



## City of Santa Fe Water Division Overhauls and Improves System with BEACON® Advanced Metering Analytics (AMA) Managed Solution, ORION® Cellular Endpoints and E-Series® Ultrasonic Meters

Santa Fe, the capitol of New Mexico, is known for its world-class culture, art and legendary history. Because of its location in the southwestern United States, the city is also known to have a scarce and precious water supply. In 2013, Santa Fe's Water Division became aware that its drive-by meter reading system was failing. The system had successfully operated for several years, but its water meters had begun to communicate the wrong read or become unresponsive all together. The water division was operating at 60 to 65 percent capacity, resulting in thousands of gallons of water loss, and the division's technicians now had to manually read the uncommunicative water meters, resulting in man lost hours.

"We absolutely needed a system that was going to be very robust and reliable," said Nick Schiavo, public utilities department director for the City of Santa Fe. Schiavo and his Water Division team had to find a solution.

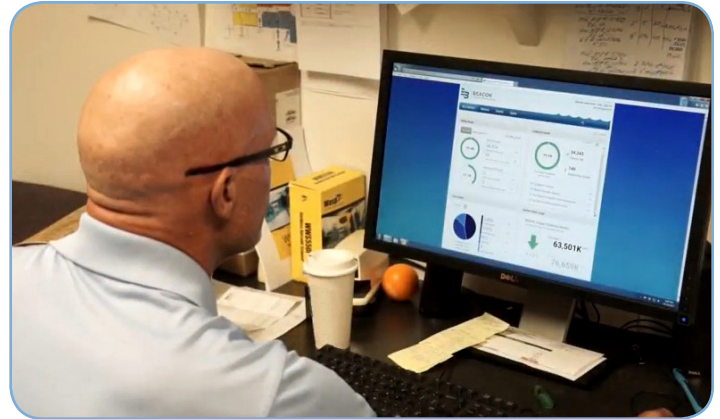
### A Managed Solution Makes the Difference

To address these challenges, the Water Division issued a Request for Proposal (RFP), and through a competitive process selected Badger Meter. Working with Badger Meter, the city's Water Division chose to implement the BEACON® Advanced Metering Analytics (AMA) managed solution with ORION® Cellular endpoints, as well as E-Series® Ultrasonic meters. BEACON AMA, a cloud-based software analytics platform, provides actionable data that the water utility can use to regularly monitor consumption patterns, detect and fix leaks, and identify inefficiencies in the water system.

"For the first time ever, we have the ability to, on a 24-hour basis, track how much water was produced and how much went through the meters," added Schiavo. "Instead of manually reading our meters once a month and guessing where unaccounted for water went, we're now able to take a proactive approach to monitoring and analyzing the data."

The Water Division implemented the BEACON AMA managed solution with ORION Cellular endpoints, which use strong and stable cellular networks to transmit information from the meters to the water utility and eliminate the need for fixed-network infrastructure. With these products in place, the utility managers were able to identify and, more importantly, address leaks in the system.

"When you turn on BEACON AMA, it tells you exactly how many meters in your system are leaking. It was startling at first – we had 1,200 to 1,400 leaks. But, when we started drilling them down, some of them were tiny leaks and easily fixable," said Kyle Sager, project coordinator for the City of Santa Fe. "For the big leaks, we're finding them within 24 hours, instead of a month like we had with our old system. We're finding the leaks, and we're taking care of them right away."



BEACON® Advanced Metering Analytics (AMA)



EyeOnWater® smartphone/tablet app

"No one benefits when you have a leak in your home or your irrigation system outside. And, it's not a feel-good moment for us to bill our customers for that water," added Schiavo. "People pay a premium for water here in Santa Fe, and this tool helps us get out in front of the leak to avoid this water loss and an unhappy customer."

### Engaging the Utility Customer

As part of the BEACON AMA managed solution, water utility customers also have access to a smartphone/web-based consumer application called EyeOnWater®. This application allows customers to take a hands-on approach to their water usage via regular notifications and timely data.

"The EyeOnWater application has had a huge impact on our customer service capabilities and has been a great success for our residents," said Caryn Fiorina, utility billing division director for the City of

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Santa Fe. "The application provides consumers the capability to see consumption daily, hourly, monthly, and annually via their smartphones, computers or tablets. Everybody loves it."

In addition to helping consumers monitor consumption, EyeOnWater allows the Water Division's customers to set alerts notifying them of a potential leak or high-usage period. On the flip side, the utility's billing department can use EyeOnWater and BEACON AMA to confidently respond to customer complaints or questions with accurate and reliable water consumption data, reducing the time needed to handle the inquiry.

## Changing the Business of Water

Santa Fe's Water Division also implemented E-Series Ultrasonic meters, ranging from 5/8 inch to four inches in size, throughout the city. In two phases, the utility added small meters to its numerous residential customers, and once that installation was completed the utility team added large meters to its remaining residential and commercial customers. E-Series Ultrasonic meters use solid state technology and have no moving parts, which improves reliability and increases life expectancy of the meter compared to traditional mechanical meters. Thus, these meters are giving the Water Division high accuracy and very high-resolution detail over its old system.

"Prior to using Badger Meter, we had lost some confidence with the public. Now with the new BEACON AMA solution and reliable E-Series meters, it has changed the way the City of Santa Fe is doing business," said Fiorina.

"I truly believe the Badger Meter system is going to serve us very well for the next 20 years," added Sager.

## City of Santa Fe Water Division

- **BEACON® Advanced Metering Analytics (AMA)**
- **ORION® Cellular endpoints**
- **E-Series® Ultrasonic Meters**
- **EyeOnWater® smartphone/tablet app**
- **Full turnkey deployment by Badger Meter Field Services**

## Results

- **Reduced unaccounted for water loss**
  - Faster leak detection
  - Accurate and timely data relayed to water utility team
  - More reliable and longer-lasting water meters
- **Improved customer service**
  - Accurate data to respond to customer inquiries
  - Customers can monitor their water use on their smartphone or tablet
- **Improved efficiencies**
  - Cellular endpoints eliminate need for infrastructure and manual or drive-by reads
  - Longer-lifespan of water meters
  - Data reduces time spent managing customer complaints

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