

March 9, 2015

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119, Gjoa Haven, NU, X0B 1J0
Phone: (867) 360-6338 ext. 27

Fax: (867) 360-6369

Email: phyllis.beaulieu@nwb-oen.ca

Re: CGS-Rankin Inlet Water Licence No. 3AM-GRA1015 Renewal Application

Dear Ms. Beaulieu,

I am pleased to submit to the Nunavut Water Board the enclosed Water Licence Renewal Application with supplementary information for your reference.

The Government of Nunavut, Community and Government Services (GN-CGS) is requesting a twenty-five (25) year renewal of Water Licence No. 3AM-GRA1015 which expires on May 31, 2015 for the Rankin Inlet Water and Sewage Utilidor.

The following supporting documents are included in the Water Licence No. 3AM-GRA1015 Renewal Application submission:

- Cover Letter to the NWB;
- Authorization Letter;
- Executive Summary;
- Executive Summary Inuktitut Translation;
- Community Information;
- Water Licence Renewal Application Form;
- NPC Conformity Determination:
  - Email from Christopher Tickner, NPC, to Robin Ikkutisluk, NWB, dated December 11,
     2013;
  - o Letter from Brian Aglukark, NPC, to Phyllis Beaulieu, NWB, dated March 19, 2010;
- NIRB Screening Decision Report, NIRB File No.: 13UN37, June 26, 2014;

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut



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- NIRB Screening Exemption: Email from Ryan Barry, NIRB, to Phyllis Beaulieu, NWB, dated March 16, 2010;
- GN-CGS Rankin Inlet Plan for Compliance, March 9, 2015;
- Addendum to Operations and Maintenance Plan for the Water Supply Facility, Char River, Rankin Inlet, Nunavut prepared by Stantec, May 2014;
- Spill Contingency Plan for Water Supply and Sewage Treatment Facilities, Rankin Inlet, Nunavut prepared by Stantec, May 2014;
- Water Supply Facility Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet,
  Department of Community and Government Services, Government of Nunavut prepared by Nuna
  Burnside, December 2008, revised April 2010;
- Sewage Treatment Facility Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut prepared by Nuna Burnside, December 2008, revised April 2010;
- Environmental Monitoring Program and Quality Assurance/Quality Control Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut prepared by Nuna Burnside, December 2008, revised April 2010; and
- Environmental Emergency Contingency Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut prepared by Nuna Burnside, December 2008, revised April 2010.

The 2014 Annual Report will be submitted to the NWB by March 20, 2015.

The 2015 First Quarter Report will be submitted to the NWB by April 17, 2015.

The following plans are currently being reviewed and updated versions will be submitted to the NWB by **April 17, 2015**:

- Updated Sewage Treatment Facility Operation and Maintenance (O&M) Plan; and
- Updated Environmental Monitoring Program and Quality Assurance/Quality Control Plan.

GN-CGS is requesting that a written Public Hearing is held for the Renewal Application since an in-person Public Hearing was held recently and there are no changes to the water or sewage facilities currently approved under the Water Licence and Amendment No. 1. A Public Hearing was held in Rankin Inlet on September 25 and 26, 2014 for the Amendment Application requesting approvals for the Nipissar Lake resupply pipeline project.

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut



#### ששבים הפרףקפה עאלאנייטוףקנ

Nunalingni Kavamatkunnilu Pivikhaqautikkut
Department of Community and Government Services
Ministère des Services communautaires et gouvernementaux

The Licensee is requesting an invoice for the application fee. Once this invoice is received, a cheque for the amount of \$30.00 will be issued by CGS to the Receiver General for Canada for the application fee and mailed to the NWB.

Please feel free to contact the undersigned if there are any questions or concerns with the enclosed application or documents.

Sincerely,

Megan Lusty, EIT

Municipal Planning Engineer-In-Training Community and Government Services Kivalliq Region, Government of Nunavut P.O. Box 490, Rankin Inlet, NU, XOC 0G0

Phone: (867) 645-8176 Fax: (867) 645-8196 Email: mlusty@gov.nu.ca

Meyor Los

cc: John Kusugak, GN-CGS

David Hohnstein, NWB Ralph Ruediger, GN-CGS Robert Savard, AANDC



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Nunalingni Kavamatkunnilu Pivikhaqautikkut

Department of Community and Government Services

Ministère des Services communautaires et gouvernementaux

February 25, 2015

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
P.O. Box 119, Gjoa Haven, NU, X0B 1J0
Phone: (867) 360-6338 ext. 27

Fax: (867) 360-6369

Email: phyllis.beaulieu@nwb-oen.ca

Re: Water Licence No. 3AM-GRA1015 Authorization Letter

Dear Ms. Beaulieu,

This letter is to inform you that Megan Lusty is authorized to act as Licensee Representative for Water Licence No. 3AM-GRA1015 Renewal Application.

The contact information for Ms. Lusty is as follows:

Megan Lusty, EIT

Municipal Planning Engineer-In-Training

Community and Government Services, Kivalliq Region, Government of Nunavut

P.O. Box 490, Rankin Inlet, NU, XOC 0G0

Phone: (867) 645-8176 Fax: (867) 645-8196

Email: mlusty@gov.nu.ca

Sincerely,

John Kusugak

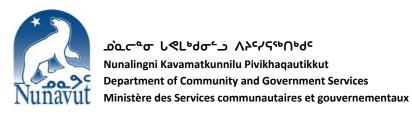
A/Regional Director, Kivalliq Region

Government of Nunavut, Department of Community and Government Services

P.O. Box 490, Rankin Inlet, NU, XOC 0G0

Phone: (867) 645-2841 Fax: (867) 645-2519

Email: jpkusugak@gov.nu.ca



#### GN-CGS Rankin Inlet Water Licence No. 3AM-GRA1015 Renewal Application

#### **EXECUTIVE SUMMARY**

The Government of Nunavut, Community and Government Services (GN-CGS) is submitting to the Nunavut Water Board (NWB) a Water Licence Renewal Application for Water Licence No. 3AM-GRA1015 with allows for the use of water and operation of the Water Supply Facilities, Utilidor and Sewage Treatment Facility in the Hamlet of Rankin Inlet. CGS is seeking a twenty-five (25) year renewal of the Licence which would be valid until 2040. The projected population of Rankin Inlet in the year 2040 is 4141 people.

Rankin Inlet utilizes Nipissar Lake for potable water with the authorized quantity of water not to exceed eight hundred and 850,000 cubic metres annually. Amendment No. 1, issued December 23, 2014, authorizes Char River as an additional water source, to a maximum allowable quantity of 3485 cubic metres per day transferred from Char River to Nipissar Lake. The Renewal Application is not requesting changes to the amount or sources of water licensed.

Nipissar Lake is located approximately 2 km northwest of Rankin Inlet. Water is withdrawn using two submersible pumps and pumped year-round through an insulated watermain extending from the Nipissar Lake Pumphouse to the Williamson Lake Pumphouse. A raw water storage tank is located next to the Williamson Lake Pumphouse. The pumphouse contains two wet-wells, four distribution pumps, two hot water boilers, three heat exchangers, chlorination equipment, and a diesel standby generator. Approximately 99% of the community receives piped water while the remainder receives trucked water deliveries.

A 4.05 km water intake pipeline was constructed in 2012 from Char River to replenish Nipissar Lake. The pipeline operation will begin in June 2015, and will transport water during the summer months to mitigate the decreasing water level in Nipissar Lake.

The Rankin Inlet Sewage Treatment Plant receives sewage via the Johnston Cove Lift Station and the Nuvuk Subdivision Lift Station. Approximately 99% of the community has piped sewage service while the remainder receives trucked pump out service. The sewage truck discharges the sewage into the piped system through the Johnston Cove Lift Station. Two Monster Auger screens are used to remove solids from the sewage. Effluent from the treatment plant flows by gravity through a pipe outfall in Prairie Bay. A diffuser divides the effluent into three separate streams as it enters the water to aid in dispersal.

The Solid Waste Disposal Facility in Rankin Inlet is authorized under a separate Licence held by the Hamlet of Rankin Inlet. Please refer to Water Licence No. 3BM-RAN1214 for more information.



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#### **Community Information**

#### **Overview**

The Hamlet of Rankin Inlet is located within the Kivalliq Region of Nunavut, at general latitude 62°49'N and general longitude 92°05'W. The Hamlet is on the west coast of Hudson Bay, 96 km southwest of Chesterfield Inlet and 1088 km east of Yellowknife. The community has a population of approximately 2904 (2015). See below for population projects until 2036.

Table 1: Rankin Inlet Population Projection, 2015 – 2036 (Nunavut Bureau of Statistics, August 16, 2010)

Year	Population
2015	2904
2016	2949
2017	2996
2018	3045
2019	3093
2020	3149
2021	3193
2022	3243
2023	3292
2024	3340
2025	3390
2026	3441
2027	3493
2028	3544
2029	3595
2030	3647
2031	3700
2032	3753
2033	3806
2034	3860
2035	3915
2036	3972

Rankin Inlet is affected by arctic air masses, and experiences a maritime Arctic climate characterized by short cool summers, and long cold winters. The Rankin Inlet area receives an average of 18.1 cm of rainfall and 107 cm of snowfall per annum. Mean annual precipitation totals 29.7 cm per annum. July mean high and low temperatures are 14.9°C and 5.9°C, respectively. January mean high and low



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temperatures are -28.3°C and -35.5°C, respectively. Winds are generally northwest, and average 23 km/h.

#### **Water System**

Rankin Inlet utilizes Nipissar Lake for potable water with the authorized quantity of water not to exceed eight hundred and 850,000 cubic metres annually. Amendment No. 1, issued December 23, 2014, authorizes Char River as an additional water source, to a maximum allowable quantity of 3485 cubic metres per day transferred from Char River to Nipissar Lake.

Nipissar Lake is located approximately 2 km northwest of Rankin Inlet. Water is withdrawn using two submersible pumps and pumped year-round through an insulated watermain extending from the Nipissar Lake Pumphouse to the Williamson Lake Pumphouse. An aerator is used during winter months to ice from forming above the intake. A raw water storage tank is located next to the Williamson Lake Pumphouse. The pumphouse contains two wet-wells, four distribution pumps, two hot water boilers, three heat exchangers, chlorination equipment, and a diesel standby generator. Approximately 99% of the community receives piped water while the remainder receives trucked water deliveries.

A 4.05 km water intake pipeline was constructed in 2012 from Char River to replenish Nipissar Lake. The pipeline operation will begin in June 2015, and will transport water during the summer months to mitigate the decreasing water level in Nipissar Lake.

A Water Pumping Adaptive Management Plan is currently being developed, as per Part C, Item 11 of Amendment No.1, and will include:

- a) Details of seasonal hydrological monitoring of Char River;
- Details of Char River, Lower Landing Lake and Nipissar Lake water chemistry monitoring and assessment of impacts on Nipissar Lake water quality/chemistry due to the transfer of water from Char River;
- c) In-stream flow objectives for Char River including a flow based low cut-off limit of 10% of the instantaneous flow and 0.5 m minimum flow depth in the Char River, at which point no further Water is authorized to be withdrawn from Char River;
- d) Details of Char River on-going viability assessment in meeting pumping objectives and water use requirements; and
- e) Mitigation option and procedures for occurrences when flow is insufficient to meet pumping objectives and consumption requirements.

The following table display the Rankin Inlet water consumption from 2010 and projected until 2040.

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut



Table 2: Rankin Inlet Water Consumption, 2010 – 2040

Year	Population	RWU (lpcd)	Projected Daily Consumption (m³)	Projected Annual Consumption* (m³)
2010	2692	323.13	1408	514,078
2011	2730	570.45	2535	925,340
2012	2771	324.43	1472	537,269
2013	2815	356.37	1653	603,235
2014	2859	400.00	1896	691,893
2015	2904	400.00	1937	707,171
2016	2949	400.00	1980	722,586
2017	2996	400.00	2024	738,831
2018	3045	400.00	2071	755,925
2019	3093	400.00	2117	772,826
2020	3149	400.00	2172	792,740
2021	3193	400.00	2215	808,534
2022	3243	400.00	2265	826,641
2023	3292	400.00	2314	844,547
2024	3340	400.00	2362	862,245
2025	3390	400.00	2413	880,845
2026	3441	400.00	2466	899,989
2027	3493	400.00	2520	919,689
2028	3544	400.00	2573	939,187
2029	3595	400.00	2627	958,859
2030	3647	400.00	2682	979,096
2031	3700	400.00	2739	999,910
2032	3753	400.00	2797	1,020,913
2033	3806	400.00	2855	1,042,104
2034	3860	400.00	2915	1,063,889
2035	3915	400.00	2976	1,086,278
2036	3972	400.00	3040	1,109,696
2037	3993	400.00	3064	1,118,535
2038	4043	400.00	3121	1,138,991
2039	4092	400.00	3177	1,159,609
2040	4141	400.00	3234	1,180,389

<sup>\*</sup> Annual Consumption is projected beyond 2013

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut



The RWU (Residential Water Use) used in the projected annual consumption is 400 lpcd, based on the average RWU of the previous four years. The annual water consumption in 2011 was higher than subsequent years due to leaks in the system and the use of bleeders. Changes to the system to reduce bleeders and fix leaks resulted in a decreased annual water use.

The Renewal Application is not requesting that the amount of water authorized be increased. The projected annual consumption in 2040, nearly 1,200,000 cubic metres, is greater than the currently authorized quantity of water of 850,000 cubic metres. The Licensee will need approval of an additional water source to meet the increasing water demands as Rankin Inlet continues to grow in population. Once a suitable source has been selected, the Licence will submit to the NWB an Amendment Application for the authorization, and at this time the authorized quantity will be requested to be increased.

#### **Sewage System**

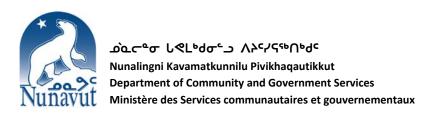
The Rankin Inlet Sewage Treatment Plant receives sewage via the Johnston Cove Lift Station and the Nuvuk Subdivision Lift Station. Approximately 99% of the community has piped sewage service while the remainder receives trucked pump out service. The sewage truck discharges the sewage into the piped system through the Johnston Cove Lift Station. Two Monster Auger screens are used to remove solids from the sewage. Solids are bagged and transferred to the municipal Solid Waste Site, were they are disposed of in a signed area. The sewage solids are covered annually when a new disposal trench is dug. Effluent from the treatment plant flows by gravity through a pipe outfall in Prairie Bay. A diffuser divides the effluent into three separate streams as it enters the water to aid in dispersal.

#### **Solid Waste**

The Solid Waste Disposal Facility in Rankin Inlet is authorized under a separate Licence held by the Hamlet of Rankin Inlet. Please refer to Water Licence No. 3BM-RAN1214 for more information.

Water Licence No. 3AM-GRA1015

Rankin Inlet, Nunavut 11



### **Application for Water Licence Amendment**



### **Application for Water Licence Renewal**

Document Date: April 2013

Application Submission Date: \_\_\_

\_\_\_03/06/2015\_\_\_ Month/Day/Year

P.O. BOX 119 GJOA HAVEN, NUNAVUT XOB 1J0

Tel: (867)360-6338 Fax:(867)360-6369

#### DOCUMENT MANAGEMENT

Original Document Date: April 2010

#### **DOCUMENT AMENDMENTS**

	Description	Date
(1)	Updated for public distribution as separate document	June 2010
	from NWB Guide 7	
(2)	Updated NWB logos and reformatted table to allow rows	May 2011
	to break across page	
(3)	New NWB logo and request for background information	April 2013
(4)		
(5)		
(6)		
(7)		
(8)		
(9)		
(10)		



P.O. Box 119

TEL: (867) 360-6338

FAX: (867) 360-6369

ممهر ۲۲ حسهر ۲۹ مهر GJOA HAVEN, NU X0B 1J0 NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYIT OFFICE DES EAUX DU NUNAVUT

#### APPLICATION FOR WATER LICENEC RENEWAL

Your application may be classified as a renewal only if all operations remain the same as previously licensed and only the term of the licence requires change. If your application contemplates:

- a change to the volume of water authorized for use;
- a new activity related to water use or waste disposal;
- a new component related to water use or waste disposal;
- a change in predicted environmental impacts(s); and/or
- a change to any term or condition of the original licence

your application is NOT classified as a renewal but rather an amendment and will require submission of an Application for Water Licence Amendment. Licensees applying for combined renewal / amendment are also referred to the Application for Water Licence Amendment.

The applicant is referred to the NWB's Guide 7: Licensee Requirements Following the Issuance of a Water Licence for more information about this application form.

Where possible, provide background information regarding the original licence application or attach previously submitted information.

EXISTING LICENCE NO:3AM-GRA1015
1. LICENSEE CONTACT INFORMATION
Is the licensee the same as that referred to on the existing licence?
X Yes  No
If No, a licence assignment must be completed and approved by the NWB. A renewal will only be issued in the name of the current licensee in the absence of assignment of the licence.
If the licensee is the same, but the <u>name</u> of the licensee has changed, attach a certificate of name change.
Name: John Kusugak, A/Regional Director, Kivalliq Region Government of Nunavut, Department of Community and Government Services
Address: P.O. Box 490, Rankin Inlet, Nunavut, X0C 0G0 Phone: _867-645-8101 Fax: _867-645-8196 e-mail: _jpkusugak@gov.nu.ca

LICENSEE REPRESENTATIVE CONTACT INFORMATION – If different from Block 1.	
Name: Megan Lusty	
Address: P.O. Box 490, Rankin Inlet, Nunavut, X0C 0G0	
Phone: _867-645-8176	
NAME OF PROJECT	
the name of the project the same as that considered in the existing water licence?	
X Yes No	
dicate the name of the project including the name of the location:	
LOCATION OF UNDERTAKING	
s the location of the undertaking the same as that considered in the existing water licence?	
X Yes ☐ No roject Extents	
NW: Latitude: ( ° ' " N) Longitude: ( ° ' " W)  NE: Latitude: ( ° ' " N) Longitude: ( ° ' " W)  SE: Latitude: ( ° ' " N) Longitude: ( ° ' " W)  SW: Latitude: ( ° ' " N) Longitude: ( ° ' " W)	
amp Location(s)	
Longitude: (62°49'24" N) Longitude: (92°06'53" W)	
MAP	
re the locations of the main components of the undertaking the same as those considered in the existing tence?	
X Yes No	
tach a topographical map, indicating the main components of the undertaking.	
TS Map Sheet No.: Map Name: Map Scale:	

6.	NATURE OF INTEREST IN THE LAND	
Is the	nature of the interest in the land the same as that co	onsidered in the existing water licence?
	X Yes	□No
	any of the following that are applicable to the propose' header must be checked).	osed undertaking (at least one box under the
	Sub-surface	
	☐ Mineral Lease from Nunavut Tunngavik Incorporate (expected date) of issuance:	
	☐ Mineral Lease from Indian and Northern Affairs Date (expected date) of issuance:	
	Surface	
	☐ Crown Land Use Authorization from Indian and Date (expected date) of issuance:	
	☐ Inuit Owned Land (IOL) Authorization from Kitik Date (expected date) of issuance:	
	☐ IOL Authorization from Kivalliq Inuit Association Date (expected date) of issuance:	
	☐ IOL Authorization from Qikiqtani Inuit Association Date (expected date) of issuance:	
	Commissioner's Land Use Authorization Date (expected date) of issuance:	Date of expiry:
	Other	
	Date (expected date) of issuance:	Date of expiry:
Is the	name of the entity(s) holding authorizations the sam	ne as that considered in the existing water licence?
	X Yes	□No
If No,	a licence assignment must be completed and appro	oved by the NWB.
	of entity(s) holding authorizations:	

7. N	NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION
Is the un	ndertaking located in the same land use planning area as that considered in the existing licence?
	X Yes □ No
Indicate	the land use planning area in which the project is located.
	North Baffin South Baffin Sanikiluaq West Kitikmeot
Was a la licence?	and use plan conformity determination required from NPC prior to the issuance of the existing water
	X Yes □ No
If Yes, ir	ndicate date issued and attach copyDecember 11, 2013 and March 19, 2010
Does the	e proposed renewal change the original NPC conformity determination or the need to obtain one?
	☐ Yes X No
If Yes, ir If No, pr	ndicate date issued (or expected) and attach a copy rovide written confirmation from NPC confirming that a land use plan conformity review is not required.
8. N	NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION
Was a s	screening determination required from NIRB prior to the issuance of the existing water licence?
	X Yes  No
If Yes, ir	ndicate date issued and attach copy June 26, 2014 and March 16, 2010
Does the	e proposed renewal change the original NIRB screening determination or the need to obtain one?
	☐ Yes X No
	ndicate date issued (or expected) and attach a copy rovide written confirmation from NIRB confirming that a screening determination is not required.
9. C	DESCRIPTION OF UNDERTAKING
Is the des	scription of the undertaking the same as that considered in the existing water licence?
	X Yes  No
List and a	attach plans and drawings or project proposal.

10. OPTIONS
Are the alternative methods and locations that were considered to carry out the project the same as those considered in the existing water licence?
X Yes □ No
Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.
11. CLASSIFICATION OF PRIMARY UNDERTAKING
Is the primary undertaking the same as that considered in the existing water licence?
X Yes  No
Indicate the primary classification of undertaking by checking one of the following boxes.
☐ Industrial ☐ Agricultural ☐ Mining and Milling (includes exploration/drilling/exploration camps) ☐ Conservation  X Municipal (includes camps/lodges) ☐ Recreational ☐ Power ☐ Miscellaneous (describe below):
See Schedule II of the Northwest Territories Waters Regulations for Description of Undertakings.
12. WATER USE
Is the type(s) of water use(s) the same as that considered in the existing water licence?
X Yes No
Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.
X To obtain water for camp/ municipal purposes  To obtain water for industrial purposes To cross a watercourse To alter the flow of, or store water Other:  To obtain water for industrial purposes To divert a watercourse To modify the bed or bank of a watercourse Flood control

13.	QUANTITY OF WATER INVOLVED
ls the	source of water the same as that considered in the existing licence? X Yes \_ No
	of water source(s): _Nipissar Lake and Char Riverlocation(s) on map)
Is the	quality of the water source and its available capacity the same as that considered in the existing licence
	X Yes □ No
Descri	be the quality of the water source(s) and the available capacity(s):
Is the	overall estimated quantity of water to be used the same as that considered in the existing licence?
	X Yes No
	e the overall estimated quantity of water to be used: 2,330 m³/day from Nipissar Lake, 3,485 m³/day Char River to Nipissar Lake
Are the	e quantity(s) of water to be used from each source the same as those considered in the existing e?
	X Yes No
Provid	e the estimated quantity(s) of water to be used from each source:
Are th	e quantity(s) of water to be used for each purpose the same as those considered in the existing licence?
	X Yes □ No
Provid	e the estimated quantities to be used for each purpose (camp, drilling, etc.):
Are th	e method(s) of extraction the same as those considered in the existing licence? X Yes \sum No
Descri	be the method(s) of extraction:
Are th	e quantity(s) of water returned to source(s) the same as those considered in the existing licence?
	X Yes □ No
stima	ated quantity(s) of water returned to source(s): m³/day
Are th	e quality(s) of water(s) returned to source(s) the same as those considered in the existing licence?
	X Yes  No
	be the quality(s) of water(s) returned to source(s):

14.	WASTE	
Are the	,, , , , , , , , , , , , , , , , , , ,	d/ or deposited the same as those considered in the existing
		X Yes No
Check	the appropriate box(s) to indicate the type	pes of waste(s) generated and deposited.
	X Sewage  ☐ Solid Waste ☐ Hazardous ☐ Bulky Items/Scrap Metal ☐ Animal Waste X Other (describe):_ Sewage screening	☐ Waste oil ☐ Greywater ☐ Sludges ☐ Contaminated soil and/or water

15. QUANTITY AND QUALITY OF WASTE INVOLVED
Are the quantity(s) of the types of wastes involved the same as those considered in the existing licence?
X Yes  No
Are the composition(s) of the types of wastes involved the same as those considered in the existing licence?
X Yes No
Are the method(s) of treatment for the types of waste involved the same as those considered in the existing licence?
X Yes No
Are the method(s) of disposal for the types of waste involved the same as those considered in the existing licence?
X Yes  No
For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Composition	Quantity Generated	Treatment Method	Disposal Method
Municipal sewage (greywater, brownwater, etc.)	Same as water use	Sewage collected by utilidor to WWTO	Discharge via gravity outfall to Prairie Bay
Waste solids	Approximately 1 m <sup>3</sup> /week	Separated from effluent by Auger Monster	Collected in bags and transported weekly to designated area at the Hamlet SWS
	Municipal sewage (greywater, brownwater, etc.)	Municipal Same as water use (greywater, brownwater, etc.)  Waste solids  Approximately	Municipal Same as water use Sewage collected by utilidor to WWTO  Waste solids Approximately 1 m³/week Separated from effluent by Auger

16.	OTHER AUTHORIZATIONS	
	dition to the sub-surface and surface land use authorizations provided in Block 6, are the same rizations required as considered in the existing licence?	
	X Yes ☐ No	
For ea	ach provide the following:	
Autho	prization:	
Aumin	nistering Agency:	
Projec	ct Activity:	
Date	(expected date) of issuance: Date of expiry:	
17.	PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES	
	redicted environmental impacts of the undertaking and proposed mitigation measures the same as tho dered in the existing water licence?	se
	X Yes  No	
Descr	ibe direct, indirect, and cumulative impacts related to water and waste.	
18.	WATER RIGHTS OF EXISTING AND OTHER WATER USERS	
use in	ne effects of the undertaking on any known persons or property including those that hold licences for precedence to the application, domestic users, in-stream users, authorized waste depositors, ow rty, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and ho rights of a similar nature, the same as those considered in the existing water licence?	ners of
	X Yes  No	
affecte applica proper	de the names, addresses and nature of use for any known persons or properties that may be acced by the proposed undertaking, including those that hold licences for water use in precedent ation, domestic users, in-stream users, authorized waste depositors, owners of property, occup rty, and/or holders of outfitting concessions, registered trapline holders, and holders of other right r nature.	to the piers of
	e the Board if compensation has been paid and/or agreement(s) for compensation have been reach xisting or other users.	ed with
19.	INUIT WATER RIGHTS	
	e effects of the undertaking on the quality, quantity or flow of waters flowing through Inuit Owned Land the same as those considered in the existing water licence?	I
	X Yes  No	
Land	e the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit (IOL), and advise the Board if negotiations have commenced or an agreement to pay compensation r damage has been reached with one or more Designated Inuit Organization (DIO).	

20.	<b>CONSULTATION</b> - Provide a summary of any consultation meetings including when the meetings were held, where and with whom. Include a list of concerns expressed and measures to address concerns.			
	lic Hearing was held for 3AM-GRA1015 - Amendment No. 1 on September 25 and 26, 2014 in n Inlet			
21.	SECURITY INFORMATION			
Is the	financial security assessment the same as that considered in the existing water licence?			
	X Yes  No			
Is the	e estimate of the total financial security for final reclamation the same as that considered in the existing water ce?  X Yes  \text{No}			
Provide an estimate of the total financial security for final reclamation equal to the total outstanding reclamation liability for land and water combined sufficient to cover the highest liability over the life of the undertaking. Estimates of reclamation costs must be based on the cost of having the necessary reclamation work done by a third party contractor if the operator defaults. The estimate must also include contingency factors appropriate to the particular work to be undertaken.				
respe	e applicable, the financial security assessment should be prepared in a manner consistent with the principals cting mine site reclamation and implementation found in the <i>Mine Site Reclamation Policy for Nunavut</i> , Indian Jorthern Affairs Canada, 2002.			

22. FINANCIAL INFORMATION
Is the statement of financial security the same as that considered in the existing water licence?
X Yes □ No
Provide an updated statement of financial security.
If the applicant is a business entity please answer the questions below:
Is the list of the officers of the company the same as those considered in the existing water licence?
X Yes No
Provide a list of the officers of the company.
Is the Certificate of Incorporation or evidence of registration of the company name the same?
X Yes □ No
Attach a copy of the Certificate of Incorporation or evidence of registration of the company name.
23. STUDIES UNDERTAKEN TO DATE
List and attach updated studies, reports, research etc.
Provide a compliance assessment and status report including a response to any inspector's reports. The license must contact the NWB for licence specific direction in completing the assessment and report.
If in non-compliance, a licence may not be issued until compliance is achieved. If in non-compliance, attach plans/reports for consideration. Application will not be processed if significant issues of non-compliance exist.

24.	PROPOSED	TIME SCH	EDULE			
	e time schedule considered in th			ment (con	struction, operations, closure a	and post closure) the same a
				X Yes	□No	
	ate the proposedation, closure, a			tes for ea	ch applicable phase of develop	oment (construction,
	Construction Proposed Sta	art Date:		P	roposed Completion Date:	
	<u>Operation</u>		(month/yea	r)		(month/year)
		art Date:	June 2015		Proposed Completion Date:_	June 2040
			(month/year	)		(month/year)
	Closure Proposed Sta	art Date:		P	roposed Completion Date:	
	·		(month/yea		roposed completion batel	(month/year)
	Proposed Sta			П	ranged Completion Date	
	Proposed Sta	in Date	(month/yea	P r)	roposed Completion Date:	(month/year)
For ea	ach applicable p  Construction  Winter	hase of dev	velopment indi ☐ Summer	cate whic	h season(s) activities occur.	
	Operation Operation	☐ Spring	Summer	Fall	X All season	
	<u>Closure</u> ☐ Winter	Spring	Summer	☐ Fall	All season	
	Post - Closure Winter	<u>e</u> □ Spring	Summer	☐ Fall	All season	

25. PROPOSED TERM OF LICENCE					
On what date does the existing licence expire?May 31, 2015					
Indicate the proposed term of the renewal (maximum of 25 years):25 years					
Requested date of renewal issuance:June 2015 Requested Expiry Date:June 2040 (month/year) (month/year)					
(The requested date of renewal issuance must be <u>at least</u> three (3) months from the date of application for a type B water licence and <u>at least</u> one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's <i>Guide 5: Processing Water Licence Applications</i> for more information)					
26. ANNUAL REPORTING					
Is the annual report template expected to be the same as that considered in the existing licence?					
X Yes  No					
If not using the NWB's <u>Standardized Form for Annual Reporting</u> , provide details regarding the content of annual reports and a proposed outline or template of the annual report.					

27.	CHECKLIST			
The fo	llowing must be	included	with the applic	ation for renewal for the water licensing process to begin.
	Completed Ap	plicatio	n for Water Lice	nce Renewal form.
	X Yes		□ No	If no, date expected
	Updated plans	s, includ	ling designs and	reports (see Block 23).
	X Yes		□No	If no, date expected
	Updated secu	rity asse	essment (see Bl	ock 21).
	X Yes		□No	If no, date expected
	Updated finan	icial stat	ement (see Bloo	ck 22).
	X Yes		□No	If no, date expected
	Compliance A	ssessm	ent / Status Rep	port (see Block 23).
	X Yes		□No	If no, date expected
	English Summ	nary of F	Renewal Applica	ition.
	X Yes		□No	If no, date expected
	Inuktitut and/o	or Inuinn	aqtun Summary	of Renewal Application.
	X Yes		□No	If no, date expected
	Application fe	e of \$30	.00 CDN (Payer	e Receiver General for Canada).
	☐ Yes		X No	If no, date expected March 20, 2015
	will be calcula	ted by t		ON (Payee Receiver General for Canada). The actual water use fee upon the amount of water authorized for use in accordance with the the licence.
	☐ Yes		□ No	If no, date expected _N/A
28.	SIGNATURE			3.0
, <u>J</u> .	hung treso	ONE	(print	name)
				to water use or waste disposal as previously authorized and that the my knowledge, correct and complete.
Signe	Stoll ure S		<u>Mt</u>	-01.15
				127



## $Email\ from\ Christopher\ Tickner,\ NPC,\ to\ Robin\ Ikkutisluk,\ NWB,\ dated$ $December\ 11,\ 2013$



Robin Ikkutisluk < robin.ikkutisluk@nwb-oen.ca>

### 131119 3AM-GRA1015 Hamlet of Rankin Inlet - Amendment - Notice of Application - Kivalliq Region

1 message

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--	---------	------	---------	--	------------	----

Wed, Dec 11, 2013 at 8:37 AM

To: Robin lkkutisluk <robin.ikkutisluk@nunavutwaterboard.org>

Cc: Info at NIRB <info@nirb.ca>, licensing@nunavutwaterboard.org, phyllis.beaulieu@nwb-oen.ca, Brian Aglukark <aglukark@nunavut.ca>

Good morning Ms. Ikkutisluk,

#### RE: 131119 3AM-GRA1015 Hamlet of Rankin Inlet

Thank you for your email.

The Nunavut Planning Commission reviewed the above noted project as part of NPC File reference NWB – NWB File #3AM GRA0207 – Hamlet of Rankin Inlet Water/Sewage/Solid Waste/Land Farm and determined that it conformed to the Keewatin Regional Land Use Plan. I have attached the NPC's conformity determination with this email for your records.

The NPC has reviewed the amendment request and supporting materials found on the NWB Ftp Site for this project and has determined that it does not change the scope of the originally reviewed project to an extent that would warrant a further review by the NPC at this time. The original terms agreed to as part of the conformity determination must form part of any authorisation or permit issued for this project proposal.

Should the scope of the project change, NPC would respectfully request that the project proposal be forwarded to our office for further review.

I have cc'd the Nunavut Impact Review Board (NIRB) with this email for their information.

Please contact me should you have any questions.

Sincerely,

Christopher

Christopher Tickner MCIP, RPP

Senior Planner

**Nunavut Planning Commission** 

P.O. Box 2101 Cambridge Bay, NU X0B 0C0

Phone: (867) 983-4634

Fax: (867) 983-4626

Website: www.nunavut.ca

From: Robin Ikkutisluk [mailto:robin.ikkutisluk@nunavutwaterboard.org]

**Sent:** November-19-13 2:29 PM

To: jtologanak@gov.nu.ca; arlen.foster@stantec.com

Cc: Phyllis Beaulieu; Megan Porter

Subject: 131119 3AM-GRA1015 Hamlet of Rankin Inlet - Amendment - Notice of Application - Kivalliq Region

Hello,

Please see attached letter giving notice of Application for an amendment to water licence 3AM-GRA1015 Hamlet of Rankin Inlet.

Regards,

Robin Ikkutisluk



### Robin Ikkutisluk- S∧° ∆d∩'ح

## NUNAVUT WATER BOARD - OFFICE DES EAUX DU NUNAVUT • ዕር ልዜር ሲት የ ተጠርቀም - NUNAVUT IMALIRIYIN KATIMAYINGI www.NunavutWaterBoard.org

P.O. Box 119 Gjoa Haven, NU, X0B 1J0 C.P. 119 Gjoa Haven (Nunavut), X0B 1J0 በበናዔ<sup>4</sup>ልጊ 119 ኦ'ራ<sup>4</sup>ጋ<sup>4</sup>, ፌዴንና X0B 1J0 Titigaqaqvia 119 Uqhuqtuuq, NU, X0B 1J0

Tel / Téléphone / アペトレウ / Hivayauta: (867) 360-6338 | Fax / Télécopieur / みりせん / Fax-kut: (867) 360-6369

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Merci de penser à l'environnement avant d'imprimer ce courriel / Thank you for thinking of the environment before printing this email

NWB - NWB File #3AM GRA0207 - Hamlet of Rankin Inlet WaterSewageSolid WasteLand Farm CD.pdf
102K



### Letter from Brian Aglukark, NPC, to Phyllis Beaulieu, NWB, dated March 19, 2010



March 19, 2010

Ms. Phyllis Beaulieu Manager of Licensing Nunavut Water Board P.O. Box 119 Gjoa Haven, NU., X0B 1J0 Fax # 867 360 6369

Dear Ms Beaulieu

Re: [NWB - NWB File # 3AM GRA0207 - Hamlet of Rankin Inlet Water/Sewage/Solid Waste/Land Farm Activities]

The NPC has completed its review of the above noted project proposal. It conforms to the Keewatin Regional Land Use Plan (KRLUP), subject to the attached.

The applicant has undertaken to comply with the attached requirements. The authorizing agencies to which this letter is addressed are responsible under the *Nunavut Land Claims Agreement* to implement any of the attached requirements by incorporating the requirements directly, or otherwise ensuring that they must be met, in the terms and conditions of any authorizations issued.

My office would be pleased to discuss with these agencies how best to implement these requirements and to review any draft authorizations that the agencies wish to provide for that purpose.

This conformity determination applies only to the above noted applications as submitted. Therefore, the proponent must ensure other applications for a permit under this project proposal not listed above are forwarded to NPC for a conformity

determination against the KRLUP, and please notify the NPC immediately if any material change to the project proposal is made before authorizations are issued.

Yours Truly,

Brian Aglukark, Director Regional Planning NPC, Arviat

CC. Mr. Wayne Thistle, Government of Nunavut, CGS

## NUNAVUT PLANNING COMMISSION APPLICATION TO DETERMINE CONFORMITY WITH THE KEEWATIN REGIONAL LAND USE PLAN

All applicants for a project proposal shall comply with the requirements listed below. The relevant sections of the plan are noted in each requirement.

#### **GENERAL**

2.	Environmental Protection: \$2.4.9 prevent any new occurrences contamination at the site of the devi	of	pollution,		
	Yes			No	
3.	Removal of Fuel Drums: s2.4.9: remove all drums safely from the sin a safe manner.				

4. New Site Restoration and Clean Up: s2.4.15 and Appendix 2, s1: The applicant undertakes to clean up the site and restore the site to its natural condition to the greatest extent possible.



#### **ARCHEOLOGY**

9. Reporting of Archaeological Sites: s4.4.3 and Appendix 3, s2 and s8: Will the applicant immediately report the discovery of all suspected archaeological sites to the Department of Culture, Language, Elders and Youth (GN)?



Yes

No

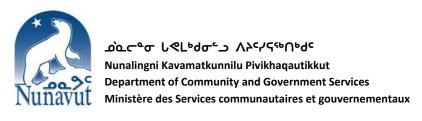
Nο

## PARTICULAR AREAS

18. Municipal Lands: s1.4.3: Is the part, within municipal boundaries?		
Yes	No	
PARTICULAR ACTIVITIES		
23. Code of Good Conduct for Land applicant undertakes to adhere to all times.		
Yes	No	
undertakings which form part of my a of the Nunavut Land Claims Agreeme		aning
Date: 03/18/10 Sig	gnature of Applicant: Ways Just	<u>5</u>

# Keewatin Regional Land Use Plan Appendix G Code of Good Conduct for Land Users

- The landscape of each camp and other land use sites will be restored to its
  original condition to the greatest degree possible. Water quality will be
  preserved, and no substances that will impair water quality will be dumped in
  water bodies. When possible and feasible, old sites will be restored to the
  natural state.
- 2. All land users shall assist communities and government(s) in identifying and protecting archaeological sites and carving-stone sites, as required by law.
- 3. Generally, low-level flights by aircraft at less than 300 metres should not occur where they will disturb wildlife or people. If such flights are necessary, they should only take place after consultation with the appropriate communities. All land users are responsible for reporting to the land managers any illegal or questionable low-level flight.
- 4. All activities on the land will be conducted in such a fashion that the renewable resources of the area in question are conserved.
- 5. Whenever practicable, and consistent with sound procurement management, land users will follow the practice of local purchase of supplies and services.
- 6. Land users will establish working relationships with local communities and respect traditional users of the land.
- 7. During the caribou calving, post-calving and migrating seasons, land use activities should be restricted to avoid disturbing caribou, in general, and activities will be governed more specifically by caribou protection measures such as those contained in Appendix H.
- Artifacts must be left where they are found. All land users are responsible for reporting to the location of, or any removal or disturbance of, artifacts to CLEY.
- 9. The mining industry is encouraged to assist in identifying local carving-stone deposits and report any discoveries to KIA. Industry is also encouraged to identify and report old waste sites that need to be cleaned up.
- 10, All land users shall obey the laws of general application applying to land use.



NIRB Screening Decision Report, NIRB File No.: 13UN37, June 26, 2014

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut



#### SCREENING DECISION REPORT NIRB FILE NO.: 13UN037

June 26, 2014

The Honourable Bernard Valcourt Minister of Aboriginal Affairs and Northern Development 10 Rue Wellington Gatineau, QC K1A 0H3

and

Thomas Kabloona Chairperson Nunavut Water Board Gjoa Haven, NU

Sent via email: minister@aandc.gc.ca; bernard.valcourt@parl.gc.ca; thomas.kabloona@nwboen.ca

Re: Screening Decision for the Government of Nunavut Department of Community and Government Services' "Hamlet of Rankin Inlet: Amendment Application – Seasonal Replenishment of Nipissar Lake" Project Proposal, Kivalliq Region, 13UN037

Dear Mr. Bernard Valcourt and Mr. Thomas Kabloona:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in Section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

"In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area."

Section 12.4.4 of the NLCA states:

"Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

- a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;
- b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
- c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
- d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned."

#### NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, the decision of the Board as per Section 12.4.4 of the NLCA is:

**12.4.4** (a): the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5.

# RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS (pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending that the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

#### General

- 1. The Government of Nunavut Department of Community and Government Services (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
- 2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
- 3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the NIRB and comprising its project proposal (NIRB Part 1 form, May 23, 2014, Nunavut Planning Commission Questionnaire, December 11, 2013) and the Nunavut Water Board (Amendment Application, September 3, 2014).
- 4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

#### Water Use

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.

6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

### **Waste Disposal**

7. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.

#### **Fuel and Chemical Storage**

- 8. Unless authorized, the Proponent shall locate all fuel and other hazardous materials a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
- 9. Unless authorized, the Proponent shall ensure that re-fuelling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body.
- 10. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
- 11. The Proponent shall use adequate secondary containment or a surface liner when storing barreled fuel and chemicals at all locations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at vehicle-maintenance areas and the pump area.
- 12. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

#### Wildlife - General

- 13. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
- 14. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
- 15. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

#### **Migratory Birds and Raptors Disturbance**

- 16. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.
- 17. The Proponent shall minimize activities during periods when birds are particularly sensitive to disturbance such as migration, nesting and moulting.

#### Caribou and Muskoxen Disturbance

- 18. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
- 19. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as the movement of equipment or personnel until such time as the caribou have passed.
- 20. During the period of May 15 to July 15, when caribou are observed within 1 km of project operations, the Proponent shall suspend all operations, including the use of equipment, as well as snowmobiles and all-terrain vehicles. Following July 15, if caribou cows or calves are observed within 1 km of project operations, the Proponent shall also suspend all operations in the vicinity, including use of equipment, as well as snowmobiles and all-terrain vehicles, until caribou are no longer in the immediate area.

#### **Ground Disturbance**

- 21. Unless authorized, the Proponent shall ensure there is no obstruction of natural drainage, flooding or channel diversion from the pipeline and other structures or facilities.
- 22. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction in order to prevent sediment from entering any waterbody.
- 23. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.
- 24. All construction and road vehicles must be fitted with standard and well-maintained noise suppression devices and engine idling is to be minimized.

#### Winter Trail

- 25. The Proponent shall select a winter route that maximizes the use of frozen water bodies and shall ensure that no disturbance of the stream bed or banks of any definable watercourse be permitted.
- 26. The Proponent shall not move any equipment or vehicles without prior testing the thickness of the ice to ensure the lake is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.
- 27. The Proponent shall ensure that winter lake and/or stream crossings are located to minimize approach grades and constructed entirely of ice and snow materials. Ice or snow free of sediment should be the only materials used to construct temporary crossings over any ice-covered watercourse.
- 28. The Proponent shall ensure that bank disturbances are avoided, and no mechanized clearing carried out immediately adjacent to any watercourse.
- 29. The Proponent shall ensure that stream crossings and/or temporary crossings constructed from ice and snow, which may cause jams, flooding or impede fish passage and or water flow, are removed or notched prior to spring break-up.

- 30. The Proponent shall implement sediment and erosion control measures prior to, and during operations to prevent sediment entry into the water during the spring thaw. This includes ensuring that a sufficient thickness of snow and ice is present on the winter road to prevent unnecessary erosion of the underlying ground surface and impact on underneath vegetation.
- 31. The Proponent shall implement a clean-up and reclamation stabilization plan which should include, but is not limited to, re-vegetation and/or stabilization of exposed soil in road bed.

#### **Restoration of Disturbed Areas**

- 32. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
- 33. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season and/or upon abandonment of site.

#### Other

- 34. The Proponent should, to the extent possible, hire local people and to consult with local residents regarding their activities in the region.
- 35. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.

#### REGULATORY REQUIREMENTS

The Proponent is also advised that the following legislation may apply to the project:

#### **Acts and Regulations**

- 1. The *Fisheries Act* (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html).
- 2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (http://www.canlii.org/ca/sta/n-28.8/whole.html).
- 3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<a href="http://laws-lois.justice.gc.ca/eng/acts/M-7.01/">http://laws-lois.justice.gc.ca/eng/acts/M-7.01/</a>).
- 4. The *Species at Risk Act* (<a href="http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html">http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html</a>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.
- 5. The *Wildlife Act* (<a href="http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html">http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html</a>) which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
- 6. The *Nunavut Act* (<u>http://laws-lois.justice.gc.ca/eng/acts/N-28.6/</u>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
- 7. The Canada National Parks Act (http://laws-lois.justice.gc.ca/eng/acts/n-14.01/).
- 8. The Arctic Waters Pollution Prevention Act (http://laws-lois.justice.gc.ca/eng/acts/A-12/).

- 9. The *Navigable Waters Protection Act (NWPA)* (<a href="http://laws-lois.justice.gc.ca/eng/acts/N-22/index.html">http://laws-lois.justice.gc.ca/eng/acts/N-22/index.html</a>).
- 10. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<a href="http://www.tc.gc.ca/eng/tdg/safety-menu.htm">http://www.tc.gc.ca/eng/tdg/safety-menu.htm</a>), and the *Canadian Environmental Protection Act* (<a href="http://laws-lois.justice.gc.ca/eng/acts/C-15.31">http://laws-lois.justice.gc.ca/eng/acts/C-15.31</a>). The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the Government of Nunavut, Department of Environment Manager of Pollution Control and Air Quality at 867-975-7748
- 11. The CEPA Storage Tank System for Petroleum Products and Allied Petroleum Products Regulations (www.ec.gc.ca/st-rs). The Proponent must identify their tank system to Environment Canada and installation of new systems must comply with the regulations' design requirements.

### **Validity of Land Claims Agreement**

#### *Section 2.12.2*

Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated \_\_\_\_\_June 26, 2014\_\_\_\_ at Churchill, MB

Elizabeth Copland, Chairperson

Attachments: Appendix A: Procedural History and Project Activities

Appendix B: Species at Risk in Nunavut

Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use

Permit Holders

#### Appendix A

### Procedural History and Project Activities

#### **Procedural History**

On August 23, 2013 the Nunavut Impact Review Board (NIRB) received the Government of Nunavut, Department of Community and Government Services' (GN-CGS) "Hamlet of Rankin Inlet: Amendment Application - Seasonal Replenishment of Nipissar Lake" project proposal from the Nunavut Water Board (NWB). On December 11, 2013 the NIRB received a positive conformity determination (Keewatin Regional Land Use Plan) from the Nunavut Planning Commission (NPC) for this file. The NIRB assigned this project proposal file number 13UN037.

Following receipt of the initial application materials, the NIRB undertook a preliminary completeness check and determined that the proposal as submitted did not contain sufficient information for the NIRB to permit proper screening. On September 10, 2013 the NIRB issued correspondence to the GN-CGS advising that a conformity determination from the NPC for this file would be required prior to commencing screening and recommended that additional information, specifically the NIRB's Part 1 and Part 2 forms, be provided in support of the project proposal. On December 17, 2013, following receipt of the positive conformity determination (Keewatin Regional Land Use Plan) from the NPC on December 11, 2013, the NIRB formally requested that the GN-CGS provide additional information in support of this proposal by January 3, 2013. Further, on December 20, 2013 the NIRB requested an extension to the screening timeline for this proposal from the Minister of Aboriginal Affairs and Northern Development. On May 13, 2014 the NIRB received the additional information from the Proponent as requested and commenced screening.

On May 29, 2014 the project proposal was distributed to community organizations in Rankin Inlet, as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by June 18, 2014 regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On or before June 18, 2014 the NIRB received comments from the following interested parties:

- Aboriginal Affairs and Northern Development Canada
- Environment Canada
- Fisheries and Oceans Canada

All comments provided to the NIRB regarding this project proposal can be obtained from the NIRB's online public registry at the following location: http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/

#### **Project Activities**

The proposed project is located approximately two to four kilometres (km) northwest of Rankin Inlet in the Kivalliq Region and is intended to transport water from the Char River in order to resupply the Nipissar Lake (also known as Nipissak Lake), which is in turn used to supply the municipal water needs for Rankin Inlet. The program is proposed to take place from September 2012 to September 2032, or longer if the pipeline remains functional, with yearly seasonal operation between June and September to commence in June 2014.

The activities and components associated with this proposal include:

- Use and grading of the existing access road at the intake area along Char River;
- Development and use of a temporary winter access trail along the pipeline to transport equipment, materials and personnel (fuel to be stored in Rankin Inlet);
  - Approximately 10 Litres (L) of oils and lubricants to be used annually during the operation phase;
  - Used oil and waste fuel to be disposed of at an approved disposal facility in Rankin Inlet;
- Domestic waste to be disposed of at the Rankin Inlet Solid Waste Facility;
- Construction, operation and decommissioning of a 4.05 kilometre (km) overland water intake pipeline extending from the Char River to Nipissar Lake including:
  - Installation of a water intake area with pump and 75 horsepower diesel powered generator (to be refuelled with a hand pump or electric pump and stored in a sea canister);
  - 50 m intake hose with floating base (to anchor the intake hose during operation), and intake screen. Hose and floating base to be stored in the sea canister at the end of the operation season;
  - o 250 millimetre (mm) diameter high density polyethylene (HDPE) pipeline with one low point drain and two high point air releases to facilitate draining of the pipeline at the end of the operation season; and
  - Discharge area at the high water mark of Nipissar Lake with the installation of a concrete slab (splash pad) and surrounding riprap;
- Installation of culverts under existing access roads to facilitate surface water drainage and to allow for passage of the pipeline;
- Approximately 0.5 m of granular material (sand) sourced from Rankin Inlet's community borrow pit to be placed on the pipeline in two areas to facilitate snowmobile access; and
- Amount of water required to prevent water level decreases in Nipissar Lake would be dependent on community need and expected to increase as the community increases in size, with a projected maximum 47,187 cubic metres (m³) to be transferred during the 2014 season and up to 271,924 m³ in 2030:



# **Appendix B**Species at Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term "listed" species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are "pending" addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

Schedules of SARA are amended on a regular basis so it is important to check the SARA registry (www.sararegistry.gc.ca) to get the current status of a species.

Updated: July 2013

Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
Peary Caribou	Endangered	Schedule 1	Government of Nunavut
			(GN)
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN
Polar Bear	Special Concern	Schedule 1	GN
Short-eared Owl	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern	Schedule 1	GN
	(anatum-tundrius complex <sup>3</sup> )		
Rusty Blackbird	Special Concern	Schedule 1	GN
Felt-leaf Willow	Special Concern	Schedule 1	GN
Porsild's Bryum	Threatened	Schedule 1	GN
Eskimo Curlew	Endangered	Schedule 1	Environment Canada (EC)
Ivory Gull	Endangered	Schedule 1	EC
Red Knot	Endangered	Schedule 1	EC
(rufa subspecies)			
Ross's Gull	Threatened	Schedule 1	EC
Red Knot	Special Concern	Schedule 1	EC

Species at Risk <sup>1</sup>	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility <sup>2</sup>
(islandica subspecies)			
Harlequin Duck	Special Concern	Schedule 1	EC
(Eastern population)			
Grizzly Bear	Special Concern	Pending	GN
Wolverine (Western population)	Special Concern	Pending	GN
Horned Grebe	Special Concern	Pending	EC
(Western population)			
Buff-breasted Sandpiper	Special Concern	Pending	EC
Atlantic Cod, Arctic Lakes	Special Concern	No schedule	Fisheries and Oceans Canada (DFO)
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale	Threatened	Pending	DFO
(Cumberland Sound population)			
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland	Special Concern	Pending	DFO
population)			
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

<sup>&</sup>lt;sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>&</sup>lt;sup>2</sup> Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

<sup>&</sup>lt;sup>3</sup> The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was assessed by COSEWIC as Special Concern, and was added to Schedule 1 of SARA in July 2012.

#### Appendix C

Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



#### INTRODUCTION

The Department of Culture and Heritage (CH) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Aboriginal Affairs and Northern Development Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and palaeontological resources.

#### TERMS AND CONDITIONS

1) The permittee/proponent shall have a professional archaeologist and/or palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	Types of Development	Function		
	(See Guidelines below)	(See Guidelines below)		
۵)	Large seels prospecting	Archaeological/Palaeontological		
a)	Large scale prospecting	Overview Assessment		
	Diamond drilling for exploration or			
b)	geotechnical purpose or planning of	Archaeological/ Palaeontological		
	linear disturbances	Inventory		
	Construction of linear disturbances,	Archaeological/ Palaeontological		
(2)	Extractive disturbances, Impounding	Inventory or Assessment or		
c)	disturbances and other land			
	disturbance activities	Mitigation		

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*<sup>1</sup> to issue such permits.

<sup>&</sup>lt;sup>1</sup>P.C. 2001-1111 14 June, 2001

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation until permitted to proceed with the authorization of CH.
- 6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act Aboriginal Affairs and Northern Development Canada directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CH concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and palaeontological sites and fossils.
- 9) If a list of recorded archaeological and/or palaeontological sites is provided to the permittee/proponent by CH as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or palaeontological sites listed.
- 10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

#### Legal Framework

As stated in Article 33 of the *Nunavut Land Claims Agreement*:

Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]

Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [33.5.13]

#### Palaeontology and Archaeology

Under the *Nunavut Act*<sup>2</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*<sub>3</sub>, it is illegal to alter or disturb any palaeontological or archaeological site in Nunavut unless permission is first granted through the permitting process.

#### **Definitions**

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

"archaeological site" means a place where an archaeological artifact is found.

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

"palaeontological site" means a site where a fossil is found.

"fossil" includes:

Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:

- (a) natural casts;
- (b) preserved tracks, coprolites and plant remains; and
- (c) the preserved shells and exoskeletons of invertebrates and the preserved eggs, teeth and bones of vertebrates.

 $<sup>^{2}</sup>$  s. 51(1)

<sup>&</sup>lt;sup>3</sup> P.C. 2001-1111 14 June, 2001

# GUIDELINES FOR DEVELOPERS FOR THE PROTECTION OF ARCHAEOLOGICAL RESOURCES IN THE NUNAVUT TERRITORY

(Note: Partial document only, complete document at: www.ch.gov.nu.ca/en/Archaeology.aspx)

#### Introduction

The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historic buildings and cairns Effective collaboration between the developer, the Department of Culture, Language, Elders and Youth (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the Nunavut Land Claims Agreement), and the Aboriginal Affairs and Northern Development Canada, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and* 

Palaeontological Sites Regulations.

#### **Types of Development**

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;
- Extractive disturbances: including mining, gravel removal, quarrying, and land filling;
- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.
- Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources.

#### **Types of Studies Undertaken to Preserve Heritage Resources**

**Overview:** An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

**Reconnaissance:** This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project.

Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

**Inventory:** A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and
- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required.

**Assessment:** At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

**Mitigation:** This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture and Heritage. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

**Surveillance and monitoring:** These may be required as part of the mitigation program.

Surveillance may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

*Monitoring* involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.



# Email from Ryan Barry, NIRB, to Phyllis Beaulieu, NWB, dated March 16, 2010

 From:
 Ryan Barry

 To:
 "Phyllis Beaulieu"

 Cc:
 info@nirb.ca

Subject: RE: 3AM-GRA---- Type A Water Licence Application

**Date:** Tuesday, March 16, 2010 10:01:44 PM

#### Hi Phyllis,

If my understanding is correct and this licence is just a new licence for the hamlet to continue to provide water to residents of Rankin Inlet for regular non-industrial use, than it is exempt under NLCA Schedule 12-1(3). If you need a more formal response from NIRB for your records, or if I misunderstood the objective of this new licence (hard to discern from the application you forwarded just now), please let me know and we'll have someone follow up accordingly.

Best regards,

Ryan

Ryan Barry Director, Technical Services Nunavut Impact Review Board

P.O. Box 1360, Cambridge Bay, NU X0B 0C0

(toll free) 1-866-233-3033 (direct) 1-867-983-4608 (fax) 1-867-983-2594 FTP site: http://ftp.nirb.ca

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From: Phyllis Beaulieu [mailto:licensing@nunavutwaterboard.org]

**Sent:** March-16-10 6:26 PM **To:** NIRB Ryan Barry

**Subject:** 3AM-GRA---- Type A Water Licence Application

Good afternoon Ryan – Just following up on an email sent to NIRB about a week ago. Is there a requirement for NIRB to screen a Type A application for Municipalities? No landfarm activities involved. Application form attached for your perusal. All other application documents are on our ftp site at the following link:

ftp://nunavutwaterboard.org/1%20PRUC/3%20MUNICIPAL/3A/3AM%20-%20Municipality/3AM-GRA----/1%20APPLICATION/

Regards,

Phyllis Beaulieu Manager of Licensing Nunavut Water Board P.O. Box 119

Gjoa Haven, NU X0B 1J0 Phone: (867) 360-6338, Ext. 26

Fax: (867) 360-6369

Email: licensing@nunavutwaterboard.org



## **GN-CGS Rankin Inlet - Plan for Compliance, March 9, 2015**

Water Licence No. 3AM-GRA1015 Rankin Inlet, Nunavut

	Licence Condition	Status of Compliance	Short Term Plan for Compliance	Responsibility	Schedule of Implementation	Long Term Plan for Compliance
PART B	GENERAL CONDITIONS		,		, and a second	
B-1	The Licensee shall file an Annual Report with the Board for review, no later than March 31st of the year following the calendar year reported, which shall contain the following information collected during that period:  a. Tabular summaries of all data generated under the Monitoring Program;  b. The monthly and annual quantities of fresh water obtained from all sources; c. The monthly and annual quantities of wastes	Non-compliance	Annual Reports for 2010-2013 were submitted to the NWB but did not include all required Monitoring Program information.	CGS	2014 Annual Report will be submitted to the NWB by March 20, 2015. Fully completed Annual Reports will be submitted to the NWB prior to the March 31st deadline each year.	1
	removed for disposal from Licensed Facilities;  d. The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5;					
	e. A summary of modifications and/or major work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures and facilities;  f. A list of all unauthorized discharges and					
	summary of follow-up actions taken; g. Any revisions to approved Plans and Manuals as required by Part B, Item 11, submitted in the form of an Addendum; h. A summary of abandonment and restoration work completed during the year and an outline in the form of an Addendum;					
	i. A summary of any studies, reports and plans requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned; and j. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.					

B-2	The Licensee shall submit to the Board for review, a quarterly report for all tests and monitoring conducted during each Calendar Quarter, not later than forty five (45) days following the quarter being reported, which shall contain the following information:  a. Tabular summaries of all data generated under the Monitoring Program;  b. Monthly quantities of fresh water obtained from all sources; c. Quarterly sampling results from Monitoring Program Station GRA-3; and d. The current estimated volume of Nipissar Lake based on water elevation determined at Monitoring Program Station GRA-5.	Non-compliance	Quarterly Reports were not submitted to the NWB for 2010-2015. The Quarterly Reports will be completed and submitted to the NWB in the future.	CGS	The 2015 First Quarter Report will be submitted to the NWB by April 17, 2015. Subsequent reports will be submitted within 45 days following each quarter.	All Quarterly Reports will be submitted to the NWB within 45 days following each quarter.
B-3	The Licensee shall comply with the Monitoring Program described in this License and any amendments to the Monitoring Program as may be made from time to time, pursuant to the conditions of this License.	Non-compliance	Required Monitoring Program Stations will be maintained.	ces	be included in the Quarterly Reports	Monitoring Program information will be collected annually and results will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
B-6	The Licensee shall, within ninety (90) days after the first visit by the Inspector following approval of this License, post the necessary signs, to identify the stations of the Monitoring Program. All signage postings shall be in the Official Languages of Nunavut.	Non-compliance	Signage for the Monitoring Program Stations will be ordered over the winter for installation summer 2015.	CGS	2015.	Signage will be checked annually and repaired/replaced as needed. Notice of repair/replacement will be included in the Annual Report.
B-11	The Licensee shall review the Plans referred to in this License as required by changes in operation and/or technology and modify the Plans or Manuals accordingly. Revisions to the Plans or Manuals are to be submitted in the form of an Addendum to be included with the Annual Report required by Part B, Item 1(g), complete with a revisions list detailing where significant changes are made.	Non-compliance	Plans previously submitted to the NWB are currently being reviewed. An addendum showing where significant changes were made will be included in the following year's Annual Report.	CGS		Plans that are referred to in this Licence will be reviewed annually and an addendum showing where significant changes were made will be included in the following year's Annual Report.

PART C	CONDITIONS APPLY TO WATER USE AND					
FARTE	MANAGEMENT					
C-10	The Licensee shall, with sixty (60) days following approval of the License, install and maintain a water level gauge in Nipissar Lake at Monitoring Program Station GRA-5, or as otherwise approved by the Board.	Non-compliance	Water levels at Nipissar Lake are monitored by surveying the lake.	CGS	Water levels at Nipissar Lake are monitored by surveying the lake. Water levels will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Water levels at Nipissar Lake will continued to be monitored by surveying the lake. Water levels will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
C-11	The Licensee shall submit to the Board for approval in writing, prior to March 31, 2015, a Water Pumping Adaptive Management Plan, that shall include the following:  a. Details of seasonal hydrological monitoring of Char River; b. Details of Char River, Lower Landing Lake and Nipissar Lake water chemistry monitoring and assessment of impacts on Nipissar Lake water quality/chemistry due to the transfer of water from Char River; c. In-stream flow objectives for Char River including a flow based low cut-off limit of 10% of the instantaneous flow and a 0.5 m minimum flow depth in the Char River, at which point no further Water is authorized to be withdrawn from the Char River; d. Details of Char River on-going viability assessment in meeting pumping objectives and water use requirements; e. Mitigation options and procedures for occurrences when flow is insufficient to meet pumping objectives and consumption requirements.	New condition in Amendment No.1	The Water Pumping Adaptive Management Plan will be submitted to the NWB as described.	CGS	The Water Pumping Adaptive Management Plan will be submitted to the NWB as described.	The Water Pumping Adaptive Management Plan will be submitted to the NWB as described.
C-13	The daily quantity of Water pumped from the Char River to Nipissar Lake shall not exceed three thousand four hundred eighty five (3,485) cubic meters per day, to be withdrawn in accordance with the approved Water Pumping Adaptive Management Plan, as submitted under Part C, Item 11. Withdrawal of water shall not exceed 10% of the instantaneous flow of Char River.	New condition in Amendment No.1	The daily quantity of water pumped from Char River to Nipissar Lake will not exceed the allowable volume or 10% of instantaneous flow.	CGS	Water pumping activities from Char River to Nipissar Lake will cease if more than 3,485 cubic metres or 10% of instantaneous flow is. Water volume will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Water pumping activities from Char River to Nipissar Lake will cease if more than 3,485 cubic metres or 10% of instantaneous flow is. Water volume will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.

C-14	The Licensee shall submit to the Board for approval in writing, a revised Water Pumping Management Plan, within ninety (90) days of completion of the 2015 hydrological field study, to include actual field flow data analysis. The Licensee shall annually review the Water Pumping Adaptive Management Plan and modify it as necessary. Revised Plans shall be submitted to the Board within the Annual Reports.		The revised Water Pumping Adaptive Management Plan will be submitted to the NWB following the hydrological field study as described.	The revised Water Pumping Adaptive Management Plan will be submitted to the NWB following the hydrological field study as described.	The revised Water Pumping Adaptive Management Plan will be submitted to the NWB following the hydrological field study as described.
C-15	The Licensee shall cease water pumping activities from Char river to Nipissar Lake should the in stream flow objectives for Char River, as per the Water Pumping Adaptive Management Plan and restrictions imposed in Part C, Item 13, not be met.	New condition in Amendment No.1	Water pumping activities from Char River to Nipissar Lake will cease if in stream flow objectives cannot be met.	Water pumping activities from Char River to Nipissar Lake will cease if in stream flow objectives cannot be met.	Water pumping activities from Char River to Nipissar Lake will cease if in stream flow objectives cannot be met.
PART E	CONDITIONS APPLYING TO MODIFICATION AND CONSTRUCTION				
	The Licensee shall submit to the Board, for approval in writing, construction drawings signed and stamped by an Engineer registered in Nunavut prior to the construction of any dams, dykes or structures intended to contain, withhold, divert or retain water or wastes.	Compliance	There are no plans for construction under the current Licence. Approval in writing will be sought if this changes.	There are no plans for construction under the current Licence. Approval in writing will be sought if this changes.	There are no plans for construction under the current Licence. Approval in writing will be sought if this changes.
	The Licensee shall provide as-built plans and drawings of the construction and/or modifications referred to in Part E of this License within ninety (90) days of completion of the Construction or Modification. These plans and drawings shall be signed and stamped by an Engineer.	Compliance	As-built plans and drawings of construction and/or modifications shall be submitted to the NWB within ninety (90) days of competition of the construction or modification.	As-built plans and drawings of construction and/or modifications shall be submitted to the NWB within ninety (90) days of competition of the construction or modification.	As-built plans and drawings of construction and/or modifications shall be submitted to the NWB within ninety (90) days of competition of the construction or modification.
PART F	CONDITIONS APPLYING TO OPERATION AND MAINTENANCE				
	The Board has approved the Plan entitled  "Addendum to Operations and Maintenance (O&M) Plan for the Water Supply Facility, Char River, Rankin Inlet, Nunavut", prepared for the Government of Nunavut, Department of Community and government Services, by Stantec Architecture Ltd., dated May 2014.	Compliance	The Water Supply Facility O&M Plan, including addendum, will be reviewed annually and updated at necessary.	The Water Supply Facility O&M Plan, including addendum, will be reviewed annually and updated at necessary.	The Water Supply Facility O&M Plan, including addendum, will be reviewed annually and updated at necessary. The NWB will be notified of any changes/updates in the Annual Report.

F-2	The Board has approved the Plan entitled "Sewage Treatment Facility Operation and Maintenance (O&M) Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut" revised April 2010.	Compliance	The Sewage Treatment Facility O&M Plan will be reviewed and updated for submission to the NWB.	CGS	The reviewed and updated <i>Sewage</i> Treatment Facility O&M Plan will be submitted to the NWB by April 7, 2015.	The Sewage Treatment Facility O&M Plan will be reviewed annually and the NWB will be notified of any changes/updates in the Annual Report.
F-3	The Board has approved the Plan entitled "Spill Contingency Plan for Water Supply and Sewage Treatment Facilities, Hamlet of Rankin Inlet, Department of Community and Government Services by Stantec Architecture Ltd., dated May 2014.	Compliance	The Spill Contingency Plan for Water Supply and Sewage Treatment Facilities will be reviewed annually and updated at necessary.	CGS	The Spill Contingency Plan for Water Supply and Sewage Treatment Facilities will be reviewed annually and updated at necessary.	The Spill Contingency Plan for Water Supply and Sewage Treatment Facilities will be reviewed annually and updated at necessary. The NWB will be notified of any changes/updates in the Annual Report.
PART G	CONDITIONS APPLYING TO ABANDONMENT, RESTORATION AND CLOSURE					
G-1	The Licensee shall submit to the Board for approval in writing, an Abandonment and Restoration Plan at least six (6) months prior to abandoning any facilities or upon submission of the final design drawings for the construction of new facilities to replace existing ones. Where applicable, the Plan shall include information on the following:  a. Water intake facilities; b. The waste treatment and sewage treatment sites and facilities; c. Petroleum and chemical storage areas; d. Any site affected by waste spills; e. Leachate prevention; f. An implementation schedule; g. Maps delineating all disturbed areas, and site facilities; h. Consideration of altered drainage patterns; i. Type and source of cover materials; j. Future area use; k. Hazardous wastes; and l. A proposal identifying measures by which restoration costs will be financed by the Licensee upon abandonment.	Compliance	There are no plans to abandon any facilities currently authorized under this Licence. An Abandonment and Restoration Plan will be submitted to the NWB at least six (6) months prior to abandonment any facilities.	CGS	There are not plans to abandon any facilities currently authorized under this Licence. An Abandonment and Restoration Plan will be submitted to the NWB at least six (6) months prior to abandonment any facilities.	There are not plans to abandon any facilities currently authorized under this Licence. An Abandonment and Restoration Plan will be submitted to the NWB at least six (6) months prior to abandonment any facilities.

PART H	CONDITIONS APPLYING TO THE MONITORING PROGRAM					
H-1		Non-compliance	Required Monitoring Program Stations will be maintained.	CGS	Monitoring Program information will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Monitoring Program information will be collected annually and results will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
H-2	The Licensee shall measure by instrument and record in cubic meters, the daily, monthly and annual quantities of Water extracted for all purposes at Monitoring Program Station GRA-1, and from the Char River exiting Lower Landing Lake at Monitoring Program Station GRA-6.	Non-compliance	Required volume measurements will be taken at GRA-1 and GRA-6.	cgs	Water volume measurements taken daily, monthly and annually will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Water volume measurements taken daily, monthly and annually will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
H-3	The Licensee shall provide the GPS co-ordinates (in degrees, minutes and seconds of latitude and longitude) of all locations where sources of water are utilized for all purposes and at all Monitoring Program Stations.	Non-compliance	GPS coordinates of all locations where sources of water are utilized and at all Monitoring Program Stations will be confirmed with the AANDC Inspector during the next inspection.	CGS		GPS coordinates of all locations where sources of water are utilized and at all Monitoring Program Stations will remain the same once confirmed with the AANDC Inspector.

H-4	The Licensee shall sample a least once during a Calendar Quarter at Monitoring Program Station GRA-3 and analyze for the following parameters: BOD <sub>5</sub> , pH, Total Suspended Solids, Nitrate - Nitrite, Fecal Coliforms, Conductivity, Ammonia Nitrogen, Oil and Grease (visual), Total Phenols, Sodium, Magnesium, Total Arsenic, Total Copper, Total Iron, Total Mercury, Total Zinc, Sulphate, Potassium, Calcium, Total Cadmium, Total Lead, Total Nickel.	Non-compliance	Required effluent quality sampling will take place each quarter at GRA-3.	CGS	Effluent quality sampling will take place each quarter at GRA-3 and results will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Effluent quality sampling will take place each quarter at GRA-3 and results will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
H-5	The Licensee shall measure and record in cubic meters, the monthly and annual volumes of sludge removed from the Sewage Treatment Facility at Monitoring Program Station GRA-4	Non-compliance	The monthly and annual volumes of sludge removed from the Sewage Treatment Facility at GRA-4 will be recorded.	CGS	The monthly and annual volumes of sludge removed from the Sewage Treatment Facility at GRA-4 will be recorded included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	The monthly and annual volumes of sludge removed from the Sewage Treatment Facility at GRA-4 will be recorded included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
H-6	The Licensee shall record water elevation monthly, during periods of open water at Monitoring Program Station GRA-5.	Non-compliance	The water elevation will be recorded monthly, during periods of open water at GRA-5.	CGS	Water elevation will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	Water elevation will be included in the Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.
H-9	The Licensee shall within ninety (90) days following approval of the License, submit to the Board for review, a revised "Environmental Monitoring Program and Quality Assurance/Quality Control Plan, Hamlet of Rankin Inlet, Department of Community and Government Services, Government of Nunavut'. The revised Plan shall include:  a. All monitoring requirements listed under Part H of the License; b. The retention of additional sampling for analysis of parameters that is not required by the License but included under the current Plan is encouraged; c. A covering letter from an accredited laboratory confirming acceptance of the Quality Assurance/Quality Control (QA/QC) Plan for analyses to be performed under this License.		The Environmental Monitoring Program and Quality Assurance/Quality Control Plan will be reviewed and updated for submission to the NWB.	CGS	The reviewed and updated Environmental Monitoring Program and Quality Assurance/Quality Control Plan, with cover letter from an accredited lab confirming acceptance, will be submitted to the NWB by April 7, 2015.	The Environmental Monitoring Program and Quality Assurance/Quality Control Plan will be reviewed annually and the NWB will be notified of any changes/updates in the Annual Report.

H-10	The Licensee shall annually review the QA/QC Plan refereed to in Part J, Item 9 and modify its a necessary. Revised QA/QC Plans shall be submitted to the Board with a current approval letter from an accredited lab and shall meet the standards set out in Part H, Item 7 and Part H, Item 8 of the License.	Non-compliance	The Environmental Monitoring Program and Quality Assurance/Quality Control Plan will be reviewed and updated for submission to the NWB.	CGS	The reviewed and updated Environmental Monitoring Program and Quality Assurance/Quality Control Plan, with cover letter from an accredited lab confirming acceptance, will be submitted to the NWB by April 7, 2015.	The Environmental Monitoring Program and Quality Assurance/Quality Control Pl an will be reviewed annually and the NWB will be notified of any changes/updates in the Annual Report.
H-13	The Licensee shall, during water pumping activities from Char River to Nipissar Lake, record daily the total Water flow within the Char River to ensure the Licensee adheres to the Part C, line 13, 14 and 15 of the Licence, and "Framework for Assessing the Ecological Flow Requirements to support Fisheries in Canada", (DFO) 2013, or more recent).	New condition in Amendment No.1	Required volume measurements will be taken during pumping activities from Char River to Nipissar Lake to ensure the water extracted is within guidelines.	CGS	water flow within Char River is not	Required volume measurements will be taken during pumping activities from Char River to Nipissar Lake to ensure the water extracted is within guidelines. Pumping will cease if total water flow within Char River is not adequate.
H-14	The Licensee shall sample annually during spring freshet, at Monitoring Program Stations GRA-1, GRA-6 and GRA-7 and analyze for the following parameters in accordance with the Canadian Council of Ministers of the Environment (CCME, 2013) Water Quality Guidelines for the Protection of Freshwater Aquatic Life: pH, Conductivity, Total Suspended Solids, Ammonia Nitrogen, Nitrate-Nitrite, Oil and Grease (visual), Total Phenols, Sulphate, Total Hardness, Total Alkalinity, Sodium, Potassium, Magnesium, Calcium, Chloride, Total Cadmium, Total Copper, Total Chromium, Total Iron, Total Lead, Total Mercury, Total Nickel, Total Zinc, Total Phosphorus, Total Aluminum, Total Manganese, Total Cobalt, Total Arsenic, Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Methylbenzene, Xylene (BTEX).	New condition in Amendment No.1	Required water quality sampling will take place annually during spring freshet at GRA-1, GRA-6, and GRA-7.	CGS	Water quality sampling will take place annually during spring freshet at GRA-1, GRA-6, and GRA-7, and results will be included in the following Quarterly Reports and the Annual Reports to be submitted prior to the March 31st deadline each year.	annually during spring freshet at GRA- 1, GRA-6, and GRA-7, and results will be included in the following Quarterly