



NIRB Application for Screening #126174

Investigative Studies for the Iqaluit Nukkiksautiit Project

Application Type: New

Project Type: Scientific Research

Application Date: Saturday, May 10, 2025

Period of operation: from 2025-07-02 to 2025-10-11

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DETAILS

Non-technical project proposal description

English: Planned and Ongoing WorkPhase 3: Front-End Engineering and Design (FEED) began in late 2024. Key aspects of Phase 3 are commercial activities, preliminary engineering, investigative, and engagement. Below is a list of field activities to be completed in 2025.Environmental Baseline Studies-GeophysicaloOpportunistic field sampling (soil, surface water, groundwater) will be completed in Year 1 in cooperation with field teams deployed for other disciplines.- TerrestrialoAn extensive network of wildlife cameras surrounding the primary proposed reservoir will be deployed and in a buffered area surrounding the road routing. These cameras allow also for non- wildlife analysis.oDuring camera deployment, the wildlife team will be accompanied by a terrestrial ecosystem specialist to complete ecosystem and wildlife habitat assessments at each camera location.-BirdsoAerial surveys and point count surveys for breeding birdsoCount stations distributed throughout areas of proposed disturbanceoStandwatch surveys along the proposed road routes to document current patterns of bird flight behaviour where vertical structures may be constructed.-Fish and Fish HabitatoOpportunistic field sampling will be completed in Year 1 in cooperation with field teams deployed for other disciplines.oWith permitting requirements for fish sampling and collection, it is anticipated that this sampling would be limited to water sampling.- Groundwater HydrologyoOpportunistic field sampling in cooperation with field teams deployed for other disciplines.oContinuation of hydrometric monitoringArchaeological AssessmentThe assessment will be carried out on foot, and by ATV, using two boats with outboard. The team will move systematically through the entire shoreline that will be flooded, scanning the surface for archaeological material. Newly recorded sites will be mapped, including individual features. Although the surface of the site will be examined for artifacts, there will be no collections made, and no digging or site alteration will be undertaken.Geophysical/Geotechnical Data CampaignUse of ground-penetrating-radar (GPR) or similar methods for non-invasive geophysical data collection. Additionally test pitting for surface materials will be completed for both engineering and environmental purposes.LiDAR Data CollectionLiDAR Data Collection of the proposed Project area including potential corridors for linear infrastructure will be completed. The primary goals of the LiDAR Data Collection are to capture topographic data and Orthophotos for the Project area. This data will help with engineering and design as well as planning. Temporary Camp EstablishmentThis camp will support on-site activities for the 2025 field season. Supply of lodging, communication tools, and supply of necessary supplies for extended occupation of the camp.Human Environment-May 2025oValidate field season data collection program plans with Rightsholders and incorporate Inuit Qaujimajatuqangit.oContinue to engage with the Rightsholders and stakeholders on routing the Project access road and other linear infrastructure.-June 2025oShare finalized data collection program plans with the publicoAdvertise field work employment opportunities for IqalungmiutoSummer, 2025: monthly updates from the Site on field data collection program progress-November 2025oValidate field season data and associated analysis with Rightsholders and incorporate Inuit Qaujimajatuqangit.oContinue to engage with the Amaruq Hunters and Trappers association on routing the Project access road and other linear infrastructureoConduct a project naming initiative with Inukshuk high school.-General Engagement Activities Throughout 2025oCommencement of the Socio-economic AssessmentoCommence engagement with the community of Panniqtuuq

French: Travaux prévus et en coursPhase 3 : La conception préliminaire (FEED) a débutée à la fin de 2024. Les principaux aspects de la phase 3 sont les activités commerciales, l'ingénierie préliminaire, les enquêtes et la mobilisation. Voici une liste des activités sur le terrain qui seront terminées en 2025. Études environnementales de base - Géophysique o L'échantillonnage de terrain opportuniste (sol, eau de surface, nappes phréatiques) achèvera au cours de la première année en coopération avec les équipes de terrain déployées pour d'autres disciplines. - Terrestre o Un vaste réseau de caméras animalières entourant le réservoir primaire proposé sera déployé dans une zone tampon entourant les tracés routier. Ces caméras permettent également l'analyse des animaux non sauvages. o Pendant le déploiement des caméras, l'équipe de protection de la faune sera accompagnée d'un spécialiste des écosystèmes terrestres pour effectuer les évaluations de l'écosystème et de l'habitat de la faune à chaque emplacement de caméra. - Oiseaux o Relevés aériens et comptage de points pour les oiseaux nicheurs o Postes de comptage répartis dans les zones de perturbation proposée o Des relevés de surveillance le long des routes proposées pour

[illegible]

Operations Phase: from 2025-07-02 to 2025-10-11

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Potential flooded extent of the reservoir	Airstrip use or construction	Crown	Hydrometric data collection currently ongoing.	Unknown. Archaeological studies to commence Summer 2025.	60km to Iqaluit. Near a caribou Calving Area.
Potential flooded extent of the reservoir	Baseline data	Crown	Hydrometric data collection currently ongoing.	Unknown. Archaeological studies to commence Summer 2025.	60km to Iqaluit. Near a caribou Calving Area.
Potential flooded extent of the reservoir	Camp	Crown	Hydrometric data collection currently ongoing.	Unknown. Archaeological studies to commence Summer 2025.	60km to Iqaluit. Near a caribou Calving Area.
Potential flooded extent of the reservoir	Aerial surveys	Crown	Hydrometric data collection currently ongoing.	Unknown. Archaeological studies to commence Summer 2025.	60km to Iqaluit. Near a caribou Calving Area.

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Information is not available			

Authorizations

Indicate the areas in which the project is located:

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	Authorization to Use Water / Deposit Waste Without a Licence	Not Yet Applied		
Government of Nunavut, Department of Environment	Wildlife Research Permit	Not Yet Applied		
Indigenous and Northern Affairs Canada	CIRNAC - Class A Land Use Permit	Not Yet Applied		
Fisheries and Oceans Canada	Fish for Scientific Purposes Permit	Not Yet Applied		
Other	Government of Nunavut, Department of Culture and Heritage - Class 1 Archaeological Research Permit	Applied, Decision Pending		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Helicopter and fixed wing plane	
Water	Small open boat with outboard motor for travel across the potential reservoir	
Land	By foot only	

Project accomodation types

Temporary Camp

Material Use

Equipment to be used (including drills, pumps, aircraft, vehicles, etc)

Equipment Type	Quantity	Size - Dimensions	Proposed Use
AutoSalt water flow monitoring systems	2	24.5 x 23 x 48 tall	The two AutoSalt monitoring systems will be commissioned in the Mckeand River to monitor water flow for a one-year period.

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Gasoline	fuel	350	20	7000	Liters	ATV Use
Diesel	fuel	200	20	4000	Liters	Camp Gensets
Diesel	fuel	526	20	10520	Liters	Tent Heat

Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0	Treatment of local surface water via pumps.	Unknown at this point but in proximity to the camp.

Waste

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Camp	Combustible wastes	Unknown	Incinerated onsite using a Smart Ash incinerator, with remaining ash and non-incinerable waste slung back to Iqaluit.	N/A
Camp	Greywater	Unknown	Treated using a portable system or containerized for safe disposal.	N/A
Camp	Sewage (human waste)	Unknown	Collected in sealed containers and regularly flown out for proper disposal in Iqaluit.	N/A

Environmental Impacts:

Physical, Biological, and Socio-economic impacts marked as positive below (with the exception of employment) will all benefit from this research as more information is collected on the hydrological, geological, soil quality, vegetation, wildlife, bird, aquatic specific, and archaeological conditions in the area. Employment will be positively impacted as a result of increased employment opportunities for Iqalungmiut and Panniqtuumiut during this field season. Noise levels have been marked as Negative/Mitigable as there may be increases in noise levels from increased air traffic and the temporary camp on-site. These impacts will be mitigated through coordination with Rightsholders on the field season plan to ensure Inuit Qaujimajatuqangit is incorporated into the field plan, including recognizing migratory windows and other environmental parameters that will define access to the area and use of the area during the research activities.

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

The Project Area in which this research is planned is undeveloped tundra. The location of the temporary camp from which the research will be conducted is approximately 60 km northeast of Iqaluit at the base of a large reservoir of water on the McKeand River (Kuugaluk Area). There is no pollution in the area as a result of its undeveloped status. There is another temporary camp approximately 40 km northeast of the proposed camp being used for mining exploration activities. The area in which the research is being proposed has been used as a transportation route for hunters and travelers on skidoo travelling between Iqaluit and Panniqtuuq, or for travelers heading to Sukaanga. The goal of this research is to enable a holistic and accurate understanding of the physical environment before anything is proposed for potential future development in the area.

Description of Existing Environment: Biological Environment

The area in which the research is being proposed is nearby the McKeand River (Kuugaluk Area) wherein a variety of flora and fauna species exist. The purpose of this research is to confirm exactly how the biological environment in the area functions. The team performing the proposed baseline studies has completed similar studies at the nearby exploratory mining camp. The team is aware of various wildlife in the area (terrestrial and aquatic) as well as various flora and vegetation in the area. The goal of the research planned for this year is to collect accurate data to ensure the biological environment is well understood in its current state before anything is proposed for future development in the area.

Description of Existing Environment: Socio-economic Environment

The area in which the research is being planned is approximately 60 km northeast of Iqaluit. There is no permanent human settlement in the area, though the area is used as a transportation route for hunters and travelers on skidoo travelling between Iqaluit and Panniqtuuq, or for travelers heading to Sukaanga. There is no economic development in the area. As the proposed area lies between Iqaluit and Panniqtuuq, there will be employment opportunities for both Iqalungmiut and Panniqtuumiut throughout the planned field work this season. NNC will also be engaging directly with Rightsholders in Iqaluit and Panniqtuuq to ensure comfort with the planned field work planned for the season. Incorporation of Inuit Qaujimajatuqangit will occur before the field season plans are finalized. The goal of this research is to confirm baseline understanding of the area before anything is proposed for future development.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

Cumulative Effects

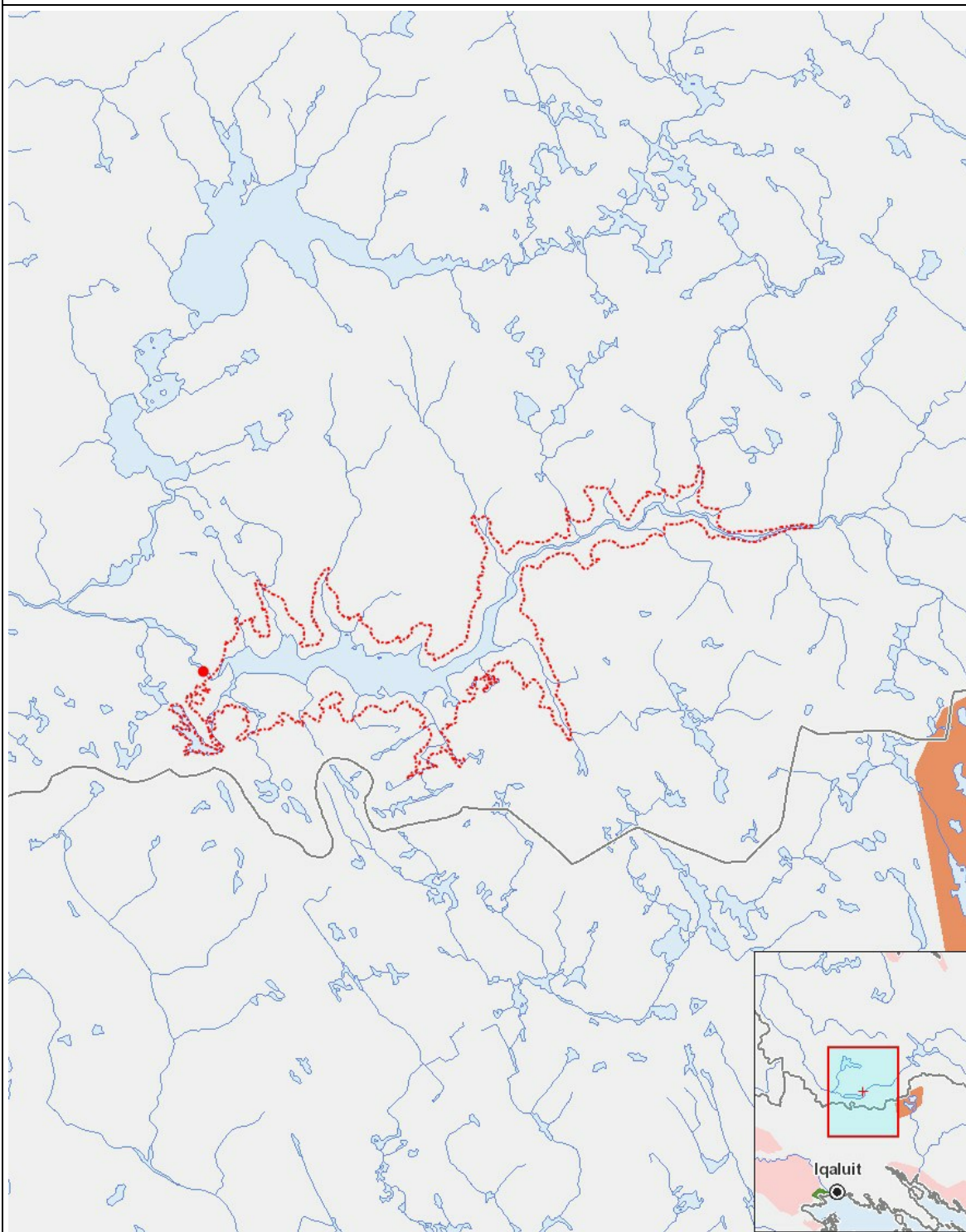
Impacts

Identification of Environmental Impacts

	PHYSICAL	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Operation																									
Aerial surveys	-	-	-	-	-	-	-	-	P	P	-	-	M		P	P	P	P	-		P	P	-	-	-
Decommissioning	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Location



List of Project Geometries

- | | | |
|---|----------|---|
| 1 | polyline | Potential flooded extent of the reservoir |
| 2 | point | Potential outflow location |