

The Canadian City of North Battleford Saves Water with Xylem Digital Solutions

NEW SMART UTILITY NETWORK HAS MODERNIZED THE CITY'S INFRASTRUCTURE

The rehabilitation and replacement of aging water infrastructure is consistently ranked among the most pressing issues facing the water sector according to the [American Water Works Association](#).

Facing their own challenges with aging infrastructure, the [City of North Battleford](#) in Saskatchewan, Canada, decided to upgrade their utility's water system by installing advanced metering infrastructure (AMI). The decision has paid off.

"We needed to modernize our technology for the 21st century. At one point we tried to estimate our water losses, and our old metering system was so inaccurate that our calculations showed that we were charging for more water than what we were producing at the plants," said Stewart Schafer, director of operations at the City of North Battleford. "Transitioning to AMI has allowed us to generate timely and accurate meter readings to serve our customers more efficiently."

Real-time data leads to proactive leak detection

North Battleford leveraged the real-time data delivered by Xylem's smart water meters, and Sensus [FlexNet® communication network](#), to improve their operational efficiency. This upgrade allowed the City to implement proactive leak detection through continuous consumption alerts to immediately notify their customers.

Jeff Blanchard, assistant director of operations, provided two examples of how customers immediately benefitted from North Battleford's upgraded utility network. First, a local store had installed new low-flow fixtures, but a faulty sensor caused one of the fixtures to leak 1.7m³ of water per hour. The new AMI water meters quickly detected the excessive water usage and allowed the customer to rectify the problem. In the second example, an elderly homeowner was unaware a flapper valve had not sealed properly in her basement toilet causing a continuous water flow for 24 hours. Upon notification, the homeowner took action to stop the leak. Both instances highlight how the city's proactive approach to consumption monitoring and customer notification saved the customers money and helped conserve valuable resources.

"We've achieved remarkable results through proactive leak notifications. We can now alert our customers of leaks in 24-hours that would have previously gone for months," said Blanchard.



CHALLENGE

Replace aging infrastructure with modern, digital technology to tackle water loss

SOLUTION

Deploy smart water meters with the Sensus FlexNet communication network

RESULT

Proactive leak alerts for customers, \$125K CAD savings in staff time and reduction of fleet carbon emissions

“You don’t think about water until it is a problem. This advanced technology shows us and the citizens of North Battleford how they are using their water.”

*Stewart Schafer, Director of Operations,
City of North Battleford*



System visibility and control

North Battleford’s smart utility network includes the [ally® residential water meter](#) that enables staff to remotely turn on or off water services or reduce flow to minimize lost revenue. This is helpful with the high turnover of seasonal tenants in rental properties. Landlords can now be proactively notified of potential water issues and the automatic shutoff can save them from high water bills at vacant properties.

Smart utility network reduces operational costs

Utility operations have become more efficient with the ally residential water meter in remotely managed services. The City Waterworks staff has reduced the manual curbside shutoffs or reconnects and is now more focused on other valuable work. Since implementation, the City’s cost savings are approximately \$125,000 CAD in staff time, reduced fleet and fuel costs and smaller carbon footprint.

“As an operations professional, I see the main benefit for us is the system’s instant feedback and how granular we can get with the data,” said Blanchard. “This detailed information has allowed us to decrease accounting errors and quickly identify customers with continuous consumption.”

“You don’t think about water until it is a problem,” said Schafer. “This advanced technology shows us and the citizens of North Battleford how they are using their water, and how the Sensus FlexNet communication network can proactively inform them of a small leak before it becomes a bigger problem.”



The ally® residential meter paired with the FlexNet® communication network enables utility personnel to remotely manage shut off, turn on or reduce water flow. It also features pressure and temperature sensors and alarms.