Demande de la CNER faisant l’objet d’un examen préalable #126005

Hydrology Modelling for McKeand River South

Type de demande :	New
Type de projet:	Scientific Research
Date de la demande :	9/28/2024 4:52:39 PM
Period of operation:	from 2024-10-11 to 2025-10-11
Promoteur du projet:	Heather Shilton Nunavut Nukkiksautiit Corporation P.O. Box 1228 Iqaluit NU X0A0H0 Canada Téléphone :: 8672224658, Télécopieur ::

DÉTAILS

Description non technique de la proposition de projet

Anglais: IntroductionNunavut Nukkiksautiit Corporation (NNC) plans to collect river current data at McKeand River South, 60km Northeast of Iqaluit. This is a part of the Front-End Engineering and Design (FEED) stage of investigating the potential for community scale hydroelectric project in Iqaluit. This location was determined in a community vote by Iqalungmiut. The Qikiqtani Inuit Association has also approved support for further investigation of a potential hydroelectric project at this location through a FEED Study. Analysis from a QIA-led Tusaqtavut Study showed that the site at Kuugaluk River had zero reported values in the categories of cultural continuity, fishing and fresh water resource use, marine harvesting, terrestrial harvesting, travel trails and habitation. Based on these factors and support from Iqalungmiut, NNC is continuing to investigate the potential for waterpower at this location. NNC has contracted Sea to Sky Energy Solutions (SSES) to complete the design, installations and monitoring of the two hydrometric stations.TimelineNNC is aiming to start collecting data this calendar year. To do this, the two hydrometric monitoring systems will be installed in the fall of 2024;, pending approval and procurement of materials, the installation will take place in early October 2024. These monitoring stations will operate for a one-year period, and the two monitoring systems will be decommissioned and removed from the site in the fall of 2025. The processing and analysis of the collected data will be finalized in a report by January 2026.Project MethodologyIn the fall of 2024, the SSES design team will visit the McKeand River South site to install the two Fathom AutoSalt hydrometric monitoring systems. The team will camp out at the site with a local guide and this initial installation period will last 10-14 days. Once these stations are installed, data will be collected remotely via satellite technology. During the one-year period of data collection additional site visits may be required to amend any equipment, such as in the spring when the river thaws. One year following the deployment of these systems the team will return to the site to decommission the monitoring devices and remove all equipment from the site.All data collected will be analyzed to determine the flow rates and the feasibility of waterpower at this location. This data will be included in the final report of this monitoring project.Environmental, Social and Wildlife InteractionsBased on QIA's Tusaqtavut Study, Kuugaluk River had no identified areas of land use and cultural activities. The deployment of two hydrometric monitoring systems will have no environmental, social or wildlife impacts as the equipment is temporary and non-invasive.Data ManagementThe Fathom's AutoSalt systems will transmit data via satellite, this data will be collected, analyzed and summarized in a report by SSES. The raw data as well as the analyzed data from the report will be reported back to NNC.Local BenefitsThis data collection is necessary to determine the feasibility of waterpower in Iqaluit. This data collection will provide the data needed to move forward with a community scale hydroelectric project, which has the potential to significantly reduce the city's diesel reliance and consumption. This hydroelectric project, if constructed, also has the potential to ultimately result in health and environmental benefits, decreased cost of power and investing our current diesel expenses into the local economy and providing more local job opportunities.Distribution of ResultsAll results will be summarized and available in the final report of this data collection project as well as in the phase 3 decision support package for the Iqaluit Nukkiksautiit project.

Français: To be provided.

Inuktitut: ᐱᒋᐊᕐᓂᖅᓄᓇᕗᑦ ᓄᑲᕿᓴᐅᑎᑦ ᑯᐊᐅᓚᓴᐧ <ᕐᓇᐃᓕᒪᕗᑦ ᓄᐊᕆᑐᓄᑎᐧ Lᓪᓕᓚᓂᖅ ᖃᐅᔨᓴᕈᑎᑦᓴᓄᑎᐧ ᑕᐃᑲᓂ ᐊᐅᑲᖃᓕᓪᓕ ᑯᒍᓄᐧ ᓂᒋᐊᓂ, 60 ᑭᓕᒋᑕᑦ ᐅᐊᖅᓇᓚᖅ ᑲᓇᖅᓇᓚᓂ ᐃᖅᑲᐃᓕᑦ. ᐅᓇ ᐃᓕᒋᕆᐅᕐᔪᖅ ᑭᓇᐅᔨᓴᖃᑦᑎᐊᕐᓄᑎᐧ <ᕐᓇᐃᓄᑎᐧᓄ ᓴᓇᕗᐅᓂᐊᖅᑐᓂᓂᐧ ᐊᓚᒪᓄ ᖃᓄᖅ ᓴᓇᓕᒪᓂᐊᕐᓕᖅᑎᓕᒫᑦ ᑕᐃᒪᐃᓕᓚᓂᖅᓂᓂ ᖃᖅᐅᔨᓴᖅᑕᐅᓄᓂᐧ ᓄᓇᓕᖅᓂ ᐃᒻᒍᑦ ᐅᓪᒪᕐᓂᖃᖅᐅᑎᓕᕐᓂᐅᕐᔪᖅᓇᖅᓕᖅᑎᓕᒫᑦ ᐃᖅᑲᓐᓂᖅ. ᐅᓇ ᐃᓂᖅᓂᓂ ᐊᐹᖅᑭᑕᐅᓐᖅᑐᖅ ᓄᓇᕗᓐᓂ ᓂᕈᐊᖅᑐᓄᑎᐧ ᐃᖅᑲᓐᕈᒥᐅᑦ. ᐅᑯᐊ ᖁᑭᖅᑕᓂ ᐃᓄᐃᓂᖅ ᑲᑎᒪᓂᖅᐹᒪᖅᑕᐅᓂᖅᑐᑦ ᐃᓕᒍᑦ ᐅᓪᒪᕐᓂᖃᖅᐅᑎᓕᒫᑦ ᐃᖅᑲᓐᕈᒥᐅᑦ. ᐅᑯᐊ ᐃᓂᖅᓂᓂ ᐊᐹᖅᑭᑕᐅᓐᖅᑐᖅ ᓄᓇᕗᓐᓂ ᓂᕈᐊᖅᑐᓄᑎᐧ ᐃᖅᑲᓐᕈᒥᐅᑦ. ᐅᑯᐊ ᖁᑭᖅᑕᓂ ᐃᓄᐃᓂᖅ ᑲᑎᒪᓂᖅᐹᒪᖅᑕᐅᓂᖅᑐᑦ ᐃᓕᒍᑦ ᐅᓪᒪᕐᓂᖃᖅᐅᑎᓕᒫᑦ ᐃᖅᑲᓐᕈᒥᐅᑦ. ᐅᑯᐊ ᐃᓂᖅᓂᓂ ᐊᐹᖅᑭᑕᐅᓐᖅᑐᖅ ᓄᓇᕗᓐᓂ ᓂᕈᐊᖅᑐᓄᑎᐧ

ᐅძᐊᓗ ᐃᓕᐅᖅᑭᓇᖅᑐᑦ ᐅᑭᐊᖅᓴᓚᓂ 2024; ᒪᓕᐅᑐᖅ ᐊᖏᕐᕈᐅᔪᓂ ᐊᓚᓗ ᓂᐅᕕᐊᖓᔪᓐᓇᖅ ᓴᓇᔪᖅᓯᓕᕐᓂ, ᐃᓕᐅᖅᑲᑕᐅᓕᕐᓵᓗᓐᓄᑦ ᖃძᓪᓂ ᐅᖅᑐᐸ 2024. ᐅძᐊ ᒥᐊᓂᓚᕝᑦ ᐃᓂᖏᑦ ᐃᖏᕐᕋᓱᑎᑕᐅᓂᐊᕐᓂᑦ ᐊᑕᐅᔪᕐᒧᑦ ᐊᕐᕋᔪᒧᑦ, ᐊᓚᓗᓪ ᒪᕐᑐᐅ ᒥᐊᓂᔨᔾᑎᑦ ᐃᖏᕐᕋᓴᓂᖅᑎᑕᐅᓂᐊᕐᓂᑦ ᐊᓚᓗᓪ ᐋᖅᑕᐅᓵᑎᐅ ᐃᓂᖏᓂ ᐅᑭᐊᖅᓴᓚᓂ 2025. ᐅᓇ ᐱᓕᓀᔨᐅᓂᖏᑐ ᐊᓚᓗᓪ ᖃᐅᔨᓴᖅᑕᐅᓂᐊᕐᖏᑐ ᓄᐊᑎᑦᓵᓗᓐᓄᑦ ᖃᐅᔨᒪᓕᕐᑭᑎᑕᐃᑲᓂ ᐅᑭᐊᖅᓴᓚᓂ ᐅᓂᐅᑲᑎᑦᓵᓗᓐᓄᑦ ᑎᑭᐅᓕᕐᑐᐅᓂᐊᕐᓂᑦ ᐱᔨᓴᓂᐊᕐᓂᑦ ᐅᑭᐊᖅᓴᓚᓂ ᐅᑭᐊᖅᓴᓚᓂ ᐃᓂᖏᓂ ᐃᓕᓴᐅᔪᓂᑦ ᐃᓕᓴᐅᔪᓂᑦ ᐃᓕᓴᐅᔪᓂᑦ

Activités

Emplacement	Type d'activité	Statut des terres	Historique du site	Site à valeur archéologique ou paléontologique	Proximité des collectivités les plus proches et de toute zone protégée
Mckeand River South	Baseline data	Crown	Location was selected by Iqalungmiut in 2023 for further exploration of a potential waterpower station to generate electricity. Current proposed activities include installation of hydrometric stations to collect data related to water flow speeds, which will determine feasibility for potential future use.	Unknown - to be determined	60 km

Engagement de la collectivité et avantages pour la région

Collectivité	Nom	Organisme	Date de la prise de contact
Iqaluit	Heather Shilton	Nunavut Nukkiksautiit Corporation undertook multiple community engagement events in 2023 to enable Iqalungmiut to determine how they view their energy future. McKeand River South (Kuugaluk South) was selected by Iqalungmiut in November 2023 for further investigation regarding potential waterpower.	2023-11-22

Autorisations

Indiquez les zones dans lesquelles le projet est situé:

Autorisations

Organisme de régulation	Description des autorisations	État actuel	Date de l'émission/de la demande	Date d'échéance
Institut de recherche du Nunavut	Application submitted to NRI August 20, 2024	Applied, Decision Pending		

Project transportation types

Transportation Type	Utilisation proposée	Length of Use
Air	Helicopter	

Project accomodation types

Temporary Camp

Utilisation de matériel

Équipement à utiliser (y compris les perceuses, les pompes, les aéronefs, les véhicules, etc.)

Type d'équipement	Quantité	Taille – Dimensions	Utilisation proposée
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.

Décrivez l'utilisation du carburant et des marchandises dangereuses

Décrivez l'utilisation de carburant :	Type de carburant	Nombre de conteneurs	Capacité du conteneur	Quantité totale	Unités	Utilisation proposée
Information is not available						

Consommation d'eau

Quantité quotidienne (m3)	Méthodes de récupération de l'eau proposées	Emplacement de récupération de l'eau proposé
0		

Déchets

Gestion des déchets

Activités du projet	Type des déchets	Quantité prévue	Méthode d'élimination	Procédures de traitement supplémentaires
Information is not available				

Répercussions environnementales :

No impacts anticipated from these 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 de l'environnement existant : Environnement physique

Description de l'environnement existant : Environnement biologique

Description de l'environnement existant : Environnement socio-économique

Miscellaneous Project Information

Identification des répercussions et mesures d'atténuation proposées

Répercussions cumulatives

Impacts

Identification des répercussions environnementales

	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																									
Baseline data		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	P	-	-	-
Exploitation																									
Baseline data		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	P	-	-	-
Désaffectation																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Négative et non gérable, M = Négative et gérable, U = Inconnue)