



Department of Community and Government Services
Nunalingni Kavamatkunnilu Pivikhaqautikkut
Ministère des Services Communautaires et gouvernementaux

Executive Summary

This application is being submitted to the Nunavut Water Board (NWB) by the Government of Nunavut, Department of Community and Government Services (CGS) on behalf of the Hamlet of Arviat for the Amendment/Renewal of Water Licence No. 3AM-ARV1015 (3AM-ARV1016 Short Term Renewal) for changes to several conditions of the original licence. Changes from the previous licence include: a new water treatment plant, a third raw water reservoir, and increasing the annual pumping volume from Wolf River to the raw water reservoirs. There are also near future plans to expand the currently operating sewage lagoon, and future plans to expand or move the solid waste disposal facility which documentation and correspondence will be provided when available. The Hamlet is seeking a 10-year renewal of the previous water licence, which would be valid to the end of 2031.

The Hamlet of Arviat obtains its water from Wolf River, located 8.0 km southwest of the Hamlet. The current authorized quantity of water used is not to exceed 86,000 m³ annually which is pumped from Wolf River and transferred via overland pipeline to three water reservoirs in the community. The water reservoirs have an approximate combined storage capacity of 235,393 m³; Cell 1 has a capacity of 74,117 m³, Cell 2 has a capacity of 57,849 m³, and Cell 3 has an approximate capacity of 103,427 m³. A new water treatment and truckfill station adjacent to the reservoirs provides treatment of the water through a series of strainers, media filters, cartridge filters, and UV disinfection, followed by a chlorination disinfection system for contact time. The facility then pumps water into the water trucks through two separate truckfill arms for delivery.

The Amendment/Renewal application is requesting that the amount of water authorized be increased to 235,393 m³ annually to meet the current and future water demands of the community. Since this volume remains well less than the 1% (0.22%) of the estimated annual Wolf River catchment recharge rate of 107,128,416 m³, the increased pumping should not affect water levels of the river.

The Hamlet of Arviat provides daily trucked sewage collection service. The sewage is trucked to a sewage lagoon approximately 2.8 km southwest of the Hamlet that was commissioned in 2005. Effluent seeps at a slow continuous rate through the exfiltration lagoon berm and into the wetland treatment area. The effluent travels through the wetland treatment area towards Hudson Bay, approximately 100 m from the discharge point.



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