



Effective January 1, 2004

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NUNAVUT WATER BOARD
NUNAVUT IMALIRIYIN

WATER LICENCE APPLICATION FORM

Application for: (check one)

☒ **New** ☐ **Amendment** ☐ **Renewal** ☐ **Assignment**

LICENCE NO:

(for NWB use only)

1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE

Philip Warren, PMP, P.Eng., Environmental Officer
Defence Construction Canada
Constitution Square, Suite 1720
350 Albert Street
Ottawa, ON K1A 0K3

Phone: 613-998-7288

Fax: 613-998-0468

E-mail: Philip.Warren@dcc-cdc.gc.ca

As administered by:

Eva Schulz, P.Ag., Environmental Scientist
2540 Kensington Road NW
Calgary, AB T2N 3S3

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E-Mail: Eva.Schulz@uma.aecom.com

2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)

Phone: _____

Fax: _____

e-mail: _____

3. LOCATION OF UNDERTAKING (describe and attach a topographical map, indicating the main components of the Undertaking)

The FOX-3, Dewar Lakes DEW Line site is located in the central area of Baffin Island in the Nunavut Territory. The station is approximately 6 km north of Dewar Lakes, near which the airstrip was built.

Latitude: 68°40'N Longitude: 71°14'W NTS Map No. 37A Scale 1:50,000

4. DESCRIPTION OF UNDERTAKING (attach plans and drawings)

A multi-party team will conduct a site investigation on behalf of the Department of National Defence and Defence Construction Canada to collect data required to finalize design and logistics plans for the clean up of the FOX-3 site.

Site Investigation activities include the following:

- Collection of soil samples to delineate known areas of contaminated soil. Subsurface samples will be collected from test pits excavated using a mini-excavator.

- Collection of water samples, which may include both surface and groundwater samples. Temporary groundwater monitoring wells may be installed in test pits.
- Collection of structural material samples.
- Inventory of buildings and facilities on-site.
- Identification of surface debris areas.
- Geophysical survey of landfills to determine the lateral extent of buried waste.
- Identification of potential sources of granular material required for the clean up activities.
- Identification of potential locations of new landfills, storage areas, construction camp, etc. required during the clean up.
- Completion of topographic and location surveys.

Post Investigation

- Upon completion of the investigation work, the site will be restored as follows:
- All excavated test pits will be backfilled.
- Laboratory waste will be containerized and stored (in an on-site building) for disposal during clean up.
- Camp facilities and equipment will be removed from the site. Excess fuels and laboratory wastes are labeled and stored in an on-site building for use or disposal during the site clean up.

5. TYPE OF PRIMARY UNDERTAKING (A supplementary questionnaire must be submitted with the application for undertakings listed in “**bold**”)

- | | |
|---|--|
| <input type="checkbox"/> Industrial | <input type="checkbox"/> Agricultural |
| <input type="checkbox"/> Mining and Milling | <input type="checkbox"/> Conservation |
| <input type="checkbox"/> Municipal (includes camps/lodges) | <input type="checkbox"/> Recreational |
| <input type="checkbox"/> Power | <input checked="" type="checkbox"/> Miscellaneous (includes exploration/drilling) |
- (describe): A temporary camp will be established at the FOX-

3 site to facilitate the site investigation activities.

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

6. WATER USE

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

7. QUANTITY OF WATER INVOLVED (cubic metres per day including both quantity to be used and quality to be returned to source)

It is estimated that domestic water use for the site investigation will be up to 3000 litres/day. Water for the camp will be obtained from the water supply lake. No water will be returned to the source.

8. WASTE (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Sewage | <input type="checkbox"/> Waste oil |
| <input checked="" type="checkbox"/> Solid Waste | <input checked="" type="checkbox"/> Greywater |
| <input type="checkbox"/> Hazardous | <input type="checkbox"/> Sludges |
| <input checked="" type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Other (describe): _____ |

Sewage generated by camp activities will be discharged into pit toilets or incinerator toilets. Latrine wastes or residuals from the incinerator toilets will be buried on-site. Greywater will be discharged to a greywater pit located a minimum of 30

m from natural water bodies or drainage courses. The greywater pit will be backfilled prior to departure from the site. Non-hazardous combustible solid wastes will be incinerated on-site. Ash and residual wastes will be buried. Laboratory waste, non-combustibles and excess fuels will be packaged and stored in an on-site building, such as the warehouse or hangar, for use and/or disposal during the site clean up. Camp facilities and equipment will be removed from the site during demobilization.

9. PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING (give name, mailing address and location; attach if necessary)

Land Use Permit

DIAND ☒ Yes ☐ No If no, date expected _____
A land use permit has been applied for, but has not yet been received.

Regional Inuit Association ☐ Yes N/A No If no, date expected _____

Commissioner ☐ Yes N/A No If no, date expected _____

10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)

NIRB Screening ☒ Yes ☐ No If no, date expected _____

The following Environmental Impact Summary Table provides the identified impacts associated with the site investigation activities at the FOX-3 site and the required mitigative actions.

Description	Significance	Monitoring/Mitigation Requirements
Degradation of permafrost due to test pit excavation.	Potentially significant in excavations in ice-rich ground.	<ul style="list-style-type: none"> Backfill excavation as soon as practical.
Potential risks to soils, terrestrial and aquatic habitat and human safety from accidental events, such as fuel spills.	Potentially significant in the case of spillage.	<ul style="list-style-type: none"> Development of and adherence to a contingency plan outlining procedures to follow in the event of an accidental spill, including secondary containment. Training and education of personnel in emergency procedures. Proper fuel handling and storage techniques.
Disruption of heritage sites from test pit excavation and activities of on-site personnel.	Potentially significant on previously undisturbed areas.	<ul style="list-style-type: none"> Report and record any features of potential interest, ensure areas are clearly marked. Monitor during excavation for additional features. All personnel to be discouraged from visiting archaeological and other heritage sites.
Effect of site investigation activities and/or personnel on habitats and vegetation.	Potentially significant on previously undisturbed areas.	<ul style="list-style-type: none"> Use of ATVs and other vehicles to be restricted to existing roadways (where possible).
Effect of site investigation activities on wildlife (i.e., noise or other disturbances)	Potentially significant on sites where wildlife is noted.	<ul style="list-style-type: none"> Avoid wildlife during site investigation activities.
Effect of camp operations on habitats,	Potentially significant in previously	<ul style="list-style-type: none"> Locate the camp and storage areas

wildlife, vegetation and heritage resources.	undisturbed areas and areas where wildlife is noted.	on previously disturbed areas and at least 30 m from the nearest water body. <ul style="list-style-type: none"> • Avoid locating the camp in areas containing archaeological/heritage features. • Store camp kitchen waste in animal; proof containers to prevent scavenging by wildlife. • Dispose of domestic garbage and sewage as required in the land use permit and water use license.
Use of local services and northern residents during implementation of site investigation activities.	Positive impact on northern socio-economic development.	<ul style="list-style-type: none"> • Maximize employment and business opportunities in the North.

11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No

11. (Continued)

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

N/A

12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

The camp outfitter and transportation contracts for the site investigation have not been offered for tender yet.

13. STUDIES UNDERTAKEN TO DATE (list and attach copies of studies, reports, research, etc.)

- A Due Diligence clean up was completed in 2003 to address hydrocarbon contaminated soils that were in close proximity to the marine environment.
- A report entitled, *Project Description for Nunavut Impact Review Board, Clean Up of Fifteen DEW Line Sites in the Nunavut Settlement Area*, was submitted to the NIRB in 1998.
- A document entitled, *Environmental Clean Up Study of 21 DEW Line Sites in Canada*, Final Report June 1991 Volume 18 FOX-3 Dewar Lakes, NWT, was completed by UMA in 1991.

14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected _____

Inuktitut/English Summary of Project ☒ Yes ☐ No If no, date expected _____

Application fee \$30.00 (Payee Receiver General for Canada) ☐ Yes ☒ No If no, date expected _____

Water Use fee (see Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada) ☐ Yes ☐ No If no, date expected _____

15. PROPOSED TIME SCHEDULE

☒ Annual (or) ☐ Multi Year

Start Date: May 2006

Completion Date: September 2006

Eva Schulz
Name (Print)

Environmental Scientist
Title (Print)


Signature

January 5, 2006
Date

For Nunavut Water Board use only

APPLICATION FEE Amount: \$ _____ Pay ID No.: _____

WATER USE DEPOSIT Amount: \$ _____ Pay ID No.: _____