SmartSights

CASE STUDY | WATER TREATMENT

Bellevue's Pristine Water Keeps on Flowing

LOCATION
Bellevue, Washington

INDUSTRY
Water & Wastewater Treatment

WEBSITE
bellevuewa.gov

CHAMPION
Mike Hetzler

Bellevue is a rolling mid-sized city (pop. 149,000) located just east of Seattle on the shores of Lake Washington. Filled with lush forest, parks, and streams, it is routinely rated one of America's Best Places to Live, which explains why it is home to so many thriving companies like Microsoft, T-Mobile, and Paccar as well as famous tech millionaires like Bill Gates and Jeff Bezos.

Helping support this livability is the Bellevue water service. Its water, sewer, and stormwater system, spread across 37 square miles, includes 24 reservoirs, 22 pump stations, 145 active pressure reducing valve stations, and over 600 miles of pipe.

A water inlet station shows water pumps for distributing source water to customers. WIN-911 monitors over 70 of these remote stations for the Bellevue water service.

An aging infrastructure puts pressure on staff

Like many cities of its size, Bellevue's water infrastructure is aging. A single water main break can cut service to homes for an extended period. In response, close to $200M has been set aside to renew or replace pipes, pumps, and reservoirs over the next decade.

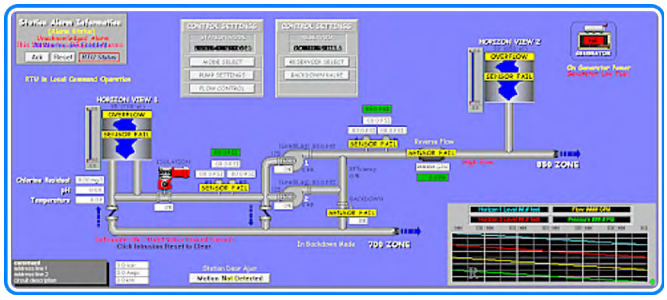
With so much at stake, maintenance crews need to anticipate issues ahead of time as well as quickly respond when equipment fails. This is even more important after hours and on weekends when there aren't as many crews in the field.

The list of things that can go wrong is long—from pipe pressure swings to power and communication failures to flood control malfunctions and more. The water service wants to be alerted to such problems within two minutes after coming into their Wonderware SCADA system.

> *"WIN-911 gives us a faster response to after hours emergencies. We want to know when we have alarms in two minutes after coming into the SCADA system. And in my experience, WIN-911 has been very good at that."*

Mike Hetzler

Lead Telemetry Technician,
Bellevue Water Services, WA



Typical SCADA screen showing water reservoir pump station and some of the alarms that WIN-911 monitors for the Bellevue Water Service.

Faster alarm response after hours

Previously, the water and wastewater departments used a pager system as well as an autodialer to connect to an answering service after hours. But the answering service could not be relied on, so they connected the WIN-911 SMS text solution to replace it. Now, when a high or low pressure alarm triggers, a text is automatically sent to the smartphone of the operator on call. If no one acknowledges after a certain time, the alert immediately escalates to the next technician on the list, and so on.

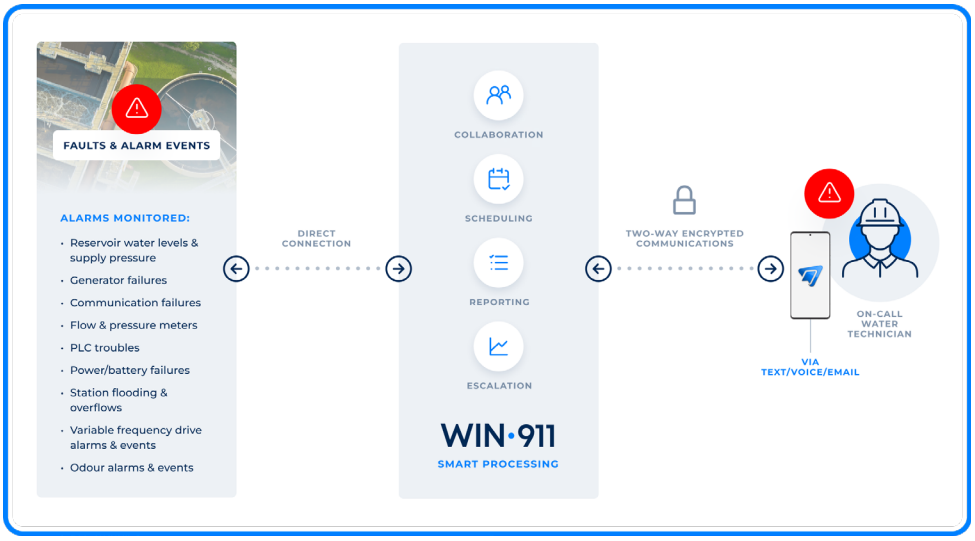
Telemetry technician Mike Hetzler recalls how a recent water main break illustrates WIN-911's value. Typically, staff would be alerted to after hours water main breaks by the public. No longer.

"Early detection of low pipeline pressures (as a result of a WIN-911 text) alerted operations staff (who alerted maintenance staff) of the water main problem before public notification reached our after hours staff. WIN-911 gave us a faster response to this after hours emergency," Hetzler said.

> *"I have heard from more than one system integrator that WIN-911 works well with Wonderware. I highly recommend WIN-911 to other municipalities because of its reliability."*

Mike Hetzler

Lead Telemetry Technician,
Bellevue Water Services, WA



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