Environment and Climate Change Canada | Environnement et Changement climatique Canada

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

August 14, 2017

ECCC File: 6300 000 034 /002
NWB File: 1BR-CST1723

Ida Porter
Licence Administrator
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Via email: licensing@nwb-oen.ca

RE: 1BR-CST1723 – Kitnuna Environmental Ltd. – Cambridge Bay Water and Soil Treatment Facility – Water Monitoring Plan

Attention: Ida Porter

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Water Monitoring Plan. ECCC's specialist advice is provided based on our mandate, in the context of the *Canadian Environmental Protection Act*, the pollution prevention provisions of the *Fisheries Act*, the *Migratory Birds Convention Act,* and the *Species at Risk Act*.

The following comments are provided:

1. Table 3-1 Groundwater Monitoring Parameters table lists total metals as required by the water licence 1BR-CST1723 Part K.5. Groundwater metals are typically measured as dissolved, but ECCC notes that total metals should be used for comparison to the Canadian Council of Ministers (CCME) guidelines.

   ECCC recommends that Kitnuna Environmental Ltd. (the Proponent) measure both total and dissolved metals for the first few sampling events in order to characterize what is most likely to be moving through the active layer.

2. Station CST-1 is a single discharge station used for effluent discharge monitoring, but the licence Part K.3. and the Water Monitoring Plan indicate there may be more than one site used for discharge. The Proponent did not mention that Surface Erosion would be visually monitored at monitoring station CST-1.

   ECCC recommends that the Proponent provide clarification of discharge locations in future plan submissions, with distinguishing station names assigned to multiple locations (e.g. CST-1a, etc.). ECCC also recommends that the Proponent monitor the discharge location for surface erosion caused by the effluent discharge.

3. Section 6.0, Monitoring and Sampling Methodology, indicates that during each groundwater sampling event, monitoring wells will be measured for depth to Light Non-Aqueous Phase Liquids (LNAPL) using an interface probe, but the Proponent does not state which type of probe will be used.

   ECCC recommends that the Proponent clarify which type of probe will be used to detect LNAPL depth.

4. Section 7.0 describes Quality Assurance and Quality Control (QA/QC) that will be employed by the Proponent during their water monitoring.

   ECCC recommends that the Proponent include a travel blank and a field blank, per sampling event for QA/QC. ECCC also recommends that field probes be calibrated and that this be included in the QA/QC section.

5. Figure 1 provides the location of the Soil and Water Treatment Facility.
   ECCC recommends that the Proponent include a figure that includes a map of the facility site that includes topography and surficial materials, as well as the location of sampling stations and the distance of these stations from various waterbodies.

Should you require further information, please do not hesitate to contact me at (867) 669-4746 or Gabriel.Bernard-Lacaille@canada.ca.

Sincerely,

GBLacaille

Gabriel Bernard-Lacaille
Environmental Assessment Coordinator

cc: Melissa Pinto, Senior Environmental Assessment Coordinator
Georgina Williston, Head, Environmental Assessment North (NT and NU)