



# Town of Moosonee

## The Power of Partnership and Innovation

Showcasing Water Innovation (SWI) was launched by the Province of Ontario (Canada) with the goal of funding projects from which other communities could learn and be inspired. Projects selected for the SWI fund needed to be leading-edge, innovative, and cost-effective solutions for managing drinking water, wastewater, and stormwater systems in Ontario communities.

The SWI project application submitted by the Town of Moosonee, Ontario was one of the selected projects and involved the installation of 650 water meters throughout the community. Moosonee is Ontario's most northern municipality, serving approximately 3,000 residents. The community is uniquely remote and accessible only by train or plane.

Prior to this project, the Town did not have any installed water meters. Water charges were billed on a flat rate by type of consumer (residential or commercial) rather than by consumption. The water meter installation project would significantly shift the municipality's accountability for water use, and the project goal was to have 100% compliance. This direction would ensure consistency throughout the town as policies were implemented or changed to address the deficiencies of aging infrastructure and the consumption of this scarce and expensive resource.

The Town of Moosonee partnered with Neptune Technology Group (Canada) who provided turnkey project management services for the supply and installation of Neptune's E-CODER®R900i™ meters and the Neptune® R900® mobile AMR system (MRX920™ mobile data collector, CE handheld, and N\_SIGHT® software). In strong collaboration with the Town and under the direction of Neptune's locally based project manager, Alex McGregor, the project was successfully executed in half the project timeline, below budget, and with a remarkable 100% installation completion rate. Neptune project deliverables included project team deployment, installation services, public communication, area management, call center services, and data collection, verification, and exchange.



### CUSTOMER

Town of Moosonee, Ontario, Canada

### SERVICE TERRITORY

The Town of Moosonee is Ontario's most northern municipality, serving nearly 3,000 residents.

### SOLUTION BENEFITS

Reduced average daily flow rates by 20%

Saved chemicals purchased by 20%

Reduced wastewater volume by 10%

Reads all meters in less than two hours

## OUTCOME HIGHLIGHTS

The primary objectives of the program were to increase operational efficiencies, reduce operating costs, enhance environmental stewardship, create water conservation awareness among residents, and improve water delivery services to the community. Water meters have enabled the municipality to more accurately measure how much treated water is made, delivered to consumers, and ultimately lost within the distribution system.

- The water metering installation project was intended to increase operational efficiencies and reduce operating costs. Following implementation, a six-month analysis of the average daily flow rates showed a reduction of approximately 20% when compared to the same period the year prior to installations.
- With the installation of water meters in the third quarter of 2012 and program meter readings starting in the last quarter of the year, the Town observed a savings of about 20% in the chemicals purchased compared to chemicals purchased in 2011. The Town appears to be on target to maintain this 20% reduction, which is more than the 10% original desired reduction.
- With reduced water consumption, the volume of wastewater has also decreased. This is particularly important as the Town's sewage treatment lagoons are nearing full treatment capacity. Following water meter installations, the Town experienced and projects to continue to benefit from a 10% reduction in wastewater volume. The Town hopes this reduction will help to extend the useful life of the Town's lagoons by a few years.
- Additionally, all 650 meters can be read in about an hour and a half, saving the Town valuable time and resources.

## MEASURE, MONITOR, AND MANAGE

The water meter installation project was intended to help improve the municipality's water delivery service to the community. Improvements can only be made when you can effectively measure, monitor, and manage resources. The municipality will continue to work toward full cost recovery for water and wastewater operations and eventually invest in capital replacement.

The water meter installation project has achieved and, in many cases exceeded, the expected results/outcomes. Overall, the Town of Moosonee is very pleased with the project and the results that have been achieved. According to Chief Administrative Officer Shannon Mac Gillivray, "The water meter installation program has created water consumption and conservation awareness among our residents. Our residents now know how much water is being consumed and can make responsible choices to conserve this resource." For the first time, the municipality is able to track the amount of water consumed by its residents, and this information will help the Town to more effectively manage water and wastewater systems.

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*– Shannon Mac Gillivray, Chief Administrative Officer,  
Town of Moosonee*



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