



Village of Johnson City Water Department

In Spite of Flood, Staying on Top of Water via the Neptune® R900® AMR

WHEN IT RAINS, IT POURS – NEW METERING INITIATIVES IN THE MIDST OF A FLOOD

One day in September 2011, Mary Beth DePugh was getting ready to send out the water bills – the last month she'd have to use the 25-year-old, DOS-based billing software she'd battled for years. As Account Clerk for the Village of Johnson City Water Department, she would have had the brand new billing software from another provider go live in October, followed in November by a system-wide meter changeout of 15-to-20-year-old meters – all replaced from a single source, Neptune®. To top it all off, the Department would implement the Neptune R900® System for automatic meter reading (AMR). Johnson City's water would finally be under control.

The next day of September is when the biggest flood in decades roared through the central New York village. "We lost everything," DePugh said. That included their office, submerged in several feet of water.

They weren't alone. "We had over 1,000 properties affected by the flood," said Bob Bennett, Director of Public Services. "It would take over two years for some of those damaged or unsanitary properties to be considered safe." Many homes and some businesses would have to be demolished, and eventually, the Water Department would lose its largest customer. Also as a result of the flood, it would lose several personnel positions, compounding the problem of a workforce that had already shrunk by nearly a third from budget cuts in recent years.

RISING ABOVE WITH THE HELP OF NEPTUNE MOBILE AMR

In spite of the historic deluge, Bennett and his team were determined to move forward, starting with a move into its temporary headquarters at Village Hall. Working with Neptune Territory Manager Dave Johnson and distributor Ti-SALES' account manager, Jim Pierce, Johnson City began installation of its new Neptune meters, along with E-CODER®)R900i™ combination solid state absolute encoder/RF meter interface units.



CUSTOMER

Village of Johnson City Water
Department, Johnson City, New York

SERVICE TERRITORY

The Water Department supplies
water for Johnson City and parts of
Broome County, New York.

SOLUTION BENEFITS

New meters and R900® System
provide accurate billing

One person can read all meters
in two days

Distribution personnel
reallocated to maintenance

Mobile AMR kept personnel out
of flooded areas

Billing period after flood showed
\$40,000-50,000 revenue increase

With fewer personnel and so many flooded sites, Johnson City's new AMR system, along with its usability and performance, would be put to the test. "After the flood, I had no meter reader," said DePugh. "I had to bring on someone with no previous water department experience, almost off the street. But [operating the mobile AMR] was like 'plug and play', and she ran with it. Our reading went on without a glitch. She's sharp, but I don't care how sharp you are, you have to have something that's user-friendly. And the R900 System is." In addition to the Neptune MRX920™ mobile data collector, DePugh also cited Neptune's N_SIGHT® software for its ease of use. "Compared to my old software, the new software works for me, I don't work for that software."

Bennett added, "We're able with drive-by reading to do in a day, day-and-a-half, what used to take us six weeks of walking. Not only did it help us expedite getting our data, it also saved wear and tear on our employees and kept us from having to go into flooded sites in harm's way."

DATA DOWN TO THE LAST DROP, PLUS PRODUCTIVITY

In addition to faster readings, the Department's data is much more accurate with a higher degree of resolution than ever before. "Our former meters read in hundreds of cubic feet," DePugh said. "With the Neptune E-CODER technology, we now register consumption down to the last drop – 1/100ths of a cubic foot." This higher resolution provides valuable information that helps identify leaks. In addition, the new meters are much more accurate, as borne out by the results of meter testing. Thirty percent of the old meters registered less than half of flows, while another quarter of the old meters registered between 50 and 75 percent. The new meters are now all within the AWWA limits of 98.5 to 101.5 percent.

DePugh said, "We're capturing all of our water and [our customers] are paying for all of their water." And when it comes to their usage, customers are also paying

attention. "When they call in upset about their bills, we can use Neptune data logging to tell them they may have continuous or intermittent leaks. It allows for self-education and behavior modification."

"Our new system allows us to detect leaks and answer questions about leaks a lot more quickly – that's one of the biggest advantages," said Bennett. He also noted how the R900 System has helped optimize his workforce and reallocate personnel. When the Village board suggested cutting more personnel because of the increased efficiency from AMR, he refused. "The purpose of this is to get the people who are supposed to be there maintaining our system back maintaining our system. When you lose staff, you lose productivity. We've been able to keep our water distribution people in water distribution."

ACCURACY, EFFICIENCY, AND REVENUE

According to Bennett, not only has productivity increased, but so has revenue. "After the flood, the Village board questioned whether or not we were doing the right thing. They didn't believe we had seen the revenue that had been anticipated. However, despite losing a little over 200 customers because of the flood, the first billing period afterward showed we still had a \$40,000 to \$50,000 increase in revenue for the quarter."

DePugh summed up what she sees as "the biggest benefits we've seen from our Neptune AMR System – accuracy and efficiency – and working with Dave and his team. They've always taken good care of us."

Dave Johnson said, "What strikes me about the Village of Johnson City is the amount of information they have at their fingertips and what they do with it. This is the value of Neptune AMR and AMI Systems, what Johnson City is embracing and using and getting the benefit from. They understand that the system is flexible enough to grow as they grow."



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