecological receptors. However, the inhalation pathway for air pollutants is not commonly conducted in an ecological risk assessment.

For example, the FCSAP ERA guidance states that, “Inhalation exposure through wind-blown dust or inhalation of vapours can be a relevant pathway for some mammals, birds, reptiles, and amphibians. In practice, this pathway has not been commonly assessed, but may be required in some jurisdictions in future, and should be considered where the conceptual model indicates potential widespread exposure. For example, a site with high concentrations of volatile compounds and good small mammal habitat may warrant consideration of vapour inhalation. Inhalation toxicity data are currently lacking for most contaminants, but some jurisdictions are developing guidance and screening values for soil and vapour. In addition, because small mammals generally construct their burrows to allow for air flow, characterizing exposure may be challenging.” (FSCAP 2012).

The British Columbia ERA guidance states that, “The inhalation pathway of exposure is not usually evaluated for ecological receptors unless site-specific conditions indicate that the pathway can be considered the primary exposure route for a population of a species, or if an individual of a rare and endangered species frequents or resides (e.g., burrows, hibernates) at the site.” (BC MOECC 2023).

In the context of the Project, air pollutants are primarily those associated with fuel combustion from vehicles and equipment. NO_2 and SO_2 are gases, and not volatile chemicals that produce vapours in the soil. Project activities that emit air pollutants from fuel combustion are not anticipated to cause widespread contamination of the soil or atmosphere with volatile chemicals that could affect burrowing wildlife. As a result, the inhalation pathway is not considered a relevant exposure route for ecological receptors in this assessment.

There is also the potential for direct exposure of terrestrial vegetation to NO_2 and SO_2 via atmospheric uptake. Both gases can be absorbed through leaf stomata and, at elevated concentrations, may result in foliar injury or reduced plant growth. The Canadian Ambient Air Quality Standards (CAAQS) for annual average NO_2 (23 µg/m^3) and SO_2 (10.5 µg/m^3) are considered protective of plant community receptors and therefore provide an appropriate screening-level benchmark for plant exposure.

Guidelines from international sources further supports that concentrations near the CAAQS for NO_2 and SO_2 are protective of plant health. The UK Institute of Air Quality Management (IAQM, 2020) identifies a long-term annual average NO_2 concentration of 30 µg/m^3 as protective of all plants. For SO_2, an annual average concentration of 20 µg/m^3 is considered protective of all higher plants, with a more conservative criterion of 10 µg/m^3 applied to lichens and bryophytes (e.g., mosses, liverworts, and hornworts), which are more sensitive.

Based on the NO_2 isopleth map presented in Figure 4.3, modelled annual average NO_2 concentrations are expected to remain below the CAAQS annual average of 23 µg/m^3 outside of the PDA. In addition, the peak 24-hour SO_2 concentration is below the CAAQS annual average of 10.5 µg/m^3, indicating that the corresponding annual average SO_2 concentration would also be below this threshold.

Given that modelled NO_2 and SO_2 concentrations outside the PDA are below guideline values protective of plant community receptors, these parameters are not anticipated to result in ecological risk and are consequently not retained as COPCs for terrestrial vegetation.

4.2.2.2 Surface Water, Marine Water, Sediment, and Groundwater

Project activities consist primarily of road construction and low-frequency road use and do not include industrial processes or point-source effluent discharges that could introduce chemical contaminants into surface water, marine water, or groundwater. As such, the Project does not present a credible source of contaminants that could adversely affect surface water, marine water, sediment, or groundwater.

The Water Resources Valued Component (VC) assessment (Volume 7 – Freshwater Environment, Section 19 of the IS) did not identify Project-related chemical contamination of surface water or groundwater. Modelling of chemical contaminants in surface water and groundwater is not conducted as part of the Water Resources VC. Potential physical effects during construction and operation, such as dust deposition, erosion, and sediment mobilization, are addressed through standard mitigation measures, including erosion and sediment control practices, dust suppression, controlled material handling and water runoff management. These measures are commonly applied to road projects and are effective in limiting sediment and particulate inputs to streams, lakes, wetlands, and other aquatic habitats.

Based on this information, there are no COPCs identified in surface water, marine water, sediment, or groundwater.

4.2.2.3 Soil

Soil quality may be influenced when naturally occurring or anthropogenic substances, such as metals or hydrocarbons, are introduced or redistributed at levels that exceed natural background concentrations and reach a range of potential concern for ecological receptors. For transportation-related projects, potential contributors to soil constituents may include trace metals and residues associated with fuel combustion, brake and tire wear, and the disturbance and redeposition of road surface materials.

It is recognized that the operation of vehicles and equipment can contribute small quantities of metals and other substances to the environment. However, the relevance of these contributions to soil quality is dependent on the magnitude, frequency, and duration of activity, as well as the potential for substances to accumulate in soils over time.

For the Project, road use during the Operations and Maintenance phase will be limited to periodic, low-frequency maintenance activities, including inspections, snow clearing, grading, and minor repairs. Traffic volumes are expected to be low and intermittent compared to urban roadways and public highways. As a result, the quantities of vehicle-related residues generated are expected to be minimal and spatially dispersed along the road corridor, limiting the potential for localized accumulation in soil.

The Project does not include industrial processing activities or point-source discharges that could affect contaminants in soil. Construction and maintenance activities will be confined to the established road footprint, thereby minimizing disturbance to adjacent undisturbed soils and reducing the potential for off-road redistribution of particulates.

The low frequency and intensity of vehicle activity and the localized nature of dust deposition indicate that Project-related inputs are unlikely to increase soil constituent concentrations above natural background levels or applicable soil quality benchmarks for ecological receptors. Accordingly, no Project-related COPCs have been identified in soil for the purposes of the ERA.

4.2.2.4 Biota

Biota, including terrestrial and aquatic plants and animals, may represent a potential pathway for chemical exposure to ecological receptors through dietary intake if contaminants are present in the environmental media from which these organisms derive nutrients or water. The identification of COPC in biota is therefore contingent on the presence of Project-related contaminants in soil, surface water, sediment, or groundwater that could be taken up by plants or accumulated in animal tissues.

As described for the identification of COPCs in soil, water, sediment, and soil, Project activities are not expected to introduce COPCs into these environmental media.

In the absence of COPCs in the environmental media that support biological communities, there is no mechanism for chemicals to be transferred, accumulated, or biomagnified within plants or animals. As no COPCs were identified for soil, water, or sediment as discussed in the sections above, no COPCs are identified for biota.

4.2.3 Identification of Exposure Pathways and Conceptual Site Model

Identifying whether exposure pathways are complete or incomplete is essential for accurately evaluating potential ecological risks from COPC exposure. An exposure pathway consists of a contaminant source, a mechanism for release, a transport medium (e.g., air, soil, water), a point of potential contact, and an exposure (such as ingestion or direct environmental media exposure) relevant to ecological receptors. In practical terms, a pathway is considered operable only when a COPC is present at concentrations of potential concern, an ecological receptor is present, and a plausible mechanism exists for the receptor to be exposed to the COPC. If one or more components are absent (i.e., no COPC, no ecological receptor, no exposure), the pathway is inoperable, and no unacceptable ecological risk is expected through that pathway.

Distinguishing between operable and inoperable pathways focuses the ecological risk assessment on realistic scenarios where exposure could occur. This approach improves the risk evaluations by directing resources toward mitigating genuine ecological risks. Identifying inoperable pathways clarifies the limits of potential contamination, reducing unnecessary concern and supporting effective risk communication. By systematically assessing each exposure pathway, ecological risk assessors can provide more reliable conclusions that inform risk management decisions and regulatory actions.

Exposure pathways considered in the ERA problem formulation are summarised in Table 4.4. The summary table indicates that no COPCs were identified in the environmental media. As a result, this component of risk is absent for every exposure pathway considered, and none of the pathways meet the criteria to be an operable exposure pathway. Accordingly, every considered exposure pathway is inoperable for the purposes of the ERA.

Table 4.4 Exposure Pathways for the Grays Bay Port and Road Ecological Risk Assessment

Exposure Pathway	Operable or Inoperable Pathway	Rationale
Inhalation of Air	Inoperable	The inhalation exposure pathway is generally not evaluated for wildlife. This is primarily because inhalation toxicity data for most pollutants are limited or unavailable for many species of ecological receptors, and standardized guidance for assessing inhalation exposure in wildlife is lacking (FCSAP 2012). Inhalation exposures may be considered if Project activities were associated with widespread contamination with volatile chemicals, but the construction and operation of the Project is not associated with widespread contamination from these chemicals. Therefore, the air inhalation pathway is an inoperable pathway.
Soil Ingestion	Inoperable	Soil ingestion is an important dietary component for many ecological receptors including herbivores and ungulates. Direct ingestion of soil provides essential minerals such as sodium, calcium, iron, and zinc to supplement diets that are naturally low in mineral content. Incidental soil ingestion may occur through the ingestion of food items. Examples include soil bound to browse, forage and root vegetation when consumed by herbivores, or soil bound to prey items on the ground. Incidental soil ingestion may also occur through grooming activities. However, as there are no COPCs identified in soil, the ingestion of soil does not constitute a potential source of exposure for wildlife. Therefore, the soil ingestion pathway is an inoperable pathway.
Soil Contact	Inoperable	Direct contact with soil is the primary exposure pathway for soil invertebrates and plants as well as reptiles and amphibians (FCSAP 2012). Direct (dermal) contact with soil could be a potential exposure pathway for mammals and birds, although it is not expected to represent a major source of exposure for most mammalian and avian receptors because fur and feathers will substantially reduce soil contact with skin as per Sample et al. (1997) and BC MOECC (2023). However, as there are no COPCs identified in soil, contact with soil does not constitute a potential source of exposure for wildlife. Therefore, the soil contact pathway is an inoperable pathway.
Groundwater Contact	Inoperable	Soil invertebrate communities and terrestrial plant communities can be exposed to COPCs in groundwater through direct contact or ingestion of porewater, and in the case of plants, root uptake. However, no COPCs were identified in groundwater. Therefore, groundwater contact does not constitute a potential source of exposure for wildlife. The groundwater contact pathway is an inoperable pathway.
Contact with Surface Water and Seawater	Inoperable	Direct contact with surface water is an exposure pathway for fish communities and aquatic invertebrate communities. Aquatic organisms may be exposed to COPCs dissolved in the water column through dermal absorption across gills, skin, or other tissues. However, no COPCs were identified in surface water and seawater. Therefore, surface water and seawater contact does not constitute a potential source of exposure for wildlife. Contact with surface water and seawater is an inoperable pathway.

Exposure Pathway	Operable or Inoperable Pathway	Rationale
Ingestion of Surface Water	Inoperable	The ingestion of surface water containing COPCs can be an exposure pathway for wildlife, including terrestrial mammals, birds, and other animals that drink from lakes, ponds, streams, or wetlands as part of their normal behaviour. Exposure may occur through the direct consumption of contaminated water, incidental ingestion during foraging, or ingestion of water while feeding on aquatic or semi-aquatic prey, allowing dissolved or suspended contaminants to enter the body. However, no COPCs were identified in surface water. Therefore, the surface water ingestion pathway does not constitute a potential source of exposure for wildlife. The ingestion of surface water pathway is an inoperable pathway.
Direct Contact with Sediment	Inoperable	Benthic invertebrates inhabit, or are closely associated with, marine and freshwater sediments for most or all of their life cycle. As a result, direct contact with sediment is the primary exposure pathway for aquatic invertebrate communities, occurring through continual physical contact with sediment particles, exposure to sediment porewater. However, no COPCs were identified in sediment. Therefore, direct contact with sediments do not constitute a potential source of exposure for wildlife. The direct contact with sediment pathway is an inoperable pathway.
Ingestion of Sediment	Inoperable	Ecological receptors that consume aquatic plants and benthic invertebrates in freshwater and marine environments may also be exposed to COPCs through the incidental ingestion of sediment. Sediment ingestion can occur during feeding when fine sediment particles are ingested along with prey or vegetation, as well as through normal behaviours such as grooming, preening, and the construction of nests or dens in or near aquatic environments. This pathway can be relevant for contaminants that preferentially bind to sediment particles and may be released during digestion. However, no COPCs were identified in sediment. Therefore, ingestion of sediment does not constitute a potential source of exposure for wildlife. The ingestion of sediment pathway is an inoperable pathway.
Ingestion of Terrestrial Foods	Inoperable	The consumption of terrestrial foods, including terrestrial plants, terrestrial invertebrates, and terrestrial prey species, can be an exposure pathway for mammals, birds, and other wildlife. Exposure may occur through the ingestion of contaminants that have accumulated in vegetation or in prey species through food-web transfer and biomagnification. However, no COPCs identified in biota. Therefore, ingestion of terrestrial foods does not constitute a potential source of exposure for wildlife. The ingestion of terrestrial foods pathway is an inoperable pathway.
Ingestion of Aquatic Foods	Inoperable	The ingestion of aquatic foods, including aquatic plants, aquatic invertebrates, and fish, could be an exposure pathway for wildlife such as mammals, birds and other wildlife that forage in freshwater or marine environments. Exposure may occur through the consumption of prey or vegetation that has accumulated contaminants from surface water, sediment, or porewater, allowing contaminants to be transferred through the aquatic food web. However, no COPCs identified in biota. Therefore, ingestion of aquatic foods does not constitute a potential source of exposure for wildlife. The ingestion of aquatic foods pathway is an inoperable pathway.

5 Toxicity Assessment

The primary purpose of a toxicity assessment is to characterize the relationship between the dose or exposure concentration of a substance and the likelihood of negative health outcomes. This helps determine the level of exposure that is considered safe or poses an acceptable risk, guiding regulatory and public health decisions.

A key component of a toxicity assessment is the establishment of TRVs. These values serve as benchmarks for assessing receptor exposure to COPCs. In an HHRA, TRVs indicate the maximum amount of a chemical that a person can be exposed to without experiencing harmful health effects, typically over a specific period. Toxicological reference values come from several authoritative sources, including Health Canada, the United States Environmental Protection Agency, and the World Health Organization. Each of these agencies follows rigorous scientific processes to develop and update these values.

TRVs are designed to protect the most vulnerable groups within the population, including children, pregnant women, the elderly, and individuals with pre-existing health conditions. The use of TRVs in human health risk assessments allows scientists and public health officials to estimate the potential risks associated with chemical exposures accurately. By comparing estimated exposure levels with TRVs, risk assessors can determine whether existing exposures are within safe limits or if regulatory actions are necessary to protect public health.

As there were no complete exposure pathways for ecological receptors, TRVs for ecological receptors were not necessary.

5.1 Air Pollutant Exposure Benchmarks

5.1.1 Nitrogen Dioxide

NO_2 is an orange-reddish gas produced primarily through combustion processes, such as vehicle exhaust, the burning of fossil fuels (coal, oil, natural gas), and fires. Although it has a pungent and irritating odour at high concentrations, NO_2 is generally invisible at the low ambient concentrations typically found outdoors. In the atmosphere, most NO_2 is formed by the oxidation of nitric oxide. Natural sources include forest fires, lightning strikes, and anaerobic processes while anthropogenic sources include fossil fuel combustion including coal, oil, gasoline, diesel, and natural gas (ATSDR 2002).

Inhalation of NO_2 can affect the respiratory system because the gas reacts with moisture in the mucous membranes of the eyes, nose, throat, and lungs to form nitric acid. At low ambient concentrations, this can cause minor irritation of the respiratory tract and eyes. Higher exposures can lead to more noticeable effects, including shortness of breath, fluid accumulation in the lungs (after one or two days of exposure), fatigue, and nausea (ATSDR 2002). Health-sensitive populations, such as children, older adults, and people with pre-existing respiratory conditions, are more likely to experience these effects, whereas healthy individuals may remain largely unaffected at typical ambient concentrations.

Health Canada's review of the scientific literature concludes that NO_2 has non-threshold health effects, meaning that any exposure carries some degree of risk. At low concentrations, the magnitude of risk is small, but as concentrations and exposure duration increase, a broader range of individuals, including healthy adults, may experience adverse effects. The World Health Organization notes that there is no clearly defined concentration-response relationship for NO_2, which presents challenges for risk assessment and the estimation of incremental health risks from modelled or measured concentrations.

Controlled human exposure studies indicate that short-term (1-hour) exposures can induce airway hyper-responsiveness in asthmatic adults at concentrations of 188 $\mu g/m^3$ (100 ppb), with most studies showing effects around 564 $\mu g/m^3$ (300 ppb) or higher. While Health Canada does not provide discrete health endpoints for 24-hour average concentrations, epidemiological evidence suggests that risks increase approximately linearly with concentration. For example, Zheng *et al.* (2021) reported a relative risk of 1.014 (1.4% increase over background) for asthma-related emergency room visits or hospital admissions per 10 $\mu g/m^3$ increase in 24-hour NO_2 concentrations.

To put this into perspective, Lee *et al.* (2022) reported national adult asthma-related hospital admission rates of 25 per 100,000 for females and 11 per 100,000 for males in 2017. Assuming an equal ratio of adult males and females, the combined rate is approximately 18 per 100,000 people, or one admission per 5,555 people annually. Applying this to the Grays Bay Port accommodation camp population of 80 permanent workers, the expected baseline number of asthma-related hospital admissions is roughly 0.014 per year, or one admission every 70 years.

For long-term exposure to NO_2, epidemiological studies reviewed by the WHO indicates that chronic exposure is associated with increased risk of all-cause mortality, as well as respiratory morbidity, airway inflammation, reduced lung function, and the development or exacerbation of asthma. The WHO AQG identifies a concentration-response relationship above the annual average guideline of 10 $\mu g/m^3$, with a relative risk of 1.02 per additional 10 $\mu g/m^3$ for all-cause mortality. This implies that an annual average NO_2 concentration of 30 $\mu g/m^3$ would be associated with an approximate 4% increase in all-cause mortality risk relative to baseline.

5.1.2 Fine Particulate Matter

$PM_{2.5}$ consists of fine particles that can penetrate deep into the lungs and alveoli, where the body has limited ability to remove them. $PM_{2.5}$ is primarily generated through combustion processes, including vehicle exhaust, industrial activities, and fires. Tobacco smoke is another notable source: for example, cigarette smoke contains more than 1,000 $\mu g/m^3$ of $PM_{2.5}$ (Braun et al., 2019). A single cigarette per day is roughly equivalent to a 24-hour inhalation exposure of 22 $\mu g/m^3$ of $PM_{2.5}$.

Particulate matter is a complex mixture of solid and liquid particles, including sulfates, nitrates, ammonia, sodium chloride, black carbon, mineral dust, and trace metals. Although its chemical composition varies, $PM_{2.5}$ is defined primarily by particle size rather than composition. This complexity makes it difficult to separate health effects caused by the physical presence of the particle from those caused by its chemical components.

Health Canada recognizes $PM_{2.5}$ as a non-threshold contaminant, meaning that there is no exposure level at which the risk of adverse health effects is considered zero. Even at low ambient concentrations, exposure to $PM_{2.5}$ carries some degree of risk, particularly with sensitive populations such as children, seniors, and individuals with pre-existing cardiovascular or respiratory conditions. At low concentrations, health effects are generally mild, such as temporary irritation of the airways, coughing, or slight reductions in lung function. As concentrations and exposure durations increase, a wider range of individuals may be affected, and the severity of effects can also increase, including exacerbation of asthma, decreased lung function, and increased risk of cardiovascular events.

Health Canada has reviewed the scientific literature on $PM_{2.5}$ and its health effects (Health Canada 2014). Evidence shows that exposure to $PM_{2.5}$ is associated with a wide range of health outcomes, including premature death among people with heart or lung disease, non-fatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as airway irritation, coughing, and difficulty breathing. Sensitive populations, including children, older adults, and people with pre-existing cardiovascular or respiratory conditions, are most likely to be affected. $PM_{2.5}$ is considered a non-threshold contaminant, meaning that adverse health effects may occur at any exposure concentration, although the magnitude of risk increases with concentration and duration of exposure. In addition, $PM_{2.5}$ is classified as a Group 1 carcinogen by the International Agency for Research on Cancer, indicating it has the potential to cause cancer following long-term exposure.

The WHO AQG for 24-hour $PM_{2.5}$ is 15 $\mu g/m^3$, based on evidence linking short-term exposures to increases in all-cause, non-accidental mortality, with particularly prominent effects on respiratory and cardiovascular mortality (WHO, 2021). This guideline provides a benchmark for assessing potential health risks associated with $PM_{2.5}$ in ambient air.

5.2 Noise Exposure Benchmarks

5.2.1 Annoyance Rates

The effect of noise on human health varies by individual and their environmental setting. For example, people living in rural or remote areas could be considered to have a greater expectation of peace and quiet relative to people living in densely populated urban cities or off-duty Project workers living at the accommodation camps. Health Canada considers a quiet rural area to be an area with a L_{dn} of 45 dBA or less due to human-made sounds. People living in urban areas may be acclimated to the higher levels of noise throughout the day and are therefore less susceptible to being annoyed by noises that would affect a person from a rural setting. This means that the assessment examines the potential for Project-related noise to increase annoyance rates relative to the noise levels that people are already used to.

The Health Canada noise guidance uses the % Highly Annoyed (%HA) metric to characterize annoyance due to noise effects for activities with a duration of more than 12 months (Health Canada 2023c). This means that the %HA metric generally does not apply to transient land users and traditional country food harvesters who may be near the Project for days to weeks at a time. Transient land users and traditional country food harvesters have the option of moving away from the source of the noise whereas people living in a residence cannot. It is also understood that people are generally more tolerant of loud noises if they are expected to take place only for a short duration (e.g., hours to days), whereas the same noise may not be tolerable if expected to last for a long duration (e.g., years). Transient land users and

traditional country food harvesters near the Project are anticipated to experience noise only for a short period during their time in the area, and these brief exposures are considered to fall within reasonable expectations and tolerable limits.

Since there is currently no accommodation camp at the location of Grays Bay or Jericho Station, there is no existing residential population for which a baseline %HA can be calculated. As a result, it is not possible to directly compare an existing %HA to a %HA during construction or operations. For the purposes of the assessment, the analysis assumes that the accommodation camps already exist in order to establish a hypothetical baseline %HA at those locations. Health Canada's noise guidance recommends that the highest acceptable increase in %HA is 6.5%. If the change is greater than 6.5%, additional mitigation measures may be required.

The %HA was used to characterize the construction and operation noise effect based on the following formula:

$$\%HA = \frac{100}{1+e^{[10.4-0.132*Ldn]}}$$

To simplify the use of the %HA formula above, the %HA attributed to various noise levels at 1 dBA increments beginning at 40 dBA is provided in Table 5.1. The %HA is calculated for baseline, construction phase, and operation phase noise levels.

The change in %HA is the difference between the %HA during construction or operation relative to the baseline case. For example, if the baseline to operation noise level increases from 50 dBA (%HA = 2.2%) to 65 dBA (%HA = 13.9%), then the change in %HA is 11.7%. Note that a noise level of 58.6 dBA corresponds to a total %HA of 6.5%. This means that a minimum noise level of 58.6 dBA would be required for a significant increase in the annoyance rate.

Table 5.1 Percent Highly Annoyed (%HA) Scale Relative to Noise Level

Noise Level (dBA)	Percent Highly Annoyed (%HA)	Noise Level (dBA)	Percent Highly Annoyed (%HA)	Noise Level (dBA)	Percent Highly Annoyed (%HA)
40	0.6	51	2.5	61	8.7
41	0.7	52	2.8	62	9.8
42	0.8	53	3.2	63	11.1
43	0.9	54	3.7	64	12.4
44	1.0	55	4.1	65	13.9
45	1.1	56	4.7	66	15.6
46	1.3	57	5.3	67	17.4
47	1.5	58	6.0	68	19.4
48	1.7	58.6	6.5	69	21.6
49	1.9	59	6.8	70	23.9
50	2.2	60	7.7	71	26.3

5.2.2 Sleep Disturbance

Sleep disturbance includes: difficulty falling asleep, reduced sleep duration, alteration of sleep stages or sleep depth, and increased body movements during sleep. The effects of sleep disturbance include increased fatigue, irritability, and reduced concentration and performance. Prolonged sleep disturbance has been linked to effects to physiological health (e.g., cardiovascular effects), mental health, and increased numbers of accidents (Health Canada 2023c).

The likelihood of sleep disturbance increases with noise levels. The WHO's Guidelines for Community Noise (WHO 1999) recommends the following sleep disturbance thresholds based on indoor sound levels:

- A continuous average indoor sound level (L_n) of no more than 30 dBA during the sleep period.
- A maximum intermittent indoor sound level (L_{MAX}) of 45 dBA that should not be exceeded more than 15 times per night.

However, since Project noise is generated outdoors, the predicted outdoor sound level must be converted to indoor sound levels. Health Canada's recommends the application of an outdoor-to-indoor noise transmission loss with windows partially open or fully closed. A partially open window is assumed to reduce outdoor noise levels by 15 dBA, while a fully closed window is assumed to reduce outdoor noise levels by 27 dBA (Health Canada 2023c). The noise transmission loss of 27 dBA was applied, assuming rooms in the accommodation camps have either have no windows, of that they would be closed at night due to the frequent sub-zero temperatures at night.

Based on this outdoor-to-indoor noise conversion with windows partially open at night, the outdoor noise benchmarks for human health are:

- A continuous average outdoor sound level (L_n) of no more than 45 dBA (per night) during the sleep period.
- A maximum intermittent outdoor sound level (L_{MAX}) of 60 dBA that should not be exceeded more than 15 times per night.

The WHO's Guidelines for Community Noise (WHO 2009) also provides a more conservative continuous average outdoor sound level of no more than 40 dBA (annual average) during the sleep period that is intended to protect the public, including the most vulnerable groups, from adverse health effects associated with sleep disturbance due to nighttime noise. Since vulnerable groups are not expected to be present at the accommodation camps, the continuous average outdoor sound level threshold of 45 dBA will apply.

6 Exposure Assessment

The exposure assessment characterizes the COPC concentrations and noise levels in their respective model domains. The COPC concentrations and noise levels are provided in tabular format at the applicable human receptor locations. The results of the exposure assessment are compared with the TRVs and hazard thresholds described in the toxicity assessment (Section 5) to characterize the potential effects to human health.

6.1 Air Quality

To characterize the exposure concentrations of NO_2 and $PM_{2.5}$ for off-duty workers residing at the Project accommodation camps, 24-hour average concentrations within the PDA are shown in Table 6.1 based on the modelled frequency that they are expected to take place over a year. At locations beyond the PDA, exposure concentrations are substantially lower, both in magnitude and frequency, as previously illustrated in the isopleth maps in Figure 4.3 and Figure 4.4. The percentile-based analysis provides an indication of how often NO_2 and $PM_{2.5}$ may be above the WHO AQG at the Grays Bay Port accommodation camp over the course of a year. For example, in Table 6.1, the 90th percentile for 24-hour $PM_{2.5}$ during construction is 5.6 µg/m^3. This indicates that at least 37 days of the year are modelled to have a 24-hour $PM_{2.5}$ concentration of at least 5.6 µg/m^3. Baseline contributions are separate, and added to the modelled concentrations associated with the Project (Project-Alone concentrations). When the sum of the Project-Alone and baseline concentration is above the WHO AQG, the value is shown in bold underline.

For $PM_{2.5}$, the results show that the 24-hour average concentrations from Project emissions within the PDA are predicted to be less than the WHO AQG of 15 µg/m^3 during the year. However, when the baseline $PM_{2.5}$ concentration of 2 µg/m^3 is added, there may be several days per year where the $PM_{2.5}$ concentration reaches the WHO AQG. This indicates that during construction, elevated $PM_{2.5}$ levels are infrequent and limited to short durations. During Operation and Maintenance, 24-hour $PM_{2.5}$ concentrations are expected to remain below the WHO AQG.

In contrast, 24-hour NO_2 concentrations within the PDA are above the WHO AQG of 25 µg/m^3 more frequently. During the Construction phase, combined Project-related and baseline NO_2 concentrations are greater than the WHO AQG for approximately 40% of the year (up to 146 days of the year), reflecting the higher exposure concentrations expected at locations in proximity to Project emission sources. During the Operation and Maintenance phase, elevated 24-hour NO_2 concentrations occur on approximately 73 days of the year, consistent with the expectation of lower risks during operations.

For long-term exposure at the Grays Bay Port accommodation camp, annual average COPC concentrations (Project-Alone plus baseline) identified during screening in Table 4.2 were:

- Annual average NO_2 = 30.2 µg/m^3, relative to the annual average WHO AQG of 10 µg/m^3
- Annual average $PM_{2.5}$ = 4.7 µg/m^3, relative to the annual average WHO AQG of 5 µg/m^3

However, it is important to note that chronic exposure to annual average COPC concentrations is not expected to occur for off-duty workers at the Grays Bay and Jericho Station accommodation camps. The accommodation camps do not represent permanent residential settings, and workers are present only for the duration of their assigned shifts, or their work or trade rotation schedules. Workers may reside at the camps for several weeks or months at a time before returning to their primary residences, resulting in intermittent rather than continuous, year-round exposure. As a result, the exposure assessment and subsequent risk characterization focuses on short-term 24-hour average exposure.

Table 6.1 Project-Alone 24-hour NO_2 and $PM_{2.5}$ Concentrations at Grays Bay Port Accommodation Camp

Percentile of the Year	N^{th} Highest of 365 Days	Project-Alone COPC Concentration (µg/m³)			
		Construction		Operations and Maintenance	
		NO_2	$PM_{2.5}$	NO_2	$PM_{2.5}$
99	4	**94.0**	**14.7**	**85**	2.3
98	7	**84.2**	11.8	**75**	1.8
97	11	**79.1**	10.4	**68**	1.7
96	15	**74.4**	9.5	**64**	1.6
95	18	**68.2**	8.5	**57**	1.5
90	37	**51.7**	5.6	**38**	1.2
85	55	**41.7**	4.4	**28**	1.0
80	73	**34.9**	3.5	**21**	0.8
75	91	**30.1**	3.0	16	0.8
70	110	**25.9**	2.5	11	0.7
65	128	**22.8**	2.2	9	0.6
60	146	**20.2**	2.0	7	0.5
55	164	18.2	1.8	6	0.5
50	183	16.7	1.6	5	0.4

Notes:
Bold underline indicate the total concentration (Project-Alone + Baseline) is above the WHO AQG.
WHO AQG for 24-hour NO_2 = 25 µg/m³; Baseline NO_2 = 6 µg/m³
WHO AQG for 24-hour $PM_{2.5}$ = 15 µg/m³; Baseline $PM_{2.5}$ = 2 µg/m³

6.2 Noise Levels

The noise levels for the baseline, construction, and operation phases are presented in Table 6.2. At each human receptor location, the daytime (L_d), nighttime (L_n), day-night average (L_{dn}), and maximum (L_{MAX}) sound levels are presented. Baseline noise levels are not shown for the exploration camps because baseline monitoring was not conducted at those locations. However, baseline noise levels at the exploration camps may be assumed to be similar to baseline noise at Grays Bay and Jericho Station. The Noise and Vibration VC noted that daytime blasting activities are typically associated with intermittent maximum noise levels (L_{MAX}) that could disturb sleep for night-shift workers resting during the daytime. However, the High Lake and Ulu mining exploration camps are located approximately 43 km and 100 km from the blasting areas. At these distances, blasting noise would be inaudible and therefore would not contribute to maximum noise levels at the camps. Accordingly, L_{MAX} is not presented for the mining exploration camps. Project-related noises at these camps are associated with infrequent road traffic rather than intermittent loud events.

For acoustic isopleth maps that show the geographical distribution of noise levels relative to the PDA and human receptor locations, refer to Appendix 13B (Noise and Vibration Technical Modelling Report). Note that baseline noise monitoring data was not available for the Ulu Gold Project and High Lake Project exploration camp.

Noise levels were modelled for both the construction and operation phases of the Project. For construction, Year 2 was selected because it represents the period with the greatest noise-generating potential. This year includes the highest level of concurrent heavy equipment use, resulting in the highest modelled sound levels. Consequently, the construction-phase noise results reflect the maximum expected noise levels, with all other years having lower noise levels. For the Operation and Maintenance phase, noise modelling was based on the equipment required and assumed a similar degree of activity from year to year.

Table 6.2 Baseline and Modelled Noise Levels at Human Receptor Locations

Human Receptor Location	Noise Levels (dBA)										
	Baseline (w/ wind)			Construction				Operations			
	L_d	L_n	L_{dn}	L_d	L_n	L_{dn}	L_{MAX}	L_d	L_n	L_{dn}	L_{MAX}
Grays Bay Accommodation Camp	43.5	40.3	47.3	49.8	49.0	55.6	55.9	49.4	49.4	55.8	54.8
Jericho Bay Accommodation Camp	36.0	36.9	43.2	40.0	39.0	45.5	52.9	44.0	36.4	45.1	52.9
Ulu Gold Exploration Camp	-	-	-	48.6	48.6	55.0	-	48.6	48.6	55.0	-
High Lake Exploration Camp	-	-	-	48.6	48.6	55.0	-	48.6	48.6	55.0	-

7 Risk Characterization

The risk characterization is the final step of the HHRA that integrates information from the toxicity assessment and exposure assessment stages to estimate the potential health risks from exposure to COPCs and hazards. The primary purpose of risk characterization is to provide a clear and comprehensive summary of the nature and magnitude of the health risks to exposed populations, supporting informed decision-making for public health protection and regulatory actions.

7.1 Air Pollutants

7.1.1 Nitrogen Dioxide

Short-term Exposure

Table 6.1 in the exposure assessment indicates that 24-hour NO_2 concentrations may be greater than the WHO AQG (15 µg/m^3) for up to 128 days per year during the Construction phase and up to 73 days per year during the Operation and Maintenance phase, with concentrations ranging from approximately 25 µg/m^3 to 100 µg/m^3. These modelled exposures represent upper-bound estimates for the defined worst-case scenario and are likely conservative. Both the magnitude and frequency of these events are likely overestimated due to conservative assumptions in the modelling, including the assumption that all equipment and vehicles operate continuously (24 hours per day), and that construction of the road section adjacent to Grays Bay occurs for the full 5-year construction period.

Evidence from both controlled human exposure studies and observational epidemiological studies indicates that 24-hour NO_2 concentrations in the range of approximately 25 to 100 µg/m^3 can lead to mild, individual-level respiratory responses in sensitive people. Observed effects include airway irritation (cough, throat irritation), wheezing, shortness of breath, and mild increases in airway hyperresponsiveness. These responses are generally transient, reversible, and do not require hospitalization, and they do not represent chronic disease endpoints. Studies of children and adults consistently show that these effects are more likely in sensitive age groups (i.e., children and seniors) or individuals with pre-existing respiratory conditions, whereas healthy adults without respiratory conditions typically do not experience noticeable effects at these concentrations (Health Canada 2016b; Latza et. Al. 2009; Hansel et al., 2003).

For the population at the Grays Bay Port accommodation camp, modelled 24-hour average NO_2 concentrations associated with Project operations fall within or below the 25 - 100 µg/m^3 range. This suggests that some low-grade respiratory effects could occur among health-sensitive workers with pre-existing respiratory conditions, such as mild airway irritation, coughing, or shortness of breath. It is important to note that adult workers without pre-existing respiratory conditions are unlikely to experience these effects, and there are no children or seniors residing at the accommodation camp.

In the broader context of the camp population, workers are likely to experience higher NO_2 exposures during on-duty periods, when they are located closer to emission sources such as construction equipment and vehicles. These occupational exposures are assessed separately under occupational health frameworks, which consider higher acceptable exposure levels and specific mitigation measures for

workers. The HHRA focuses on non-occupational exposures during off-duty periods, when workers are primarily at the accommodation camp. At these times, NO_2 concentrations are generally lower and resulting respiratory effects are expected to be mild, reversible, and transient, primarily affecting only the small subset of workers who are particularly sensitive to respiratory irritants. This assessment aligns with the conservative, upper-bound nature of the modelled concentrations, emphasizing that even under worst-case emission scenarios, significant adverse effects on the majority of the population are not anticipated.

Long-term Exposure

NO_2 is recognized as a non-threshold air pollutant, meaning that adverse health effects may occur at any level of exposure, with risk increasing continuously as concentrations increase. Consequently, there is no exposure level below which health effects can be assumed to be absent. Long-term exposure to NO_2 is typically evaluated using epidemiological metrics that estimate an increase in relative risk of all-cause mortality associated with continuous, year-round exposure to annual average NO_2 concentrations.

However, the human receptor population at the Grays Bay Port accommodation camp is not expected to experience continuous, year-long exposure. Workers at the accommodation camp are expected to be present on a rotational basis, with schedules varying according to trade-specific demands during construction and operation.

As a result, actual exposure durations for individual workers are expected to be substantially shorter than year-round. While it may be assumed, for illustrative purposes, that workers are living at the accommodation camp permanently, this would overestimate the actual exposure for any individual. In practice, workers are likely to be present only for discrete periods ranging from several weeks to a few months before returning to their home communities. This introduces uncertainty in estimating long-term or chronic exposure effects, as it is unlikely that any worker would be continuously present for an entire calendar year at the modelled concentrations. In addition, air quality model assumptions, such as continuous operation of all vehicles and equipment and continuous construction of the road segment adjacent to Grays Bay, further overestimate the annual average NO_2 concentrations. Consequently, estimates of long-term NO_2 exposure are likely conservative relative to actual worker experience.

Additionally, the Construction phase is limited to five years in duration, further constraining the potential for long-term exposure. During the Operations and Maintenance phase, Project-related emissions are lower, and the resulting annual average NO_2 concentrations are correspondingly reduced. Together, the limited duration of the Construction phase, lower operational emissions, and rotational workforce patterns indicate that the potential for sustained, long-term NO_2 exposure is low, and that any estimated chronic health risks are likely conservative.

Overall, the findings suggest that short-term NO_2 exposures at the accommodation camp may result in mild, transient respiratory effects for sensitive individuals, but these effects are not expected to result in hospitalizations or long-term health outcomes. For long-term exposures, individual workers are not expected to experience continuous, year-round exposure. Therefore, the short-term 24-hour average exposure is considered the relevant metric for assessing potential health effects. For healthy adults, including the majority of camp residents, no adverse respiratory effects are anticipated under the modelled exposure scenarios.

7.1.2 Fine Particulate Matter

Short-term Exposure

Table 6.1 of the exposure assessment indicates that modelled 24-hour average $PM_{2.5}$ concentrations at the Grays Bay Port accommodation camp are predicted to be above the WHO AQG of 15 µg/m^3 for about 4 days per year. For approximately 98% of the year, concentrations remain below the WHO AQG. Considering the conservative nature of the air quality modelling and the assumptions that overestimate both the magnitude and frequency of $PM_{2.5}$ emissions, the number of days at or near the WHO AQG is likely overestimated. Based on the WHO's definition of its AQG where, *"adverse health effects do not occur or are minimal below this concentration level"*, exposure to $PM_{2.5}$ likely carries a minimal but non-zero health risk.

At the modelled concentrations, some low-grade respiratory effects could occur among health-sensitive individuals for several days a year. Observed effects from epidemiological and controlled studies include mild airway irritation, coughing, wheezing, and temporary decreases in lung function (Health Canada 2014, WHO 2021). These effects are generally transient, reversible, and do not require hospitalization, and they do not represent chronic disease endpoints. Because the accommodation camp population consists of adult workers (not health-sensitive individuals), these individuals are unlikely to experience noticeable adverse effects at the modelled concentrations.

In the broader context of the camp population, any low-grade effects are limited to health-sensitive individuals and would occur only during off-duty periods, when workers are at the accommodation camp. During working hours, workers may experience higher $PM_{2.5}$ exposures near emission sources, which are managed under occupational health frameworks. Overall, the modelled short-term $PM_{2.5}$ exposures at the camp are unlikely to result in meaningful adverse health effects, including respiratory morbidity or long-term outcomes such as cardiovascular disease or cancer, particularly given the conservative, upper-bound assumptions of the model.

Long-term Exposure

Overall, individual workers are not expected to experience continuous, year-round exposure to the modelled annual average $PM_{2.5}$ concentrations due to their work rotation schedules. During both the Construction and Operations and Maintenance phases, the annual average $PM_{2.5}$ concentration at the accommodation camp is below the WHO Air Quality Guideline of 5 µg/m^3, which represents the concentration above which the guideline development group is confident that health effects occur. Given that annual average concentrations remain below this level and that workers are present on a rotational basis rather than year-round, long-term exposure risks are negligible.

Therefore, the short-term 24-hour average exposure is considered the relevant metric for assessing potential health effects.

7.2 Noise Levels

7.2.1 Annoyance Rates

A summary of the modelled day-night noise levels and %HA rates for the Construction and Operation and Maintenance phases is presented in Table 7.1. For the Ulu Gold and High Lake exploration camps, modelled noise levels at 1 km from the road were applied as the representative noise level.

The results show small increases in noise that lead to negligible changes in the %HA at the four human receptor locations. All changes in %HA remain below the +6.5% annoyance threshold. This indicates a negligible annoyance risk to off-duty workers residing at the accommodation camps at Grays Bay Port and Jericho Station, and to people using the Ulu Gold and High Lake exploration camps.

Table 7.1 Noise Levels and Annoyance Rates

	Noise Levels and Annoyance Rates							
	Baseline (w/ wind)		Construction			Operation and Maintenance		
Human Receptor Location	L_{dn} (dBA)	%HA	L_{dn} (dBA)	%HA	Change in %HA	L_{dn} (dBA)	%HA	Change in %HA
Grays Bay Port Camp	47.3	1.5%	55.6	4.5%	+ 3.0%	55.8	4.6%	+ 3.1%
Jericho Station Camp	43.2	0.9%	45.5	1.2%	+ 0.3%	45.1	1.2%	+ 0.3%
Ulu Gold Camp	-	-	45.9	1.3%	+ 1.3%	44.9	1.1%	+ 1.1%
High Lake Camp	-	-	46.2	1.3%	+ 1.3%	44.9	1.1%	+ 1.1%

Note:
Annoyance threshold for Change in %HA is +6.5%

7.2.2 Sleep Disturbance

For potential sleep disturbance effects during the Construction and Operation and Maintenance phases, the average daytime and nighttime noise levels were modelled at each human receptor location. The higher of the two values was selected as the representative noise level and compared to the sleep disturbance threshold. Daytime and nighttime noise levels are applicable because construction and operation activities are expected 24 hours per day, meaning that night-shift workers will be sleeping during daytime hours.

The modelled results are presented in Table 7.2 and include both outdoor noise levels and indoor levels after applying a 27 dB outdoor-to-indoor transmission loss. This transmission loss reflects the assumption that accommodation camp room windows remain closed to maintain comfortable temperatures. The resulting indoor noise levels at the four human receptor locations are below the 30 dBA sleep disturbance threshold. Maximum noise levels are also expected to remain below the 60 dBA threshold, indicating no potential for this limit to be exceeded more than 15 during the sleep period.

Overall, the modelled indoor and maximum noise levels remain below the established sleep disturbance thresholds, indicating that the Project is not expected to cause sleep-related effects at the four human receptor locations.

Table 7.2 Noise Levels and Sleep Disturbance

Human Receptor Location	Noise Levels (dBA)					
	Outdoor		Outdoor to Indoor Transmission Loss (dB)	Indoor		
	L_d or L_n (dBA)	L_{MAX} (dBA)		L_d or L_n (dBA)	L_{MAX} (dBA)	Exceed Sleep Disturbance Limits
Construction						
Grays Bay Port Camp	49.8	55.9	27	22.8	28.9	No
Jericho Station Camp	47.2	52.9	27	20.2	25.9	No
Ulu Gold Camp	40.1	41.8	27	13.1	14.8	No
High Lake Camp	31.8	38.8	27	4.8	11.8	No
Operation and Maintenance						
Grays Bay Port Camp	49.4	54.8	27	22.4	27.8	No
Jericho Station Camp	36.4	52.9	27	9.4	25.9	No
Ulu Gold Camp	37.0	41.1	27	10.0	14.1	No
High Lake Camp	28.4	36.0	27	1.4	19.0	No

Notes:
Sleep disturbance threshold is an indoor sound level no more than 30 dBA during the sleep period.
L_{MAX} sleep disturbance threshold is 60 dBA that should not be exceeded more than 15 times per night.

8 Risk Communication

In this HHERA, the technical evaluation of health risk is based on comparing measured or modelled concentrations of NO_2 and $PM_{2.5}$ to epidemiologically or toxicologically derived health effect benchmarks. For example, annual or short-term concentrations can be compared to the WHO AQG, or used to estimate relative increases in risk for specific health outcomes. This approach allows risk assessors to quantify potential health effects in a technically rigorous manner.

However, communicating these risks to the public is a critical component of the assessment process. Quantitative measures of risk can be misinterpreted, particularly for non-threshold air pollutants such as NO_2 and $PM_{2.5}$, where any non-zero exposure is associated with some degree of health risk. In these situations, the public may perceive any quantifiable risk as unacceptable, even though it is not reasonable to expect zero risk for substances that are ubiquitous in the environment and have associated risks at any exposure level. Effective communication helps provide context and perspective for modelled concentrations, reducing unnecessary concern while accurately describing potential health outcomes.

One approach to contextualizing modelled air pollutant concentrations is to compare them to Health Canada's Air Quality Health Index (AQHI)[2]. The AQHI is a public communication tool designed to provide a simple, understandable representation of health risk from acuter, short-term exposure to air pollutants, specifically NO_2, $PM_{2.5}$, and ozone, noting that ozone is not included in this assessment. The AQHI converts air pollutant concentrations into a numerical value that corresponds to an acute health risk category, allowing individuals to make informed decisions about outdoor activities.

The AQHI is calculated using the following formula (Stieb *et al.* 2008; BC Interior Health 2010):

$$AQHI = \frac{10}{10.4} \times (100 \times (e^{(0.000871 \times NO2)} - 1 + e^{(0.000537 \times O3)} - 1 + e^{(0.000487 \times PM2.5)} - 1))$$

Where:

- NO_2 = 3-hour average nitrogen dioxide concentration in parts per billion (ppb; 1 ppb = 1.88 µg/m^3)
- O_3 = 3-hour average ozone concentration in ppb
- $PM_{2.5}$ = 3-hour average fine particulate matter concentration in µg/m^3

The AQHI produces a numerical index ranging from 1 to 10+, which is associated with defined health risk categories as follows:

- 1 to 3 – Low health risk – At risk and general populations can enjoy outdoor activities.
- 4 to 6 – Moderate health risk – At risk populations should consider reducing or rescheduling strenuous activities outdoors if experiencing symptoms. The general population does not need to modify outdoor activities unless experiencing symptoms such as coughing and throat irritation.

[2] https://www.canada.ca/en/environment-climate-change/services/air-quality-health-index/about.html

- 7 to 10 – High health risk – At risk populations should reduce or reschedule strenuous outdoor activities. Children and the elderly should take it easy. The general population should consider reducing or rescheduling strenuous activities outdoors if experiencing symptoms such as coughing and throat irritation.
- 10+ - Very high risk – At risk populations should avoid strenuous activities outdoors. Children and the elderly should also avoid outdoor physical exertion. The general population should reduce or reschedule strenuous activities outdoors, especially if experiencing symptoms such as coughing and throat irritation.

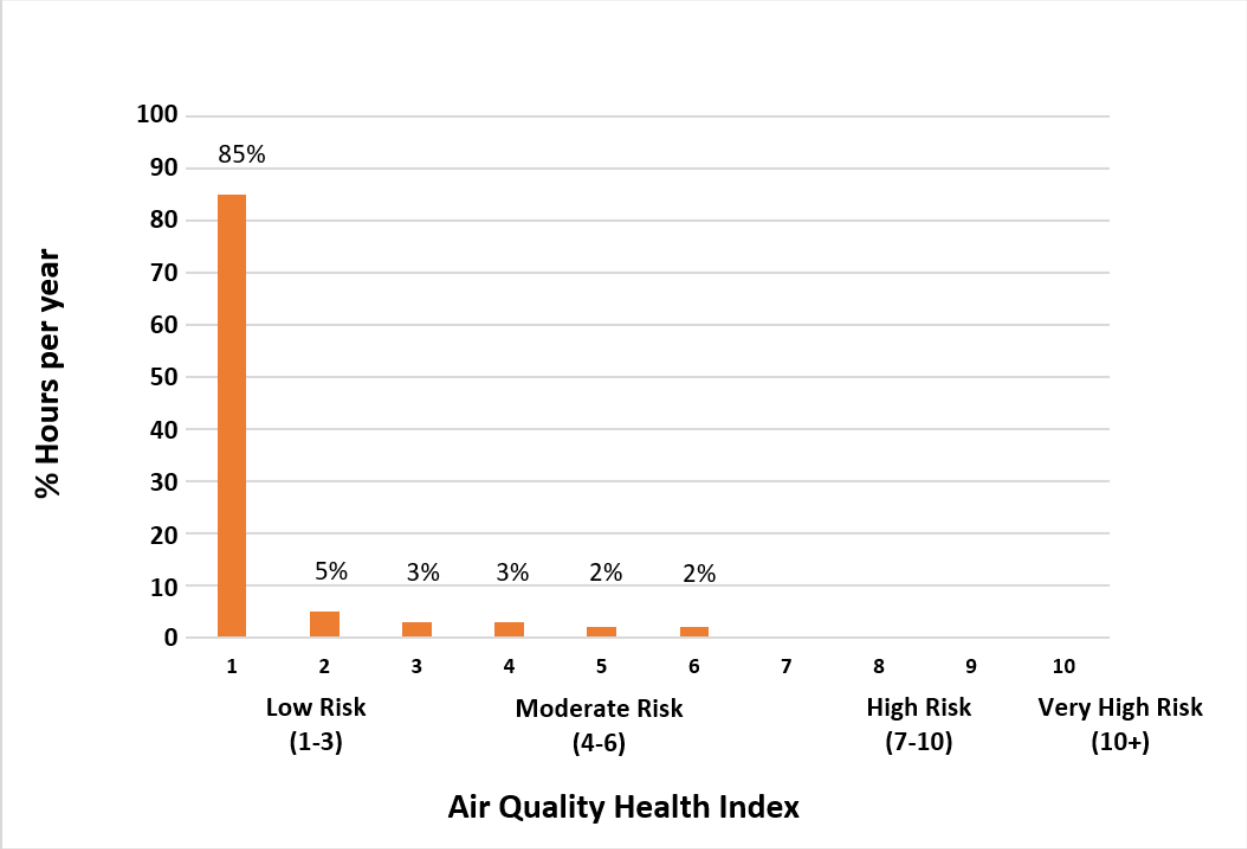
By comparing modelled concentrations of NO_2 and $PM_{2.5}$ to the AQHI, the assessment translates technical risk estimates into an accessible framework that the public can easily understand.

To illustrate how modelled air quality relates to the AQHI, the frequency with which the 3-hour average NO_2 and $PM_{2.5}$ concentrations at the Grays Bay Port accommodation camp fall within each AQHI category is presented in Figure 8.1. The figure summarizes the number of hours over a full calendar year (8,760 hours) during which the AQHI values correspond to each AQHI category.

Figure 8.1 presents the AQHI rankings derived from the air quality model, which used the rolling 3-hour average NO_2 and $PM_{2.5}$ concentrations that were calculated for each time increment. The results show that the AQHI value falls within the Low Risk (1-3) category for 93% of the year. The remaining 7% of the year falls within the Moderate Risk (4-6) category. A very small fraction of hours (<0.01%) reaches the High Risk (7-10) category. These occurrences are scattered throughout the year, and represent isolated events rather than sustained air quality conditions. These peak events may occur during periods of changing wind direction, where winds temporarily calm, allowing emissions to accumulate in place, before shifting direction and causing the plume to drift back over itself. It should be noted that the modelled AQHI results reflect Project Alone emissions, and do not incorporate existing baseline concentrations of NO_2, $PM_{2.5}$, or O_3. Under baseline conditions, ambient air quality in the Project area is considered pristine, with no major anthropogenic air pollutant emission sources located within approximately 100 km or more of the Project area. As a result, background concentrations of these air pollutants are expected to be very low.

These indices apply only to off-duty workers at the accommodation camps, which are located near the diesel generators that are the primary point sources of NO_2 and $PM_{2.5}$. Outside of the PDA, emissions dissipate rapidly. Within the 4 km dispersion area around the Grays Bay and Jericho Station, which is relevant to Inuit, Indigenous, and Community country food harvesters, the AQHI is expected to remain in the Low Risk (1-3) category throughout the year.

Figure 8.1 Annual Distribution of 3-Hour Average Air Quality Health Index Values



9 Uncertainty Assessment

The uncertainty assessment considers the validity and confidence of the HHRA conclusions by identifying factors that could affect the study's conclusions, such as data gaps, COPC screening methods, modelling uncertainties, and exposure estimates. When uncertainties arose, a conservative approach was used to overestimate or avoid underestimating potential risks where feasible. This section outlines the identified uncertainties, the conservative measures taken, and their impact on human health risk assessment.

9.1 Air Quality Model Uncertainties

Estimating air pollutant concentrations using computer modelling requires balancing realism with practicality. Designing a model that reflects the exact day-to-day sequence of construction and operational activities is not feasible, because work schedules, equipment use, and activity durations vary substantially and can change in response to weather, logistics, and operational needs. Instead, the air quality model relies on reasonable, scientifically based assumptions about the typical types and intensities of daily activities. These assumptions provide a practical framework for estimating emissions and ambient concentrations while acknowledging the natural variability in real-world operations.

Key sources of uncertainty and the steps taken to reduce underestimating risks include:

1. The model applied conservative assumptions, including the continuous operation of all equipment and vehicles, as well as continuous construction of the road adjacent to Grays Bay. In practice, certain equipment would be inactive due to task-specific requirements or scheduled maintenance. Construction of the road adjacent to Grays Bay would only take place for several weeks or months before progressing to the next section of the road. Consequently, these assumptions likely overpredict both the magnitude and frequency of air pollutant concentrations, representing a conservative, upper-bound exposure scenario.
2. The model was based on the worst-case year of the Construction Phase (Year 3), characterized by maximum construction activity, vehicle and equipment utilization, and blasting operations. This worst-case construction emissions scenario was replicated for five consecutive years. In contrast, Years 1 and 2 primarily involve material transport and site preparation activities that result in substantially lower emissions. Accordingly, the model represents a worst-case scenario, with anticipated air pollutant emissions during the other construction years expected to be lower.

9.2 Acoustic Modelling Uncertainties

The overall reliability and confidence in the acoustic model results depend on the modelling software used and the accuracy of the acoustic model inputs. The acoustic modelling was completed using Cadna/A software, which applies International Organization for Standardization Standard 9613 algorithms that are recommended for use by Health Canada.

The following conservative assumptions were applied in the acoustic model to overestimate or avoid underestimating noise levels:

1. During the Construction and Operation phase, the acoustic model was adjusted to account for meteorological conditions that enhance sound propagation, extending the distance over which project noise may be experienced. This adjustment is particularly appropriate in cold Arctic conditions, where stable, cold air near the ground can create temperature inversions that allow sound to travel farther than under neutral conditions. Such inversions are common in Arctic regions, especially during calm, clear nights, and can result in noise from the Project being audible at greater distances than would be expected under standard atmospheric assumptions.
2. During the Construction phase, the worst-case year for noise was modelled, representing the highest overall noise emissions. The worst-case year for noise during Operation was selected based on the highest number of vehicle and equipment usage and the highest degree of construction activities including blasting.

9.3 Health Risk Associated with Exposure to Multiple Chemicals of Potential Concern

People are exposed to multiple chemicals in the environment, which may interact in additive, synergistic, or antagonistic ways. These interactions are not fully captured when evaluating each COPC individually. The scientific understanding of these interactions and modifying factors is limited, in part because humans are generally exposed to thousands of chemicals at varying concentrations on a daily basis. Evidence on multi-COPC exposure is often derived from controlled laboratory or animal studies, which do not fully replicate real-world environmental conditions or human variability.

In human health risk assessments, current regulatory practice generally considers the cumulative effects of multiple COPCs only when they share the same type of health endpoint or mechanism of action. For example, polycyclic aromatic hydrocarbons are a class of chemicals that share a common carcinogenic mechanism of action. Regulatory agencies have developed methodologies to assess cumulative cancer risk across multiple polycyclic aromatic hydrocarbons, allowing for a more integrated evaluation of their combined potential impact.

In contrast, other air pollutants such as NO_2 and $PM_{2.5}$ do not share the same mechanism of action, and their effects on respiratory health are mediated through different biological pathways. As a result, cumulative risk approaches for chemicals with distinct modes of action are generally not applied under current human health risk assessment guidance, even though real-world exposure to multiple pollutants may still contribute to additive or interactive effects on respiratory outcomes.

9.4 Exposure Duration Uncertainty

The human receptors at the accommodation camp are expected to work on a rotational basis, with schedules varying according to trade-specific demands and the construction phase (e.g., welders, pipe fitters, electricians, demolition personnel, and blasting specialists). The human health risk assessment conservatively assumes that off-duty workers are present at the accommodation camp year-round. In practice, workers are likely to be present only for discrete periods ranging from several weeks to a few months before returning to their home communities.

As a result, actual exposure durations for individual workers are expected to be substantially shorter than those assumed in the assessment. This introduces uncertainty in estimating long-term or chronic exposure effects, as it is unlikely that any worker would be continuously present for an entire calendar year, let alone experience a lifetime of exposure at the assessed levels. Consequently, the assessment may overestimate individual health risks associated with long-term exposure.

9.5 Outdoor Exposure Uncertainty

The assessment assumes that human receptors may be exposed to ambient air pollutants during off-duty periods. However, in the Arctic environment, outdoor activity is typically limited for much of the year due to prolonged cold conditions, although summer months may experience comparatively warm temperatures that support increased outdoor activity. During off-duty periods, workers are generally expected to be indoors, primarily sleeping or engaging in low-activity tasks. This behavior limits opportunities for increased inhalation rates that occur during physical activity or recreational exercise, which can exacerbate respiratory exposure and health effects.

As a result, the assessment may overestimate potential respiratory impacts associated with outdoor exposures during off-duty periods, as it does not fully account for the reduced ventilation and physical activity typical of Arctic conditions.

10 Conclusion

Based on the results of the HHERA, the Project is not expected to result in unacceptable risks to human or ecological health. Potential Project-related health risks and effects were evaluated for several groups of human receptors. The assessment determined that only inhalation of NO_2 and $PM_{2.5}$, and exposure to Project-related noise, constituted operable exposure pathways. These operable exposure pathways were spatially limited to areas in close proximity (within 4 kilometers) of the PDA. Because no complete pathways were identified for ecological receptors, no further assessment was necessary for these receptors.

The following summarizes the potential health risks and effects by human receptor group.

Off-duty Workers at the Grays Bay and Jericho Station Accommodation Camps

Air quality modeling indicates that NO_2 and $PM_{2.5}$ emissions are largely contained within the PDA and pose minimal health risk. Under conservative assumptions, peak concentrations may cause mild, transient respiratory effects in health-sensitive individuals, such as minor irritation or coughing, but these effects typically resolve quickly and are unlikely to be noticeable for adult workers. Modeled AQHI values suggest Low Risk conditions for 93% of the year, with Moderate Risk conditions occurring only 7% of the time. Noise levels are predicted to remain below thresholds for both annoyance and sleep disturbance, including for day- and night-shift workers.

Country Food Harvesters within 4 km of the Grays Bay and Jericho Station PDA

Air quality modeling indicates that $PM_{2.5}$ emissions are largely contained within the Project Development Area and are not expected to adversely affect harvesters outside the PDA. Potential exposure to NO_2 is substantially lower than at the Grays Bay Port accommodation camp due to the greater distance from emission sources. Air Quality Health Index (AQHI) values are expected to remain in the Low Risk category throughout the year, as emissions dissipate considerably beyond the PDA. Noise levels are predicted to remain below thresholds for both annoyance and sleep disturbance.

Country Food Harvesters beyond 4 km of the Grays Bay and Jericho Station PDA

Project-related effects to human health from changes to air quality and noise levels are not expected for Inuit, Indigenous, and Community country food harvesters beyond 4 km of the PDA. Modeled NO_2 and $PM_{2.5}$ emissions do not extend beyond this distance, and noise becomes inaudible beyond 3 km from the PDA.

Seasonal Users of the Ulu and High Lake Mining Exploration Camps

The High Lake and Ulu mining exploration camps, located 43 km and 100 km from Grays Bay and about 1 km from the road corridor, are not expected to experience adverse air quality effects from NO_2 or $PM_{2.5}$ emissions during construction or operation. Project-related noise will be similar to background levels and indistinguishable from ambient conditions, remaining below thresholds for annoyance and sleep disturbance. Therefore, no air quality or noise-related effects to human health are anticipated for users of these camps.

Residents of the Five Regional Hamlets

The five regional hamlets are located 180 to 870 km from the Project, far beyond the modeled dispersion zone for air emissions (4 km from the PDA) and the noise modeling domain (3 km from the PDA). As a result, no Project-related air quality or noise effects are expected for residents of these hamlets.

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