

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6500 000 004
NWB File: 2AC-ALT1929



May 1, 2020

via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager Licencing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

RE: 8AC-ALT1929 – Department of Defense – Alert Station – Water Management Plan, Wastewater Management Plan including a Sewage Sludge Management Plan

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned plans. You will find our Final Written Submission attached.

ECCC's specialist advice is based on our mandate pursuant to the *Canadian Environmental Protection Act* and the pollution prevention provisions of the *Fisheries Act*.

ECCC is providing the following comments:

1. Terminology

Reference(s)

- Fresh Water, Sewage, and Waste Water Management Plan Canadian Forces Alert, Nunavut In support of the Nunavut Water Board Licence No. 8AC-ALT1929. January 2020. 8 Wing Environment Office CFB Trenton

Comment

The Water Licence defines the wastewater treatment system as the Terrace Wetland Treatment Area, while the plan uses the term Sewage Terrace System.

ECCC Recommendation(s)

ECCC recommends that the proponent use the same terminology in the Sewage Treatment Plan for the treatment system as is in the water licence.



2. Acronyms

Reference(s)

- Fresh Water, Sewage, and Waste Water Management Plan Canadian Forces Alert, Nunavut In support of the Nunavut Water Board Licence No. 8AC-ALT1929. January 2020. 8 Wing Environment Office CFB Trenton
 - Section 1 Acronyms

Comment

This section includes acronyms that do not appear in the document, and a list of items that do not have acronyms.

ECCC Recommendation(s)

ECCC recommends that for clarity, the proponent review the acronyms, delete those that are not applicable and provide acronyms for relevant items in the list of standards at the bottom.

3. Disposal of effluent from the Land Farm and Bulk Fuel Storage Facility

Reference(s)

- Fresh Water, Sewage, and Waste Water Management Plan Canadian Forces Alert, Nunavut In support of the Nunavut Water Board Licence No. 8AC-ALT1929. January 2020. 8 Wing Environment Office CFB Trenton
 - Section 4.2 Land Farm Discharge/Outfall Locations

Comment

Section 4.2 provides the water licence discharge criteria for discharges from the bulk fuel storage facilities and the land farm. However, section 4.2 does not identify where wastewater is released nor volumes of wastewater to be managed.

ECCC Recommendation(s)

ECCC recommends that the management plan identify discharge locations and effluent volumes for all wastewater streams.

4. Maintenance Records

Reference(s)

- Fresh Water, Sewage, and Waste Water Management Plan Canadian Forces Alert, Nunavut In support of the Nunavut Water Board Licence No. 8AC-ALT1929. January 2020. 8 Wing Environment Office CFB Trenton - Section 4.3.1 Operation and Maintenance Protocols

Comment

The Terrace Wetland Treatment System has been in operation for almost 10 years. Unfortunately, maintenance records have not been kept for the system. Ongoing issues with erosion, wash-outs and/or short-circuiting have necessitated annual maintenance.

Design drawings have been developed for upgrading of the terrace to stabilize it to withstand freshet, and this work should be done as soon as possible. In the interim, the proponent should track maintenance activities. Tracking and recording maintenance activities will document efforts taken to reduce stability issues at freshet, and will potentially provide an indication of effectiveness for ongoing mitigation.

ECCC Recommendation(s)

ECCC recommends that maintenance records for the Terrace Wetland Treatment System be tracked and recorded going forward.

5. Sampling and maintenance checklist

Reference(s)

- Fresh Water, Sewage, and Waste Water Management Plan Canadian Forces Alert, Nunavut In support of the Nunavut Water Board Licence No. 8AC-ALT1929. January 2020. 8 Wing Environment Office CFB Trenton
 - Section 2. Introduction
 - Section 5. Sampling, Monitoring, and Reporting

Comment

Section 2 describes the purpose of the plan, and includes the statement that *“This plan will be updated to include plans and upgrades to the water treatment system as required/planned. It will also include in appendixes any operations manuals, SOP’s and other documentation required to provide additional relevant information for this document.”*

Section 5 states that daily checklists related to the to the Operation & Maintenance Plan (O&M) requirements are completed for the facilities, and will report any upset conditions that require action.

Future updates to this plan should include a copy of the wastewater-related checklists as an appendix to the plan, as well as other operational documentation.

ECCC Recommendation(s)

ECCC recommends that checklists and operations and maintenance documentation be included with the Wastewater Management Plan.

If you need more information, please contact Eva Walker at (867) 669-4744 or Eva.Walker@Canada.ca.

Sincerely,

[original signed by]

Eva Walker
Senior Environmental Assessment Coordinator

Attachment(s):

cc: John Olyslager, Acting Head, Environmental Assessment North (NT and NU)