# 1 Project Overview

## 1.1 Introduction and Project Location

Worley Canada Services Ltd., operating as Worley Consulting, has been retained by the Government of Nunavut – Transportation and Infrastructure Nunavut (GN-TIN) to support the design of Sealift safety improvements in Kimmirut, Nunavut (the Project, Drawing 1-1). Kimmirut is located on southern Baffin Island, on the western shore of Glasgow Bay (within Meta Incognita Peninsula), in the Qikiqtaaluk Region of Nunavut (62° 50.845'N, 69° 52.152'W, see Figure 1-1). Dynamic Ocean Consulting Ltd (Dynamic Ocean) is supporting Worley Consulting on the permitting requirements for the Project.

To inform the design phase, several field programs will be undertaken over the next few years, initiating in late 2025 (collectively referred to as the Program).

The intention of the Program, will be as below:

- Conduct environmental, geological, geophysical, and archaeological baseline studies.
- Perform a geotechnical program to confirm seabed and quarry rock conditions.
- Topographic and bathymetric surveys.
- Existing conditions or effects studies during or post-construction of the Project.


Nunavut

Dynamic Ocean Consulting

worley consulting

## Legend

- Kimmirut Sealift
- Project Footprint


0 45 90 180 km

1: 8,650,000

N

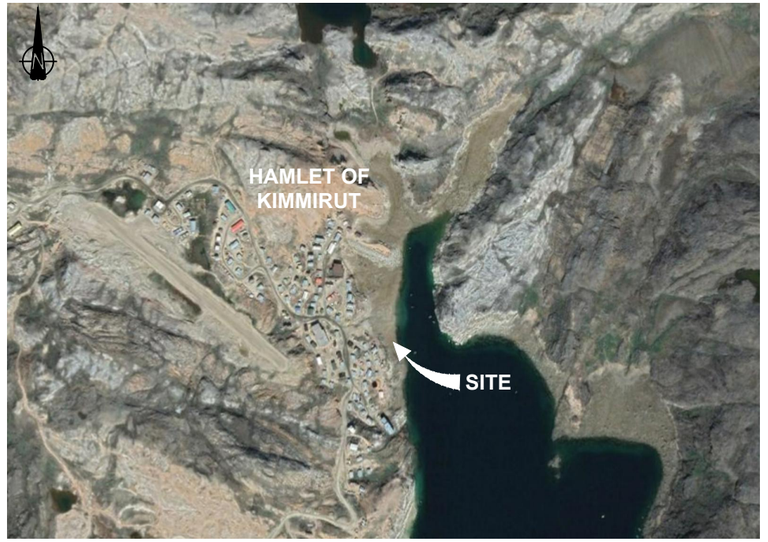
Spatial Reference
GCS: GCS North American 1983
Datum: North American 1983
Projection: Transverse Mercator
Map Units: Metre

Drawn: AW
Edited: CL
Approved: VBC

Kimmirut Sealift Project

Figure 1-1

**Project Location**


## KEY PLAN

1:15000

## LEGEND:

- POWER / LIGHT POLE
- FENCE
- GATE

## PLAN

1:1500

m 0 10 20 30 40 50 100 m

1:1500

GOVERNMENT OF NUNAVUT
HAMLET OF KIMMIRUT

**OCEANS PROTECTION PLAN SUBMISSION**
**GENERAL ARRANGEMENT - SEALIFT EXPANSION**

Drawing 1-1

| Date: | Drawn by: | Edited by: | App'd by: |
|---|---|---|---|
| 25-JAN-23 | CH | JLC | HGK |

WorleyParsons Project No.
317071-00019

DRG No
11-MA-DSK-0001

REV
A



FILE LOCATION: U:\YVR\317071\00019_GON_COMMAINFSS\11_DRAWINGS\15_I_AND_E\02_MARINE\11_KIMMIRUT\317071-00019-11-MA-DSK-0001.DWG

PLOT DATE & TIME: 25/1/2023 11:51:24 AM
SAVE DATE & TIME: 25/1/2023 11:05:04 AM
USER NAME: chris.heath
ISSUING OFFICE: VANCOUVER

## 1.2 Permits and Approvals

Permits or approvals required from Institutions of Public Government (IPGs) and Authorities Having Jurisdiction (AHJ) (collectively referred to as AHJ for the intention of this document) are provided in Section 6.2 (Table 6-2).

## 1.3 Letter and Program Intention

This is the Program application letter to support the Nunavut Impact Review Board (NIRB) screening process to determine whether the Program complies with all the terms and conditions of applicable land use plans. The application was submitted to the Nunavut Planning Commission (NPC, File No. 150935) on 03 October 2025, and the Conformity Determination was issued on 02 December when the file was referred to the NIRB (File No. 126257).

The intention of the Program is to assess seabed, subsurface (soil, rock, groundwater and permafrost) and environmental existing conditions. This information will support the detailed design and permitting for the Project.

## 1.4 Project Name

Kimmirut Sealift Field Program (hereafter referred to as the Program).

## 2 Proponent and Representative Details

Contact information for the proponent (applicant), representative, and geoscience specialist are provided in Table 2-1.

**Table 2-1: Contact Information**

| Information Request | Details |
|---|---|
| **Proponent and Applicant: Government of Nunavut** | |
| Name | Grant Woodbury<br>Manager, Transportation Planning |
| Address | PO Box 1000 Station 200<br>Iqaluit, NU X0A 0H0 |
| Telephone / Fax | 1-867-975-6773 |
| Email | GWoodbury1@gov.nu.ca |
| **Applicant Representative: Dynamic Ocean Consulting Ltd.** | |
| Name | Victoria Burdett-Coutts, MSc., RPBio.<br>Senior Marine Scientist and Regulatory Professional |
| Address | 2901 Murray Street<br>Port Moody, BC V3H 1X3 |
| Telephone / Fax | 1-778-839-2372 |
| Email | Victoria@dynamicocean.ca |
| **Geoscience Specialist: Worley Consulting Ltd.** | |
| Name | Jeff Gibson, BC PLEng.<br>Associate Technical Consultant, Geoscience |
| Address | Suite 200, 2930 Virtual Way<br>Vancouver, BC V5M 0A5 |
| Telephone / Fax | 1-604-779-1884 |
| Email | Jeffrey.Gibson@worley.com |

# 3 Program Description

## 3.1 Scope

The intention of the Program is to support permitting and assess seabed and subsurface (soil, rock, groundwater and permafrost), environmental baseline and existing conditions to support the detailed design phase of the Project. Initiating in late-2025, the Program is anticipated to continue over the next few years.

The Program will be composed of a combination of geotechnical, geophysical, topographical, marine, and terrestrial surveys as outlined in Table 3-1 and further described in Section 2 (Table 2-2) of the Environmental Management Plan (EMP) (Dynamic Ocean, 2025b).

**Table 3-1: Program Components**

| Activity Name | Location | | Interaction | | |
|---|---|---|---|---|---|
| | Marine | Terrestrial | Seabed | Underwater Noise | Air Noise |
| **Geophysical Program** | | | | | |
| Multibeam Echosonar (MBES)[1] | ✓ | - | No | Yes | No |
| Subbottom profiling[1] | ✓ | - | No | Yes | No |
| **Geotechnical Program** | | | | | |
| Test pits (excavator) | ✓ | ✓ | Yes | Yes | Yes |
| Drilling (boreholes)[1] | ✓ | ✓ | Yes | Yes | Yes |
| Fill and rock samples | - | ✓ | No | No | No |
| **Topographic Program** | | | | | |
| Drone Survey | ✓ | ✓ | No | No | Yes |
| **Environmental Programs** | | | | | |
| Subtidal Survey (Remotely Operated Vehicle [ROV]) | ✓ | - | No | No | No |
| Intertidal survey[2] | ✓ | - | Yes | No | No |
| Sediment quality (ponar) | ✓ | ✓ | Yes | No | No |
| Water quality | ✓ | - | No | No | No |
| Wildlife survey[2] | ✓[3] | ✓ | Yes | No | No |
| Vegetation survey[2] | - | ✓ | Yes | No | No |
| Archaeological field study[2] | ✓[4] | ✓ | Yes | No | No |

| Activity Name | Location | | Interaction | | |
|---|---|---|---|---|---|
| | Marine | Terrestrial | Seabed | Underwater Noise | Air Noise |
| Hydroacoustic monitoring[5] | ✓ | - | No | No | No |

Note:

1. Activities that have the potential to produce underwater noise that may overlap with the hearing frequency of marine mammals. See Section 4.1 (Table 4-2) of the EMP for more details
2. Ground interaction is exclusively due to people walking and potentially placing transects and quadrats
3. Wildlife survey below the High-Water Line (HWL) is exclusive to incidental observations of marine and migratory birds
4. Archaeological investigations may be inclusive of area above the LWL (intertidal)
5. Hydroacoustic monitoring is exclusive to noise producing activities during the open-water season

## 3.2 Study Areas

The Program Study Areas will be inclusive of the Sealift Study Area and the Quarry Study Area. The Sealift Study Area is located adjacent to the existing Sealift ramp on the northeastern shore of Glasgow Bay (Appendix A (Figure A-1)). There are four locations under consideration for the Quarry Study Area, all of which have existing road access (Appendix A (Figure A-1)).

## 3.3 Schedule

The Program will be implemented through several field surveys occurring over a period of four to 15 days. The Program is expected to be completed over several years and will be carried out during the open-water season.

## 3.4 Personnel

The Program will likely be supported by several consultants who are supporting Worley Consulting to complete the activities. The crew size will vary depending on the surveys being carried out the activities being performed to support multiple field programs. It is expected to be approximately 15 people. The primary Point of Contact (PoC) will be Victoria Burdett-Coutts or Jeff Gibson (see contact details in Section 2 (Table 2-1)).

## 3.5 Opportunities for Local Participation

The research team will require local support such as wildlife monitors[1], field assistants, boat/operators, trucks, All Terrain Vehicles (ATVs), etc.

[1] Armed wildlife monitors are planned for protection from polar bears.

# 4 Consultation

## 4.1 Consultation Summary

The community has been informed about the proposed field work, and in-person consultations with the community were conducted in 2021 as part of the GN–TIN marine infrastructure scoping study and most recently in November 2025 for the Project. A variety of methods and materials were used to engage residents, hunters, fishers, and stakeholders, including workshops, meetings, interviews, and public information booths, supported by presentations, large posters, concept drawings, photographs, and maps. Consultations included design workshops with the Mayukalik Hamlet and Hunters and Trappers Association (HTA), meetings with the Mayor and Hamlet council, one-to one meetings with Hamlet staff and the Qikiqtani Inuit Association (QIA) Community Liaison Officer, and information booths at the local Co-op store to provide residents with an opportunity to learn about the Project and provide feedback.

Project information shared with the community included:

- Project overview including funding and schedule.
- Consultation to date.
- Summary of community feedback.
- Sealift safety improvements concept.
- Potential quarries and haul routes (including discussion on anticipated impacts during construction).
- Field program activities.
- Permitting process including NIRB, Fisheries and Oceans Canada (DFO) – Fish and Fish Habitat Protection Program (FFHPP) and Transport Canada (TC) – Navigation Protection Program (NPP).
- Next Steps.

See Appendix B for the Hamlet's letter of support.

## 4.2 Proposed Use of Local and Inuit Knowledge (Inuit Qaujimajatuqangit)

Traditional land use and environmental knowledge from key knowledge holders, including the HTA and the Nauttiqsuqtiit (guardians), will guide and complement the design and Program data collection. Verification meetings with knowledge holders will also be conducted after the Program is complete to discuss the results and verify that local knowledge has been accurately and appropriately interpreted and presented.

# 5 Project Map

See Figure 1-1 and Appendix A (Figure A-1).

# 6 Land Use and Licensing

## 6.1 Land Use

The Land Use information for the Program is provided in Table 6-1, and in Appendix A (Figure A-2).

**Table 6-1: Land Use and Ownership Summary**

| Region | Category | Description |
|---|---|---|
| Nunavut (Nunavut Settlement Area [NSA]) | Administrative Boundary | Qikiqtaaluk Region |
| | Planning Region | Qikiqtaaluk Region |
| | Land Use | Field activities most closely categorized as scientific research |
| | Land Ownership | Commissioner's and Crown |

## 6.2 Approvals

Approvals expected to be required for the Program are summarized in Table 6-2.

**Table 6-2: Licenses and Permits Relevant to the Program**

| Legislation | Authority Having Jurisdiction | Required Authorization/Permit/Approval | Program Aspect | Required | Description | Permit ID | Permit Status |
|---|---|---|---|---|---|---|---|
| **Territorial Requirements** | | | | | | | |
| *Nunavut Land Claims Agreement Act*, Article 11<br>*Nunavut Planning and Project Assessment Act* (NuPPAA) | Nunavut Planning Commission (NPC) | Conformity Determination | All. | Yes. | All activities within Nunavut are assessed to confirm conformity with approved Land Use Plans. The NPC is likely to refer the Program to the NIRB because it does not belong to a class of exempt works or activities set out in Schedule 12-1 of the Nunavut Agreement. | 150935 | Submitted: 03-Oct-25 (Dynamic Ocean, 2025a). |
| *Nunavut Land Claims Agreement Act,* Article 12<br>NuPPAA | NIRB | Screening Decision Report (SDR) | All. | Yes. | The NIRB is responsible for the assessment of ecosystemic and socioeconomic impacts of projects in the Nunavut Settlement Area (NSA), and for monitoring of approved projects under Article 12 of the Nunavut Agreement. The impact assessment process for Nunavut was established under the NuPPAA. The Program will likely require a screening under Nunavut Agreement Part 4 by the NIRB (Screening), which are conducted over 45 to 60 calendar days, inclusive of a 21-day consultation period.<br><br>The NIRB application will be submitted once the NPC Conformity Determination is issued. | - | Pending Submission. |

| Legislation | Authority Having Jurisdiction | Required Authorization/Permit/Approval | Program Aspect | Required | Description | Permit ID | Permit Status |
|---|---|---|---|---|---|---|---|
| *Nunavut Scientists Act* | Nunavut Research Institute (NRI) | Scientific Research License | All. | Yes. | Research activities in natural and physical sciences will require a Scientific Research License from NRI, which include surveys that involved the collection of habitat data.<br><br>All research activities that occur in Nunavut require approval from NRI. | - | Pending Submission. |
| Schedule 2 of the Nunavut Water Regulations | Nunavut Water Board (NWB) | Water License | Withdrawal of fresh water. | To be confirmed. | If drilling occurs at the Sealift Study Area, ocean water will be used. Drilling at the quarry is not expected however, if it is required and if needs cannot be met by municipal supply, then an NWB Authorization or a Water License will be obtained for freshwater water withdrawal. | - | Pending Requirement Confirmation. |
| *Territorial Lands Act*<br>Land Use Territorial Regulations | GN-Community Services (CS) (Planning and Lands Division) | Land Use Permit (LUP) | Land based activities on commissioners' lands. | Dependent on location of ground interaction activities at the Sealift Study Area. | There is an interaction between commissioner's land and the Sealift footprint (see Appendix A (Figure A-2)). However, it is not yet known if there will be drilling in these locations. If yes, a LUP will be obtained from GN-CS (Planning and Lands Division)[2]. | - | Pending Submission. |
| *Nunavut Wildlife Act (NWA)*<br>Licences and Tags Regulations | GN-Department of Environment (DoE) | Wildlife Research License | Terrestrial survey. | To be confirmed. | There will be no capture, trapping, marking, tagging, close observation, manipulation, or intentional disturbance to wildlife during the Program. The terrestrial survey will be completed through incidental observations, where all wildlife (including flora and fauna) encountered during travel around the Study Areas will be recorded. | - | Pending Requirement Confirmation. |
| | | Wildlife Observation Licence | | | | - | |

[2] A GN-CS LUP will be required during the Project permitting phase, which is outside of the context of this application.

| Legislation | Authority Having Jurisdiction | Required Authorization/Permit/Approval | Program Aspect | Required | Description | Permit ID | Permit Status |
|---|---|---|---|---|---|---|---|
| | | | | | The GN-DoE will be engaged to confirm if a Wildlife Research License or Wildlife Observation License are required. | | |
| *Nunavut Act*<br>*Nunavut Land Claims Agreement Act*<br>Nunavut Archaeological and Palaeontological Sites Regulations (NAPSR) | GN-Department of Culture and Heritage (CH) | Class 2 Archaeologist Permit | Any activity that has the potential to interfere with areas of archaeological importance. | Dependent on location of ground interaction activities at the Sealift Study Area (above Low-Water Line [LWL] and quarry. | A Professional Archaeologist has been engaged to support the Program. For any ground interaction activities (e.g. drilling) that occur above the LWL, the Professional Archaeologist will be engaged to confirm if a Class 2 Archaeologist Permit is required to support an Archaeological Impact Assessment (AIA). The Professional Archaeologist will engage with the GN Territorial Archaeologist and support decision making for the protection of archaeological resources in Nunavut. | - | Pending Submission. |
| **Federal Requirements** | | | | | | | |
| *Fisheries Act:*<br>• Section 34.4(1).<br>• Section 35(1).<br>Marine Mammal Regulations (MMR) | DFO-FFHPP | Request for Review (RFR) to obtain a Letter of Advice (LoA) | Marine survey. | No. | A RFR is not required because it is not expected that there will be residual negative effects subsequent to the implementation of mitigation and monitoring measures outlined in Section 5.3, 5.4 of the EMP (Dynamic Ocean, 2025b). The EMP will be provided to the NIRB and other AHJs, which will outline the measures to be implemented to minimize negative environmental effects. Specific to the marine environment, this will include consideration for accidental spills, management of drilling fluids and monitoring for air noise during drilling operations (if they occur over water). | - | Not Required. |

| Legislation | Authority Having Jurisdiction | Required Authorization/Permit/Approval | Program Aspect | Required | Description | Permit ID | Permit Status |
|---|---|---|---|---|---|---|---|
| Aquatic Invasive Species Regulations (AISR) | | | | | | | |
| Fisheries (General) Regulations, Section 52 | DFO - Fisheries Management Office (FMO) | License to Fish for Scientific Purposes (LFSP) | Incidental capture of organisms through project activities. | To be confirmed. | There are no plans for capture of marine organisms; however, due to drilling of the intertidal, DFO-FMO may request one due to potential for incidental capture.<br><br>DFO-FMO will be engaged to confirm if a LFSP is required. | - | Pending Requirement Confirmation. |
| *Territorial Lands Act*<br>Territorial Land Use Regulations | Crown-Indigenous and Northern Affairs Canada (CIRNAC)[3] | LUP | Drilling in marine environment. | To be confirmed. | Not expected to be required for the Program as the drilling component is not expected to fall within the thresholds of Sections 8 or 9 of the Territorial Land Use Regulations. Dynamic Ocean has engaged with CIRNAC on a similar drilling program that would utilize the same equipment and were informed a LUP was not required (pers. Comm. Victoria Burdett-Coutts). | - | Pending Requirement Confirmation. |
| | | | Drilling at the quarry. | To be confirmed. | Depending which quarry is selected, there may be an interaction with federal lands. CIRNAC and GN-CS (Planning and Lands Division) will be engaged to confirm requirements (if any). | - | Pending Requirement Confirmation. |

[3] The requirement for LUPs from CIRNAC will be dependent on the status of devolution (Government of Canada, 2025).

# 7 Material Use & Waste Management

## 7.1 Equipment

Equipment expected to be required for the Program are summarized in Table 7-1. Exact specifications of equipment will be determined closer to the start of the Program, but the types of equipment used is not expected to change potential environmental effects outlined in Section 8.

**Table 7-1: Equipment Requirements for the Program**

| Activity | Equipment Used | Quantity | Size & Dimensions | Proposed Use |
|---|---|---|---|---|
| **Geophysical Program** | | | | |
| Bathymetric Survey | MBES | 1 | 1 m x 50 cm | Seabed type and conditions. |
| | SSS | 1 | 2 m x 50 cm | |
| Subbottom Profiling | Subbottom Profiler (SBP) | 1 | 1 m x 1 m | Ground conditions below seabed. |
| **Geotechnical Program** | | | | |
| Test pits | Excavator | 1 | 30 to 40 ton | The excavator will be used to dig test pits. |
| Drilling | Mounted drill rig | 1 | 2.5 m x 5.5 m x 3 m | A geotechnical subsurface drilling program is required to understand the type and variability of subsurface soil and/or rock conditions. |
| Fill and rock samples | Geotechnical hammer | 1 | ~2 kg (30 to 40 cm) | A geotechnical survey is required to identify suitable quarry locations for sourcing the required fill and rock armour for the Sealift construction. |
| Sediment Quality | Sediment / grab sampler | 1 | 3 m x 50 cm | Collection of sediment samples. |
| **Topographical Program** | | | | |
| Drone survey | Drone | 1 | To be confirmed | Aerial topographic and feature survey using a drone. |
| **Environmental Program** | | | | |
| Subtidal Survey | ROV | 1 | 72 cm x 24 cm x 44 cm | Underwater video survey to determine habitat characteristics of the subtidal seabed. |

| Activity | Equipment Used | Quantity | Size & Dimensions | Proposed Use |
|---|---|---|---|---|
| Intertidal Survey | Transect tape | 1 | 50 m | A survey of the intertidal area to confirm the fish habitat quality within the footprint of the proposed Sealift. |
| | Quadrat | 1 | 1 $m^2$ | |
| | Clinometer | 1 | 15 cm | |
| Sediment Quality | Ponar | 1 | 3 m x 50 cm | Subtidal samples will be collected using a ponar grab sampler (grab sampler) or by Self-Contained Underwater Breathing Apparatus (SCUBA) divers. |
| | Scuba gear | 2 | - | |
| Water Quality | Conductivity, Temperature, Depth (CTD) meter | 1 | 3.5 cm x 9.0 cm | Device used to assist in water quality parameters during water quality survey. |
| | Niskin Sampler | As required | 1.5 L | Collection device to get water from depth during water quality survey. |
| Wildlife Survey | Binoculars | 2 | - | A wildlife survey (incidental observations by sight and sound) will be conducted to determine presence of wildlife (including potential Species at Risk [SAR] and critical habitat) within the relevant Study Area(s). |
| Vegetation Survey | Transect tape | 1 | 50 m | The purpose of the vegetation assessment is to determine the plant species, plant communities, and potential plant species or ecosystems at risk that occur within the relevant Study Area(s). |
| | Quadrat | 1 | 1 $m^2$ | |
| Archaeological Field Study | Camera, notebook | - | - | An archaeological field study (if required) will be performed by a professional archaeologist recognized by the GN Territorial Archaeologist for the preparation of an AIA. |
| Hydroacoustic Monitoring | Hydrophone | 1 | 53 cm x 6 cm | Assess for noise from equipment used on the Program. |

## 7.2 Fuel Use

Fuel will be required to operate vessels during the marine programs in the open-water season. There will also be requirements for land-based field programs to operate equipment and support vehicles. Fuel will be dispensed as required from existing facilities in the Hamlet.

## 7.3 Water Consumption

Water consumption will occur if drilling is required at the Sealift Study Area or the Quarry Study Areas. If drilling is required for the Sealift Study Area, water is expected to be withdrawn from the ocean. The exact consumption of ocean water is not known at this time and will be 'as required' for drilling. If drilling is required at the Quarry Study Area, fresh water required will be obtained from the hamlets' water truck. If needs cannot be met by municipal supply, then a NWB Water License will be obtained for freshwater water withdrawal from nearby lakes. Exact locations for freshwater withdrawal will be determined in consultation with the community.

Water intakes for withdrawal of water from the marine environment (or fresh water source if required) will be of an appropriate mesh size to not impinge fish on the screen, while being in compliance with DFO Standards and Codes of Practice (SCOPs) for end-of-pipe fish screens (DFO, 2024).

## 7.4 Hazardous Materials

Small quantities of preservatives such as formalin, ethanol and hydrochloric acid are required to preserve water and sediment quality samples for the marine program.

- Hazardous Materials – Sample preservatives (less than 1 mL of acid per sample bottle), ethanol for benthic invertebrate preservation, fuel for support vehicles.
- Chemical Use – Sample preservatives (less than 1 mL of acid per sample bottle), ethanol for benthic invertebrate preservation.

## 7.5 Waste

Waste management for the Program will employ a 'pack in, pack out' policy in terms. Bulk waste is not anticipated during the Program. Some non-combustible waste will be created from consumables during sampling (bottles, bags, gloves, etc.). Sewage and human waste will be managed using existing facilities.

# 8 Environmental Management

Mitigation measures for potential effects will be followed to provide effective environmental management in compliance with the legislation of pertinent AHJs and Best Management Practices (BMPs) (Table 8-1).

**Table 8-1: Program Environmental Effects and Mitigation**

| Environmental Effect | Mitigation |
|---|---|
| Disturbance to marine mammals and fish | • A Marine Observer will be present during the Program to monitor for the presence of marine mammals.<br>• A 500 m Exclusion Zone (EZ) will be monitored during activities as described in Section 3.1. Marine mammal behaviours will be observed and if animal display disturbance behaviours, the marine activities will be stopped until the marine mammal has left the EZ. Marine mammal observations will document and maintain a data sheet that can be shared with AHJs if required.<br>• Should water withdrawal be required from the ocean, water intake will be in compliance with DFO-FFHPP SCOP for end-of-pipe fish protection screens (DFO, 2024).<br>• If SAR are reported or observed, the MMO will record, document, and monitor their presence (including time, date, location, activity, and proximity to vessel), determine potential impacts to SAR, and any modification to activities that may be required to protect SAR. |
| Terrestrial wildlife and vegetation | • An armed wildlife monitor will accompany the team for protection from polar bears.<br>• All field personnel will participate in wildlife safety training, including bear safety training. This will be carried out during the site orientation.<br>• Waste material bins will be used to prevent scavenging by wildlife and feral animals, as well as to control odour.<br>• All field personnel will be instructed that the feeding of terrestrial or marine wildlife is prohibited. |
| Accidental spill | • During drilling (if required) a Spill Response Plan (SRP) will be in place.<br>• Emergency response kits and spill kits will be onsite and will be appropriate to the type and quantity of hazardous materials associated with the Geotechnical Study. Spill kits will contain materials appropriate for the potential products to be spilled, taking into consideration the surrounding environment and seasonal conditions (e.g. iced ocean). |

| Environmental Effect | Mitigation |
|---|---|
| | The emergency response kits will include appropriate Personal Protection Equipment (PPE) such as gloves and goggles.<br>• All spills will be reported in accordance with the Spill Contingency Planning and Reporting Regulations by calling the 24-hour Spill Report Line at 867-920-8130. |
| Water, sediment and air quality management | • Drill muds, additives, and other products shall be non-toxic and environmentally friendly.<br>• Machinery and equipment will be maintained in good working order to minimize emissions.<br>• The footprint of the sediment samples is not expected to be impactful to the seabed, and turbidity is not expected to result in exceedances of the federal Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines (WQG) (CCME, 1999).<br>• The footprint of the grab sampler and drill head (150 mm diameter) is very small (<10 $cm^2$), so disturbance of sediment will be minimal. |
| Disruption of traditional use of proposed Study Areas | • Arrival of the research team will be communicated in advance of the Program. There is no aspect of works required that would modify the use of terrestrial or marine areas by local people. |
| Disturbance of heritage resources | • Impacts to archaeological resources are not expected, however, as indicated in Section 6.2 (Table 6-2), an AIA will be performed if it is required in advance of any ground penetrating activities. |
| Increased overall anthropogenic presence within Study Areas | • The crew is small and are conducting non-invasive short-term studies. |

# 9 References


*Aquatic Invasive Species Regulations*. SOR/2015-121. Last amended: June 4, 2021. Enabling Act: *Fisheries Act*. Available at: https://laws-lois.justice.gc.ca/eng/regulations/sor-2015-121/FullText.html. Accessed: June 2025.

CCME. (1999). Turbidity. Water Quality Guidelines for the Protection of Aquatic Life - Marine. Available at: https://ccme.ca/en/chemical/219#_aql_marine_concentration. Accessed: May 2025.

*Consolidation of Scientists Act*. R.S.N.W.T. (Nu) 1988, c S-4. Available at: https://www.canlii.org/en/nu/laws/stat/rsnwt-nu-1988-c-s-4/latest/rsnwt-nu-1988-c-s-4.html. Last amended: April 1, 2014.

*Consolidation of Wildlife Act*. S.Nu. 2003,c.26. Current to: November 6, 2012. Iqaluit, NU. Available at: https://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html. Accessed: November 2024.

DFO. (2024). Standards and Codes of Practice. Available at: https://www.dfo-mpo.gc.ca/pnw-ppe/practice-practique-eng.html. Accessed August 2025.

Dynamic Ocean. (2025a). Kimmirut Sealift Field Program - NPC Application Letter. Prepared for NPC by Dynamic Ocean. Doc. No.: LET-WRL-12-Kimmirut Sealift NPC Field Application-0001-25. 03 October 2025. R2.

Dynamic Ocean. (2025b). Kimmirut Sealift Project Field Program - Environmental Management Plan. Prepared for GN-TIN and Worley Consulting by Dynamic Ocean. Doc No. PLN-WRL-12-Kimmirut Sealift Field Program EMP-0001-25. November 2025. R0.

*Fisheries Act*. R.S.C. 1985, c F-14. Last amended: August 28, 2019. Available at: https://laws-lois.justice.gc.ca/eng/acts/f-14/. Accessed: March 2025.

Fishery (General) Regulations. SOR/93-53. Available at: https://laws-lois.justice.gc.ca/PDF/SOR-93-53.pdf. Last amended: April 4, 2022. Enabling Act: *Fisheries Act*.

GN. (1999). Consolidation of Spill Contingency Planning and Reporting Regulations (R-068-93). Available at: https://www.nunavutlegislation.ca/en/consolidated-law/spill-contingency-planning-and-reporting-regulations-consolidation. Accessed: July 2025.

Government of Canada. (2025). Nunavut Devolution. Available at: https://www.rcaanc-cirnac.gc.ca/eng/1352471770723/1537900871295. Accessed: November 2025.

MMR. (2018). SOR/93-56. Last amended: November 2, 2018. Enabling Act: *Fisheries Act.* Available at: https://laws-lois.justice.gc.ca/eng/regulations/sor-93-56/index.html. Accessed: April 2025.

Nunavut Archaeological and Palaeontological Sites Regulations. SOR/2001-220. Last amended: May 28, 2009. Enabling Act: *Nunavut Act.* Available at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-220/FullText.html. Accessed: November 2024.

*Nunavut Land Claims Agreement Act*. SC 1993, c. 29. Last amended: May 21, 2004. Available at: https://laws-lois.justice.gc.ca/eng/acts/n-28.7/. Accessed: August 2025.

*Nunavut Planning and Project Assessment Act*. SC 2013, c. 14, s. 2. Last amended: May 27, 2022. Available at: https://laws-lois.justice.gc.ca/eng/acts/N-28.75/. Accessed: August 2025.

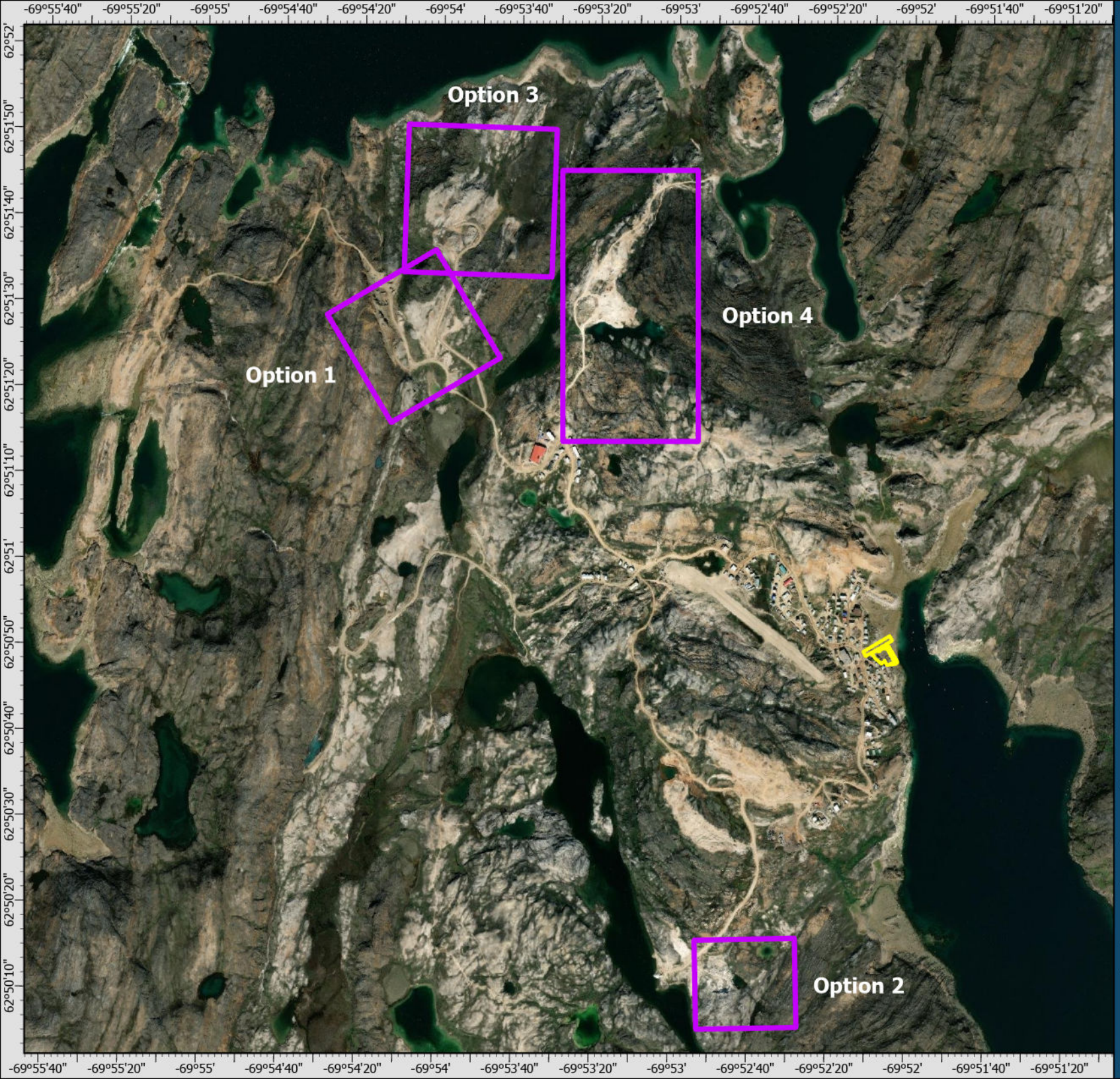
Nunavut Waters Regulations. SOR/2013-69. Enabling Act: *Nunavut Land Claims Agreement Act, Nunavut Waters and Nunavut Surface Rights Tribunal Act.* Available at: https://laws-lois.justice.gc.ca/eng/regulations/SOR-2013-69/index.html. Accessed: November 2024

Territorial Land Use Regulations. CRC c. 1524. Last amended: 16 December 2024. Enabling Act: Territorial Lands Act. Available at: https://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1524/. Accessed: August 2025.

*Territorial Lands Act*. RSC 1985, c. T-7. Last amended: July 15, 2019. Available at: https://laws-lois.justice.gc.ca/eng/acts/T-7/. Accessed: November 2024.

# Appendix A: Supporting Figures

Dynamic Ocean Consulting Ltd.




Nunavut

worley consulting

Dynamic Ocean Consulting

## Legend

- Sealift Footprint
- Quarry Options


0 125 250 500 m

Scale: 1:18,000

N

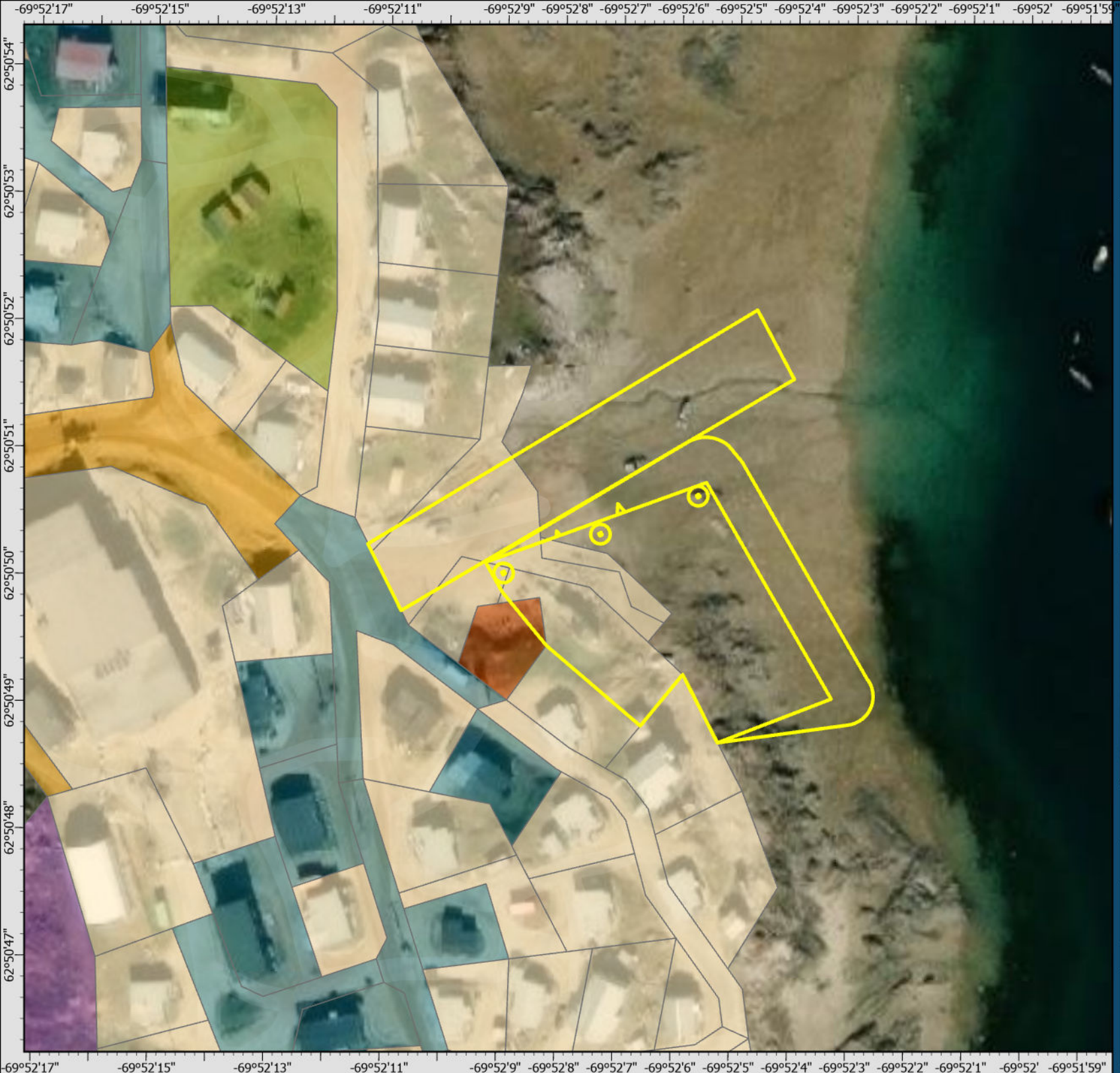
Spatial Reference
GCS: GCS North American 1983 CSRS
Datum: North American 1983 CSRS
Projection: Transverse Mercator
Map Units: Metre

Drawn: AW
Edited: CL
Approved: VBC

Kimmirut Sealift Project

Figure A-1

**Quarry Options for Kimmirut**




Nunavut

Dynamic Ocean Consulting

worley consulting

## Legend

Sealift Footprint

**Interaction**

- Commissioner's Land
- Federal

**No Interaction**

- Inuit Owned Land (IOL)
- Municipal
- Private
- Untitled Municipal


0 5 10 20 m

1:1,200

N

Spatial Reference
GCS: GCS North American 1983 CSRS
Datum: North American 1983 CSRS
Projection: Transverse Mercator
Map Units: Metre

Drawn: AW
Edited: AW
Approved: VBC

Kimmirut Sealift Expansion

Figure A-2

**Kimmirut Sealift Land Tenure**

# Appendix B: Letter of Support

Dynamic Ocean Consulting Ltd.

Municipality of Kimmirut

Box 120, Kimmirut, NU X0A 0N0

Phone (867) 939 2247

Date: December 18th, 2025

To: Board of Directors

Nunavut Impact Review Board

Nunavut, Canada

To Whom It May Concern:

This letter is to confirm that the Hamlet of Kimmirut is supportive of the Sealift Safety Improvements Project (the Project) proposed for our community.

The Mayor and Council have been engaged by the Project team since 2021 and most recently met with representatives in November 2025 to discuss the proposed field program, overall Project concept and construction planning. Council understands that the Project is intended to improve safety and functionality in the sealift area, which is a very important piece of infrastructure for our community.

Based on the information presented to date, the Hamlet has no concerns with the proposed field program activities, including marine surveys, test pits, and potential borehole drilling, or with the anticipated construction activities within the Project area. Council understands that appropriate mitigation measures will be implemented to manage environmental, land use, and public safety considerations throughout the Project.

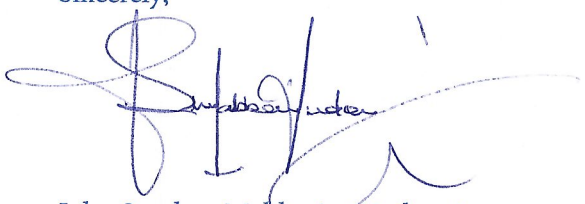
The Hamlet understands that further consultation will be conducted to collaborate on detailed construction planning for the Project, including maximizing local labour and business opportunities and the use of municipal services such as water, wastewater disposal and solid waste. From a municipal perspective, the Hamlet is aware of the Project's potential needs and is confident that municipal services can support the Project as it advances, subject to continued coordination and planning. The Hamlet also understands that the Project team will coordinate with the Government of Nunavut, including the Petroleum Products Division (PPD), to ensure fuel requirements are managed in a way that does not place a burden on the community's supply.

The Hamlet has no concerns with the areas being studied as potential quarries for the Project. Additionally, the Project site is located in an area already used for sealift and marine access purposes, and Council recognizes the long-standing safety challenges that exist during sealift operations. The proposed improvements are expected to enhance safety, reduce conflicts between users, and provide long-term benefits to our community.

The Hamlet of Kimmirut supports the advancement of the Sealift Safety Improvements Project and looks forward to continued communication and collaboration with the Project team as planning and permitting progress.

If you have any questions, please do not hesitate to contact the Hamlet office.

Sincerely,



John Stephen Mabberi – Mudonyi

Chief Administrative Officer
Hamlet of Kimmirut