



Aboriginal Affairs and
Northern Development Canada

Affaires autochtones et
Développement du Nord Canada

ENNADAI LAKE REMEDIATION PROJECT



NUNAVUT WATER BOARD
WATER LICENCE APPLICATION

AUGUST 2013



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

Document Date: August 2013

Application Submission Date:

Month/Day/Year

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

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NUNAVUT IMALIRIYIN KATIMAYIT
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

DOCUMENT MANAGEMENT

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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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(9)		
(10)		



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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) Natalie Plato Director, Contaminated Sites Aboriginal Affairs and Northern Development Canada PO Box 2200 Iqaluit NU X0A 0H0 Phone: 867-975-4730 Fax: : 867-975-4736 e-mail: natalie.plato@aadnc-aadnc.gc.ca	2. APPLICANT REPRESENTATIVE CONTACT INFORMATION if different from Block 1 (name, address) N/A Phone: _____ Fax: _____ e-mail: _____ (Attach authorization letter.)
3. NAME OF PROJECT (including the name of the project location) Ennadai Lake, Former Weather Station Remediation Project – 2014-2016 Field Program	
4. LOCATION OF UNDERTAKING Project Extents NW: Latitude: (61°08'07" N) Longitude: (100°53'51" W) NE: Latitude: (61°08'07" N) Longitude: (100°51'46" W) SE: Latitude: (61°07'37" N) Longitude: (100°51'46" W) SW: Latitude: (67°07'37" N) Longitude: (100°53'51" W) Camp Location(s) Latitude: (61°08'03.8" N) Longitude: (100° 51'59.11" W)	
5. MAP - Attach a topographical map, indicating the main components of the undertaking. Maps of the Ennadai Lake Project Area are in Appendix 5.	

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: **February 2nd, 2012** Date of expiry: **March 31st, 2014**

☐ 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:

Aboriginal Affairs and Northern Development Canada – Contaminated Sites

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

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

<input type="checkbox"/> North Baffin	<input checked="" type="checkbox"/> Keewatin
<input type="checkbox"/> South Baffin	<input type="checkbox"/> Sanikiluaq
<input type="checkbox"/> Akunnig	<input type="checkbox"/> West Kitikmeot

Is a land use plan conformity determination required?

☐ Yes ☒ No

If Yes, indicate date issued and attach copy **N/A**.

If No, provide written confirmation from NPC confirming that a land use plan conformity review is not required.

Confirmation from the NPC confirming that a land use plan conformity review not required, is

pending.

8. NUNAVUT IMPACT REVIEW BOARD (NIRB) DETERMINATION

Is an Article 12 Part 4 screening determination required?

☐ Yes

☒ No

If Yes, indicate date issued and attach copy _____

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

The Nunavut Impact Review Board (NIRB) Part 1 and Part 2 Forms are being submitted concurrently with this application. Copies of the forms can be found in Appendices 1 & 2.

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

In October 2013, heavy equipment, camp facilities, material and all consumables will be delivered by sealift to Arviat. All equipment, material and consumables required to achieve the remediation project will be transported by CAT train during the winter 2014 from Arviat to the Ennadai Lake Remediation Site. The permit application for site works and the camp operations at Ennadai Lake will be completed by AANDC. However, the permitting for the overland mobilization falls under the responsibility of Kudlik Construction Ltd.

For further details on CAT train and mobilization strategy please see Appendix 10.

Site remediation activities will include:

- a. Access to site outlined above.**
- b. Establishment of a camp to support site operations.**
- c. Existing site infrastructure will be demolished and demolition wastes will be segregated into hazardous and non-hazardous materials and disposed of properly.**
- d. All hazardous materials will be disposed of, at an off-site licensed disposal facility.**
- e. Non-hazardous wastes will be put in the non-hazardous waste landfill to be constructed.**
- f. Existing landfills/dumps at this site will be remediated as described in the RAP (See Appendix 4).**
- g. A landfarm will be constructed for the treatment of hydrocarbon contaminated soil.**
- h. Contaminated soils will be handled as described in the RAP (See Appendix 4).**
- i. Barrels with like contents will be consolidated, depending on test results the contents will either be incinerated on-site or shipped off site for disposal. Empty barrels will be crushed and put into the non-hazardous waste landfill to be constructed.**
- j. Scattered surface debris and partially buried debris (non-hazardous) will be collected and disposed of in the non-hazardous waste landfill to be constructed.**
- k. Roads and the airstrip will be re-constructed and repaired as required**
- l. Several borrow sources will be developed and the material will be used during the remediation work.**

Site remediation activities will take place on both Crown Land and Inuit Owned Land (IOL). For more details see the Ennadai Lake Remedial Action Plan (Appendix 4) and Ennadai Lake Site Maps (Appendix 5). For additional details you can also see Appendix 6 (Environmental Screening Report).

The final site demobilization will be done during February 2016. All project, supplies, and contaminated material will be shipped off site via CAT train.

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

The Remedial Action Plan (RAP) provided in Appendix 4 considers alternative remedial methods for handling the environmental issues at the site.

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 | <input checked="" type="checkbox"/> Miscellaneous (describe below): |

Preparation for Remediation Project (scheduled to be started in 2014)

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.

- | | |
|--|---|
| <input checked="" type="checkbox"/> To obtain water for camp/ municipal purposes | |
| <input checked="" type="checkbox"/> To obtain water for industrial purposes | <input type="checkbox"/> To divert a watercourse |
| <input type="checkbox"/> To cross a watercourse | <input type="checkbox"/> To modify the bed or bank of a watercourse |
| <input type="checkbox"/> To alter the flow of, or store water | <input type="checkbox"/> Flood control |
| <input type="checkbox"/> Other: _____ | |

- 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):

Ennadai Lake (See Appendix 5)

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

Ennadai Lake was sampled during Environmental Assessment and meets Canadian Drinking Water Quality Guidelines (CDWQG). The lake has sufficient capacity to meet water needs for the project.

Provide the overall estimated quantity of water to be used: _____ **5** _____ m³/day

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

_____ **Ennadai Lake: 5 cubic metres per day** _____

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

_____ **Camp: 5 cubic metres per day** _____

Describe the method of extraction(s): _____ **Submersible Pump** _____

Estimated quantity(s) of water returned to source(s) _____ **0** _____ m³/day

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.

Sewage

☒ Solid Waste

☒ Hazardous

☒ Bulky Items/Scrap Metal

☐ Animal Waste

☐ Other (describe): _____

☒ Waste oil

☒ Greywater

☐ Sludges

☒ Contaminated soil and/or water

- 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
Sewage	Black Water	30 litres/day x 25 people (max) = 750 litres/day	Bionest	Treat and release
Waste Oil	Oil	< 1000 l	Collected in drums	Shipped south for recycling and/or disposal
Solid Waste	Camp waste (Paper,	1.0 cubic metre per day	Incineration (combustible	Packaged and shipped

	packaging, food, etc.)		s only)	off-site for disposal
Greywater	Grey Water	170 litres/day x 25 people (max) = 4,250 litres/day	Bionest	Treat and release
Hazardous Waste – Asbestos	Asbestos containing tiles, insulation, etc.		Double bagged	On site landfill
Hazardous Waste – PCBs, Heavy Metals	Items contaminated with PCBs and Heavy Metals		Material will be packaged as per the requirements of the Transportation of Dangerous Goods Regulations	Shipped south for treatment and/or disposal at Licensed Hazardous Waste Facilities
Contaminated Soil – Tier II	Soil lightly contaminated with metals	Total = 0,5 m ³	Packaged and shipped south for disposal	Packaged and shipped south for disposal

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: _____

Administering Agency: _____

Project Activity: _____

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

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

An Environmental Screening Assessment Report was completed in March 2013. A copy of the report “Environmental Screening Report for the former Ennadai Lake Weather Station Under the Nunavut Impact Review Process: Ennadai Lake, Nunavut” is provided in Appendix 6

18. WATER RIGHTS OF EXISTING AND OTHER USERS OF WATER

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 licences for water use in precedent to the application, domestic users, in-stream users, authorized waste depositors, owners

	<p>of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.</p> <p>NONE</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>N/A</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</p>	<p>– 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>A community meeting to review and discuss the draft Remedial Action Plan (RAP) was held in Arviat in Dec of 2012. The results of this meeting were used to finalize the RAP. Comments were recorded during the community consultation (Many personal stories dating back to the 60s-80s during the active weather station times). An overall concern was with the historical significance at the site. Many local people wanted to ensure that the areas of historical significance would not be disturbed during our remediation activities. Many stories of why these areas are significant were also shared at the meeting. The traditional knowledge provided has allowed a better remediation plan to be developed and has also identified the importance of preserving any archaeological features or artifacts that exist in the area. An Archaeological Impact Assessment of the Ennadai Lake site was completed and can be found in Appendix 8 which details the archaeological features near the site. No concerns were raised with regards to the proposed remediation work during this meeting. Additional community meetings will be held throughout the project to keep community members up to date on project activities and employment/contracting opportunities.</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>N/A</p>
<p>22. FINANCIAL INFORMATION</p>	<p>Provide a statement of financial responsibility.</p> <p>If the applicant is a business entity, provide a list of the officers of the company.</p> <p>If the applicant is a business entity attach a copy of the Certificate of Incorporation or evidence of registration of the company name.</p> <p>N/A</p>
<p>23. STUDIES UNDERTAKEN TO DATE</p>	<p>- List and attach copies of studies, reports, research, etc.</p>

A list of studies, reports, etc. are provided in the table below:

Date	Title	Author	Location
2009	Abandoned Military Sites Remediation Protocol (AMSRP)	INAC	Available Upon Request
2009	Bionest Operators Manual (Waste Treatment)	Kudlik	Available Upon Request
2010	Integrated Phase I and Phase II Environmental Site Assessment KW007 – Ennadai Lake	WESA	Available Upon Request
2012	Ennadai Lake Weather Station Final Phase III ESA	EBA	Available Upon Request
2012	Archaeological Impact Assessment of the Former Ennadai Lake Weather Station	GOLDER	Appendix 8
2013	Ennadai Lake Weather Station Final RAP	EBA	Appendix 4
2013	Environmental Screening Report for the Former Ennadai Lake Weather Station under the Nunavut Impact Review Process - Ennadai Lake, Nunavut.	EBA	Appendix 6

Copies of some of these reports have been provided in the Appendices. Copies of the reports not included will be provided upon request.

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

Construction

Proposed Start Date: February 2014 Proposed Completion Date: March 31 2016
(month/year) (month/year)

Operation

Proposed Start Date: February 2014 Proposed Completion Date: March 31 2016
(month/year) (month/year)

Closure

Proposed Start Date: August 2015 Proposed Completion Date: March 31 2016
(month/year) (month/year)

Post - Closure

Proposed Start Date: October 2015 Proposed Completion Date: March 31, 2016
(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

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IQALUIT#664618 - v2

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 **Submitted same time as Water Licence (August 2013)**

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

☐ Yes ☒ No If no, date expected **September 2013**

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 _____

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 _____

28. SIGNATURE

Natalie Plato

Name (Print)

Director, Lands and
Contaminated Sites

Title (Print)

Natalie Plato

Signature

8/26/13

Date