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$\gamma_b \Delta^c \dot{\gamma} \Pi \sigma^b \quad \Lambda_{\text{C}} \sim \Delta^{\gamma_b} \gamma \sigma \Delta \sim \Delta^{\alpha_L} L^{\alpha} \sigma^b$

ᐅᐃᐱᓂᑦ: Au nom du hameau de Naujaat, le ministère des Services communautaires et gouvernementaux (SCG) du gouvernement du Nunavut présente une demande de construction d'une lagune à bassin unique située à côté du site actuel d'évacuation des eaux usées et la modification des limites de l'effluent de rejet du permis d'utilisation de l'eau existant afin de desservir efficacement la population croissante de Naujaat jusqu'à la date de conception prévue, en 2043. La nouvelle installation de traitement comportera un nouveau bassin de lagune principal en amont, lequel sera imperméable. La dépression naturelle en aval faisant actuellement office de lagune deviendra un bassin de traitement secondaire et l'aire de traitement du milieu humide en aval demeurera en service. Le pompage saisonnier de l'effluent vers le bassin secondaire et l'aire de traitement du milieu humide doit avoir lieu à la fin de l'été pour permettre à la crue printanière de passer et à la zone humide de se remplir afin de favoriser sa capacité à soutenir la biodégradation de l'effluent. La modification demandée aux limites de l'effluent dans l'aire de traitement du milieu humide se fonde sur les recherches portant sur la structure des lagunes et du milieu humide au Nunavut les plus complètes à ce jour, et tient compte des changements importants au régime hydrologique, qui sera influencé par le pompage saisonnier de la future lagune imperméable devant remplacer l'exfiltration et la

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[illegible]

ካንፒየር ስራ ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል። ስራው ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል።
2500 m3/ዓመት ስራው ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል። ስራው ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል።
ስራው ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል። ስራው ለመጀመር ለሚገባው ሰው ስልክ ለማግኘት ይቻላል።

Personnel

Personnel on site: 3

Days on site: 365

Total Person days: 1095

Operations Phase: from 2023-07-01 to 2025-09-30

Operations Phase: from 2021-01-27 to 2031-01-26

Post-Closure Phase: from to

$\Lambda \subset \mathbb{N} \triangleleft \mathbb{N} \hookrightarrow \Sigma \triangleleft^{\text{qb}} \mathcal{C}$

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New Single Cell Sewage Lagoon and Access Road	Waste disposal	Municipal	Naujaat currently utilizes a sewage disposal facility located 400 m from the northeast edge of the airport runway. It is located in a valley, south of the old solid waste disposal site. Sewage trucks offload from a discharge area located on the west side of the valley. Sewage collects in the valley at a natural depression which acts as a primary treatment cell, and flows approximately 1,400 m through a series of wetlands and surface water bodies before entering Hudson Bay.	None	Falls within the Naujaat Municipal Boundary

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ᓄᓂᐳᐅᓂᖅ	Kevin Tegumiar	Hamlet of Naujaat	2022-06-16
ᓄᓂᐳᐅᓂᖅ	Alan Robinson	Naujaat Municipal Council	2022-06-16

ᄒᄆᅃᆫ ᄇᄊᅃᄂᆺ ᄈᅃᆯᅃᄌᄆᄂᄆᅃ

$a^b r^a \sigma^b \wedge c^d r^c \delta \sigma^d \gamma^c \cap \gamma^c \sigma^c:$

Kivalliq

[illegible]

<p>ᓕᓴᓚᓂᓄᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>	<p>ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>	<p>ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>	<p>ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ / ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>	<p>ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>
<p>ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ ᓇᓴᓐᓇᑦ</p>	<p>The amendment application to the Naujaat water license will be submitted to NWB after the NIRB screening. The amendment will be for the construction of a new single cell lagoon located adjacent to the current wastewater disposal site to meet the capacity of the growing municipality and to adjust the effluent treatment limits to match what was identified in the Nunavut specific research</p>	<p>Not Yet Applied</p>		

Project transportation types

Transportation Type	How the Wastewater is Transported	Length of Use
Land	Vacuum trucks collect sewage from building holding tanks and transport it for disposal at the active lagoon.	

Project accomodation types

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◀▷↳σ◀⁹⁶▷⁹⁶

Λ⁹D Δ⁶ΓΔ⁵B ΔD⁵C DσD⁴HΔ⁵ ΔC⁵B DΠD⁴ΓC ΔδCΔ⁵, ΓCΔDΠ⁵, Ξ⁶BCΠ⁵, ρC DΓ⁶ΓCΔ

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Sewage Truck	2	15,000L	Sewage Trucks will discharge waste into the lagoon one at a time
Excavator	1	10x15	Berm Construction
Dump Truck	1	10x20	Transport granular material from a quarry 8-10km away from the site for lagoon fill
Pump	1	N/A	Annual decant of sewage lagoon effluent into the adjacent wetland treatment area

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ᐱᓄᑦ ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ	ᐃᓂᐳᐸᐅᓇᓂᐅᑦ ᐃᓂᐳᐸᐳᐸᐅᓇᓂᐅᑦ
Diesel	fuel	0	0	0	Liters	The facility itself does not use fuel. Once annually a small portable pump will be used on site to decant the effluent contained in the lagoon. The pump is then removed from the site.

ΔL^{9b} ΔD^{9b} CD^{9b} ΔL^{9b} ΔD^{9b}

$\Delta C_{\text{water}} = \sum_{i=1}^n \left(\frac{\partial C}{\partial Q_i} \right) \Delta Q_i$	$\Delta C_{\text{water}} = \sum_{i=1}^n \left(\frac{\partial C}{\partial Q_i} \right) \Delta Q_i$	$\Delta C_{\text{water}} = \sum_{i=1}^n \left(\frac{\partial C}{\partial Q_i} \right) \Delta Q_i$
299	No change to current water supply system under the existing license. Water is	No change to current water supply under the existing license.

	pumped directly from water source into water treatment plant through dual intakes	
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$\triangleleft^b C d^c$
$$\Delta^b C_{j\sigma} \sim \sigma \Delta^a \sigma^b$$

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Waste disposal	ፍጥነት ስም	121,469 m3 in 2043	Sewage truck disposes sewage into the lagoon where it is held until the annual effluent pump out into the wetland treatment area.	Treatment is provided within the lagoon and from the wetland treatment area.

$\Delta^{\circ} \text{G}_{\text{f}}^{\circ}(\text{C}_6\text{H}_6) = -123.4 \text{ kJ mol}^{-1}$

The new single cell lagoon will be impermeable to contain the sewage until the annual decant. The current lagoon allows uncontrolled discharge into the wetland. The new lagoon will be designed to serve the community until 2043. Construction of the new single cell lagoon will still allow for use of the existing natural depression that is acting as the current lagoon which will be used as a secondary treatment cell. The existing downstream wetland treatment area will remain in use.

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: Rigid

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION 11: Municipal Development

The asset will be owned and operated by the municipality for the purpose of sewage disposal and treatment.

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The land is already zoned for waste disposal.

[illegible]

The land is already zoned for waste disposal. The impact to the receiving environment will be improved as the current lagoon allows uncontrolled discharge into the wetland treatment area and the new lagoon will not. Treatment will be enhanced by the new infrastructure.

[illegible]

The land is already zoned for waste disposal. Sewage disposal is critical for municipal operations.

Miscellaneous Project Information

This application is to amend the 3BM-REP2126 water license to include the construction of a new single cell sewage lagoon in the new license. The current lagoon is under capacity. The lagoon will be designed to hold 12 months of wastewater for a design life of 20 years, giving consideration to population growth. The wetland treatment area and discharge into the wetland treatment area will remain the same. Additionally, the licensee is requesting to change the effluent treatment parameter limits to cBOD = 100mg/L, TSS = 120 mg/L, and unionized ammonia as nitrogen = 1.25 mg/L based on the best available wastewater treatment research conducted in Nunavut. Construction activities will include blasting and excavation. All excavated materials will be hauled away, while fill for the lagoon berm will be sourced from a quarry 8-10km away from the construction site, with material that only requires screening.

[illegible]

This project is intended to improve the current wastewater treatment facility in Naujaat. The lagoon will be designed to meet the long term needs of Naujaat. The new lagoon will be impermeable to contain the sewage until annual decant; the current lagoon allows uncontrolled discharge through the wetland treatment area.

Cumulative Effects

This project will enhance wastewater treatment, reducing impacts on the receiving environment.

Impacts

$\omega_{\Delta} \approx \frac{1}{2} \left(\frac{\partial^2 E}{\partial \phi^2} \right)_{\phi=0}$

[illegible]
$$(P = \langle b \rangle_{\mathcal{A}} \mathcal{P} \cap \mathcal{A}^{\perp} \mathcal{Q}^{\perp})^c, N = \langle b \rangle_{\mathcal{A}} \mathcal{P}^{\perp} \mathcal{A} \langle \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^c \subseteq \langle \mathcal{A} \mathcal{P}^{\perp} \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^{\perp} \langle \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^c, M = \langle b \rangle_{\mathcal{A}} \mathcal{P}^{\perp} \mathcal{A} \langle \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^c \subseteq \langle \mathcal{A} \mathcal{P}^{\perp} \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^{\perp} \langle \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^c, U = \langle b \rangle_{\mathcal{A}} \mathcal{P} \mathcal{A} \langle \mathcal{A}^{\perp} \mathcal{Q}^{\perp} \rangle^{\perp})$$

List of Project Geometries

1	polygon	New Single Cell Sewage Lagoon and Access Road
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