

Upgrade the existing municipal potable water supply for the Hamlet of Kugluktuk, Nunavut.

The current Kugluktuk water supply system consists of a dual intake located in the Coppermine River, approximately 1.5 to 2 m above the river bed and approximately 35 m from shore. The pump flow rate is usually around 600 to 675 L/m. The system also includes an auxiliary surface intake, which can be operated in winter through a hole in the ice. The pumps are operated from a pumphouse on the river bank. Water from these intakes is treated for residential use. In addition, 90,000 L are stored for fire fighting. Current annual usage is reported to be 77,015 m³, an average of approximately 211 m³/day. The raw water is treated by cartridge filtration and chlorination prior to trucked distribution.

The design process for a new intake is currently underway.

Sewage Lagoon and Solid Waste Facilities:

Currently, the Hamlet of Kugluktuk operates a single wastewater lagoon with effluent discharge to a naturally occurring wetland, which eventually discharges approximate 3 km north into the Coronation Gulf. The wastewater from the Hamlet is collected by truck and deposited in the lagoon, which is approximately 5 km from the community. There have been no complaints regarding odors.

The new sewage lagoon will be sited adjacent to the existing lagoon. It will have a volume capacity of approx. 130,600m³. The lagoon design dimensions are 223m length, 223m width with a depth of 3.0m. Sloped berms and a 1.5m high fence surround the lagoon as per original design. This Lagoon is lined with liner. As built dimensions will be provided as soon as available. The fence will have gates at the truck-loading area and the effluent discharge pipe.

Annual Decanting will commence just after break up (possibly mid- June) and will continue throughout the warm weather until freeze up (towards end of September or early

October) to take best advantage of the treatment provided by the wetland to the ocean outfall.

The existing solid waste landfill site is post and wire fenced enclosing an area of 1.2 ha. It is located 4.5 km west of the Hamlet. The un-bermed disposal area is 8,220 m², with a maximum depth of 1.5m. Selected solid waste is burned regularly (daily). A separate bulky waste site occupies an area adjacent to the solid waste site. New Hazardous waste facility constructed within the perimeter of Solid Waste Management Facility to manage wastes in a central fenced and controlled location. The area lined with HDPE geomembrane and surrounded with a perimeter berm.

New Landfarm facility constructed to remediate hydrocarbon contamination from soils. This facility consists of berm. The area lined with HDPE geomembrane and surrounded with perimeter berm. The upper surface of landfarm remain uncovered to facilitate air contact.