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RE: NWB5RES – Indian and Northern Affairs Canada - Resolution Island Monitoring Plan

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

Overall, EC finds the Monitoring Plan clearly laid out and sufficient for the purposes of ensuring contaminates do not migrate on site. The Plan indicates that monitoring will be carried out annually until 2011, at which time a review of the monitoring results will be conducted. If results warrant, a decrease in monitoring frequency will occur with additional monitoring events occurring in 2013, 2016, 2021, 2026, and 2031, as per the DND/NTI DEW Line Clean-up Agreement. While the Plan was only recently circulated for review, given that it was originally submitted to the Nunavut Water Board in 2003, EC would like to commend INAC for its proactive approach to planning for post-closure monitoring.

Environment Canada proposes that the following recommendations be incorporated into the Plan in order to help clarify certain aspects:

General

- Table 2 outlines the proposed monitoring requirements for both new landfills and old dumps. However, details regarding the parameters to be monitored are not provided. Environment Canada recommends that the monitoring program encompass the same constituents that were the focus of remediation activities at the site.
- Given that the Plan was originally submitted in 2003, EC recommends that the location of all monitoring points and well be verified against as-built drawings.

Section 1.1 - New Landfills

Tier II Landfill

The Plan states that remediation steps will be required if analytical results show a
 "significant increase" in contamination. Environment Canada recommends that Plan
 quantify what constitutes a significant increase. It is recommended that if the analytical
 results reveal contamination levels higher the initial remediation criteria, remedial actions be
 put into place.



 Indian and Northern Affairs Canada should ensure that equipment is available to mobilize to site if required, if monitoring reveals that any earthworks are required (i.e. due to settling, erosion, etc... at landfills).

Section 1.3 – Interceptor Barriers

• The Monitoring Plan should clearly indicate that any silt collected by the barriers will be shipped off site for treatment/disposal, as all landfills on site are now closed.

Section 1.5 Monitoring Schedule

Environment Canada recommends that the full review of the monitoring data that will occur
in the fifth year be submitted to the Nunavut Water Board and circulated to the distribution
list for comment.

If there are any changes in the proposed plan, EC should be notified, as further review may be necessary. Please do not hesitate to contact me with any questions or comments with regards to the foregoing at (867) 975-4639 or by email at colette.spagnuolo@ec.gc.ca.

Yours truly,

Original signed by

Colette Spagnuolo Environmental Assessment / Contaminated Sites Specialist

cc: (Stephen Harbicht, Head, Assessment and Monitoring, Environment Canada, Yellowknife)

