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

April 2010

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NUNAVUT IMALIRIYIN KATIMAYINGI
NUNAVUT WATER BOARD
OFFICE DES EAUX DU NUNAVUT

DOCUMENT MANAGEMENT

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DOCUMENT AMENDMENTS

	Description	Date
(1)		
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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
Indian and Northern Affairs Canada
PO Box 2200
Iqaluit NU X0A 0H0

Phone: **867-975-4730**
Fax: **867-975-4736**
e-mail: **natalie.plato@inac-ainc.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)

PIN-D Ross Point Intermediate Distant Early Warning (DEW) Line Site Remediation Project

4. LOCATION OF UNDERTAKING

Project Extents

NW:	**Latitude: (68°36'45" N)**	**Longitude: (111°09'45" W)**
NE:	**Latitude: (68°36'45" N)**	**Longitude: (111°05'34" W)**
SE:	**Latitude: (68°35'19" N)**	**Longitude: (111°05'34" W)**
SW:	**Latitude: (68°35'33" N)**	**Longitude: (111°13'35" W)**

Camp Location(s)

Latitude: (68°35'49.00" N) **Longitude: (111°06'50.00" W)**

5. MAP - Attach a topographical map, indicating the main components of the undertaking.

NTS Map Sheet No.: **077B** Map Name: **Richardson Islands** Map Scale: **1/250,000**
NTS Map Sheet No.: **077B12** Map Name: **Johansen Bay** Map Scale: **1/50,000**

Maps & drawings of the PIN-D Ross Point Site are provided 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: **June 1, 2011** Date of expiry: **2 years after issuance**

☑ Inuit Owned Land (IOL) Authorization from Kitikmeot Inuit Association (KIA)
Date (expected date) of issuance: **June 1, 2011** Date of expiry: **2 years after issuance**

☐ 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:

Indian and Northern Affairs Canada – Contaminated Sites

7. NUNAVUT PLANNING COMMISSION (NPC) DETERMINATION

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

☐ North Baffin
☐ South Baffin
☐ Akunniq
☐ Keewatin
☐ Sanikiluaq
☑ 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.

Written confirmation from the NPC confirming that a land use plan conformity determination is provided in Appendix 10.

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.

Please see the PIN-D Remedial Action Plan (RAP) provided in Appendix 4 and the PIN-D Site Maps & Drawings provided in Appendix 5. The principle activities of the project include:

- **Access to site via sealift and fixed wing aircraft.**
- **Establish a camp to support site operations.**
- **Existing site infrastructure will be demolished and demolition wastes will be segregated into hazardous and non-hazardous materials and disposed of properly.**
- **All hazardous materials and soil will be disposed of at an off-site licensed disposal facility.**
- **Non-hazardous wastes will be disposed of in the non-hazardous waste landfill to be constructed.**
- **Existing landfills/dumps at this site will be remediated as described in the RAP.**
- **A landfarm will be constructed for the treatment of hydrocarbon contaminated soil.**
- **Contaminated soils will be handled as described in the RAP.**
- **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 disposed of in the non-hazardous waste landfill to be constructed.**
- **Scattered surface debris and partially buried debris (non-hazardous) will be collected and disposed of in the non-hazardous waste landfill to be constructed.**
- **Roads and the airstrip will be re-constructed and repaired as required**
- **Several borrow sources will be developed and the material will be used to assist in the remediation work.**

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.

- ☐ Industrial
- ☐ Agricultural
- ☐ Mining and Milling (includes exploration/drilling/exploration camps)
- ☐ Conservation
- ☐ Municipal (includes camps/lodges)
- ☐ Recreational
- ☐ Power
- ☑ Miscellaneous (describe below):

Remediation Project

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 divert a watercourse
- ☐ To cross a watercourse
- ☐ To modify the bed or bank of a watercourse
- ☐ To alter the flow of, or store water
- ☐ Flood control
- ☐ 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):
Fresh Water Lake (See Appendix 4, Remedial Action Plan, Figures 1.0 and 3.0). GPS Coordinates are: Latitude: (68°36'49" N), Longitude: (111°07'31" W)

Describe the quality of the water source(s) and the available capacity:
The Fresh Water Lake was sampled during the Phase III and samples met Canadian Drinking Water Quality Guidelines. Prior to using the lake for drinking water it will be sampled and tested again to ensure it meets Canadian Drinking Water Quality Guidelines. The lake has sufficient capacity to meet the water needs of the project.

Provide the overall estimated quantity of water to be used: **7.0** m^3/day

115 Litres/Day/Person x 50 People (max) = 5,750 Litres/Day
1,250 Litres/Day for miscellaneous activities (i.e. washing equipment & drums)

Provide the estimated quantity(s) of water to be used from each source:
Fresh Water Lake – 7.0 Cubic Metres/Day

Indicate the estimated quantities to be used for each purpose (camp, drilling, etc.)
Camp Operation = 5,750 Litres/Day
Miscellaneous Activities (i.e. equipment and drum washing) = 1,250 Litres/Day

Describe the method of extraction(s):
Water will be extracted using an intake hose with a screen (maximum screen size of 2.54 millimetres and maximum screen approach velocity of 0.038 metres/second) to ensure no fish become trapped. Water will be pumped from the lake (from an area where the water is at least 2 metres deep) into a tank on either a truck or trailer and transported to the camp where it will be pumped into the camp tank.

Estimated quantity(s) of water returned to source(s) **0** m^3/day

Describe the quality of water(s) returned to source(s): **Not applicable**

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 50 people (max) = 1,500 litres/day	Sewage Lagoon	Sewage Lagoon	
Waste Oil	Oil	0.001	Collected in drums	Shipped south for recycling and/or disposal	
Solid Waste	Camp waste (Paper, packaging, food, etc.)	1.0 cubic metre per day	Incineration (combustibles only)	Disposal in the Non-Hazardous Waste Landfill	
Greywater	Grey Water	80 litres/day x 50 people (max) = 4,000 litres/day	Sewage Lagoon	Sewage Lagoon	
Non-Hazardous Waste	Building materials (i.e. metal, wood)	Total = 800 m^3	None	Disposal in the Non-Hazardous Waste Landfill	
Hazardous Waste – Asbestos	Asbestos containing tiles, insulation, etc.	Total = 60 m^3	Double-bagged in Yellow bags, placed in a barge container and shipped to PIN-D Ross Point	Disposal in the Non-Hazardous Waste Landfill	
Hazardous Waste – PCBs, Heavy Metals	Items contaminated with PCBs and Heavy Metals	Total = 40 m^3	Material will be packaged as per the requirements of the Transportation of Dangerous Goods Regulations	Shipped south for treatment and/or disposal at Licenced Hazardous Waste Facilities	
Contaminated Soil – Tier I	Soil lightly contaminated with inorganic elements and/or PCBs	Total = 204 m^3	None	Disposal in the Non-Hazardous Waste Landfill	
Contaminated Soil – Tier II	Soil moderately contaminated with inorganic elements and/or PCBs	Total = 244 m^3	Material will be packaged as per the requirements of the Transportation of Dangerous Goods Regulations	Shipped south for treatment and/or disposal at Licenced Facilities	
Contaminated Soil – Hydrocarbons	Soil contaminated with hydrocarbons	Total = 622 m^3	Bioremediation via Landfarming	N/A	

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:
None

Administering Agency:
Not applicable

Project Activity:
Not applicable

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 Assessment Screening for the project was completed in March 2010. A copy of the report "Environmental Assessment Screening Report: PIN-D, Ross Point Intermediate DEW Line Site" 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 of property, occupiers of property, and/or holders of outfitting concessions, registered trapline holders, and holders of other rights of a similar nature.

None

Advise the Board if compensation has been paid and/or agreement(s) for compensation have been reached with any existing or other users.

N/A

19. INUIT WATER RIGHTS

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).

None

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.

A community meeting to review and discuss the draft Remedial Action Plan (RAP) was held in Kugluktuk in January 2010. The meeting was held in the Copper Room at the Community Centre on January 27, 2010 at 19:00. The results of this meeting were used to finalize the RAP.
- No concerns were raised during this meeting.

The project was also discussed at a meeting with the Kitikmeot Inuit Association (KIA) on the afternoon of January 27, 2010. This meeting took place at the KIA office in Kugluktuk and involved Geoff Clarke - Director of Lands and Environment, Stanley Anablak - Lands Inspector, and Luigi Torretti - Senior Environmental Officer.
- Concerns during this meeting related to activities taking place on Inuit Owned Land (IOL). To address this we will limit the activity on IOL to necessary activities only. All borrow areas, landfarms, landfills and other structures will be constructed on Federal Crown Lands.

Additional community meetings will be held throughout the project to keep community members up to date on project activities and employment/contracting opportunities.

21. SECURITY INFORMATION

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.

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.

N/A

22. FINANCIAL INFORMATION

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.

N/A

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

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

DATE	TITLE	AUTHOR
1995	Environmental Study of Abandoned DEW Line Sites III. One Auxiliery and Eight Intermediate Sites in the Canadian Arctic. Volumes 1, 2 & 3	Environmental Sciences Group, Royal Roads Military College
2005	Draft Report on Human Health Screening Level Risk Assessment for Ross Point, PIN-D, Former Military Site	SENES Consultants Limited
2009	Phase III Environmental Site Assessment PIN-D Ross Point Intermediate DEW Line Site	AECOM Canada Limited
2010	Remedial Action Plan PIN-D Ross Point intermediate DEW Line Site	AECOM Canada Limited
2010	Environmental Assessment Screening Report: PIN-D Ross Point Intermediate DEW Line Site	AECOM Canada Limited
2010	Archaeological Impact Assessment (AIA) of the PIN-D Intermediate DEW Line Site, Ross Point, Nunavut	Golder Associates Limited

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: **August 2011** (month/year) Proposed Completion Date: **October 2012** (month/year)

Operation
Proposed Start Date: **August 2011** (month/year) Proposed Completion Date: **October 2012** (month/year)

Closure
Proposed Start Date: **September 2012** (month/year) Proposed Completion Date: **December 2012** (month/year)

Post - Closure
Proposed Start Date: **October 2012** (month/year) Proposed Completion Date: **March 2013** (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): **Five (5)** years

Requested Date of Issuance: **July 2011** (month/year) Requested Expiry Date: **July 2016** (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 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 – 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.

Will use the NWB Standardized Form for Annual Reporting.

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 **May 2011**

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	Director, Contaminated Sites	Natalie Plato	April 7, 2011
Name (Print)	**Title (Print)**	**Signature**	**Date**