



Investigative Studies for the Iqaluit Nukkiksautiit Project

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Scientific Research

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Saturday, May 10, 2025

Period of operation:

from 2025-07-02 to 2025-10-11

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፳፻፲፭፻፮: 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-Geophysicalo Opportunistic field sampling (soil, surface water, groundwater) will be completed in Year 1 in cooperation with field teams deployed for other disciplines.- Terrestrialo An 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.o During camera deployment, the wildlife team will be accompanied by a terrestrial ecosystem specialist to complete ecosystem and wildlife habitat assessments at each camera location.-Birds o Aerial surveys and point count surveys for breeding birds o Count stations distributed throughout areas of proposed disturbanceo Standwatch surveys along the proposed road routes to document current patterns of bird flight behaviour where vertical structures may be constructed.-Fish and Fish Habitato Opportunistic field sampling will be completed in Year 1 in cooperation with field teams deployed for other disciplines.o With permitting requirements for fish sampling and collection, it is anticipated that this sampling would be limited to water sampling.- Groundwater Hydrologyo Opportunistic field sampling in cooperation with field teams deployed for other disciplines.o Continuation 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 2025o Validate field season data collection program plans with Rightsholders and incorporate Inuit Qaujimajatuqangit.o Continue to engage with the Rightsholders and stakeholders on routing the Project access road and other linear infrastructure.-June 2025o Share finalized data collection program plans with the publico Advertise field work employment opportunities for Iqalungmiuto Summer, 2025: monthly updates from the Site on field data collection program progress-November 2025o Validate field season data and associated analysis with Rightsholders and incorporate Inuit Qaujimajatuqangit.o Continue to engage with the Amaruq Hunters and Trappers association on routing the Project access road and other linear infrastructureo Conduct a project naming initiative with Inukshuk high school.-General Engagement Activities Throughout 2025o Commencement of the Socio-economic Assessmento Commence engagement with the community of Panniqtuuq

፳፻፲፭፻፮: 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

documenter les schémas de vol des oiseaux actuels, là où des structures verticales peuvent être construites. - Poisson et habitat du poisson o L'échantillonnage de terrain opportuniste sera complété au cours de la première année en coopération avec les équipes de terrain déployées pour d'autres disciplines. o Compte tenu des exigences en matière de permis pour l'échantillonnage et la collecte du poisson, on prévoit que cet échantillonnage se limitera à l'échantillonnage de l'eau. - Hydrologie des eaux souterraines o Échantillonnage de terrain opportuniste en coopération avec des équipes de terrain déployées pour d'autres disciplines. o Poursuite de la surveillance hydrométrique Évaluation archéologique L'évaluation sera effectuée à pied, et par VTT, en utilisant deux bateaux avec hors-bord. L'équipe se déplacera systématiquement sur toute la rive qui sera inondée, en balayant la surface à la recherche de matériel archéologique. Les nouveaux sites seront enregistrés et cartographiés, y compris les caractéristiques individuelles. Bien que la surface du site soit examinée à la recherche d'artéfacts, il n'y aura aucun collecte ni creusement ou modification au site entrepris. Campagne de données géophysiques/géotechniques Utilisation du radar de pénétration au sol (GPR) ou de méthodes similaires pour la collecte de données géophysiques non invasives. Des essais de piqûre pour les matériaux de surface seront également effectués à des fins d'ingénierie et environnementales. Collecte de données LiDAR Collecte de données LiDAR sur la zone du projet proposé, y compris les corridors potentiels pour l'infrastructure linéaire. Les principaux objectifs de la collecte de données LiDAR sont de capturer des données topographiques et des orthophotos pour la zone du projet. Ces données aideront à l'ingénierie et à la conception ainsi qu'à la planification. Établissement du camp temporaire Ce camp appuiera les activités sur le terrain pour la saison 2025. Fourniture de logements, d'outils de communication et des fournitures nécessaires pour l'occupation prolongée du camp. Environnement humain - Mai 2025 o Valider les plans du programme de collecte des données de la saison sur le terrain avec les titulaires de droits inuits et incorporer les Qaujimajatuqangit Inuit. o Continuer de collaborer avec les titulaires de droits inuit et les intervenants sur l'acheminement de la route d'accès du projet et d'autres infrastructures linéaires. - Juin 2025 o Partager les plans finalisés du programme de collecte de données avec le public o Annoncer les possibilités d'emploi sur le terrain pour Iqalungmiut o Été 2025 : mises à jour mensuelles du site sur les progrès du programme de collecte des données sur le terrain - Novembre 2025 o Valider les données de la saison sur le terrain et l'analyse connexe auprès des titulaires de droits inuits et intégrer les Qaujimajatuqangit Inuit. o Continuer de collaborer avec l'association des chasseurs et trappeurs d'Amaruq pour acheminer la route d'accès du projet et les autres infrastructures linéaires o Mener une initiative de nommage pour le projet avec l'école secondaire Inukshuk. - Activités générales de mobilisation en 2025 o Début de l'évaluation socio-économique o Amorcer l'engagement avec la communauté de Panniqtuuq

Inuinnaqtun: Project lies in the Qikiqtani Region. As such, it was determined Inuinnaqtun translations may not be required for this Project.

Personnel

Personnel on site: 10

Days on site: 119

Total Person days: 1190

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

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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.

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Information is not available			

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Project transportation types

Transportation Type	Location	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 accommodation types

Temporary Camp

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Gasoline	fuel	350	20	7000	Liters	ATV Use
Diesel	fuel	200	20	4000	Liters	Camp Gensets
Diesel	fuel	526	20	10520	Liters	Tent Heat

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0	Treatment of local surface water via pumps.	Unknown at this point but in proximity to the camp.

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Camp	የሚከተሉት የሚከተሉት የሚከተሉት የሚከተሉት	Unknown	Incinerated onsite using a Smart Ash incinerator, with remaining ash and non-incinerable waste slung back to Iqaluit.	N/A
Camp	የሚከተሉት የሚከተሉት የሚከተሉት የሚከተሉት	Unknown	Treated using a portable system or containerized for safe disposal.	N/A
Camp	የሚከተሉት የሚከተሉት የሚከተሉት የሚከተሉት	Unknown	Collected in sealed containers and regularly flown out for proper disposal in Iqaluit.	N/A

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 Rightholders 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

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The Project Area in which this research is planned is undeveloped nunavut. 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.

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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.

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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 Rightholders 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

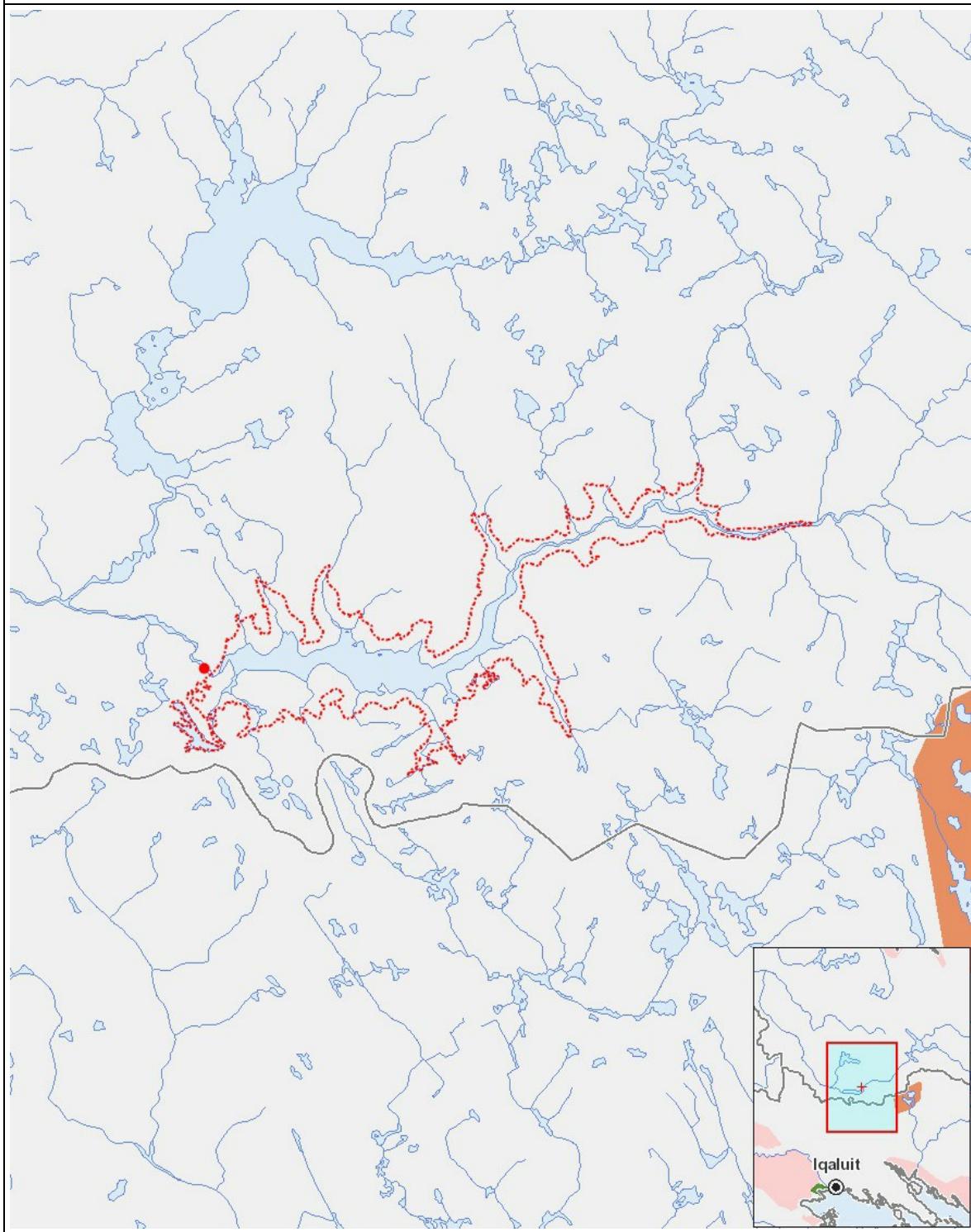
Cumulative Effects

Impacts

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List of Project Geometries

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