



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

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

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) | | |
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P.O. Box 119

GJOA HAVEN, NU X0B 1J0

TEL: (867) 360-6338

FAX: (867) 360-6369

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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) Kitnuna Environmental Ltd. PO Box 92, 10 Omilik Road Cambridge Bay, NU X0B 0C0 Phone: 780-271-4560 Fax: 877-316-7991 e-mail: jfoster@kblenv.com | 2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.) |
| 3. NAME OF PROJECT (including the name of the project location) Cambridge Bay Soil and Water Treatment Facility | |
| 4. LOCATION OF UNDERTAKING Project Extents NW: Latitude: (69° 07' 44" N) Longitude: (105° 02' 46" W) NE: Latitude: (69° 07' 44 " N) Longitude: (105° 02' 27" W) SE: Latitude: (69° 07' 38 " N) Longitude: (105° 02' 27" W) SW: Latitude: (69° 07' 36 " N) Longitude: (105° 02' 47" W) Camp Location(s) Latitude: (° ' " N) Longitude: (° ' " W) | |
| 5. MAP - Attach a topographical map, indicating the main components of the undertaking. NTS Map Sheet No.: 77D/01,02 Map Name: Proposed Cambridge Bay Soil and Water Treatment Facility Map Scale: 1:50 000 and 1:10 000 | |

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: _____

X Other: Land lease from Hamlet of Cambridge Bay to construct soil and water treatment facility

Date (expected date) of issuance: June 1, 2017 Date of expiry: June 1, 2022

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"/> Akunnig | <input checked="" type="checkbox"/> West Kitikmeot |

Is a land use plan conformity determination required?

Yes

X 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.

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------|-------------------------------------------------|----------------------------------------|---------------------------------------------------------------|---------------------------------------|--------------------------------|----------------------------------------------------------|----------------------------------------------|----------------------------------|------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------|-------------------------------------------|------------------------------------|----------------------------------------------|--------------------------------|
| 8. | <p>NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION</p> <p>Is an Article 12 Part 4 screening determination required?</p> <p>X Yes No</p> <p>NIRB Screening Decision Report No: 16XN034 attached</p> | | | | | | | | | | | | | | | | | | | | | |
| 9. | <p>DESCRIPTION OF UNDERTAKING – List and attach plans and drawings or project proposal.</p> <p>NIRB application and associated plans attached.</p> | | | | | | | | | | | | | | | | | | | | | |
| 10. | <p>OPTIONS – Provide a brief explanation of the alternative methods or locations that were considered to carry out the project.</p> <p>Through discussion with Hamlet of Cambridge Bay, this location was presented for this land use, it's location away from residential land use ensures no human interaction.</p> | | | | | | | | | | | | | | | | | | | | | |
| 11. | <p>CLASSIFICATION OF PRIMARY UNDERTAKING - Indicate the primary classification of undertaking by checking one of the following boxes.</p> <table style="width: 100%; border: none;"> <tr> <td><input checked="" type="checkbox"/> Industrial</td> <td><input type="checkbox"/> Agricultural</td> </tr> <tr> <td><input type="checkbox"/> Mining and Milling (includes exploration/drilling/exploration camps)</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Conservation</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Municipal (includes camps/lodges)</td> <td><input type="checkbox"/> Recreational</td> </tr> <tr> <td><input type="checkbox"/> Power</td> <td><input type="checkbox"/> Miscellaneous (describe below):</td> </tr> </table> <hr style="border: 0; border-top: 1px solid black; margin: 10px 0;"/> <p>See Schedule II of <i>Northwest Territories Waters Regulations</i> for Description of Undertakings.</p> <p>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.</p> <table style="width: 100%; border: none;"> <tr><td><input type="checkbox"/> Hydrostatic Testing</td></tr> <tr><td><input type="checkbox"/> Tannery</td></tr> <tr><td><input type="checkbox"/> Tourist / Remote Camp</td></tr> <tr><td>X Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil</td></tr> <tr><td><input type="checkbox"/> Onshore Oil and Gas Exploration Drilling</td></tr> <tr><td><input type="checkbox"/> Mineral Exploration / Remote Camp</td></tr> <tr><td><input type="checkbox"/> Advanced Exploration</td></tr> <tr><td><input type="checkbox"/> Mine Development</td></tr> <tr><td><input type="checkbox"/> Municipal</td></tr> <tr><td><input type="checkbox"/> General Water Works</td></tr> <tr><td><input type="checkbox"/> Power</td></tr> </table> | <input checked="" 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 | <input type="checkbox"/> Miscellaneous (describe below): | <input type="checkbox"/> Hydrostatic Testing | <input type="checkbox"/> Tannery | <input type="checkbox"/> Tourist / Remote Camp | X Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil | <input type="checkbox"/> Onshore Oil and Gas Exploration Drilling | <input type="checkbox"/> Mineral Exploration / Remote Camp | <input type="checkbox"/> Advanced Exploration | <input type="checkbox"/> Mine Development | <input type="checkbox"/> Municipal | <input type="checkbox"/> General Water Works | <input type="checkbox"/> Power |
| <input checked="" 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 | <input type="checkbox"/> Miscellaneous (describe below): | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Hydrostatic Testing | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Tannery | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Tourist / Remote Camp | | | | | | | | | | | | | | | | | | | | | | |
| X Landfarm & On-Site Storage of Hydrocarbon Contaminated Soil | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Onshore Oil and Gas Exploration Drilling | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Mineral Exploration / Remote Camp | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Advanced Exploration | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Mine Development | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Municipal | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> General Water Works | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> Power | | | | | | | | | | | | | | | | | | | | | | |
| 12. | <p>WATER USE - Check the appropriate box(s) to indicate the type(s) of water use(s) being applied for.</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> To obtain water for camp/ municipal purposes</td> <td><input type="checkbox"/> To divert a watercourse</td> </tr> <tr> <td><input type="checkbox"/> To obtain water for industrial purposes</td> <td><input type="checkbox"/> To modify the bed or bank of a watercourse</td> </tr> <tr> <td><input type="checkbox"/> To cross a watercourse</td> <td><input type="checkbox"/> Flood control</td> </tr> <tr> <td><input type="checkbox"/> To alter the flow of, or store water</td> <td></td> </tr> </table> <p>X Other: To accept contaminated snow/water, store, treat and discharge. No water to be used. Run off containment.</p> | <input type="checkbox"/> To obtain water for camp/ municipal purposes | <input type="checkbox"/> To divert a watercourse | <input type="checkbox"/> To obtain water for industrial purposes | <input type="checkbox"/> To modify the bed or bank of a watercourse | <input type="checkbox"/> To cross a watercourse | <input type="checkbox"/> Flood control | <input type="checkbox"/> To alter the flow of, or store water | | | | | | | | | | | | | | |
| <input type="checkbox"/> To obtain water for camp/ municipal purposes | <input type="checkbox"/> To divert a watercourse | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> To obtain water for industrial purposes | <input type="checkbox"/> To modify the bed or bank of a watercourse | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> To cross a watercourse | <input type="checkbox"/> Flood control | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> To alter the flow of, or store water | | | | | | | | | | | | | | | | | | | | | | |

- 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):

Contaminated snow/water from commercial/industrial sites in the Hamlet of Cambridge Bay

Describe the quality of the water source(s) and the available capacity: 170m³ storage

No source water to be used

Provide the overall estimated quantity of water to be used: N/A m³/day

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.)

Describe the method of extraction(s):

Estimated quantity(s) of water returned to source(s) N/A m³/day

Describe the quality of water(s) returned to source(s): Treated water to be discharged to surface

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

☐ Sewage

☐ Solid Waste

☐ Hazardous

☐ Bulky Items/Scrap Metal

☐ Animal Waste

✓ Other (describe): Untreatable soil, spent filter media from water treatment

☐ Waste oil

☐ Greywater

☐ Sludges

X Precipitation and melt water that contacted PHC soil

- 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 |
|--------------------|-----------------------------------|--------------------|-----------------------|-------------------------------|
| Contact Water | Water with petroleum hydrocarbons | Limited | Water Treatment Plant | Discharge as per GN criteria |
| Untreated Soil | Soil with petroleum hydrocarbons | Negligible | | Shipment to approved facility |
| Spent Filter Media | Absorbents with PHCS's | Unknown | Containerize | Approved facility |
| | | | | |

- 16. OTHER AUTHORIZATIONS** – In addition to the sub-surface and surface land use authorizations

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| <p>provided in Block 6, indicate any other authorizations required in relation to the proposed undertaking. For each provide the following:</p> <p>Authorization: _____</p> <p>Administering Agency: _____</p> <p>Project Activity: _____</p> <p>Date (expected date) of issuance: _____ Date of expiry: _____</p> |
| <p>17. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES: No significant impact to environment is anticipated. Water in the containment area will be held/treated until analytical results confirm discharge criteria is met. Applicable discharge criteria has been provided by GN Department of Environment. Discharge will be completed by notifying regulator and agreeing upon suitable discharge schedule and location, and proceeding to pump water to surface at a controlled rate to avoid erosion. Local drainage patterns are expected to lead towards</p> |
| <p>18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER</p> <p>None anticipated.</p> |
| <p>19. INUIT WATER RIGHTS</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>Hamlet of Cambridge Bay—Jim MacEachern, Community Development Officer Kevin Taylor, Land Development Officer</p> <p>Multiple discussions with Cambridge Bay council to agree upon use of hamlet land.</p> |
| <p>21. SECURITY INFORMATION</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 reclamation work done by a third party contractor if the operator defaults.</u> The estimate must also include contingency factors appropriate to the particular work to be undertaken.</p> <p>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 <i>Mine Site Reclamation Policy for Nunavut</i>, Indian and Northern Affairs Canada, 2002.</p> <p>Security Estimate completed using the Reclaim 7.0 calculator as obtained from the Mackenzie Valley Land and Water Board for use in the GNWT. Calculated Security: \$196,000</p> |
| <p>22. FINANCIAL INFORMATION</p> |

| | | |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| | Attached. | |
| 23. | STUDIES UNDERTAKEN TO DATE – Baseline soil and groundwater sampling to occur at the site prior to construction of facility. Archaeological search completed April 18, 2016. | |
| 24. | <p>PROPOSED TIME SCHEDULE – Indicate the proposed start and completion dates for each applicable phase of development (construction, operation, closure, and post closure).</p> <p><u>Construction</u> Proposed Start Date: June 2017 (month/year) Proposed Completion Date: July 2017 (month/year)</p> <p><u>Operation</u> Proposed Start Date: July 2017 (month/year) Proposed Completion Date: July 2022 (month/year)</p> <p><u>Closure</u> Proposed Start Date: July 2022 (month/year) Proposed Completion Date: September 2022 (month/year)</p> <p><u>Post - Closure</u> Proposed Start Date: September 2022 (month/year) Proposed Completion Date: June 2023 (month/year)</p> <p>For each applicable phase of development indicate which season(s) activities occur.</p> <p><u>Construction</u> <input type="checkbox"/> Winter <input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <input type="checkbox"/> Fall <input type="checkbox"/> All season</p> <p><u>Operation</u> <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer <input type="checkbox"/> Fall <input checked="" type="checkbox"/> All season</p> <p><u>Closure</u> <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <input checked="" type="checkbox"/> Fall <input type="checkbox"/> All season</p> <p><u>Post - Closure</u> <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <input type="checkbox"/> Fall <input type="checkbox"/> All season</p> | |
| 25. | <p>PROPOSED TERM OF LICENCE</p> <p>Number of years (maximum of 25 years): 6 years</p> <p>Requested Date of Issuance: June 1, 2017 Requested Expiry Date: June 1, 2023</p> <p>(The requested date of issuance must be <u>at least</u> three (3) months from the date of application for a type B water licence and <u>at least</u> one (1) year from the date of application for a type A water licence, to allow for processing of the water licence application. These timeframes are approximate and do not account for the time to complete any pre-licensing land use planning or development impact requirements, time for the applicant to prepare and submit a water licence application in accordance with any project specific guidelines issued by the NWB, or the time for the applicant to respond to requests for additional information. See the NWB's <i>Guide 5: Processing Water Licence Applications</i> for more information)</p> | |
| 26. | ANNUAL REPORTING – If not using the NWB's <i>Standardized Form for Annual Reporting</i> , provide details regarding the content of annual reports and a proposed outline or template of the annual | |

report.

Annual reporting to include volumes of soil and water/snow received and the source generator, dates of treatment and methods, along with volumes of soil and water removed. All analytical results will be tabulated and provided. Annual report will be completed as per company standards, using the NWB standardized form to complete any additional requirements as per the NWB.

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 _____

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

✓ Yes ☐ No If no, date expected _____

Completed General Water Licence Application form.

✓ Yes ☐ No If no, date expected _____

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 expected _____

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 November 14, 2016

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 ☒ No If no, date expected November 14, 2016

28. SIGNATURE

Josh Foster

Project Manager



Nov.8/2016

Name (Print)

Title (Print)

Signature

Date

