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## CASE STUDY

# Mount Clemens Pivoted to Metron Metering Ahead of Major Water Infrastructure Overhaul

*Smart meters are reducing water losses – and operating costs –for Michigan water provider.*

When Mount Clemens, Michigan, began testing Metron’s smart meters in 2019, it was for one simple reason.

“There was a brass shortage, and we were struggling to get hold of the Neptune meters we’d previously used,” explains utility director Lenny Bertrand. “They were running two years behind on orders, and giving meters to bigger cities first, so things were getting really tough. I just figured it was time to look around and see what else was out there.”

Bertrand quickly realized that Metron’s meters weren’t just easier to source. They also offered a major upgrade over the city’s existing hardware, providing more accurate readings, increased durability, and hassle-free connectivity—exactly what Mount Clemens needed as it prepared for a major overhaul of its water infrastructure.

Since then, Mount Clemens has installed over 3,000 Metron smart meters—about half of its total connections—and is now rolling out Metron hardware across its entire service area. Accurate smart meters are the key to future-proofing Mount Clemens’ water supply, Bertrand explains, and improving performance while keeping costs low for customers. “We’re only about halfway done, and Metron has already helped so much,” he says.

## Curbing water losses

Some parts of Mount Clemens's existing water filtration system are over 100 years old, and in coming months the city will modernize its infrastructure by merging with the Great Lakes Water Authority (GLWA), which supplies many neighboring communities across southeastern Michigan.

First, though, the utility needs to get a handle on water losses, which until recently accounted for up to 37% of every gallon that flowed through the city's pipes. "From next year, we're going to be paying the GLWA for our water," Bertrand says. "If we have a high loss number, we'll be paying for water without knowing who to bill it to."

Since switching to Metron for half of its connections, Mount Clemens has already managed to reduce water losses to about 20% of systemwide throughput. Part of that reduction comes from identifying city buildings that were previously unmetered, and using Metron systems to plug the gaps. In one case, for instance, a local ice rink was found to be using huge amounts of unmetered water. "We're trying to narrow it down, and get usage data for everything," Bertrand says.

With daily water readings from Metron's connected smart meters, managers can also monitor water usage across the city virtually in real time. "We can compare the daily numbers from the Metron meters, and the numbers from our master meter, and see how they line up from one day to the next," Bertrand says. "It just makes it a lot easier—when there are big discrepancies, we can go back and look at what's going on."

As Metron meters are rolled out across the rest of the city, Mount Clemens aims to bring total water losses down to 10% or lower, in line with other communities served by the GLWA. "With these smart meters, we're going to be able to keep track of our water loss and stop the numbers from getting out of control," Bertrand explains.

*With these smart meters, we're able to keep track of our water loss.*

It helps that Metron's meters are more accurate and reliable than the legacy systems, which tended to see flow accuracy degrade by 10% or more as time went by. Some residents were startled to see how much of their usage had previously been going unmeasured, Bertrand says. "Before, some of these people had 15 year old meters that just weren't catching everything," he says. "Now, we're measuring every drop that passes through the meters."

Residents sometimes prickle when their bills go up, but in the long run more accurate readings are better for everyone. "It'll keep rates low, because we have to pass the cost of water losses along to customers," Bertrand explains. "If we're losing 20% of our water, we have to raise our rates to cover that—so it's good for everyone to keep losses down."

## Streamlining operations

Besides providing more accurate and up-to-date water readings, Metron's meters bring another big benefit: they can be read remotely, with no need for work crews to do a drive-by to collect data.

That was a big selling-point for Mount Clemens. "I knew there had to be a better way than having our guys driving around all day trying to get readings," Bertrand says. "I'd looked into putting up our own radio towers to do remote reads, but it was tough—there really wasn't a

good way for us to put up towers or to monitor all these meters.”

With Metron’s cellular connectivity, there was no need to worry about any of that. Meters arrive from the factory already fully configured, and start feeding data into Mount Clemens’ system via reliable commercial cellular networks as soon as they’re installed, with no integration headaches and no need for expensive new infrastructure.

For a city like Mount Clemens, that’s a big deal. For now, at least, the utility still has a team doing drive-by readings for legacy hardware, but Metron’s devices help to streamline operations, and allow work crews to dedicate their time to more useful tasks. “If our meter guy goes on vacation, it’s not such a big deal,” Bertrand says. “It allows us to focus on other things.”

The benefits are also being felt by back-office staff, who get instant access to up-to-date water data via their WaterScope portal. That’s especially valuable when it comes to completing final meter readings for tenants nearing the end of their leases—something the Mount Clemens team deals with on a daily basis.

“It’s just way easier now,” says Katie Kirsch, an accounting technician in the Mount Clemens finance department. “Before, my meter guys had to go out to the physical street address, get a read, and text it back to me. Now I can just go on the website and grab a reading.”

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That means work that used to take three or four hours can now be completed in just a few minutes. “Instead of asking people to call back the next day for their reading, I can do it right away, while I’m still on the phone with them,” Kirsch says. “It’s really lightened the load.”

Best of all, WaterScope is easy to learn and easy to use—and because utility employees see immediate benefits in their workflows, they’ve been quick to adopt the new system. “Now that we’re using it regularly, it’s easy,” Bertrand says. “The old system was way more complicated. WaterScope is a lot easier to use for everyone.”

## Keeping customers happy

WaterScope also improves customer service and customer relationships. When a customer calls up with questions, Kirsch says, it’s now easy to explain exactly how their water bill reflects their daily water usage, and often possible to identify ways to lower their bill. “Just by looking at WaterScope, I can usually tell if they’ve got a leaking toilet or some other problem,” she says. “And they can log into the customer app and see the data for themselves, too—they really appreciate it.”

Customers especially like Metron’s ability to proactively alert them to potential leaks in their homes. “We had one guy who signed up and immediately found a toilet leak,” Bertrand says. “He couldn’t believe it—he could actually see on his meter data that he had a leaky toilet.” With automated text alerts, issues can be spotted and fixed more quickly, keeping bills low and reducing waste across the network.

Mount Clemens actively promotes WaterScope to residents via social media, and by sending out promotional postcards with water bills. “Anytime that anyone calls to complain about a high water bill, the first thing I say is ‘Did you sign up for WaterScope?’” Bertrand says.

“Some people don’t want to take that first step to download it—but once they do, they like it.”

So far, about 10% of Mount Clemens’ customers whose homes are fitted with Metron devices have begun using WaterScope—an impressive uptake, given that installations are still ongoing, and that customers must wait until after receiving their first bill before registering for the app. “The word is spreading, and we’re getting very positive feedback,” Bertrand says. “We’ll see the sign-ups grow as more people get their meters installed.”

### **Moving forward with Metron**

As Mount Clemens prepares to integrate with the GLWA, Metron is providing the updated metering and water management tools the utility needs. Best of all, Bertrand says, there have been no hidden costs or nasty surprises.

“With our old meters, we had to keep updating the meter reading equipment all the time—and we had to pay for software that wasn’t nearly as good as WaterScope,” Bertrand says. “There were a lot of factors that just aren’t an issue with Metron.”

Combined with Metron’s hands-on customer support and high-quality hardware, Bertrand says, that gave him the confidence to recommend rolling out Metron’s smart meters across the entire Mount Clemens service area. With water losses already falling sharply, Bertrand believes the new meters will ensure the transition to GLWA goes smoothly for both the utility and its customers.

“We’re only about halfway through our install,” he says. “In a year’s time, I’m sure our numbers will be even better than they are today.”

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