Application for Water Licence Amendment

Application Submission Date: _02/01/2019
Month/Day/Year

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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-IQA1626_____

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. **An amendment 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 name of the licensee has changed, attach a certificate of name change.

Name:

Address:

Phone: _____
Fax: _____
e-mail: _____

2. LICENSEE REPRESENTATIVE CONTACT INFORMATION – If different from Block 1.

Name:

Address:

Phone: _____
Fax: _____
e-mail: _____

(Attach authorization letter.)

3. NAME OF PROJECT

Has the name of the project changed?

☐ Yes x No

If Yes, indicate the name of the project including the name of the location: _____

4. LOCATION OF UNDERTAKING

Does the proposed amendment change the location of the amended undertaking?

☐ Yes x No

Provide the project extents and camp locations. Identify proposed changes.

Project Extents

NW:	Latitude: (° ’ ” N)	Longitude: (° ’ ” W)
NE:	Latitude: (° ’ ” N)	Longitude: (° ’ ” W)
SE:	Latitude: (° ’ ” N)	Longitude: (° ’ ” W)
SW:	Latitude: (° ’ ” N)	Longitude: (° ’ ” W)

Camp Location(s)

Latitude: (° ’ ” N) Longitude: (° ’ ” W)

5. MAP

Does the proposed amendment change the locations of any of the main components of the undertaking?

x Yes ☐ No

Attach a topographical map, indicating the main components of the undertaking. Identify proposed changes.

NTS Map Sheet No.: __25N15/16____ Map Name: _Iqaluit/No Title__ Map Scale: _1:50,000_

See attached Supporting Information

6. NATURE OF INTEREST IN THE LAND

Does the proposed amendment change the nature of the interest in the land?

☐ Yes x No

If Yes, indicate changes. _____

Check any of the following that are applicable to the proposed undertaking (at least one box under the 'Surface' header must be checked).

Sub-surface

☐ Mineral Lease from Nunavut Tunngavik Incorporated (NTI)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Mineral Lease from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

Surface

☐ Crown Land Use Authorization from Indian and Northern Affairs Canada (INAC)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ IOL Authorization from Kivalliq Inuit Association (KivIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ IOL Authorization from Qikiqtani Inuit Association (QIA)
Date (expected date) of issuance: _____ Date of expiry: _____

☐ Commissioner's Land Use Authorization
Date (expected date) of issuance: _____ Date of expiry: _____

x Other __City of Iqaluit Municipal Lands_____

Date (expected date) of issuance: _____ Date of expiry: _____

Is the name of the entity(s) holding authorizations the same as that considered in the existing water licence?

x Yes ☐ No

If No, a licence assignment must be completed and approved by the NWB.

Name of entity(s) holding authorizations: _City of Iqaluit

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

Indicate the land use planning area in which the existing project is located.

☐ North Baffin
x South Baffin
☐ Akunniq
☐ Keewatin
☐ Sanikiluaq
☐ West Kitikmeot

Does the proposed amendment change the land use planning area?

☐ Yes x No

If yes, indicate the land use planning area in which the amended undertaking is located.

☐ North Baffin
☐ South Baffin
☐ Akunniq
☐ Keewatin
☐ Sanikiluaq
☐ West Kitikmeot

Was a land use plan conformity determination required from NPC prior to the issuance of the existing water licence?

x Yes ☐ No Outside of land use planning areas

If Yes, indicate date issued and attach copy. ___October 16, 2012__

Does the proposed amendment change the original NPC conformity determination or the need to obtain one?

x Yes No

If Yes, indicate date issued (or expected) and attach a copy. __January 11, 2019_____ If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Was a screening determination required from NIRB prior to the issuance of the existing water licence?

x Yes ☐ No

If Yes, indicate date issued and attach copy. __November 3, 2014__

Does the proposed amendment change the original NIRB screening determination or the need to obtain one?

x Yes ☐ No

If Yes, indicate date issued (or expected) and attach a copy. _NIRB is undertaking a completeness check on application #125439___ If No, provide written confirmation from NIRB confirming that a screening determination is not required.

9. DESCRIPTION OF UNDERTAKING

Does the proposed amendment change the description of the undertaking?

x Yes ☐ No

List and attach plans and drawings or project proposal. Identify proposed changes. See attached Supporting Submission Section 2.4

10. OPTIONS

Does the proposed amendment change any of the alternative methods and locations that were considered to carry out the project?

x Yes ☐ No

Provide a brief explanation of the alternative methods or locations that were considered to carry out the project. Identify proposed changes.
See attached Supporting Submission Section 3

11. CLASSIFICATION OF PRIMARY UNDERTAKING

Indicate the primary classification of undertaking for the existing licence 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):
_____

Does the proposed amendment change the classification of primary undertaking?

☐ Yes x No

If Yes, indicate the primary undertaking of the amendment:_____

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be updated and submitted with an Application for Amendment. Indicate which SIG(s) are applicable to your application.

☐ Hydrostatic Testing
☐ Tannery
☐ Tourist / Remote Camp
☐ Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil
☐ Onshore Oil and Gas Exploration Drilling
☐ Mineral Exploration / Remote Camp
☐ Advanced Exploration
☐ Mine Development
x Municipal
☐ General Water Works
☐ Power

12. WATER USE

Indicate, using the boxes below, the types of water use(s) approved in the existing licence.

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 divert a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control

Does the proposed amendment change the type(s) of water use(s)?

☐ Yes x No

If Yes, indicate using the boxes below, the proposed change(s) to the type(s) of water use(s) noting any water use(s) that are to be added, continued, or removed.

☐ 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 divert a watercourse
☐ To modify the bed or bank of a watercourse
☐ Flood control

13. QUANTITY OF WATER INVOLVED

Does the proposed amendment change the source of water? x Yes ☐ No

Indicate the water source(s). Identify proposed changes.:

_See Supporting Submission Section 2_____
(show location(s) on map)

Does the proposed amendment change the quality of the water source and/or its available capacity?

☐ Yes x No

Describe the quality of the water source(s) and the available capacity(s). Identify any changes.:_____

_____

Does the proposed amendment change the overall quantity of water to be used?

x Yes ☐ No

Provide the overall estimated quantity to be used. Identify proposed changes. : _2,000,000 m^3/year

Does the proposed amendment change the quantity of water to be used from each source?

x Yes ☐ No

Provide the estimated quantity(s) of water to be used from each source. Identify proposed changes. : 500,000 m^3/year from Apex River

Does the proposed amendment change the quantity of water to be used for each purpose?

☐ Yes x No

Provide the estimated quantities to be used for each purpose (camp, drilling, etc.). Identify proposed changes.:

Does the proposed amendment change the method(s) of extraction? ☐ Yes x No

Describe the method(s) of extraction. Identify proposed changes. :

Does the proposed amendment change the quantity(s) of water returned to source(s)?

☐ Yes x No

Estimated quantity(s) of water returned to source(s). Identify proposed changes. : _____ m^3/day

Does the proposed amendment change the quality(s) of water returned to source(s)?

☐ Yes x No

Describe the quality(s) of water(s) returned to source(s). Identify any changes. : _____

14. WASTE

Check the appropriate box(s) to indicate the types of waste(s) approved in the existing licence.

☐ Sewage
☐ Solid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Animal Waste
☐ Waste oil
☐ Greywater
☐ Sludges
☐ Contaminated soil and/or water
☐ Other (describe):_____

Does the proposed amendment change the type(s) of waste(s) to be generated or deposited?

☐ Yes x No

If Yes, indicate using the boxes below, the proposed change(s) to the type(s) of waste(s) to be generated and/or deposited noting the addition, removal or continued generation and/or disposal of waste(s).

☐ Sewage
☐ Solid Waste
☐ Hazardous
☐ Bulky Items/Scrap Metal
☐ Animal Waste
☐ Waste oil
☐ Greywater
☐ Sludges
☐ Contaminated soil and/or water
☐ Other (describe):_____

15. QUANTITY AND QUALITY OF WASTE INVOLVED

Does the proposed amendment change the quantity(s) of the types of wastes involved?

☐ Yes x No

Does the proposed amendment change the composition(s) of the types of wastes involved?

☐ Yes x No

Does the proposed amendment change the method(s) of treatment for the types of waste involved?

☐ Yes x No

Does the proposed amendment change the method(s) of disposal for the types of waste involved?

☐ Yes x No

If Yes to any of the above, describe the proposed changes: _____

_____

For each type of waste indicated in Block 14, describe its composition, quantity in cubic meters/day, method of treatment and method of disposal.

Type of Waste	Composition	Quantity Generated	Treatment Method	Disposal Method

16. OTHER AUTHORIZATIONS

Does the proposed amendment change the need for other authorizations in addition to the sub-surface and surface land use authorizations provided in Block 6?

☐ Yes x No

If Yes, indicate any additional authorizations required, which authorizations are no longer required, and which authorizations continue to be required.

For each provide the following:

Authorization: _____

Administering Agency: _____

Project Activity: _____

Date (expected date) of issuance: _____ Date of expiry: _____

17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES

Does the proposed amendment change the predicted environmental impacts of the undertaking or the mitigation measures?

x Yes ☐ No

Describe direct, indirect, and cumulative impacts related to water and waste. Identify any changes.
See Section 4 of Supporting Submission

18. WATER RIGHTS OF EXISTING AND OTHER WATER USERS

Was compensation paid and/or an agreement(s) for compensation been entered into with any existing or other users of water during consideration of the existing licence?

☐ Yes x No

If Yes, provide the names, addresses and the nature of water use by those persons or properties.

Does the proposed amendment adversely affect any known persons or property including those that hold licences for water use in precedence to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature?

☐ Yes x No

If Yes, provide the names, addresses and the nature of water use of those persons or properties.

Advise the Board if compensation has been paid and/or an agreement(s) for compensation has been reached with any existing or other water users with respect to the proposed amendment.

19. INUIT WATER RIGHTS

Was compensation paid/ or an agreement(s) for compensation been entered into with any Designated Inuit Organization (DIO) during consideration of the existing licence?

☐ Yes x No

If Yes, which DIO(s) _____

Does the proposed amendment substantially affect the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL)?

☐ Yes x No

If Yes, advise the Board if negotiations have commenced or an agreement to pay compensation for any loss or damage has been reached with one or more DIO(s) with respect to the proposed amendment.

20. CONSULTATION - 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.

See attached Engagement Plan and Record

21. SECURITY INFORMATION

Does the proposed amendment change the financial security assessment?

☐ Yes x No

Does the proposed amendment change the estimate of the total financial security for final reclamation?

☐ Yes x 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. Identify any changes in the financial security assessment resulting from the proposed amendment.

Where applicable, the financial security assessment should be prepared in a manner consistent with the principals respecting mine site reclamation and implementation found in the *Mine Site Reclamation Policy for Nunavut,* Indian and Northern Affairs Canada, 2002.

22. FINANCIAL INFORMATION

Is the statement of financial security the same as that considered in the existing water licence?

☐ Yes ☐ No N/A

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?

☐ Yes ☐ No N/A

Provide a list of the officers of the company.

Is the Certificate of Incorporation or evidence of registration of the company name the same?

☐ Yes ☐ No N/A

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.

See Supporting Submission

Provide a compliance assessment and status report including a response to any inspector's reports. The licensee 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 SCHEDULE

When are proposed amendments scheduled to be undertaken: ___August 1 to October 31 Annually_____

Does the proposed amendment change the time schedule considered in the existing licence for any phase of development?

☐ Yes x No

Indicate the start and completion dates for each applicable phase of development (construction, operation, closure, and post closure). Identify proposed changes.

Construction
Proposed Start Date:_____ Proposed Completion Date:_____
(month/year) (month/year)

Operation
Proposed Start Date:_____08/2019___ Proposed Completion Date:_____06/2026___
(month/year) (month/year)

Closure
Proposed Start Date:_____ Proposed Completion Date:_____
(month/year) (month/year)

Post - Closure
Proposed Start Date:_____ Proposed Completion Date:_____
(month/year) (month/year)

For each applicable phase of development indicate which season(s) activities occur.

Construction
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Operation
☐ Winter ☐ Spring ☐ Summer x Fall ☐ All season

Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

Post - Closure
☐ Winter ☐ Spring ☐ Summer ☐ Fall ☐ All season

25. PROPOSED TERM OF LICENCE

On what date does the existing licence expire? _____June 16, 2026_____

Is the Licensee applying for a combined renewal and amendment of the existing licence?

☐ Yes x No

If Yes, indicate the proposed term of the renewal (maximum of 25 years): _____

Requested date of renewal issuance: _____ (month/year) Requested Expiry Date: _____ (month/year)

(The requested date of renewal issuance must be at least three (3) months from the date of application for a type B water licence and at least 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 *Guide 5: Processing Water Licence Applications* for more information)

26. ANNUAL REPORTING

Will the proposed amendment change the content of annual reports or the annual report template?

x Yes ☐ No

If Yes, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

Annual Report will include monthly water withdrawn at SNP-IQA-10. See attached Supporting Submission.

27. CHECKLIST

The following must be included with the application for Amendment for the water licensing process to begin.

Completed Application for Water Licence Amendment form.

x Yes ☐ No If no, date expected _____

Information addressing Supplement Information Guideline (SIG), where applicable (see Block 11)

xYes ☐ No If no, date expected _____

Compliance Assessment / Status Report (see Block 23).

☐ Yes x No If no, date expected _____

Indication of Renewal Requirement (see Block 26)

X Yes ☐ No If no, date expected _____

English Summary of Amendment Application.

x Yes ☐ No If no, date expected _____

Inuktitut and/or Inuinnaqtun Summary of Amendment Application.

x Yes ☐ No If no, date expected _____

Application fee of $30.00 CDN (Payee Receiver General for Canada).

xYes ☐ No If no, date expected _____

Water Use Fee Deposit of $30.00 CDN (Payee Receiver General for Canada). The actual water use fee will be calculated by the NWB based upon the amount of water authorized for use in accordance with the Regulations at the time of issuance of the licence.

☐ Yes x No If no, date expected _____

28. SIGNATURE

MATTHEW HAMP	DIRECTOR OF PUBLIC WORKS & ENGINEERING		30 Jan 2019
Name (Print)	**Title (Print)**	**Signature**	**Date**

ENGAGEMENT PLAN AND RECORD

Current to 1 February 2019

APEX RIVER WATER WITHDRAWAL: ENGAGEMENT PLAN AND RECORD

PURPOSE

This Engagement Plan and Record provides the approach to engaging with persons potentially affected by the City's proposed withdrawal of water from the Apex (Niaqunguk) River for the purpose of supplementing the City's drinking water supply at Lake Geraldine. It also provides updated records of engagement.

PERSONS POTENTIALLY AFFECTED BY THIS UNDERTAKING

The proposed Apex River Water Withdrawal is located entirely within the municipal boundaries of the City of Iqaluit within the Qikiqtani Region of Nunavut. As such, residents and businesses of the City are potentially affected by the undertaking.

ENGAGEMENT APPROACH

The City has two primary means of engaging potentially affected persons and businesses:

- Face-to-face meetings
- Written exchanges through online media

Materials provided for engagement are communicated using non-technical language, and are provided in English, French and Inuktitut

Current to 1 February 2019

ENGAGEMENT RECORD

Date	Communication	Response
2018 Nov 16	Email from City to Amaruq HTA inviting opportunity to meet with HTA to provide updates on work being done to supplement Lake Geraldine, including temporary pumping from Apex River	Response deferred to November 22
2018 Nov 22	Email follow up from City asking for opportunity to meet in December	See response Dec 19
2018 Nov 28	Email follow up from City asking for availability to meet in December 2018 or January 2019	See response Dec 19
2018 Dec 5	City distributes public service announcement including a call for comments on the City's proposed amendment to its water licence by December 14, 2018. Plain language summary is also posted to the City's website, Facebook and Twitter accounts.	Comments and questions received from two individuals.
2018 Dec 19	Email from Amaruq HTA proposing meeting in Iqaluit January 10, 2019.	Mutually accepted date of meeting to be confirmed
2018 Dec 19	City responds to comments and questions received during public comment period by email.	
2019 Jan 25	Email from Amaruq HTA tentatively scheduling meeting date for February 14, 2019.	

APPLICATION TO AMEND CITY OF IQALUIT WATER LICENCE
Supplemental Drinking Water Supply from Apex River

The City of Iqaluit (the "City") intends to apply to the Nunavut Water Board to amend its Municipal Type "A" water licence. The purpose of the amendment application is to allow withdrawal of water from the Apex River as needed to supplement (add to) the drinking water supply in the Lake Geraldine reservoir.

WHY IS ADDITIONAL WATER NEEDED?

Lake Geraldine is an engineered reservoir designed to contain the volume of water necessary to satisfy the drinking water needs of the City. The reservoir is refilled annually during spring and summer by natural inflows from snowmelt and precipitation (such as rain). It is estimated to have a capacity of approximately 1.8 million cubic metres, with up to 1.1 million cubic metres available during winter months. The City currently withdraws approximately 78% of this available water to meet its drinking water demands in a year. In years when natural inflows or precipitation are low, the reservoir does not fill to full capacity, resulting in a potential shortage of available drinking water for the City.

WHAT HAS BEEN DONE TO ADDRESS WATER SHORTAGE?

In 2018, following a winter of low snowmelt and little spring precipitation, a water shortage was predicted. To mitigate a potential shortage of drinking water in winter 2018-19, the City initiated:

- The identification and repair of leaks in the City's freshwater distribution system
- Communications and actions for residents and businesses to reduce water consumption
- Investigations into permanent additional water supply
- A program for planning and managing water demands associated with future development approvals

In response to a public health emergency declared by the Chief Medical Health Officer, the City also sought and received approval to supplement the reservoir in 2018 with drinking water obtained from the Apex River.

ARE THERE OPTIONS FOR SUPPLEMENTING THE LAKE GERALDINE RESERVOIR?

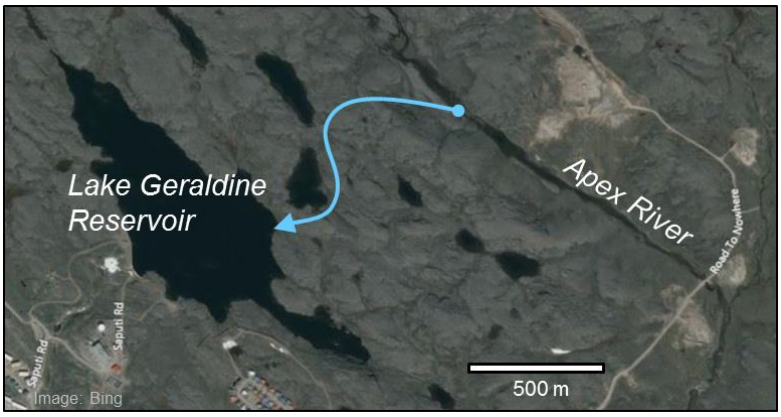
The City is currently researching options for adding water to the reservoir on a permanent basis, such as obtaining water from alternate water sources such as the Sylvia Grinnell River and Unnamed Lake – a large lake northeast of the City. It will take several more years to complete these studies and to advance the best option through design, construction and commissioning. Until a permanent solution is identified, supplementary supply from the Apex River is a viable short-term solution.

HOW MUCH WATER IS NEEDED?

The City is seeking approval to withdraw water from the Apex River as needed. A study was conducted to predict the amount of water required in the reservoir to meet drinking water needs throughout winter (prior to recharge in spring), based on water levels and consumption rates. If a water shortage is predicted, a pumping program would be initiated during the fall season to fill the reservoir to capacity prior to freeze up. The amount of additional water needed from the Apex River to fill the reservoir at that time may be up to 400,000 cubic metres.

WHAT IT IS INVOLVED WITH PUMPING WATER FROM APEX?

The withdrawal of water from the Apex River during the open water season would require placement of two pumps in the river at a location approximately 1 km upstream of the bridge over the Apex River on the Road to Nowhere (see Figure). These pumps are equipped with screens to prevent harm to fish. Flexible hose or pipe would extend overland approximately 1 km to Lake Geraldine. Pumping would take place continuously over a period of several weeks at a rate of up to 100 litres per second, until the reservoir is filled, or as flow conditions within the Apex River allow.



ARE THERE POTENTIAL IMPACTS TO THE ENVIRONMENT?

Supplementary pumping from the Apex River was conducted in fall 2018. Environmental protection plans and monitoring were put in place to minimize effects to water and fish. No fish were observed during daily monitoring, and it is unlikely there were serious effects to fish or fish habitat. The environmental protection plan included conducting fish rescue if fish became stranded due to the water withdrawal; however, this was not required as no stranded fish were observed. Sedimentation and erosion control measures, such as silt fencing, and limiting work in and around water, along with measures to protect fish such as screening of intakes were used and if required, would be used again during future pumping programs. Daily monitoring of fish and fish habitat would again be used to initiate actions if required to prevent serious harm to fish, including reducing the rate of pumping.

WHAT IF I HAVE CONCERNS OR COMMENTS?

The City's application to amend its water licence will require a public review under the *Nunavut Planning and Project Assessment Act* and *Nunavut Waters and Surface Rights Tribunals Act.* The City will consider comments received from residents of Iqaluit prior to initiating the application process in December 2018.

If you would like to provide comments or feedback on the proposal to obtain supplemental drinking water from the Apex River, you can:

- Provide comments by email to: water@city.iqaluit.nu.ca prior to December 14, 2018
- Participate in the public review processes to be led by the Nunavut Impact Review Board and Nunavut Water Board once these processes are underway.

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ᓯᑎᒃᑯᑦ ᐃᖅᑲᓐᓂ (“ᓯᑎ”) ᑐᓴᕋᕈᒪᖏᓐᓇᑕ ᓄᓇᕗᑦ ᐃᒪᖏᑦ ᑲᑎᒪᔨᓐᓂᕐᒥᓄᑦ ᐊᓯᔾᔨᕈᒪᓪᓗᑎᑦ ᓯᑎᒃᑯᑦ ᓇᓗᓇᐃᒃᑯᑎᓕᕆᑦ “A–ᑎᑦ” ᐃᒥᖏᒍ ᓪᓚᕆᔨᓯᑎᑦ. ᐱᔨᔪᑎᖅᑲᖅᑐᖅ ᐊᓯᔾᔨᐃᔪᒪᓪᓗᑎᑦ ᑐᓴᕋᕈᑎᖏᓐᓄᓂᓐᓂ ᐃᒥᖅᑕᕈᓐᓇᖏᓪᓗᑎᑦ ᓂᐊᖏᔪᓐᓇᖅᑐᓂ ᑯᖓᓐᓂ ᐱᖓᓱᖅᑎᑦ (ᐃᓚᓕᐅᑎᓗᑎᑦ) ᐃᒥᖅᑕᐅᖅᑲᑎᑕᕐᕿᖅᑐᑐᓂ ᓕᓯᒧᑦᓗᑎᑦ ᔨᐅᕈᑎᑦ ᐃᒥᖅᑕᕐᕿᖏᓐᓄᓂᓐᓂ.

ᓯᓚᒥᑦ ᐃᓕᓯᕈᐊᖅᑲᖅᓱᑦ ᐃᒥᕐᒥᑦ?

ᓕᓯᕐᒥ ᔨᐅᕈᑎᓐᓂᒥ ᓴᓇᓯᒪᓚᒪᑦ ᐅᒥᖅᑕᕐᕿᐃᓕᓴᓪᓗᓂᑐ ᐊᖏᕐᓭᐊᓗᓴᓚᒥ ᐃᒥᖅᑲᕈᓐᓇᖅᑐᑐᓂ ᐃᒥᖅᑕᐅᔨᓐᓇᖅᑐᑐᓂ ᓯᑎᒃᑯᓐᓄᑐᓂ. ᐊᒥᖅᑕᕐᕿᐃᖅ ᐊᕐᕌᔪᑎᑦᑕᒪᑦ ᐅᐱᕐᖅᑎᓴᖅᑐᒪᑦ ᐅᐱᖅᑐᒃᑯᓪᓗᓂ ᑯᓚᕈᓐᓇ ᐊᐅᓚᑦᑎ ᐊᐅᓵᕐᓂᓪᓕᐊᑎᑦ ᐊᓯᖏᓐᓂᓪᓗᓂ (ᓯᓪᓕᓂ ᓯᓚᓪᓗᑎᑦ). ᑕᒪᓐᓂ ᒥᓴᐅᓴᕈᐅᓯᒪᔨᖅᖢ ᐊᖏᕐᓂᖅᓱᐊᖏᓐᓇ 1.8 ᒥᓪᐊᓂᑦ ᑭᑕᓂᑦ ᓄᖅᑭᑕᓂᑦ, ᑎᑭᓪᓗᒍ 1.1 ᒥᓪᐊᓂᑦ ᓄᖅᑭᑕᓂᑦ ᑭᑕᓂᑦ ᐅᑭᐅᖅᑐᑦ. ᓯᑎᒃᑯᑦ ᒪᓐᓇ ᐱᖅᑲᑕᖅᑐᑦ ᑕᒪᓂᕐᖅᐃᐅ 78% ᐊᑐᐃᓐᓇᕐᓂᑦ ᐃᒥᖅᑕᐅᐸᑕᓂᑦ ᐱᖁᐅᑦᐊᓪᓂᑦ ᐊᖏᕐᓭᐊᒍᑦ. ᐊᕐᑎᓗᐊᕆᐃᒪᒪᑕ ᑯᓚᕆᐃᒪᒪᓪᓗᑎᑦ, ᐃᒥᖅᑕᕐᕿᐃᖅ ᑕᑕᖅᑲᑕᖏᑦᒪᒪᑦ ᑕᑕᕐᕿᐃᕐᓂᖅᓱᐊᖏᓐᓇᓐᓂᓪᓗᓂ, ᐃᒥᐅᓴᓯᑕᓪᓕᖅᑯᖅ ᐃᒥᖅᑲᐅᑎᐅᑦᐊᓪᓂᓪᓗᓂ ᓯᑎᒃᑯᓐᓂᓪᓗᓂ.

ᖃᓄᐃᓗᖅᓯᒪᔨᖅᑲᖅᑲᓐ ᐃᒥᐅᓴᓯᓂᖏᓐᓄᓂᓪᓗᓂ?

2018–ᖁᑎᓪᓗᒍ, ᐅᐸᐅᖅᑯᑦ ᐊᐅᑎᓴᓴᑕᖅᑲᓗᐊᓪᓕᐅᖅᑯᓯᒪᖏᓐᓂᓕᒪᓕᑦ, ᐅᐱᕐᖅᑎᓴᖅᑯᑦᓗ ᓯᓪᓚᓕᑎᐊᖅᑕᕐᕿᖅᑕᕐᓂᓕᕐᓂᓪᓗᑎᑦ, ᐃᒥᐅᓴᓯᓂᖏᓐᓄᓂᓐᓂᖏᓐᓂᒃᑯᓂᓪᓗ ᐃᒥᖅᑕᐅᖅᑲᓐᓂᓕᕐᓂᓪᓗᓂ ᑐᓴᕋᕈᑎᖏᓐᓄᓂᓐᓂᒃᑯᓂᓪᓗ. ᐃᒥᐅᓴᓯᓂᖏᓐᓄᓂᓐᓂᒃᑯᓂᓪᓗᓂ ᐅᐸᐅᖅᑯᑦ 2018-19–ᒥ, ᓯᑎᒃᑯᑦ ᐃᓕᐃᒪᐊᓕᓕᐅᖅᑕᖅᑐᑦ:

- ᐅᓪᓗᐃᐃᔭᖅᑎᓂᑦ ᐊᑲᖅᐸᓴᖅᑎᓕᓪᓗ ᖃᐅᔨᓴᖅᑐᑦ ᓯᑎᒃᑯᑦ ᐃᒥᖅᑕᕐᕿᖏᓐᓄᑐᓂ
- ᖃᐅᐅᔨᖅᑲᐃᓪᓗᓂᑦ ᐱᒪᐊᖅᑎᓂᓕᓪᓗ ᐃᓄᖏᓄᑦ ᐅᓪᒥᓂᖅᑲᖅᑐᓕᓪᓗ ᐃᒥᖅᑐᖏᖅᑳᐅᑦᐊᓪᓂᓂᓪᓗ
- ᖃᐅᔨᔪᖅᑎᓪᓗᓂᑦ ᐊᓯᐊᓂ ᐃᒥᖅᑕᒃᖏᓂᕐᖏᓐᓇᕐᕿᖅᓯᒪᓕᒃ
- ᐸᖅᓇᖅᑎᓪᓗᓂᑦ ᐊᓕᓴᕆᔪᓐᓇᖅᑐᓂ ᐃᒥᖅᑎᑦ ᓯᕐᓂᓴᕆᔭᓂ ᐱᓕᕆᖅᑕᕆᐊᖅᑯᓂᑦ ᐊᖏᕐᓂᖅᑕᐅᔨᓪᓗᓂᓪ

ᑕᒪᒃᑯᐊ ᑭᐅᓪᓗᓂᑦ ᑭᒃᑯᑐᐃᓐᓇᖅᓂᑦ ᐋᖅᓂᐊᖅᑐᓕᕆᓚᓂᖅᓴᒃᓯᓱᑦ ᑐᐊᕕᖅᓇᖅᑐᑦ ᐅᓪᓗᓂᖅᑕᐅᔨᓪᓗᖅᓯᒪᓱᑦ ᐊᖏᕐᓂᖅᑲᖃᓐᓇᖅᑐᓂ ᐋᖅᓂᐊᖅᑕᕐᕿᖅᑕᐃᓕᓴᕐᓚᐅᖅᑎᓂᑦ, ᓯᑎᒃᑯᑦ ᖃᓄᓚᐊᖅᓇᖅᑐᑦ ᐅᓪᓗᓂᖅᑕᐅᔨᓪᓗᖅᓯᒪᓱᑦ ᐊᖏᕐᓂᖅᑕᐅᔨᓪᓗᓂᓪ ᐱᖓᓱᖅᑎᓪᓗᓂ 2018–ᒥ ᐃᒥᖅᑕᕐᕿᖏᓐᓄᓂᓐᓂ ᓂᐊᖏᔪᓐᓇᕐᓂᒃ ᑯᖓᓐᓂ.

ᖃᓄᖅᑐᑐᒃᓯᓴᖅᑕᕐᕿᖅᓂᒃ ᐃᒥᖅᑕᕐᓚᓱᒍᖅᓂᐅᔪᓐᓇᓂᑦ ᑕᓕᓴᓕᑦ ᔨᐅᕈᑎᓕᕐᓂ?

ᐃᖃᓗᐃᑦ

Iqaluit

ᓯᑎᒃᑯᑦ ᒫᓐᓇ ᖃᔨᐅᓴᖅᑐᑦ ᓇᓖᕿᑎᔅᓴᓂᑦ ᐃᒥᕐᒥᑦ ᐃᓚᓯᒍᒪᓪᓗᑎᑦ ᐃᒥᖅᑕᕕᒻᒧ ᒫᓐᓇᑐᐊᑲᐃᓪᓚᐅᖏᑦᑐᖅ ᑭᓯᐊᓂ ᐊᕗᖓᓚᒫᖅ, ᓲᕐᓗ ᐃᒥᕐᒥᑦ ᐱᖃᑦᑕᕐᓗᑎᑦ ᔨᐅᕕᐊ ᒍᓇᓂᐊᑉ ᑰᖓᓂ ᐊᒻᒪᓗ ᐊᑎᖃᓐᖏᑦᑐᒥᑦ ᑕᓯᕐᒥᑦ – ᑕᓯᖅᐹᓗᒃ ᐱᖓᓇᖅᐸᓯᖓᓃᑦᑐᖅ ᓯᑎᒃᑯᑦ. ᐅᑭᐅᒐᓴᓐᓄᑦ ᑕᒪᓐᓇ ᖃᔨᐅᕐᓂᖅ ᐱᓴᓅᕿᓴᓐᖑᐊᖅᑐᖅ ᐊᒻᒪᓗ ᐱᐅᓂᖅᐹᖅᑎᒍᓪᓗ ᐋᖅᑭᒐᓯᐊᕐᓗᒍ, ᓴᓇᒐᓯᐊᕐᓗᒍ ᐊᒻᒪᓗ ᐊᑐᓕᖅᑎᒐᓯᐊᕐᓗᒎᒐᓴᖅᑐᖅ. ᓇᓗᓇᐃᖅᓯᓚᐅᓐᖏᓂᓂᓚᒫᖏᓐᓂ ᐱᕕᐅᖏᓐᓇᕐᓂᐊᖅᑐᓂᑦ, ᐊᓯᖏᓐᓂ ᐱᑲᐃᓐᓇᓇᐊᖅᑲᖅᒪᑕ ᓂᐊᖁᓐᖑᑉ ᑰᖓᓂ ᒫᓐᓇ ᐋᖅᑭᐅᒪᔾᔪᑕᐅᑲᐃᓐᓇᖅᓂᐊᖅᑐᖅ.

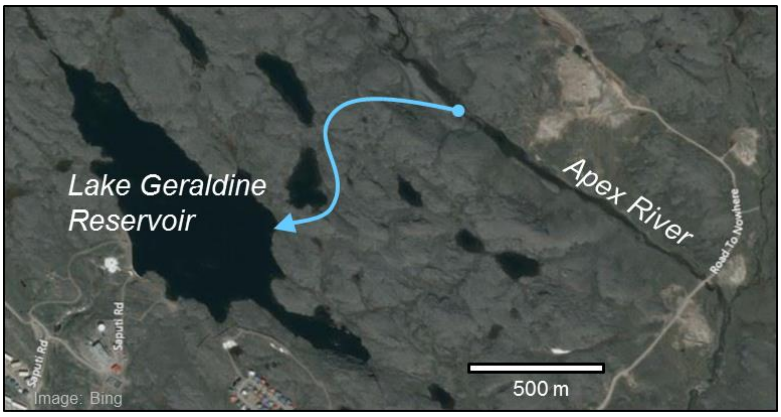
ᖃᓄᑎᒋ ᐃᒥᕐᒥᑦ ᐱᓴᓄᐊᖃᖅᑭᑕ?

ᓯᑎᒃᑯᑦ ᐊᖏᖅᑕᐅᓯᕐᖕᒪᑕ ᐃᒥᖅᑕᖅᑲᑦᑕᕈᓐᓇᖅᓯᒪᖕᒋᑕ ᓂᐊᖁᓐᖑᑉ ᑰᖓᓂ ᐱᓴᓄᐊᖃᖅᑲᑕ. ᖃᐅᔨᓴᓚᐅᖅᑐᑦ ᖃᓄᑎᒋ ᐃᒥᖅᑕᖅᑲᑦᑕᓄᐊᖅᑲᖅᓴᖅᒪᖏᑕ ᐃᒥᖅᑕᕕᒃ ᓈᒻᒪᔅᓯᖅᑯᓪᓗᒍ ᐃᒥᖅᑕᐅᔪᓐᓇᖅᑐᑦ ᐅᑭᐅᖅᑕᒧᑦ (ᓯᕗᓕᕐᒥᓂ ᐅᐱᕐᖓᔅᓴᕐᒥᑦ ᐃᒻᒪᑲᓐᓂᓕᐅᖅᑎᓂᖏᓐᓂ), ᒪᓕᑦᑐᒋᑦ ᐊᖏᓂᖓ ᐃᒥᖅ ᐊᒻᒪᓗ ᐱᒥᖅᑐᖅᑕᐅᕙᑦᑐᑦ. ᐃᒥᑭᔅᓯᓐᓂᐊᖅᑰᔾᔭᖅᑲᑕ, ᓱᓪᓗᓕᒻᒥ ᐋᖅᑭᔅᓯᒪᔪᖅᑐᑦ ᐅᑭᐊᕐᓵᖅ ᐃᒥᖅᑕᕕᒻᒧᐊᖓᔪᖅ ᖁᐊᓚᐅᖅᑎᓂᖅᓯᓂ. ᐃᒥᕐᒥᑦ ᐱᓴᓄᐊᖃᖅᑐᑦ ᓂᐊᖁᓐᖑᑉ ᑕᒫᓂᖃᐃ 400,000 ᓯᒃᑭᑕᓂᑦ ᒦᑕᓂ.

ᖃᓄᐃᓘᓄᐊᖃᖅᑐᖅᑲᑦ ᑲᔪᓯᒋᐊᖃᕐᓂᐊᖅᑎᓪᓗᒋᑦ ᓂᐊᖁᓐᖑᒥᑦ?

ᐃᒥᖅᑕᕿᔭᖅᑐᖅ ᓂᐊᖁᓐᖑᑉ ᑰᖓᓂ ᖁᐊᓚᐅᖅᑎᓂᖅᓯᓂ ᐊᒻᒪᓗ ᒪᖀᓐᓂᒃ ᓯᓪᓗᓃᓐᓂᒃ ᑰᒻᒧᖓᕙᖅᑲᔭᖅᑐᖅ ᑕᒫᓂᖃᐃ 1 ᑭᓚᒦᑕᒥᑦ ᐹᓂ ᑰᖓᓂ ᐅᖓᓯᓐᓂᓕᒻᒥᑦ ᐃᑳᕈᒻᒥᑦ ᑕᑉᐸᐅᖓ ᑕᓯᕐᓗᑭᓗᓕᐅᑉ ᓴᓂᐊᓂ (ᑕᑯᓗᒐ ᐊᔾᔨᖕᖑᐊᖅ). ᑖᒃᑯᖅ ᓯᓪᓗᓃᒃ ᓴᐳᓗᑦᑖᒃ ᐃᖃᓗᓐᓂᑦ ᓯᕿᐃᑦᑕᖅᐱᐊᖏᑕ. ᑎᑭᖕᒐᓐᖏᑦᑐᖅ ᓯᓪᓗᑎᒃ ᐅᕝᕙᓘᓐᓃᑦ ᖄᖓᒍᑉᐳᓇᖅᑐᖅ ᓴᐳᑎᒍᑦ 1 ᑭᓚᒦᑕᒥᑦ. ᓯᓪᓗᑏᒃ ᐱᓇᓯᐊᕐᓯᒪᓚᓐᓄᑦ ᑲᔪᖏᖅᓴᐅᑎᐅᒪᔪᖅᑐᑦ 100–ᓃᑦᑕᓂᑦ 1 ᑎᑦᑕᒥᑦ, ᑕᑕᕗᓯᓯᐊᕐᓂᖓᓂ ᐃᒥᖅᑕᕕᒃ, ᐅᕝᕙᓘᓐᓃᑦ ᑰᒥᓐᖓᑦ ᐃᖏᕐᕋᑎᐊᓕᖅᑲᑦ ᑰᖓᓂ ᓂᐊᖁᓐᖑᑉ.

ᐃᖃᓗᐃᑦ
Iqaluit



ᐊᑦᑐᐃᑐᐃᑲᒻᒪᑐᐃᓐᓇᕆᐊᖃᖅᑳ ᐊᕙᑎᑦᑎᓐᓂ?

ᑲᔪᖏᖅᓴᖅᑕᐅᓗᓂ ᓂᐊᖁᓐᖒᑉ ᑰᖓᓂ ᐱᒋᐊᓚᐅᖅᓯᒪᔪᖅ ᐅᑭᐊᔅᓵᖅᓄ 2018–ᒥ. ᐊᕙᑎᑦᑎᓐᓂ ᐸᖅᑭᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᔾᔨᒪᔪᑦ ᖃᔨᐅᓴᖃᑦᑕᖅᑐᑎᓪᓗ ᖃᓄᓕᒫᑦᑎᐊᖅ ᐊᑦᑐᐃᑲᒻᒪᒐᓱᓐᖏᑦᑐᖅ ᐃᒥᕐᒥᑦ ᐃᖃᓗᓐᓂᓪᓗ. ᐃᖃᓗᓐᓂᑦ ᑕᑯᔭᖃᓚᐅᓐᖏᑦᑐᖅ ᐅᓪᓗᒃᑯᑦ ᖃᐅᔨᓴᖅᑎᓪᓗᒋᑦ, ᐊᒻᒪᓗ ᐊᑦᑐᐃᓂᖃᓗᐊᔾᔫᖏᑦᑐᖅ ᓇᓗᓇᓐᖏᑦᑐᖅ ᐃᖃᓗᓐᓂ ᐃᖃᓗᐃᓪᓗ ᐃᓂᖏᓐᓂ. ᐊᕙᑎᕗᑦ ᐸᖅᑭᑦᑎᓂᕐᒧᑦ ᐸᕐᓇᐅᑎᓂᑦ ᐱᖃᓯᐅᔾᔨᓚᐅᖅᑐᖅ ᐃᖃᓗᓐᓂ ᐃᖃᓗᐃᑦ ᐊᔅᓱᖅᓯᓂᖅᑲᑕ ᐃᒥᖅᑕᖅᑐᖃᕐᓂᖓᓂ; ᑭᓯᐊᓂᓕ, ᑕᐃᒪᐃᒋᐊᖃᓚᐅᓐᖏᑦᑐᑦ ᐊᔪᖅᓯᖅᑐᖃᓚᐅᖅᑑᔮᖏᒻᒪᑦ ᐃᖃᓗᓐᓂ. ᐃᓱᖅᓯᓗᐊᕐᔭᐃᖅᓯᒪᓪᓗᑎᑦ ᓅᓗᐊᖅᑕᐅᓇᓱᓐᓇᑎᓪᓗ ᓄᓇ, ᓲᕐᓗ ᒪᕐᕈᒧᑦ ᓄᓇᒧᓪᓘᓐᓃᑦ ᓴᐴᓗᑕᓕᐅᖅᓯᒪᓪᓗᑎᑦ, ᐃᒥᐅᑉ ᐃᓗᐊᓂ ᐱᓕᕆᓗᐊᖅᑕᐃᓕᒪᓇᓱᑦᑐᑎᑦ ᐸᖅᑭᔭᐅᑦᑎᐊᖅᑐᑎᑦ ᐃᖃᓗᐃᑦ ᖃᐅᔨᓴᖅᑕᐅᖏᓐᓇᖅᑐᑎᑦ ᓯᕗᓂᑦᑎᓂᓪᓗ ᑲᔪᖏᖅᓴᐃᑲᓐᓂᕐᓂᐊᕈᑦᑕ ᑕᒪᒃᑯᐊ ᐊᑐᒃᑲᓐᓂᕈᒫᖅᑐᖅ. ᖃᐅᑕᒫᑦ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᑦ ᐃᖃᓗᐃᑦ ᐊᒻᒪᓗ ᐃᓂᖏᑦ ᑕᒪᒃᑯᓂᖓ ᐅᔾᔨᖅᓱᖅᑎᐊᓚᐅᖅᑐᖅ ᐊᑦᑐᐃᑲᒻᒪᒍᒪᓐᓇᑎᑦ ᐃᖃᓗᓐᓂ, ᐊᒻᒪᓗ ᓱᒃᑲᓕᓗᐊᑦᑕᐃᓕᒪᑎᑦᑐᒥᑦ ᑲᔪᖏᖅᓴᕐᓂᕗᑦ.

ᐃᓱᒫᓘᑎᖃᕈᒪᓕᑭᐊᖅ ᐅᖃᕈᒪᒍᒪᓘᓐᓃᑦ?

ᓯᑎᒃᑯᑦ ᑐᔅᓯᕋᐅᑎᖓ ᐊᓯᔾᔨᐊᓯᒪᓪᓗᑎᑦ ᐃᒥᕐᒧᑦ ᑭᒃᑯᑐᐃᓐᓇᕐᓂᑦ ᑐᓴᕈᒪᒻᒪᑕ ᒪᓕᑦᑐᒥᑦ ᓄᓇᕗᑦ ᐸᕐᓇᓂᕐᒧᑦ ᐱᓕᕆᐊᔅᓴᓄᑦ ᖃᐅᔨᓴᕐᓂᕐᒥᑦ ᐱᖁᔭᖏᓐᓂ ᐊᒻᒪ ᓄᓇᕗᑦ ᐃᒥᕐᒧᑦ ᓄᓇᐅᑦ ᐃᑭᐊᖑᔪᑦ ᐱᔪᓐᓇᐅᑎᓂᑦ ᐊᓯᖏᓐᓂ ᐱᖁᔭᕐᓂᑦ. ᓯᑎᒃᑯᑦ ᐃᓱᒪᓴᖅᓯᐅᕈᑎᖃᕐᓂᐊᖅᑐᑦ ᐅᖃᐅᓯᐅᔪᓂᑦ ᐱᔭᖏᓐᓂ ᐃᖃᓗᓐᓂ ᓯᕗᓂᖓᓂ ᐱᑎᐊᓚᐅᖏᓐᓂᖏᓐᓂ ᓰᑏᑉᐱᕆᒥ 2018–ᒥ.

ᐅᖃᐅᓯᖃᕈᒪᒍᔅᓯ ᑐᓴᖅᑎᑦᑎᒍᒪᒍᔅᓯᓘᓐᓃᑦ ᑐᓯᕋᐅᑎᒨᖓᔪᒥᑦ ᐃᒥᖅᑕᓂᕐᒥᑦ ᓂᐊᖁᓐᖒᒥᑦ, ᐃᒪᐃᒍᓐᓇᖅᑐᑎᑦ:

- ᐅᖃᐅᓯᑎᑦ ᑎᑎᕋᖅᓯᒪᓗᒋᑦ ᑐᔫᒥᓗᒋᑦ: water@city.iqaluit.nu.ca ᓯᕗᓂᖓᓂ ᑏᓰᑉᐱᕆ 14, 2018
- ᐱᖃᑕᐅᓗᑎᓪᓘᓐᓃᑦ ᑭᒃᑯᓕᒫᖅᑎᑦᑎᓗᒋᑦ ᓄᓇᕗᒻᒥ ᐊᑦᑐᖅᑕᐅᓂᐊᕐᓂᕐᒧᑦ ᕿᒥᕐᕈᓂᖏᓐᓂᖏᓐᓄ ᑲᑎᒪᔨᖏᓐᓄᑦ ᐊᒻᒪᓗ ᓄᓇᕗᑦ ᐃᒪᕐᒧᑦ ᑲᑎᒪᔨᓄᑦ ᑕᒪᒃᑯᐊ ᐱᕙᓪᓕᐊᓕᖅᑎᓪᓗᒋᑦ.

DEMANDE POUR MODIFIER LE PERMIS D'UTILISATION DES EAUX DE LA VILLE D'IQALUIT *Source d'approvisionnement en eau potable supplémentaire à partir de la rivière Apex*

La Ville d'Iqaluit (la « Ville ») entend présenter une demande auprès de l'Office des eaux du Nunavut pour modifier le permis d'utilisation des eaux de type « A » de la Ville. Le but de cette demande de modification vise à permettre l'approvisionnement en eau à partir de la rivière Apex, selon les besoins, pour compenser (compléter) l'approvisionnement en eau potable insuffisante du réservoir du lac Geraldine.

POURQUOI A-T-ON DES BESOINS ADDITIONNELS EN EAU ?

Le lac Geraldine est un réservoir artificiel conçu pour contenir le volume d'eau nécessaire pour répondre aux besoins en eau potable de la Ville. Le réservoir se remplit annuellement au printemps et à l'été grâce aux apports naturels en eau de la fonte des neiges et des précipitations (comme la pluie). On estime la capacité du réservoir à environ 1,8 million de mètres cubes, et compte jusqu'à 1,1 million de mètres cubes d'eau disponibles durant les mois d'hiver. La Ville consomme actuellement 78 % de cette eau disponible pour répondre aux besoins en eau potable au cours d'une année. Au cours des années où les apports naturels et les précipitations sont faibles, le réservoir ne se remplit pas à sa pleine capacité, par conséquent il y a un risque de manque en eau possible pour la Ville.

QUELLES ONT ÉTÉ LES ACTIONS POSÉES POUR RÉPONDRE AU PROBLÈME DE MANQUE D'EAU ?

En 2018, à cause des faibles niveaux de fonte des neiges de l'hiver et de précipitations du printemps, un manque en eau était envisageable. Afin d'atténuer le possible manque en eau potable prévu pour l'hiver 2018-2019, la Ville a entrepris :

- D'identifier les fuites du réseau de distribution d'eau de la Ville et de les réparer ;
- De communiquer et d'agir auprès des résidents et résidentes et des entreprises pour réduire la consommation d'eau ;
- De trouver un approvisionnement en eau supplémentaire permanent ;
- D'établir un programme de planification et de gestion d'approvisionnement en eau lié aux autorisations futures de développement.

Devant la situation d'urgence de santé publique annoncée par l'administratrice en chef de la santé publique, la Ville a également demandé et reçu l'autorisation de suppléer le manque en eau potable du réservoir en 2018 à partir de la rivière Apex.

Y A-T-IL DES OPTIONS POUR COMPENSER LE MANQUE D'EAU DU RÉSERVOIR DU LAC GERALDINE ?

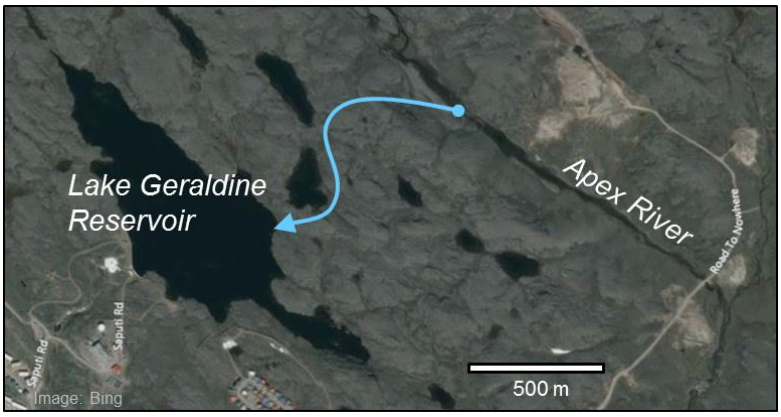
La Ville recherche actuellement des options pour ajouter de l'eau au réservoir de manière permanente, comme avoir une source d'approvisionnement en eau de rechange, par exemple la rivière Sylvia Grinnell et le lac Unnamed — un grand lac au nord-est de la Ville. Il faudra plusieurs années avant de pouvoir terminer ces études et pour avancer les meilleures options depuis la conception, à la construction en passant par la mise en service. Jusqu'à ce qu'une solution permanente soit déterminée, un approvisionnement supplémentaire à partir de la rivière Apex constitue une solution viable à court terme.

DE QUELLE QUANTITÉ D'EAU A-T-ON BESOIN ?

La Ville souhaite obtenir une autorisation pour s'approvisionner en eau à partir de la rivière Apex au besoin. Une étude a été menée pour prédire la quantité d'eau nécessaire dans le réservoir pour répondre aux besoins en eau potable pendant tout l'hiver (avant le remplissage du réservoir au printemps), selon les niveaux d'eau et le taux de consommation. Si un manque en eau est prédit, un programme de pompage pourrait avoir cours à l'automne pour remplir le réservoir à sa pleine capacité avant la période de gel. La quantité d'eau supplémentaire nécessaire pompée à partir de la rivière Apex pour remplir le réservoir à cette période pourrait atteindre jusqu'à 400 000 mètres cubes.

EN QUOI CONSISTE LE POMPAGE DE L'EAU DE LA RIVIÈRE APEX ?

L'approvisionnement en eau à partir de la rivière Apex durant la saison des eaux libres nécessite la mise en place de deux pompes dans la rivière à environ un kilomètre en amont du pont de la rivière Apex sur la Road to Nowhere (voir l'illustration). Ces pompes sont munies de grillages pour éviter de nuire aux poissons. Un tuyau ou un boyau flexible est déployé sur près d'un kilomètre jusqu'au lac Geraldine. Le pompage se déroule de manière continue sur une période de plusieurs semaines à un taux de 100 litres par seconde jusqu'à ce que le réservoir soit rempli, ou jusqu'à ce que les conditions de débit de la rivière Apex le permettent.



DE POSSIBLES CONSÉQUENCES SUR L'ENVIRONNEMENT EXISTENT-ELLES ?

Un pompage complémentaire a eu lieu sur la rivière Apex à l'automne 2018. Un plan de protection et de surveillance de l'environnement a été mis en place pour minimiser les conséquences sur l'eau et les poissons. Aucun poisson n'a été observé pendant la surveillance quotidienne. Il serait donc peu probable que des effets graves nuisent aux poissons ou à l'habitat du poisson. Le plan de protection de l'environnement comprenait des activités de sauvetage du poisson si jamais un poisson venait à être coincé à cause du pompage de l'eau. Toutefois, aucune manœuvre du genre n'a eu lieu, car aucun poisson coincé n'a été observé. Des mesures de contrôle de sédimentation et d'érosion, comme une installation anti-érosion et une restriction de l'aire de travail à proximité de l'eau, en plus des mesures pour protéger les poissons grâce aux grillages placés sur les prises d'eau ont été mises en place, et si nécessaire, ces mesures seront utilisées à nouveau au cours des prochains programmes de pompage. Une surveillance quotidienne des poissons et de son habitat sera également mise en place afin d'agir, si nécessaire, pour prévenir toute nuisance pour le poisson, incluant la réduction du débit de pompage.

QUE FAIRE SI J'AI DES COMMENTAIRES OU DES PRÉOCCUPATIONS ?

Pour faire une demande de modification du permis d'utilisation des eaux, la Ville doit tenir une consultation publique en vertu de la Loi sur l'aménagement du territoire et l'évaluation des projets au Nunavut et la Loi sur les eaux du Nunavut et le Tribunal des droits de surface du Nunavut. La Ville prendra en considération tous les commentaires reçus de ces résidents et résidentes d'Iqaluit avant d'amorcer le processus de demande en décembre 2018.

Si vous souhaitez faire connaître vos commentaires ou vos préoccupations sur la proposition de projet pour obtenir de l'eau potable supplémentaire à partir de la rivière Apex, vous pouvez

- écrire un courriel à water@city.iqaluit.nu.ca au plus tard le 14 décembre 2018 ;
- participer au processus de consultation publique tenu par la Commission du Nunavut chargée de l'examen des répercussions et par l'Office des eaux du Nunavut une fois que ces processus seront en cours.

From:	Bonhomme, Erica
To:	Stephen Williamson Bathory; water@city.iqaluit.nu.ca
Cc:	Deronja, Josip
Subject:	RE: Apex River Withdrawals
Date:	Wednesday, December 19, 2018 7:21:34 PM

Hello Stephen,

Thank you for your questions and interest in this project. The City of Iqaluit has provided responses to your questions below, reproduced from your original email of December 10, 2018:

1. Is the city considering apply on a short-term basis or a long terms basis? It is noted that the city's current water licence expires in 2026. It is therefore suggested the application be to allow the city to use Apex River to supplement water supply at anytime during the licence. In other words, apply for a permanent amendment to the water licence.

Response: Since 2017, the City has been investigating long-term solutions to address potential drinking water shortage. Options being looked at include those that address supply, storage and demand. The City is seeking approval to pump water from the Apex River to the Lake Geraldine Reservoir, as needed annually, until a permanent solution to address the City's water deficit is implemented. Since the timeline for commissioning a permanent solution is not confirmed, the City will be asking to have this amendment apply for the full term of the licence (to 2026).

2. Is the specific withdrawal location know? It is expected a specific location will need to be identified, alternatively a description of what the criteria for selection of a location will be.

Response: The proposed withdrawal location is the same as in 2018. It is located approximately 1.3 km upstream of the bridge over the Apex River on the Road to Nowhere. This location: is easily accessed from the existing Road-to-Nowhere access road; is situated within a deeper section of the river; and, optimizes pumping overland as compared to locations further downstream.

3. Is the city prepared to take on additional monitoring associated with interaction with a new water body, i.e. upstream/downstream monitoring?

Response: Monitoring of fish and fish habitat will be undertaken when and if withdrawals from the river and flow conditions exceed DFO's low risk criteria. A Fish and Fish Habitat Monitoring Plan will be included with the application.

4. The city water licence is limited to an annual use limit of 1,100,000 m3. The two pager released states *"It is estimated to have a capacity of approximately 1.8 million cubic metres, with up to 1.1 million cubic metres available during winter months."* This statement appears incorrect.

Response: This statement is correct. The City has approval to withdraw all of the available water within Lake Geraldine annually. Not all water within Lake Geraldine is accessible in winter due to ice, and overall, due to the morphology (shape) of the lake.

Is this city seeking to also increase its annual use of water beyond 1.1 million m3? In other words, is the application for amending the licence designed to address only the volume of water supply, or, also the volume of water use?

Response: The City is applying to withdraw 500,000m^3 from Apex River and to increase the amount allowed to be withdrawn from Lake Geraldine.

4. Is it clear to the city when withdrawal from the Apex River would be required, i.e. based upon a certain capacity of Lake Geraldine over a certain time frame?

Response: The City has previously used a predictive model to identify a potential shortfall of water. Predictive modeling can be completed after the lake receives most of its annual input from spring snowmelt and precipitation. As such, the decision to require supplementation can be made as early as July in any given year.

6. If the basis of the need for seeking a supplementary water source is to address years of low flow, how are these same years of low flow expected to impact Apex River? The assumption here being a low accumulation year for Lake Geraldine would also be a low flow year for Apex River. What is the range of flow under which Apex River can sustain supporting withdrawals to Lake Geraldine. It is assumed the NWB will need this data and rationale.

Response: Years of low flow are common to Lake Geraldine and the Apex River. Water withdrawal from the Apex will be adjusted daily so as to preferably not exceed 10% of the instantaneous flow of the Apex River when natural flow is above 30% of the mean annual discharge (MAD). Withdrawal within these parameters is accepted by DFO to have a low probability of impacts to fisheries.

7. Would infrastructure (pumps and lines) be deployed seasonally or semi-permanently?

Response: The infrastructure would be deployed during the summer months during years when supplementation is needed, and would be a “temporary” installation. The infrastructure would be installed and operated until a sufficient amount of water has supplemented the Lake Geraldine reservoir for the winter season. Thereafter, the equipment would be demobilized, and the site would be restored.

8. Is an access road needed to install/remove, monitor, maintain additional infrastructure?

Response: The installation and operation of equipment will use access created for this purpose in 2018. No new access is required.

9. Will the city own the equipment (pumps/lines) or will the city lease/rent. Note: this does not matter for the application to the NWB, this matters as it relates to the overall plans and costs associated with these plans.

Response: The City will explore both options (i.e. purchasing equipment vs. renting) during the planning phase, and determine which option provides the best solution from an overall financial standpoint. There may be benefit to purchase the required equipment, as temporary water supplementation may be required over the next couple of years until a permanent solution is implemented. This will also be considered during the planning phase.

10. I understood that the city had purchased a desalinization plant from the GN to support water needs. Is this system no longer being considered? Is this system not as viable as the plan to pump water from Lake Geraldine? This aspect of the city's overall plan is not mentioned in the information provided. Note: this does not matter for the application to the NWB, this matters as it relates to the overall plans and costs associated with these plans.

Response: The temporary water supply initiative and the desalination plant are both viable options, which the City is considering as a means of supplementing its water supply system until a permanent solution has been deployed. The online public engagement initiative strictly focuses on the City’s plans for temporary water supplementation from the Apex

River to Lake Geraldine, as this is a requirement of the NWB for a water licence amendment. Future public engagement regarding the desalination plant will be captured under a separate initiative.

From: Stephen Williamson Bathory <stephen@tulaffik.net>
Sent: Monday, December 10, 2018 4:55 AM
To: water@city.iqaluit.nu.ca
Subject: Apex River Withdrawals

Hello,

I have looked over the two pager related to the plans to seek water from Apex River.

Comments/Questions I have are:

1. Is the city considering apply on a short-term basis or a long terms basis? It is noted that the city's current water licence expires in 2026. It is therefore suggested the application be to allow the city to use Apex River to supplement water supply at anytime during the licence. In other words, apply for a permanent amendment to the water licence.

2. Is the specific withdrawal location know? It is expected a specific location will need to be identified, alternatively a description of what the criteria for selection of a location will be.

3. Is the city prepared to take on additional monitoring associated with interaction with a new water body, i.e. upstream/downstream monitoring?

4. The city water licence is limited to an annual use limit of 1,100,000 m3. The two pager released states *"It is estimated to have a capacity of approximately 1.8 million cubic metres, with up to 1.1 million cubic metres available during winter months."* This statement appears incorrect.

Is this city seeking to also increase its annual use of water beyond 1.1 million m3? In other words, is the application for amending the licence designed to address only the volume of water supply, or, also the volume of water use?

5. Is it clear to the city when withdrawal from the Apex River would be required, i.e. based upon a certain capacity of Lake Geraldine over a certain time frame?

6. If the basis of the need for seeking a supplementary water source is to address years of low flow, how are these same years of low flow expected to impact Apex River? The assumption here being a low accumulation year for Lake Geraldine would also be a low flow year for Apex River. What is the range of flow under which Apex River can sustain supporting withdrawals to Lake Geraldine. It is assumed the NWB will need this data and rationale.

7. Would infrastructure (pumps and lines) be deployed seasonally or semi-permanently?

8. Is an access road needed to install/remove, monitor, maintain additional infrastructure?

9. Will the city own the equipment (pumps/lines) or will the city lease/rent. Note: this does not matter for the application to the NWB, this matters as it relates to the overall plans and costs associated with these plans.

10. I understood that the city had purchased a desalinization plant from the GN to support water needs. Is this system no longer being considered? Is this system not as viable as the plan to pump water from Lake Geraldine? This aspect of the city's overall plan is not mentioned in the information provided. Note: this does not matter for the application to the NWB, this matters as it relates to the overall plans and costs associated with these plans.

Thanks for the opportunity to comment.

- SWB

--
Stephen Williamson Bathory
TULAFFIK Inc.

From:	Murray Richardson
To:	Deronja, Josip
Cc:	A.Spitzer@city.iqaluit.nu.ca; Shirley, Jamal; Thomas, Mary Ellen; water@city.iqaluit.nu.ca; Matthew Hamp; Fawzi, Mohammed
Subject:	RE: Consultation on City"s Water Licence
Date:	Thursday, December 20, 2018 6:44:18 AM
Attachments:	image001.png

Thank you for your response Josip, and for this additional information. That is in indeed the lake I was thinking about – great!

I am very interested to see the third part hydrologic modelling report if at all possible. It raises some more questions for me – e.g. why was there so little replenishment of the reservoir even in a high snow year, and what does that mean for lower snow years? I am not questioning the validity of report in any way. I am just curious about these things from a hydrologic sciences perspective and the implications for engineering and water management.

It would be great to speak with you in the new year sometime during the week of January 7th. I will be in touch with you closer to the date to set up a time.

Murray

From: Deronja, Josip <Josip.Deronja@colliersprojectleaders.com>
Sent: Thursday, December 20, 2018 8:01 AM
To: Murray Richardson <MurrayRichardson@cunet.carleton.ca>
Cc: A.Spitzer@city.iqaluit.nu.ca; Shirley, Jamal <Jamal.Shirley@arcticcollege.ca>; Thomas, Mary Ellen <MaryEllen.Thomas@arcticcollege.ca>; water@city.iqaluit.nu.ca; Matthew Hamp <M.Hamp@city.iqaluit.nu.ca>; Fawzi, Mohammed <Mohammed.Fawzi@colliersprojectleaders.com>
Subject: RE: Consultation on City's Water Licence

Good morning Murray:

My apologies for the late reply. The City thanks you for your email, and appreciates the feedback in support of its water supplementation campaign for the Lake Geraldine water reservoir.

With respect to Unnamed Lake, the coordinates are as follows: 63° 46’ 46” N, 68° 26’ 35” W. As for information, or future data collection, that is being planned at that lake (should you be referring to the correct lake), the City would welcome any information available in support of future water planning.

Regarding the 2018 end-of-winter snow fall – although a significant amount of snow fall was accounted for during the spring freshet, the melt did not translate to a significant replenishment of the Lake Geraldine water reservoir. This was determined based off of modeling conducted by a 3rd party consultant, and measurements of water elevation levels at the Lake Geraldine water reservoir. This information was then used to determine an estimated volume within the reservoir. There are

no immediate plans at this time to improve hydrologic monitoring for Unnamed lake; however, it is something which the City will be considering in the new year, as part of its long-term solution for water supply for the Lake Geraldine water reservoir.

If you would like to discuss future synergies and/or opportunities, I would definitely welcome an opportunity to chat in the new year. Perhaps we can connect by phone or in person during the week of January 7th.

Kind regards,

Josip Deronja, P.Eng
Project Manager
COLLIERS PROJECT LEADERS
Main 613 216 4345 x.3919 | **Mobile 613 710 0498**
Suite 700, 150 Isabella Street | Ottawa, ON K1S 1V7 | Canada
Josip.Deronja@colliersprojectleaders.com

Video Who We Are | Video Why Hire a PM? | colliersprojectleaders.com

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From: Murray Richardson <MurrayRichardson@cunet.carleton.ca>
Sent: Tuesday, December 11, 2018 11:08 AM
To: water@city.iqaluit.nu.ca
Cc: A.Spitzer@city.iqaluit.nu.ca; Shirley, Jamal <Jamal.Shirley@arcticcollege.ca>; Thomas, Mary Ellen <MaryEllen.Thomas@arcticcollege.ca>; Deronja, Josip <Josip.Deronja@colliersprojectleaders.com>
Subject: Consultation on City's Water Licence

Hello,

I am writing in response to the consultation on Iqaluit's water licence. I am a professor at Carleton University and I have been working closely with Nunavut Research Institute and Arctic College's Environmental Technology Program (NAC ETP) on water quality and quantity research in the Apex River watershed. We monitor snow conditions, evapotranspiration, streamflow and other water budget components in parts of this watershed with the goal of improving scientific understanding and predictive modelling of surface water resources in this region. A major goal is to understand what the future holds for surface water regimes in this region under anticipated climate change scenarios.

Could you please tell me the coordinates of the unnamed lake that is being studied as part of this assessment? If it is the one I think it is, we have plans to measure evaporation rates from that lake using dedicated micrometeorological infrastructure, and I would like to know if there is any interest in that information to support future water planning.

I also want to bring to your attention that we have been measuring end-of-winter snow water equivalent throughout the Apex River watershed for five years via snowmobile surveys with NAC ETP students. This is by far the most reliable record of actual snowfall amounts that contribute to runoff, since snow gauges are notoriously unreliable due to wind effects, especially in Arctic tundra regions.

In the information sheet provided, there is the following statement:

“In 2018, following a winter of low snowmelt and little spring precipitation, a water shortage was predicted.”

According to our direct measurements of end-of-winter snow, 2018 was in fact a very high snow year – the highest in our five-year record with nearly 300 mm of snow water equivalent. In previous years we have measured as low as half that amount. I would like to know where the city is deriving its information on major water balance terms such as this, and whether there are any plans to improve hydrologic monitoring beyond what is being proposed for the unnamed lake? I would be very happy to be involved in such a process and would welcome the opportunity to meet and discuss ideas for hydrologic monitoring in Lake Geraldine and Apex River watersheds.

Thank you, I look forward to hearing from you.

Murray

Murray Richardson, MSc, PhD | Associate Professor
B355 Loeb Building | (613) 520-2600, ext. 2574| murray.richardson@carleton.ca

Carleton UNIVERSITY | Department of Geography & Environmental Studies

NPC AND NIRB DECISIONS

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Nunavunmi Parnaiyiit
Nunavut Planning Commission
Commission d'Aménagement du Nunavut

January 11, 2019

Natasha Lear
Manager, Technical Administration
Nunavut Impact Review Board (NIRB)
P.O. Box 1360, Cambridge Bay, NU X0B 0C0
By email: nlear@nirb.ca, info@nirb.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board (NWB)
P.O. Box 119, Gjoa Haven, NU X0B 1J0
By email: richard.dwyer@nwb-oen.ca
licensing@nwb-oen.ca

Amy Elgersma
Acting CAO
City of Iqaluit
Building 901, Box 460
Iqaluit NU X0A 0H0 Canada
By email: cao@city.iqaluit.nu.ca; erica.bonhomme@stantec.com

Dear Ms. Lear, Mr. Dwyer, and Ms. Elgersma:

RE: NPC File # 149007 [City of Iqaluit - Apex River Drinking Water Supply]

The following works and activities have been proposed in the above-noted project proposal:

1. Amendment to City of Iqaluit's existing Type A Water License # 3AM-IQA1626.
2. Summary of Modification:
    - Renew the emergency authorization to withdraw up to 500,000 m^3 of water annually from the Apex River and to pump this water overland to the Lake Geraldine reservoir during open-water conditions, as needed until a permanent, long-term solution to the shortage of drinking water supply is implemented;
    - Increase the amount of water to be withdrawn from Lake Geraldine from 1,100,000 m^3 currently allowed to 2,000,000 m^3.
3. Related NIRB File # : 13UN034
4. Location: Qikiqtani Region [Apex River and Lake Geraldine; City of Iqaluit]

The Nunavut Planning Commission (NPC) has determined that this project proposal is outside the area of an applicable regional land use plan. The Nunavut Impact Review Board (NIRB) previously screened the works and activities

associated with the current proposal, including the withdrawal of water up to 1,100,000 m^3 from Lake Geraldine (NIRB FILE NO. 13UN034).

A complete description of the project proposal reviewed by the NPC can be accessed online using the link below.

The NPC has determined that the above-noted project proposal is a significant modification to the project because of the increase of the amount of water withdrawn from Lake Geraldine from 1,100,000 m^3 to 2,000,000 m^3.

The above-noted project proposal requires screening by the NIRB under section 12.4.3 of the Nunavut Agreement as amended because it is for a component or activity that was not part of the original or previously amended proposal and its inclusion is a significant modification of the project. By way of this letter, the NPC is forwarding the project proposal with this determination to the NIRB for screening. Project materials are available at the following address:

http://lupit.nunavut.ca/portal/project-dashboard.php?appid=149007&sessionid=

This decision applies only to the above noted project proposal as submitted. Proponents may not carry out projects and regulatory authorities may not issue licenses, permits and other authorizations in respect of projects if a review by the NPC is required.

If you have any questions, please do not hesitate to contact me at (867) 979-3444.

Sincerely,

Goump Djalogue
Senior Planner, RPP, MCIP
Nunavut Planning Commission

C.C :

1. Government of Nunavut Dept. of Community and Government Services (GN-CGS)
2. Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC)

SCREENING DECISION REPORT
NIRB FILE NO.: 13UN034

AANDC File No.: 865340
NWB File No.: 3AM-IQA0611

November 3, 2014

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

Cc: Thomas Kabloona
Chairperson, Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU

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

Re: Screening Decision for the City of Iqaluit's "Application for Water Licence Renewal" Project Proposal, Qikiqtani Region, 13UN034

Dear Mr. Bernard Valcourt:

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 City of Iqaluit (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 comprising its project proposal as provided to the NIRB (revised NIRB Part 1 and Part 2 forms, July 15, 2014) and as formed its application with the Nunavut Water Board (Application for Water Licence Renewal, October 2, 2012; Annual Reports, Management Plans and Manuals, and applicable City policies, September 3, 2013 to July 16, 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.

Fuel and Chemical Storage

7. Unless otherwise permitted, the Proponent shall locate all fuel and 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.
8. Unless otherwise permitted, 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.
9. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
10. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barreled fuel and chemicals at all locations and at all refueling stations. 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 at drill sites.
11. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
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.

Landfill Operations

13. The Proponent shall dispose of non-hazardous materials only at the landfill and shall limit this disposal to those materials listed as acceptable for disposal. Hazardous materials, materials listed as unacceptable for disposal at the landfill, or materials that contain asbestos, fluorescent tubes or ozone depleting substances are not to be disposed of in the landfill and must be disposed of at an authorized facility, unless otherwise permitted.
14. The Proponent shall ensure that the site is kept free of debris through the use of fencing and other measures to limit wind dispersal of waste materials off-site.
15. The Proponent shall take appropriate dust suppression measures when conducting soil topping of landfill materials, or landfill capping activities.

16. All operations personnel shall be adequately trained prior to commencement of landfill operations, and shall be made aware of all operational guidelines and Proponent commitments relating to the Project.
17. The Proponent shall clearly stake all boundaries so they remain visible to other land users.
18. The Proponent shall ensure there is no obstruction of natural drainage, flooding or channel diversion from access or other structures or facilities.
19. The Proponent shall ensure that silt fences/curtains are installed down gradient of any construction activities.
20. The Proponent shall maintain an undisturbed buffer zone between the periphery of the landfill sites and the high water mark of any water body that is of an adequate distance to ensure erosion control.
21. The Proponent shall stockpile all overburden/topsoil generated during construction using proper erosion prevention measures. Upon completion of operation, the Proponent shall back fill, reclaim/re-contour and re-vegetate all disturbed areas.

Wildlife - General

22. 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.
23. 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

24. 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.

Caribou Disturbance

25. The Proponent shall cease activities, including vehicle traffic along roadways, that may interfere with the migration or calving of caribou, until the caribou have passed or left the area.
26. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration, such as movement of equipment or personnel, until such time as the caribou have passed.
27. 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 movement of equipment or personnel. 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 movement of equipment or personnel, until caribou are no longer in the immediate area.

All-Weather Road and Ground Disturbance

28. 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.
29. 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 water body.
30. The Proponent shall ensure that all project vehicles are fitted with standard and well-maintained noise suppression devices, and that engine idling is also minimized.
31. The Proponent should consider the potential for public traffic to utilize project roads, and in its design features and consideration of public safety, ensure adequate posting of signage indicating speed limit(s) along the road and within project site(s).

Restoration of Disturbed Areas

32. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state to the extent possible upon reclamation and closure of project activities.
33. The Proponent shall remove all fuel and equipment upon abandonment and ensure that the landfill continued to be monitored as necessary to ensure long-term structural integrity until fully remediated.

Other

34. The Proponent should, to the extent possible, hire local people and 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 and considered within this decision, will be considered a new project and should be submitted to the NIRB for Screening.

MONITORING AND REPORTING REQUIREMENTS

In addition, the Board is recommending the following:

Updated Plans

1. The Proponent shall submit to the NIRB, Project-specific operational, mitigation and/or monitoring plans and details as updated and/or finalized including, but not limited to, the following:
    a. West 40 Landfill Decommissioning Plan;
    b. Spill Contingency Plan (to incorporate all updated plans and activities);
    c. Emergency Response Plan;
    d. Fire Safety Plan;
    e. Hazardous Waste Management Plan (including household hazardous waste and waste electronics);
    f. Abandonment and Restoration Plan;
    g. Solid Waste Management Plan;

h. Decommissioning plans for the Water Treatment Plant, West 40 Wastewater Treatment Plant and the proposed Solid Waste Management Site;
i. Operational, Contingency and Management Plan (Design and Operations and Maintenance Plan);
j. Site Development Plan;
k. Landfill Safety Plan; and
l. Site mapping showing all components.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

In addition to the project-specific terms and conditions, the Board is recommending the following:

Bear and Carnivore Safety

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in "Safety in Grizzly and Black Bear Country" which can be down-loaded from this link: http://www.enr.gov.nt.ca/_live/documents/content/Bear_Safety.pdf. Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link http://www.nunavutparks.com/english/visitor-information/suggested-resources.html and a "Safety in Polar Bear Country" pamphlet from Parks Canada at the following link http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx.

2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Iqaluit Conservation Office, (867) 439-2004).

Species at Risk

3. The Proponent review Environment Canada's "Environment Assessment Best Practice Guide for Wildlife at Risk in Canada", available at the following link: http://epe.lac-bac.gc.ca/100/200/301/environment_can/cws-scf/environmental_assessment-ef/ea_best_practices_2004_e.pdf. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

Change in Project Scope

4. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

REGULATORY REQUIREMENTS

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

1. The Proponent is advised that the *Canadian Environmental Protection Act* (http://laws.justice.gc.ca/en/C-15.31/) lists calcium chloride (CaCl) as a toxic substance.

2. The *Fisheries Act* (http://laws-lois.justice.gc.ca/eng/acts/F-14/index.html).

3. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (http://www.canlii.org/ca/sta/n-28.8/whole.html).

4. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (http://laws-lois.justice.gc.ca/eng/acts/M-7.01/).

5. The *Species at Risk Act* (http://laws-lois.justice.gc.ca/eng/acts/S-15.3/index.html). Attached in **Appendix B** is a list of Species at Risk in Nunavut.

6. The *Wildlife Act* (http://www.canlii.org/en/nu/laws/stat/snu-2003-c-26/latest/snu-2003-c-26.html) which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.

7. The *Nunavut Act* (http://laws-lois.justice.gc.ca/eng/acts/N-28.6/). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.

8. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (http://www.tc.gc.ca/eng/tdg/safety-menu.htm), and the *Canadian Environmental Protection Act* (http://laws-lois.justice.gc.ca/eng/acts/C-15.31/). 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.

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 November 3, 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 November 5, 2012 the Nunavut Impact Review Board (NIRB or Board) received the City of Iqaluit's (the Proponent) "Application for Water Licence Renewal" proposal directly from the Proponent. On November 14, 2012 the NIRB issued correspondence to the Proponent advising that the Board would be required to await a formal referral from an Authorizing Agency prior to commencing with its screening assessment. While awaiting referral from an Authorizing Agency, the NIRB conducted a preliminary completeness check and found that the proposal did *not* contain sufficient information to permit proper screening. On July 11, 2013 the NIRB issued correspondence to the Proponent outlining the additional information required and requesting that it be provided to the NIRB on or before July 25, 2013. On July 25, 2013 the NIRB received an indication from the Proponent that the requested information would be available on or before September 30, 2013, and again on August 28, 2013 the NIRB received an updated notice that information would be submitted to the Board by November 30, 2013. On October 21, 2013 the NIRB received a formal referral from the Nunavut Water Board (NWB) to commence screening of this proposal and on November 1, 2013 the NIRB issued an application acknowledgement, requested additional information and assigned the proposal file number 13UN034.

On December 2, 2013 the Board requested an extension to its screening timeline from the Minister of Aboriginal Affairs and Northern Development as it had not yet received the outstanding information from the Proponent as requested.

On February 5, 2014 the NIRB requested that the Proponent provide an update on the status of the requested information. On February 6, 2014 the Proponent noted that it had made additional submissions to the NWB and forwarded the requested information on hazardous waste management and the abandonment and restoration plan to the NIRB and further noted that it was completing the remaining requested documents. On March 26, 2014 the NIRB again requested that the Proponent provide an update on the status of the requested information.

On June 11, 2014 the NIRB further requested that the Proponent provide an indication as to its anticipated timing for submission of requested information, and on June 26, 2014 the Board received an updated notice that information would be submitted to the NIRB by July 15, 2014. On July 23, 2014 the Board received additional information from the Proponent as requested and proceeded with its assessment.

This project proposal was distributed to community organizations in Iqaluit, 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 October 9, 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 October 9, 2014 the NIRB received comments from the following interested parties (see Comments and Concerns section below):

- **Government of Nunavut (GN)**
- **Environment Canada (EC)**

On or before October 16, 2014 the NIRB also received submissions from the following interested parties:

- **Aboriginal Affairs and Northern Development Canada (AANDC)**
- **Fisheries and Oceans Canada (DFO)**

Comments and Concerns

The following is a *summary* of the comments and concerns received during the public commenting period for this file:

Government of Nunavut (GN):

- The GN noted concern with the Proponent's waste management plans, noting that they required modification and revision in order to mitigate potential adverse environmental impacts.
- The GN recommended that the Proponent update its Solid Waste Management Plan to incorporate information and expertise gained during the Iqaluit dump fires in the summer of 2014.

Aboriginal Affairs and Northern Development Canada (AANDC):

- AANDC submitted comments noting that in its view, Schedule 12-1, Item 3 of the Nunavut Land Claims Agreement (NLCA) would apply to exempt this project from screening because the project involves the "provision of a service within an established municipality".

Following the receipt of the AANDC comment submission, the Board issued correspondence to AANDC clarifying that as the Board has concluded that the project was not exempt from screening under NLCA Schedule 12-1, it would continue with the screening and would be issuing a Screening Decision Report to the Minister in due course.[1] This decision reflects the Board's consistent and long-standing approach to interpretation of the exemptions in NLCA

[1] The NIRB response to AANDC was provided on October 21, 2014 and is available from the NIRB's online public registry at: http://ftp.nirb.ca/01-SCREENINGS/ACTIVE%20SCREENINGS/13UN034-City%20of%20Iqaluit%20Type%20A%20Water%20Licence%20Renewal/02-DISTRIBUTION/CORRESPONDENCE/

Schedule 12-1 and the Board's specific analysis of this project proposal, specifically whereby the Nunavut Water Board's initial referral of the project proposal to the NIRB for assessment indicated that a public hearing would be required as a part of its licensing process. The NIRB notes that NLCA Schedule 12-1, item 5 may apply to proposals for which a water use did not require a public hearing pursuant to NLCA 13.7.3. Given the NWB notification of hearing, the NIRB remains of the opinion that assessment was both warranted, and required for this proposal.

Environment Canada (EC):

- EC provided general comments and recommendations regarding the following:
  - Prohibition of deleterious substances in waters frequented by fish, or in any place that a deleterious substance could enter such water, under the *Fisheries Act*; and
  - Potential impacts to wildlife, migratory birds and Species at Risk.
- EC noted that it was unclear whether the Proponent would be undertaking groundwater sampling and if so, where monitoring wells would be located.

Fisheries and Oceans Canada (DFO):

- DFO requested that the Proponent provide additional information regarding fish community(ies) and other aquatic species that may inhabit, use, or rely on, Lake Geraldine and/or the outlet stream of Lake Geraldine and the anticipated effects from the proposed activities, including the operation of the Lake Geraldine Dam on these communities and/or species.

- DFO made recommendations regarding avoiding harm to fish and fish habitat, use of fish screens on intake hoses, water withdrawal rates, and the identification of an alternative water source.

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

Project Activities

The proposed project is located in the South Baffin Region within the municipality of Iqaluit. The City of Iqaluit (the Proponent) is applying to renew and amend its Type A water licence (which expired in 2011 and was extended for a term of one year to 2012) with the NWB to upgrade existing and construct new waste management facilities in Iqaluit. The Proponent has requested a renewed term of licence from October 2013 to October 2018. The proposed project activities associated with the renewal and amendment application include:

- Upgrade, operation and the eventual decommissioning of the Water Treatment Plant and other associated systems that supply water extracted from Lake Geraldine for municipal use;
  - Proposed maximum annual withdrawal of 1,100,000 cubic metres (m^3) of water; to be gravity fed and transported to the Water Treatment Plant via a high density polyethylene insulated pipe 360 metres long and 400 millimetres in diameter;

- Storage of hazardous materials and chemicals (including hydrofluorosilicic acid, chlorine gas, caustic soda and sodium hypochlorite);

- Operation and the eventual decommissioning of a solid waste management facility at the existing West 40 Landfill and associated infrastructure;
  - Collection and separation of solid waste into general waste, metals, tires and hazardous waste:
    - Compaction of solid non-hazardous residential and commercial waste and covered with material such as crushed wood;
    - Scrap metal, tires, hazardous waste, and empty barrels/fuel drums stored and transported south for appropriate disposal;

- Upgrade, operation and decommissioning of infrastructure for managing wastewater at the existing West 40 Wastewater Treatment Plant and backup Sewage Lagoon;
  - Use of a utilidor system;
  - Contaminated snow transported to the sewage lagoon;

- Snow and soil contaminated with hazardous waste (e.g. fuel) treated and disposed of at Nunatta Environmental landfarm[2], which is within the Iqaluit municipality;

- Construction, operation, and the eventual decommissioning and closure of a new Solid Waste Management Site approximately 7.5 kilometres (km) northwest of Iqaluit;
  - Site survey and boundary delineation to take place as part of the design contract and projected in the spring of 2015;
  - Potential future development of incineration;

- Equipment to include:
  - Heavy equipment including loaders, garbage trucks, water and sewer trucks and shredder, as well as light vehicles;
  - Bulb buster (to safely extract mercury from florescent light bulbs before disposal), Freon remover, two pumps (one with two inch hose and one with four inch hose) at the retention pond;

- Storage of fuel in outside storage tanks with refueling to take place through a fuel distributor; and
- Construction of an access road approximately four (4) km northwest of Iqaluit and to be 8.5 m wide (not including the ditch and embankment) and 3.97 km long.

Within its application materials, the Proponent initially indicated that the scope of the Project would also include consideration of the following components and/or activities, however the Proponent had confirmed later in the assessment that none of these were to be included within the NIRB's current consideration and assessment. As such, the Board's consideration has not

[2] The NIRB notes that the Nunatta Environmental landfarm was previously screened by the NIRB (File No. 12UN019) and allowed to proceed subject to the terms and conditions contained within the NIRB's May 14, 2012 Screening Decision Report, and authorizations as required for the landfarm to proceed. The NIRB's Screening Decision Report is available online at: http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/2012/12UN019-Nunatta%20Environmental-Land%20Farm/03-DECISION/.

included the following activities, and additional assessment by the NIRB would be required at such time as the Proponent wishes to undertake these or other activities:

- Composting and recycling facility;
- Reuse centre;
- Supplementary water supply in additional to Geraldine Lake;
- Municipal Quarry; and
- Incineration of waste.

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 [1]	**COSEWIC Designation**	**Schedule of SARA**	**Government Organization with Primary Management Responsibility** [2]
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 (*anatum-tundrius* complex[3])	Schedule 1	GN
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 (*rufa* subspecies)	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Red Knot	Special Concern	Schedule 1	EC

Species at Risk [1]	COSEWIC Designation	Schedule of SARA	Government Organization with Primary Management Responsibility [2]
(*islandica* subspecies)			
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Grizzly Bear	Special Concern	Pending	GN
Wolverine (Western population)	Special Concern	Pending	GN
Horned Grebe (Western population)	Special Concern	Pending	EC
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 (Cumberland Sound population)	Threatened	Pending	DFO
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 population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

[1] The Department of Fisheries and Oceans has responsibility for aquatic species.

[2] 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.

[3] 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 (See Guidelines below)	**Function** (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/ Palaeontological Inventory
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/ Palaeontological Inventory or Assessment or 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*[3] to issue such permits.

[3] 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*[4], 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*[5], 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.*

[4] s. 51(1)
[5] P.C. 2001-1111 14 June, 2001

(**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.