City of Tavares

Seaplane City Leaves Walk-Bys Behind, Now on a Roll with Neptune's R900® Mobile

BRINGING THE READS BACK INHOUSE LEADS BACK TO NEPTUNE

"America's Seaplane City" was looking to take its water utility management to a higher level. The City of Tavares, Florida, famous for its municipal seaplane base on Lake Dora 40 miles northwest of Orlando, had been contracting a third party to read its approximately 9,000 water meters – using a time-consuming, walk-by, touchpad method. Not only did the City have to hire outside labor for the 80-hours-per-month process, but the contract was for meter reading only and excluded maintenance.

While Utility Director Brad Hayes and his team were still able to send out water bills to Tavares customers, Hayes regretted the extra expense, and especially not having a clearer picture of asset conditions in the field. With residents calling in to complain of broken meter boxes and covers, he was determined to bring the meter reading back inhouse and get "a better handle on maintenance."

In May of 2012, Hayes approached Neptune® Senior Territory Manager Terry Gullett and Sunstate Meter's Sales Representative Jeff Kimbrough with his plan to implement an automatic meter reading (AMR) system. The choice of Neptune was a simple one for the utility director; "I've always used Neptune, knowing how reliable they are and that the City could migrate forward without stranding assets. The City was familiar with their products and their quality. Utility billing was also familiar with Neptune, so logistically, continuing with Neptune made the most sense. We went with what we knew worked." He added that the decision also took the City's customers into consideration, as moving forward with Neptune would prevent a disruption to their monthly bills (because they were able to continue to use the host meter reading software which is forward compatible with the migration toward radio).

In addition, it was an opportune time to repair meters as well as install new ones as part of a system-wide changeout. "We wanted to take care of all the meters and get a good baseline for any future maintenance," Hayes said. "It was more cost-effective to do the changeout all at once."

CUSTOMER
City of Tavares

SERVICE TERRITORY
Tavares is located 40 miles northwest of Orlando on Lake Dora.

SOLUTION BENEFITS
Mobile system easily upgraded to fixed network

Less than one day per month to read meters

Project completed in only 6 months

Only one refund per month on average

Achieving 6-7% Non-Revenue Water

PUTTING IT ALL TOGETHER WITH THE E-CODER®)R900i™ INTEGRATED ENCODER/MIU

For the centerpiece of Tavares' new AMR system, Hayes chose Neptune's E-CODER)R900i combination absolute encoder/radio frequency meter interface unit (RF MIU). "We wanted the newest technology out there and were willing to make an investment that could postpone the need for maintenance by ten or twelve years." Being wireless and easy to install were also significant benefits of the E-CODER)R900i. Its greatest value would be proven later.

In August 2012, the City began a planned, nine-month changeout, selecting Neptune distributor Sunstate Meter & Supply. "It was great working with them," said Hayes. "They provided excellent inventory control, with just-in-time delivery." Utility Metering Solutions handled installation duties, with oversight from Hayes' team.

In spite of having to "jump around the city" to accommodate the finance department's need to operate according to its standard billing routes, the AMR implementation – which included new inline backflow devices installed on meters – was completed by the start of 2013, three months ahead of schedule.

CUTTING BACK COMPLAINTS WITH DATA LOGGING

Improvements in efficiency were readily apparent after implementation. By moving to mobile reads of the E-CODER)R900i units using Neptune's MRX920™ mobile data collector, Tavares has cut reading time from five days a week for two weeks (80 hours) per billing period to less than a single day – six or seven hours – for the entire city's meters. "Because it's a laptop-based data collector, anyone can get the reads," according to Hayes, and cross-training personnel to collect the data is simple. Still, because the R900 System is backward compatible, the City has the capability to send personnel to take a manual re-read using a handheld if requested by a customer.

Hayes said that since the changeout, the number-one advantage offered by Tavares' R900 System has proved to be data logging, especially as an aid to utility billing. Before, frequent customer complaints regarding high water bills led to an average of twelve refunds every month. Now when customers question their bill, Hayes' team has the answers in hand. "With data logging, we can show residents on a graph the exact time they used water, and how much," he said. "It provides proof and support of our meters' accuracy, which has allowed us to reduce refunds to one a month."

With 96 days of historical hourly consumption data that can be retrieved at any time, the City is also detecting probable leaks sooner for individual accounts, helping alleviate high water bills. In addition, data logging "helps water customers see excess consumption day by day," said Hayes. "They can request a chart anytime they want, and be a part of the whole process – lowering their own water bills while taking part in conservation."

As the City moves forward via R900 mobile RF technology, it's well on its way to its Non-Revenue Water goal of four-to-five-percent, having already achieved a rate of six-to-seven percent. Hayes is pleased that Tavares has the option to "phase in fixed network" collectors in the future, but for now has all he needs in his new AMR system. "We've received a reliable, effective, and cost-efficient system," he added, "one that's able to keep the City of Tavares on the cutting edge of technology, help us with water conservation efforts, and improve customer service."

Hayes credits Neptune with "continuing to look for new ideas and always being willing to listen to ideas from the customer. They're helping us make our city a more customer-friendly, business-oriented community."

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