



SUCCESS STORY

CITY OF SAN JUAN BAUTISTA

BACKGROUND

The City of San Juan Bautista, California, also known as the City of History, is a mission town nestled in the San Juan Valley. Located about 100 miles south of San Francisco, the city hosts a population of just under 2,000 and offers a rich look at the past. California's largest mission, Mission San Juan Bautista, and the only remaining Spanish Plaza offer tourists and residents a slice of history.

Founded in 1869, the city operates with a council-manager form of government, with the city manager acting as the chief executive officer. San Juan Bautista is on the outskirts of Silicon Valley, and is experiencing an increased demand for housing as a result, with several new subdivisions in the planning process.

San Juan Bautista's water system is operated by Bracewell Engineering and maintained by the Public Works Department, which maintains approximately 735 water meters, of which 38 are commercial accounts. San Juan Bautista's water source is groundwater, which is currently produced by two public supply wells located in the southeast part of the city.

CHALLENGE

Some of this mission city's infrastructure is over 100 years old. The city's water meters were an aging mix of units from various manufacturers. The meters were losing accuracy and becoming unreliable, leading to a loss of billing revenue. In addition, manually reading the meters was a very inefficient way for the city's small staff to spend their time. Also, like most California cities, water conservation in San Juan Bautista is a top priority. Helping customers find leaks and understand how much water they really use is an important step towards conservation.

THE SOLUTION

San Juan Bautista's city manager, Roger Grimsley, is a licensed engineer with a utility background. As a forward-thinking leader, he supported an aggressive infrastructure replacement program. Replacing the meters and modernizing the meter reading system were top priorities. The ultimate goal was to move toward Advanced Metering Infrastructure (AMI), where metering information can be sent to a central location, but budgetary considerations required the city start with less expensive Automated Meter Reading (AMR) technology, which allows drive-by meter reading.

After researching solutions and vendors, the city began working with Master Meter and its local vendor, Michael Todorak of HD Supply, to implement the AMR program.

"We put a value on the potential to upgrade the system in stages as our revenues increase," said Grimsley. "We appreciated the flexibility to eventually move to AMI. We were also impressed with the customer service from Master Meter, and liked the ability to work with our local supplier."

The city solicited costs for the project, and HD Supply helped the city find financing packages. Overall, the project went smoothly. City employees completed the meter replacements, including 275 new meter boxes, within five months.

Master Meter provided meter reading equipment at no charge, and HD Supply trained employees on the new system. "We had excellent training," stated Grimsley, "and we're getting a second cross-training session for every Public Works employee — including me and our Planning Director — at no charge."

As the meter project was being completed, the city also transitioned to new billing software that provided more information for the customers. During the transition, some customers had a slightly longer billing period. That issue, combined with the new, more accurate meters resulted in customer complaints about higher bills.



To alleviate concerns, the city sent letters explaining the situation to all of its water customers and the city's planning director, Matt Orbach, also presented a public Water Forum. The forum included information on water sources, infrastructure, water quality, fees, rates, and billing.

Master Meter made a representative available for questions and helped HD Supply prepare to attend the forum. HD's Michael Todorzak explained how the system works, and displayed the meters so the public would understand why they are more accurate.

The Water Forum was very well received by the citizens, and reduced the number of complaints.

EFFICIENT USE OF STAFF

San Juan Bautista's Public Works staff consists of only six employees. With the new system, they are now able to read all the meters in less than a day each month. This allows the city's staff to focus on other operations and maintenance activities, and to work on further infrastructure improvements.

IMPROVED CONSERVATION EFFORTS

Conservation is critical to maintaining adequate water supplies, especially in the western states.

"With California's recent drought and the new Sustainable Groundwater Management Act, water conservation is really a big focus for San Juan Bautista," explained Orbach.

By completely revamping the system, the city now has a clear starting point to track usage and trends more accurately.

The new meters allow Public Works employees to download a data log from each individual meter. This detailed usage information can help customers understand why they had a larger water bill, and how to lower their water usage. The data logs also help determine if a customer has a water leak so the problem can be resolved.

ACCURATE METERS LEAD TO INCREASED REVENUES

As meters age, especially turbine meters, they lose efficiency and measure less water. Because water meters are essentially the "cash register" for utilities, inefficient meters lead to declining revenues.

The new residential Master Meter Multijet meters' measurement surfaces are not wear surfaces, leading to a long life, and the meter is highly sensitive to low flows. The Master Meter Octave® ultrasonic meters in the commercial districts are even more sensitive, measuring flows as low as 1/16 gallon.

The project is too recent for the city to have an analysis of actual increased revenues yet, but the improved accuracy is certain to bring additional billing revenue.

CUSTOMER SERVICE

"Seeing the fruits of the project, our expectations were exceeded," said Grimsley. "We have a better grasp of the amount of water going into each home, and even a better idea of the water coming to the wastewater plant."

Both Master Meter and its local supplier, HD Supply, provided excellent service, quick response, and comprehensive training.

"The city is developing new well sites, and will eventually acquire a Supervisory Control and Data Acquisition (SCADA) system to complete the picture," added Orbach. With those improvements, and the new meters, San Juan Bautista will be in an excellent position to upgrade its system to AMI in the future. AMI will provide even more data to the city and customers, resulting in additional conservation.

"We'll have a very efficient water system, which is good for our customers—and good for our regulators," noted Grimsley.

CHALLENGE

- Old, inaccurate meters led to inefficient use of staff, loss of revenue, and inadequate conservation
- Desire for flexible system that could be upgraded to AMI in the future while staying in budget

SOLUTION

- Master Meter 3G AMR Drive-By System
- Master Meter Multijet Meters
- Master Meter Octave® Ultrasonic Meters



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RESULTS

- AMR drive-by system allows more efficient use of small staff
- Improved conservation due to availability of detailed usage information
- Increased revenues due to new, accurate meters
- Responsive customer service and training
- A flexible metering system that the city can upgrade to AMI when revenues allow