



PO Box 92, 10 Omilik Road
Cambridge Bay, NU X0B 0C0

November 8, 2016

Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0B 1J0

Re: Cambridge Bay Soil and Water Treatment Facility

Kitnuna Environmental Ltd. (KEL) is pleased to submit the attached General Water License Application and supporting technical information for the Cambridge Bay Soil and Water Treatment Facility, to be located adjacent to the Hamlet of Cambridge Bay, Nunavut. This facility will serve to accept soil and water/snow impacted with petroleum hydrocarbons from commercial, industrial and residential spill sites and remediation projects in the Cambridge Bay area.

The construction of an engineered cell, that is lined and bermed, would occur on land provided by the Hamlet of Cambridge Bay, adjacent to their sewage lagoon. This piece of land is scheduled to have surveying completed prior to construction to determine all property lines. Once constructed, impacted soil would be hauled to the facility from locations of petroleum hydrocarbon leaks and spills. The soil will be segregated to avoid co-mingling, and aeration of the soil would occur by manually moving the piles using an excavator. If required, the addition of moisture or chemical amendments will be made to increase the degradation of organics. The soil will be sampled and analyzed at an approved laboratory to ensure it meets reuse criteria, and it can then be transported offsite and used as cover material at the Cambridge Bay landfill.

Impacted water and snow will be delivered to the site and placed in a separate cell, that is lined and bermed. As required, the water will be treated through a package treatment plant to remove sediments and any organics. The treated water will be sampled and analyzed at an approved laboratory to ensure that it meets the discharge requirements set forth by the Government of Nunavut and the Nunavut Water Board.

Water contaminated with petroleum hydrocarbons will be collected, treated and discharged once it meets criteria. No other water use will occur onsite, and no water will return to a source.

Maximum water cell storage at the facility will be approximately 170m³ and it is anticipated that at most 30m³ of water will be treated in any given day based on available storage space for treated water. Discharge of water will not exceed 30m³ in any 24 hour period and discharge will be done at an agreed upon location and care will be taken to ensure that no undue erosion of sediments occurs.



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A portion of the engineered cell adjacent to the soil receiving area will be designated for the temporary safe storage of hazardous waste items (ie. Waste oils, lubricants) that are awaiting re-containerization and/or shipment to approved facilities.

Waste generated at the facility will include spent filter media from the water treatment plant, which will be containerized and shipped for disposal. Some soil and water may be deemed to be untreatable, at which point they will be packaged and shipped for disposal at an approved facility. These quantities are expected to be negligible.

It is anticipated that providing a location for the treatment of impacted soil and water will have a positive impact on the community and the environment. Soil and groundwater at the location of the facility will be monitored prior to construction, during operation and upon closure to ensure that no adverse impacts occur from the operation of the facility.

KEL is proposing to operate the facility for five years at which time the agreement can be reviewed and evaluated to determine the ongoing suitability of its operations.

Please do not hesitate to contact KEL if you have any questions.

Sincerely,

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