

Partnering with First Nations

Moose Cree First Nation

Moose Factory Island, Ontario



THE SITUATION

Lack of certified operators and a crisis situation with a water intake

Operation and maintenance of the Moose Factory Water Treatment Plant reached a critical point in 2006. The isolated community, 300 km north of Timmins at the mouth of the Moose River, was facing serious challenges in recruiting certified operators for the plant and, as a result, was unable to perform some of the maintenance, repairs and operational duties needed for optimal plant performance.

Not only was this situation jeopardizing the supply of clean safe water for the community of about 2,600 people, it was also a major concern for the Weeneebayko General Hospital, which is located on the island and is the only medical facility for the region.

That same year, during the spring thaw, heavy ice break up in the tidally influenced Moose River destroyed a significant portion of the plant's water intake, causing a crisis situation as the community lost its water supply.



OCWA'S RESPONSE

Timely technical response and some operational ingenuity

In early 2006, Health Canada contracted OCWA to assess the plant and develop a plan to restore to full operational status. OCWA staff took action to upgrade components such as pumps, chemical feed equipment and monitoring equipment.

OCWA also worked with Health Canada and Indigenous and Northern Affairs Canada (INAC) to obtain funding for a Supervisory Control and Data Acquisition (SCADA) system. The repairs restored the automated functions of the plant such as flow control, chemical dosing, monitoring, performance data logging and alarms.

These efforts resulted in a dramatic improvement in water quality and reliability, along with a significant reduction in operational costs. Two full-time operators could now safely operate the plant, since many of the process steps that were done manually, were now back to computer control. Chemical costs also decreased substantially as more precise plant control lowered consumption and corresponding purchasing and transportation costs, which can be very high due to the community's remote location.

Fortunately, the OCWA personnel were already in the community when the intake was damaged by ice, enabling them to quickly respond to the crisis. The team built a floating raft with two pumps that feed water through flexible lines connected to the original damaged intake line. This design lets the raft maintain a stable position in the river as the level changes with the tide.



THE IMPACT

Clean, safe water and a strong, collaborative relationship

Today, OCWA employs and trains members of the Moose Cree First Nation to operate the water treatment plant, facilitating the five-year process to achieve a Class 2 water treatment operator certification. Although the community is not bound by provincial water treatment regulations, it has set Ontario regulation 170/03 as the benchmark and strives to consistently achieve that standard for drinking water quality and safety.

An OCWA trainer visits the community monthly to assist with maintenance, answer questions and deliver continuing education courses. The community is also working with OCWA to develop a plan and to secure funding for a new, permanent repair to the water plant's damaged intake pipe.

"We've built a strong relationship with OCWA and its services are very important to our community," says Abel Wapachee, Director of Public Works, Moose Cree First Nation. "They know our community extremely well and play a major role, not only in day-to-day operations, but also in the planning and management of our water and wastewater services."

Wapachee, who started his current role in 2006, says his two main priorities have always been to provide the Moose Cree First Nation with the same level of water and wastewater services as the rest of the province.

Having built a strong, trusting relationship with OCWA, Moose Cree collaborated with the Agency again in 2009, when the community was having difficulty managing flows, treatment and repairs to its wastewater facility.

The community worked with OCWA to address several electrical and pumping problems in the lift stations, and are now working together to replace aeration components in the lagoons. As part of the partnership, OCWA also provided initial operational oversight for the lagoons and training for Moose Cree wastewater operators.

OCWA staff continue to visit the plant monthly to perform inspections, offer advice and provide training to help staff achieve Class 1 certification for wastewater treatment and collection.

“Through our partnership with OCWA, our community is taking responsibility for the safe and efficient operation of our treatment facilities.”

— Abel Wapachee, Director of Public Works, Moose Cree First Nation

"We have a truly collaborative relationship—we're always learning from each other," says Eric Nielson, OCWA Northeast Regional Hub Manager. "OCWA operations staff look forward to visiting the community every month to provide ongoing mentorship to their Moose Cree colleagues."

"Through our partnership with OCWA, our community is taking responsibility for the safe and efficient operation of our treatment facilities," Wapachee says. "We're very proud to be doing this, and are working with OCWA to recruit and develop Moose Cree operators, as well as ways to bring additional training and a strong network of operational expertise to other communities in our region that face challenges similar to ours."

Trust. It flows from experience & commitment.

GET IN TOUCH

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