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# Early Main Break Notification Allows Buffalo Grove to Fix Leak Ahead of Major Blizzard

## OVERVIEW

Buffalo Grove, a Chicago suburb with 40,000 residents, partnered with Aquify to improve visibility into their drinking water system to reduce non-revenue water (NRW), maintain compliance with Illinois' water loss regulation, and improve operational efficiency. Aquify installed 10 flow and pressure sensors at strategic locations throughout their network to create four virtual zones, also known as District Meter Areas (DMAs). Data from Aquify's sensors and the village's pump stations, bulk wholesale meters and storage assets are processed by Aquify's machine-learning analytics software to identify small leaks, large breaks and other system anomalies. Aquify's 24/7 professionally staffed control room monitors Buffalo Grove's system and provides ongoing analysis and actionable insight so the village can plan more effectively and improve response time.



8" cast iron pipe burst identified by Aquify's 24/7 Control Center

## CHALLENGE

Some water main breaks start as small leaks and develop into larger breaks over time. Others can break suddenly at any time and without warning, leaving water utility crews vulnerable and reactive regardless of time, day, or season. Winter storms in Chicago

## CHALLENGE (CONTINUED)

can be brutal and fixing leaks during a blizzard can be challenging and dangerous for crews. Leaving main breaks unattended during storms can also lead to ice formation, compromising public safety and escalating liability claims. Early detection of a leak allows the utility to plan and prioritize repairs in a programmatic manner.

## SOLUTION

Early morning on a cold January, Aquify's 24/7 control center identified a 130 gallon-per-minute (GPM) flow increase in Buffalo Grove's North zone. The Aquify team quickly contacted the village's water manager, Ben Kruse, alerting him of the leak and providing a localized search area for his team to investigate. The weather reports had been forecasting one of the largest snowstorms in years to hit the area later that day. After a short investigation, the village's public works team was able to locate surfacing water from the break in a culvert along the side of a busy road. When the pipe was uncovered, they discovered a beam break on an 8" cast iron pipe which they immediately repaired.



## RESULT

Because the 130 GPM leak was quickly identified, Buffalo Grove's team was able to excavate and repair it before the storm came in.

“ If we had not been alerted of this leak by Aquify, our crew would have had to fix this in blizzard conditions or we'd have to wait until after the storm passed which would have led to more water loss and potential safety hazards for our local residents. When it comes to a major snowstorm, our public works team is 'all hands on deck,' plowing streets, salting walkways and ensuring our municipal services remain available. Thanks to Aquify, our snow team was at full strength to help ensure the safety of our community.

~ Ben Kruse, Buffalo Grove Water Manager

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