CASE STUDY / City of Wooster, OH

AquaHawk Helps Wooster Employees
Detect Leaks & Alert Customers

| Wooster OHIO | Service Connections: 9,600 | Population: 26,540 | Meter Reading System: Aclara AMI |

City of Wooster - The Heart of Central Ohio

Located about fifty miles south and west of Cleveland, the City of Wooster is the county seat of the 13th largest county in Ohio (Wayne County). The City's Utilities department employs thirty-five people and provides water, sewer, trash and storm sewer services to a population of approximately 26,540.

Wooster has been using Aclara's fixed base, Advanced Metering Infrastructure (AMI) system since 1999. They were the company's third AMI customer. They host their own Network Control Computer (NCC) and maintain 14 Data Collector Units (DCUs).

The City's AMI deployment was an involved, two-year project because the majority of water meters were located inside customer homes. To complete the installation, employees had to schedule customer visits, most of which were after working hours. With each visit, staff would replace the meter and install a radio transmitting unit.

HIGHLIGHTS

- Improves the City's ability to identify leaks and rapidly notify customers

- Reduces customer support

- Delivers useful data for managing the water system calls

- Gives customers more control over their water consumption

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Goals for a Consumer Engagement System

In late 2015, utility staff started evaluating consumer engagement solutions. They were looking for an employee and customer-friendly system that would:

- Improve ability to catch leak events more quickly and alert customers
- Prevent customers from receiving unexpectedly high water bills
- Allow customers to proactively monitor accounts without adding additional staff

They reviewed several solutions ultimately selecting AquaHawk.

"We picked AquaHawk because the leak detection capabilities were better. The system uses algorithms tailored to each account to identify leaks. This was different than the protocol used by other applications that flag leaks when accounts have exceeded a hardcoded value…say 20% above average daily consumption.

AquaHawk also includes an integrated messaging system. Our employees can efficiently contact customers by automated phone call, text message, or e-mail. The application tracks everything from start to finish. We also liked the fact that AquaHawk monitors potential leaks for all of our accounts, even if they haven't yet subscribed to the service."

Darrell Moser - Accounts Receivable Manager

Useful Data for the Engineering Department

In addition to leak detection, the City leveraged other analytics capabilities in the application. "We started tracking the amount of water being pumped into specific zones and compared that to demand-side sales," Mr. Moser shared. "By tracking apparent water loss by zone on a daily basis, we can monitor changes that may indicate leaks when plant pumping volumes increase."

Accommodating Complex Meter Configurations

Meter configurations for most utilities are very simple: one account is linked to one water meter. Wooster's situation is more complex because the City uses compound and inline (subtraction) meters.

For a system to accurately measure consumption on these accounts, it must factor in: how many meters are used, what's being measured (irrigation vs. drinking water) and how the meters are physically installed. The City also bills in thousand gallon increments so the application had to accommodate rounding.

AquaHawk correctly calculates usage for all of Wooster's meter configurations.

Minimizing Customer Support Calls

One of the City's measures for determining if the portal system was successful related to customer service call volume. Employees were asked to compare the number of calls they received prior to implementing AquaHawk, and after.

Staff members reported that overall call volume had dropped. Moreover, because the City was taking a proactive approach and alerting customers to potential leaks, the number of calls from upset clients had also decreased.

"Our team likes the tool because it's very straightforward to use. Those customers we've notified about leaks have been very appreciative."

Vince Cicconetti - Utility Accountant

Prior to implementing the system, the City didn't have the staff to review use data for all its customers. Now, by combining the analytics capabilities of AquaHawk and near real-time consumption data from the AMI system, the utility can provide an enhanced level of service.

Enhancing the Portal Application

The City continues to collaborate with AquaHawk to enhance system capabilities. As an example, utility staff are interested in detecting abnormal low flow for their compound meters.

"If the low side of the meter hasn't moved in three days, and that's not a normal use pattern, alert our staff," suggested Mr. Moser. "These are events we want to track down and repair. Sometimes there's debris in the meters that can be easily cleaned. Other times, the register head needs to be replaced. Occasionally, the customer opened a bypass and forgot to close it."

The utility would also like to track if there's usage on any accounts that have been shutoff or "locked." These situations usually warrant further investigation.

Tracking how water moves through the distribution system is another important goal for Wooster. For example, one of their big industrial users sources water from the utility, and they have

Concern for Customers is Paramount

Wooster is fortunate to have ample water supplies so there's little need for aggressive water conservation programs. At the same time, if a customer has a leak, the water used is billable.

"We already spend a lot of time dealing with delinquent accounts and shutoffs," Mr. Moser related. "So we asked our organization, 'What can we do to help the majority of our customers who pay on time and don't require much interaction? Can we protect those clients from receiving an additional $200 charge on their bills because a leak ran undetected for hours or days?'"

"AquaHawk was part of the answer. The system gives our users much more control. When customers set their own thresholds, the system will automatically monitor their usage 24 hours a day, 7 days a week."

Darrell Moser - Accounts Receivable Manager

a private well. Occasionally if this customer receives a problematic well water test, they immediately transfer to the City's system.

This user can pull 30,000,000 gallons in a month. Without being able to view metrics for a particular zone, this situation can appear to be a leak on the order of 1,000,000 gallons per day.

"The water plant will call public works to confirm that it's really a customer drawing water. Providing this information in a real-time dashboard view would be advantageous."

Wooster would also like to integrate AquaHawk's Mapping and Group Messaging modules. This integration would enable employees to draw a polygon on a Google Map and select a group of accounts. Staff could then send proactive notifications about service outages, maintenance issues, and other useful information to customers. AquaHawk is working with the City to implement this functionality.

Summary

"We would definitely recommend AquaHawk to other utilities,"

affirmed Mr. Moser. "We like that it's a hosted, Web-based application that our IT department didn't have to install, and they don't have to support. The system is very accurate when it comes to identifying abnormal consumption issues."

"We are working to expand our marketing and communication efforts so that more of our customers take advantage of this valuable solution," he added.

About AquaHawk

AquaHawk™ is an affordable Web-based, customer portal solution that helps water utilities improve customer service and build stronger client relationships. By presenting useful data and actionable information, utility customers have more control over their water consumption and can save money. Utility employees benefit through a reduction in support calls, easier resolution of high bill complaints, and improved operational efficiencies.