



## **NIRB Application for Screening #125411**

### **3BM- GJO 1318 Gjoa Haven Water Licence Renewal , Type B**

**Application Type:** Amendment

**Project Type:** Water

**Application Date:** 10/19/2018 7:31:00 PM

**Period of operation:** from 0001-01-01 to 0001-01-01

**Proposed Authorization:** from 0001-01-01 to 0001-01-01

**Project Proponent:** Shah Alam  
Community and Government Services (CGS)  
Helen Maksagak Centre  
Cambridge Bay NU X0B 0C0  
Canada  
Phone Number:: 8679834156, Fax Number:: 8679834123

# DETAILS

## Non-technical project proposal description

- English: The Hamlet of Gjoa Haven is responsible for the supply of potable water and disposal of sewage waste and solid waste generated from the community. These facilities are currently operating under the current Licence 3BM-GJO 1318 which remains active until Nov 12, 2018. The buried water line sometime faces frozen issues due to crack in insulation or insufficient coverage which required replacing some of the sections of the pipe line. Water line improvement works also included replacement of two heat exchanger pumps, increase sizes of intake pumps, and SCADA monitoring system- all completed during the year 2015-2017. Raw water drawn from Swan lake by two intake pumps, transport to 3.2 km away treatment plant through buried line where water is treated by gravity pressure filtration and chlorination before truckfill for delivery. Water flow meters are included in the treatment system to address the volume of water drawn and delivery to residents using Hamlet operated water trucks. Current engineered lagoon constructed in 2014 and in operation for raw sewage deposition and primary treatment. Decanting of effluent carried during July-August by using pump and hose to a designated point on wetland from where the effluent travels 1275 m towards Ocean through the Final Discharge point GJO-4. The old sewage lagoon was decommissioned and the A&R plan was received to the Board on July 25, 2014. Solid waste site facility had some issues over the years in terms of mixing runoff contamination within the solid waste management (SWMA) area and hazardous materials leachate mixing onto water through wetland, poor segregation in waste dumps, illegal dumping outside the facility, broken spots of fence and poor performance of facility operations. The community has fixed majority of those issues over the years with own resources and some assistance through Government initiatives including the reduction in vehicles parts, reinstalling the fallen fences, filling the broken gaps of berms and stopping the leachate runoff from free flow outside. A sampling monitoring point GJO-5 and signage established for leachate sampling. Other monitoring stations GJO-2, GJO-3, GJO-4 are remains active with GPS locations and identity signage. Monitoring of solid waste and sewage facilities continued during May-August and operators training of Environmental Awareness. Annual Reports are upto date to the Board to 2017.
- French: Le hameau de Gjoa Haven est responsable de l'approvisionnement en eau potable et de l'élimination des eaux usées et des déchets solides générés par la communauté. Ces installations sont actuellement exploitées sous la licence actuelle 3BM-GJO 1318, qui reste active jusqu'au 12 novembre 2018. Lagune aménagée actuellement construite en 2014 et en exploitation pour le dépôt d'eaux d'égout brutes et le traitement primaire. Décantation des effluents transportés entre juillet et août à l'aide d'une pompe et d'un tuyau jusqu'à un point désigné sur une zone humide à partir de laquelle l'effluent se déplace sur 1275 m vers l'océan. L'ancienne lagune d'égout a été mise hors service, point de contrôle GJO-5 et affichage mis en place pour l'échantillonnage du lixiviat. Les autres stations de surveillance GJO-2, GJO-3, GJO-4 restent actives. La surveillance des installations de traitement des déchets solides et des eaux usées s'est poursuivie de mai à août. Les rapports annuels sont jusqu'à 2017 pour le Conseil. La Commission d'évaluation des incidences du Nunavut a déjà approuvé la licence actuelle, mais elle doit être renouvelée car elle expire le 11 novembre 2018.
- Inuktitut: Please see the attached file named Description in Inuktitut
- Inuinnaqtun: not required.

## Personnel

Personnel on site: 3

Days on site: 32

Total Person days: 96

Operations Phase: from 2018-11-11 to 2033-11-10

## Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Latitude: 68° 30' N, Longitude: 95° 53' W	Other	Municipal	Active water License used to draw water and delivery to household tanks for domestic uses, municipal waste and sewage disposal to waste facility and engineered Lagoon.	Fine -grained marine deposits, numerous lakes & ponds, covered with thin layer of tundra & grasses, poor soil quality, various types of lichen, moss, continuous permafrost, annual precipitation 5 cm of rain fall and 25 cm of snowfall. January -39°C to -23°C and July high & low 13.9°C and 7.2°C.	South-East coast of King William Island, in the Kitikmeot Region of Nunavut, approximately 142 air km SW of Kugaaruk, and 1,056 air km NE of Yellowknife.

## Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Gjoa Haven	SAO and Director of Works	Hamlet of Gjoa Haven	2018-06-11

## Authorizations

Indicate the areas in which the project is located:

Kitikmeot

### Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	Amendment renewal application	Active	2013-11-13	2018-11-12

### Project transportation types

Transportation Type	Proposed Use	Length of Use
Air	Charter flight and commercial airlines (First Air and Canadian North)	
Water	using buried lines of 150 mm diameter HDPE pipes with 100 mm thick insulation all around.	
Land	Hauling water using water truck, sewage and solid waste using waste truck to the lagoon and solid waste site.	

### Project accommodation types

Community

Other,

## Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
pumps	2	6 inches	for water intake

### Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

### Water Consumption

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
170	using twin intake pumps at the pumphouse, then delivery to Water treatment plant using 3.2 km long, 150 mm diameter buried pipe line.	From the Swan lake which is about 3.5 km away of town

# Waste

## Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Quarry/Borrow pit	Sewage (human waste)	60,000 m3	trucks hauling	segregate of light weigh waste and control burn

## Environmental Impacts:

No environmental impacts since the infrastructures are outside of town and no impact to tourism, wildlife or water course.

# **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**

N/A

**Description of Existing Environment: Biological Environment**

N/A

**Description of Existing Environment: Socio-economic Environment**

N/A

**Miscellaneous Project Information**

N/A

**Identification of Impacts and Proposed Mitigation Measures**

N/A

**Cumulative Effects**

N/A



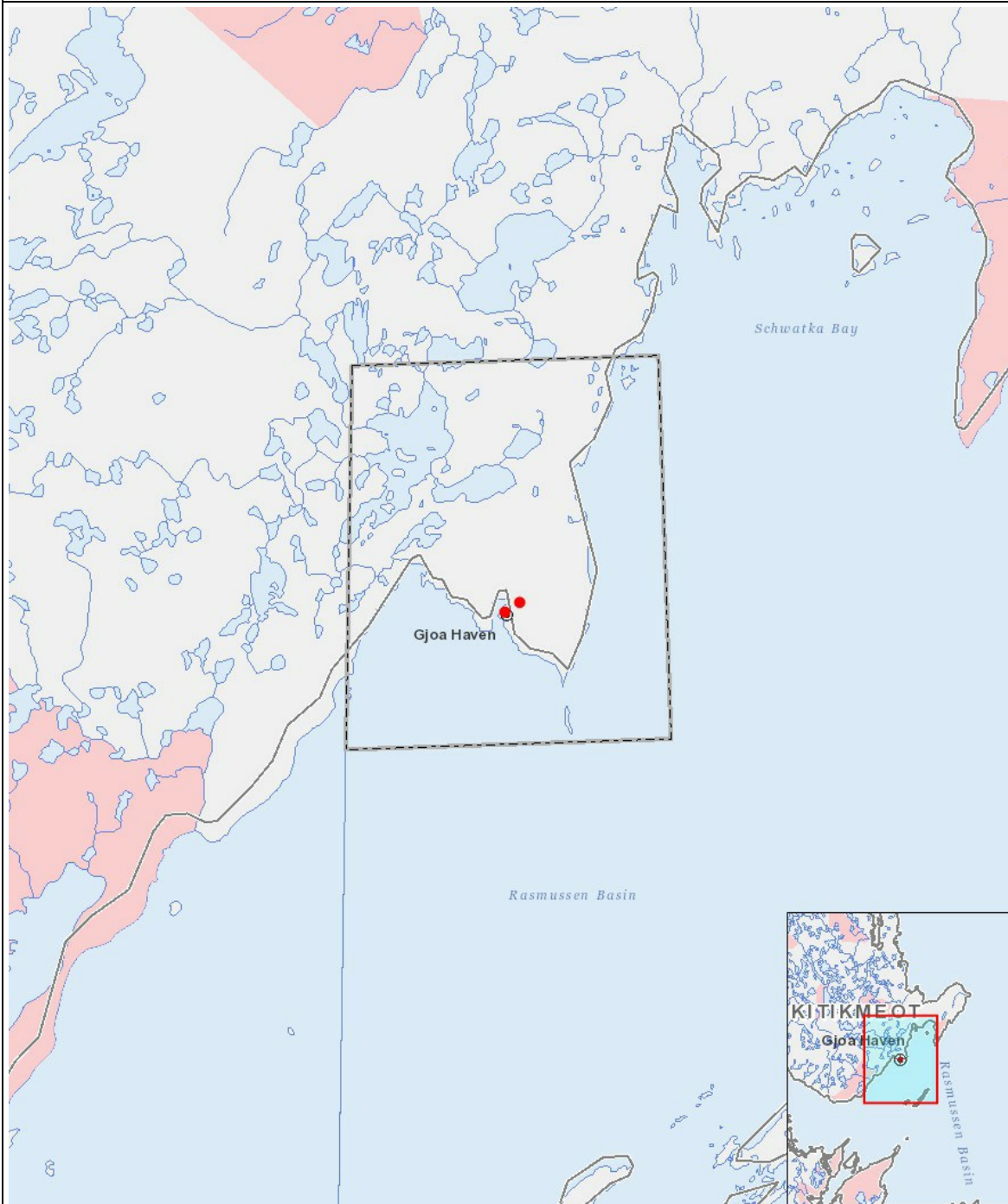
# Impacts

## Identification of Environmental Impacts

		P H Y S I C A L										B I O L O G I C A L										S O C I O - E C O N O M I C												
		Designated environmental areas										Wildlife, including habitat and migration patterns										Archaeological and cultural historic sites												
		Ground stability										Birds, including habitat and migration patterns										Employment												
		Permafrost										Aquatic species, incl. habitat and migration/spawning										Community wellness												
		Hydrology / Limnology										Wildlife protected areas										Community infrastructure												
		Water quality										Vegetation										Human health												
		Climate conditions										Tidal processes and bathymetry																						
		Eskers and other unique or fragile landscapes										Air quality																						
		Surface and bedrock geology										Noise levels																						
		Sediment and soil quality										Wildlife, including habitat and migration patterns																						
		Tidal processes and bathymetry										Birds, including habitat and migration patterns																						
		Air quality										Aquatic species, incl. habitat and migration/spawning																						
		Noise levels										Wildlife protected areas																						
		Vegetation										Archaeological and cultural historic sites																						
		Wildlife, including habitat and migration patterns										Employment																						
		Birds, including habitat and migration patterns										Community wellness																						
		Aquatic species, incl. habitat and migration/spawning										Community infrastructure																						
		Wildlife protected areas										Human health																						
Construction																																		
-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Operation																																		
Other		-	-	P	-	P	P	-	P	N	P	P	P		P	P	P	P	P		P	-	-	-	-	-	-	-	-	-	-	-		
Decommissioning																																		
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-		

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

## PROJECT MAP



### LIST OF PROJECT GEOMETRIES:

1	point	Latitude: 68o 30' N, Longitude:95o 53' W
---	-------	--