

CASE STUDY

ORION®

Radio Frequency System



Badger Meter's ORION® Radio Frequency System

The Washington County Water Authority Taps ORION® To Serve Its Rural Customers

By: Dave Marsh

They seem to grow like the trees themselves. Large homes spring up on remote wooded lots and in the middle of pastureland, shielded from next door neighbors by hundreds of acres of abandoned farm fields.

Americans have not reduced their appetite for a more tranquil lifestyle by relocating to small cities and townships, and this is compounding the challenges small communities face providing them with economically priced drinking water. Water utility crews are forced to drive greater distances to service more customers in sparsely populated areas. Although the revenue generated by these remote homeowners is no greater than that from customers living in more densely populated areas, the cost of servicing them can be much higher.

In the late 1990's the Washington County Water Authority, headquartered in Farmington, Arkansas recognized that state-of-the-art water meter technology could be an important tool in helping to better service its growing remote population while maintaining its costs. It installed Badger® meters equipped with TRACE® automatic meter reading (AMR) in 1997. TRACE AMR could be read remotely which meant more meters could be read with minimal increases in staffs and budgets.

Since installing TRACE, Water Authority management has continued to monitor technological innovations for ideas to improve operational effectiveness, which led to its decision in 2005 to upgrade to Badger Meter's new ORION AMR system. When Carl Bartholomew, Manager of Meter Services was introduced to Badger Meter's new ORION AMR system, he immediately saw how its new features would benefit his department.

"We have a number of subdivisions that have cul-de-sacs in them. With the increased range of the ORION system we don't have to drive down every individual cul-de-sac to record each address. We can read meters with our

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TRACE® is a registered trademark of American Meter Company.*

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WASH WATER CASE



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mobile reader while driving down the main streets,” said Bartholomew. “We have one rural subdivision in which the houses are set way back on the lots. We can drive by and read the meters in the ground from two to three hundred yards away.”

Just because many of Bartholomew’s customers are out of sight, doesn’t mean they are out of mind. “I would estimate that ten to fifteen customers a month call us because they believe their bills are too high for the water they think they actually used,” said Bartholomew. “And of course because customer service is important to us we check out every single one of them.”

“If the dispute can’t be resolved over the phone we make out a work order and someone visits the customer location to check out the problem. This happens in about 75% of the cases. We end up popping off the lid and checking around the meter for leaks. Sometimes we find leaks around our shut-off valves, but often we don’t and we end up suggesting

that the leak is somewhere in the customer’s home. Because we service so many rural customers this can be a very time consuming process. We have some accounts that are a good 45 minute one-way drive from the office.”

Being able to detect leaks before they escalate into a problem is one of the benefits Bartholomew likes about the new ORION system. “About 10% of our 5,000 meters are now ORION equipped and they already have alerted us to a number of customers’ leaks,” said Bartholomew. “ORION will flag an account when there is a 24 hour period during which there is not a single one hour increment of zero consumption. We then alert the customer with a notice on their door.”

Although all customers will eventually be upgraded, ORION equipped meters currently are being installed primarily in all new construction. “One particular subdivision that was built around a golf course has a lot of empty

homes for sale,” said Bartholomew. “The ORION leak detection feature has enabled us to alert the contractor about leaks that would have otherwise gone unnoticed.” Paying water bills that result from undetected leaks are an unnecessary cost contractors want to avoid and the new ORION equipped meters have already saved contractors money by detecting leaks in unoccupied homes.

Another ORION feature that Bartholomew likes is the Global Positioning System (GPS). “With GPS you can enter the latitude and longitude for each one of your accounts, and when you drive down the street it will pop up on the screen indicating whether or not a meter has been read,” said Bartholomew. “This is a real good feature for rural areas where the homes are half a mile to a mile apart.”

The Badger® ORION system has been installed by communities of all sizes. The Washington County Water Authority is a good example of how rural communities and small towns can reap big benefits by installing them. ■