



**General Water Licence Application
(Application for a new Water Licence)**

Document Date: April 2013

**Application Submission Date: 06/29/2019
Month/Day/Year**

**P.O. BOX 119
GJOA HAVEN, NUNAVUT
XOB 1J0
TEL: (867)360-6338
FAX: (867)360-6369**

**ᓇᓱᐊᓘ ሀጀጀጀ ንጀጀጀ
NUNAVUT IMALIRIYIN KATIMAYIT
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT**

DOCUMENT MANAGEMENT

Original Document Date: April 2010

DOCUMENT AMENDMENTS

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



P.O. Box 119
GJOA HAVEN, NU X0B 1J0
TEL: (867) 360-6338
FAX: (867) 360-6369

ᓇᓱᐊᑦ ልਲੰᓂ᳚ ንᓂ᳚
NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN KATIMAYIT
OFFICE DES EAUX DU NUNAVUT

GENERAL WATER LICENCE APPLICATION (APPLICATION FOR NEW WATER LICENCE)

The applicant is referred to the NWB's Guide 4: Guide to Completing and Submitting a Water Licence Application for a New Licence for more information about this application form.

LICENCE NO: (for NWB use only)	
1. APPLICANT (PROPOSED LICENSEE) CONTACT INFORMATION (name, address) Jim MacEachern Assistant Chief Administrative Officer Hamlet of Cambridge Bay, PO Box 16, 23 Kamotik Rd, NU X0B 0C0 Phone: (867) 983-4650 Fax: e-mail: jmaceachern@cambridgebay.ca	2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) Jivko Jivkov, P. Eng. Jivko Engineering Ltd Box 1341, Yellowknife, NT X1A 2N9 Phone: 867 920 4455 Fax: e-mail: jivko@jivko.ca (Attach authorization letter.)
3. NAME OF PROJECT (including the name of the project location) Cambridge Bay, NU, Freshwater Creek. Riverbed Alteration related to Upgrading of Bridge Crossing	
4. LOCATION OF UNDERTAKING Project Extents Latitude: 69° 7' 40.24" N Longitude: 105° 0' 4.55" W Camp Location(s): No Camp	
5. MAP - Attach a topographical map, indicating the main components of the undertaking. Enclosed ; 2 Air-photo maps; 1 Drawing; 2 Photos NTS Map Sheet No.: _____ Map Name: _____ Map Scale: _____	
6. NATURE OF INTEREST IN THE LAND - 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: _____

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

Name of entity(s) holding authorizations:

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

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

- | | |
|---------------------------------------|-------------------------------------|
| <input type="checkbox"/> North Baffin | <input type="checkbox"/> Keewatin |
| <input type="checkbox"/> South Baffin | <input type="checkbox"/> Sanikiluaq |
| <input type="checkbox"/> Akunniq | X West Kitikmeot |

Is a land use plan conformity determination required?

- Yes No

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

Application to NPC Submitted; Waiting for reply

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Is an Article 12 Part 4 screening determination required?

- Yes No

Yes No

Application to NPC Submitted: Waiting for reply

If Yes, indicate date issued and attach copy

If No, provide written confirmation from NIRB confirming that a screening determination is not required.

9. DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.

The Hamlet of Cambridge Bay, NU has retained Jivko Engineering Ltd to Upgrade the Existing Freshwater Creek Crossing located on the road to the local Cemetery some 2.5 km to the NW of town.

The Existing Crossing features 30 m long Bailey Bridge. The east end of the Bailey rests on 3.0 meter high river bank. The west end is supported on a gravel-rock fill Causeway projecting into the river and constricting nearly one third of the Natural River Channel. This causeway is subject to progressive yearly erosion, and associated siltation of the river, with need for significant repairs every several years. The last major washout was in 2010 when the bridge was closed for traffic for a few weeks.

In the last 6 years the Hamlet has gradually installed a 45 m long Bridge alongside the existing one. The abutments of the New Bridge are metal Bin-walls located beyond the High Water Mark of the Natural River Bed. At no point heavy equipment or bridge elements have been in contact with the river flow during construction, or otherwise.

The remaining Work on the Bridge Upgrading is related to restoration of the riverbed to its original width and depth and includes:

- *Removal of the existing Bailey Bridge: This will be completed using large excavator and loader deployed on shore and connected to the bridge with cables and chains.*
- *Excavation-Removal from the Causeway, and the adjacent upstream Buffer Berm, some 1,600 cubic meters mixture of gravel and rock. Nearly half of this material is located above the water level, and the other half is below. The excavation will be completed by large excavator deployed on shore. Dump trucks will haul the excavated material away. It is anticipated, during loading, some water draining from the trucks will return into the watercourse.*

This Work is considered Alteration of the Riverbed. Temporary siltation of the watercourse downstream from the crossing will take place.

The Plan is to carry out the work this fall, at low water, within a time window established by the NIRB, DFO, NWB and other appropriate Regulators.

10. OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.

N/A

11. CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.

- | | |
|---|---------------------------------------|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps) | |
| <input type="checkbox"/> Conservation | |
| <input type="checkbox"/> Municipal (includes camps/lodges) | <input type="checkbox"/> Recreational |
| <input type="checkbox"/> Power | X Miscellaneous (describe below): |

Restoration of Obstructed Riverbed

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings.

Information in accordance with applicable Supplemental Information Guidelines (SIG) must be submitted with a New Water Licence Application. 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
- Municipal**
- General Water Works
- Power

12. WATER USE - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.

- 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 AND QUALITY OF WATER INVOLVED - For each type of water use indicated in Block 12, provide the source of water, the quality of the water source and available capacity, the estimated quantity to be used in cubic meters per day, method of extraction, as well as the quantities and qualities of water to be returned to source.

Name of water source(s) (show location(s) on map):

Freshwater Creek

Describe the quality of the water source(s) and the available capacity:

Clean Water suitable for drinking. The estimated flow is less than 5 cub m/second during work in late fall

Provide the overall estimated quantity of water to be used:

No Water will be removed from the River

Provide the estimated quantity(s) of water to be used from each source:

N/A

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)

N/A

Describe the method of extraction(s):

N/A

Estimated quantity(s) of water returned to source(s) :

None

Describe the quality of water(s) returned to source(s):

N/A

14. WASTE – Check the appropriate box(s) to indicate the types of waste(s) generated and deposited.

N/A

- | | |
|--|---|
| <input type="checkbox"/> Sewage | <input type="checkbox"/> Waste oil |
| <input type="checkbox"/> Solid Waste | <input type="checkbox"/> Greywater |
| <input type="checkbox"/> Hazardous | <input type="checkbox"/> Sludges |
| <input type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Contaminated soil and/or water |
| <input type="checkbox"/> Animal Waste | |

X Other (describe):

The Removal of previously imported material will cause temporary siltation downstream from the crossing. Removal of the material will be completed within estimated two working days.

- 15. QUANTITY AND QUALITY OF WASTE INVOLVED** – 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** – In addition to the sub-surface and surface land use authorizations provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:

Authorization: Application submitted to DFO; Permit in process

Administering Agency: Fish Habitat Management, DFO

Project Activity: Alteration of Riverbed

Date (expected date) of issuance: End of August 2019

Date of expiry: End of September 2019

- 17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES** - Describe direct, indirect, and cumulative impacts related to water and waste.

Presently the Causeway and the Buffer Berm constrict the river, increasing the water velocity under the Existing Bridge. This results in scouring the riverbed and continuous accelerated erosion of the riverbanks. Removing the Causeway and Berm will bring the river channel to its natural condition.

Highly positive Long Term Impact is anticipated including:

- Significant reduction, or virtually elimination of the erosion of the Riverbanks and Bed*
- Recovery of some 600 sq m fish habitat.*

The setback is temporary siltation of the riverbed downstream from the crossing. This setback would be partially mitigated by completing the Work after the fall fish run.

Other Mitigation measures:

- 1. No fuel and lubricants will be kept on site.*
- 2. There will be a Foreman on-site, properly instructed in dealing with site contamination, spills, safe equipment operation, etc...*
- 3. Refueling of equipment will be done by specialised fuel truck, at a contained area, not less than 50m away from the River.*
- 4. Spill Control Kit will be kept on site and Workers and Operators will be instructed to use it.*
- 5. In the unlikely case of Fuel Spill over 100 liters, all appropriate authorities and spill line 867-920-8130 will be immediately notified.*
- 6. Construction equipment operating near the River will be in good working condition and will be inspected on a daily basis for leaks of fuel and lubricants.*
- 7. The excavator will be deployed on shore during excavation. Only the bucket and part of the excavator's boom will be dipped in the river to retrieve material.*
- 8. Between 3 and 6 working personnel will be on site for an 8 hour shift daily for estimated 7 to 10 productive working days.*
- 9. The removal of the material producing siltation will be completed within 2 productive working*

<p>days.</p>
<p>18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER</p> <p>Hamlet of Cambridge Bay, NU PO Box 16, 23 Kamotik Rd, NU X0B 0C0 Phone: (867) 983-4650</p> <p>Provide the names, addresses and nature of use for any known persons or properties that may be adversely affected by the proposed undertaking, including those that hold licenses for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners of property, occupiers of property, and/or holders of outfitting concessions, registered trap line holders, and holders of other rights of a similar nature.</p> <p>Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.</p>
<p>19. INUIT WATER RIGHTS</p> <p>N/A</p> <p>Advise the Board of any substantial affect of the quality, quantity or flow of waters flowing through Inuit Owned Land (IOL), and 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 Designated Inuit Organization (DIO).</p>
<p>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.</p> <p>Provided by Hamlet Office</p> <p><i>Consultation for this project took place in 2010 with the community at the Community Hall when the old bridge was almost washed out.</i></p> <p><i>Consultation also took place in 2012 with the community at the Community Hall when the design for the replacement was presented.</i></p> <p><i>In 2015 a Community Land Use Plan and Zoning ByLaw was presented to the residents at the Community Hall and there was no opposition to a bridge at this site as there is a bridge existing at this site and this is just a wider replacement bridge to allow for larger vehicles.</i></p> <p><i>In the recent “Seeds for the Future” Comprehensive Community Planning Meetings with the community in February of this year, the topic of the bridge was discussed again. The community residents encourage the Municipality to complete this project so that access can be gained to traditional camping, hunting and fishing areas of the community. The Community Joint Management and Planning Committee for Ovayok Park, (formed in accordance under the NLCA in light of the IIBA requirements for the Park), also recognized the need to complete the bridge project so that residents and visitors can access Ovayok Territorial Park.</i></p>
<p>21. SECURITY INFORMATION</p> <p>N/A</p> <p>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. <u>Estimates of reclamation costs must be based on the cost of having the necessary</u></p>

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.

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

N/A

Provide a statement of financial responsibility.

If the applicant is a business entity, provide a list of the officers of the company.

If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.

23. STUDIES UNDERTAKEN TO DATE - List and attach copies of studies, reports, research, etc.

N/A

24. PROPOSED TIME SCHEDULE – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).

Construction

Anticipated Approved one week window of opportunity between the dates below

Proposed Start Date: 09.01.2019 Proposed Completion Date: 09.30.2019
(month/year) (month/year)

Operation

Proposed Start Date: _____ Proposed Completion Date: _____
(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 Fall All season

Closure

Winter Spring Summer Fall All season

Post - Closure

Winter Spring Summer Fall All season

25. PROPOSED TERM OF LICENCE

Number of years (maximum of 25 years): _____ years

Requested Date of Issuance: **08.31.2019**
(month/year) Requested Expiry Date: **10.30.219**
(month/year)

(The requested date of 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 license 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 License Applications* for more information)

26. ANNUAL REPORTING – If not using the NWB's *Standardized Form for Annual Reporting*, provide details regarding the content of annual reports and a proposed outline or template of the annual report.

Project Completion Report with pictures will be forwarded to the NWB after completion of the work.

27. CHECKLIST – The following must be included with the application for the water licensing process to begin.

Written confirmation from the NPC confirming that NPC's requirements regarding land use plan conformity have been addressed.

Yes No If no, date expected _____ **Mid-August 2019**

Written confirmation from the NIRB confirming that NIRB's requirements regarding development impact assessment have been addressed.

Yes X No If no, date expected _____ **Mid-August 2019**

Completed General Water License Application form.

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

Yes No If no, date expected

English Summary of Application.

Yes No If no, date

Inuktitut and/or Inuinnaqtun Summary of Application.

Yes No If no, date expected _____

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

Yes No If no, date expected _____ 15.08.2019

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 license.

Yes

No

If no, date expected 15.08.2019

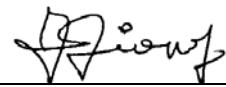
28. SIGNATURE

Jivko Jivkov, P. Eng.

Name (Print)

President

Title (Print)



Jivko Jivkov

27 July 2019

Date