

It's 10 p.m. Do You Know Where Your Assets Are?

Your GIS might.

By Derek B. Scott, Marketing and Technical Manager, AMERICAN Flow Control

For those of us old enough to remember, a 1960–70s public service announcement popularized the question, Do you know where your children are? A time stamp always accompanied the announcement, just prior to the local news broadcast.

As asset management becomes more critical for public utilities, many municipalities find themselves asking a similar question: Do you know where your assets are?

Hydrant and Valve Inspector

Capture these asset features:

- 1 Manufacturer
- 2 Model
- 3 Date of manufacture
- 4 Depth of burial
- 5 Elevation of nozzles from grade
- 6 Main valve opening size
- 7 Draining or nondraining configuration
- 8 Direction to open
- 9 Traffic model or nontraffic model type
- 10 Inlet size and type
- 11 Number of outlet nozzles and configuration
- 12 Nominal diameter of smaller hose nozzles, including thread code
- 13 Hose cap type and size
- 14 Nominal diameter of larger pumper nozzle, including thread code
- 15 Pumper cap type and size
- 16 Operating nut and nozzle cap wrench code
- 17 Paint color code
- 18 Manufacturer order number
- 19 Customer name
- 20 Customer address
- 21 Product item number
- 22–25 Address fields
- 26 Special notes

A GIS helps you understand relationships, patterns, and trends in data through visualization and interpretation. GIS is more than a key to managing asset location; it's a vehicle for doing more with less.

At AMERICAN Flow Control, we offer solutions on the Trimble Connect and Esri platforms to help stretch operations and maintenance budgets—every dollar of which is more critical today than ever. Our Hydrant and Valve Inspector solution uses the Esri platform to mobilize data collection and eliminate human error.

Case Study: Castle Rock

Recently Castle Rock, Colorado, saved time and money on data collection with the Hydrant and Valve Inspector and Esri technology. Castle Rock uses AMERICAN Flow Control hydrants and valves. Each asset bears a bar code that captures 14 or 26 manufacturer attributes for valves or hydrants, respectively. Fieldworkers scan the codes with Trimble Connect mobile devices. The information transfers seamlessly to an Esri-powered geodatabase. Field technicians can also photograph asset condition, the surrounding area, and the workflow platform to track and report maintenance and repair needs. This replaces printed checklists, which Castle Rock employees used to enter manually from the field into the database.

"The way we were previously doing things was getting the job done," Castle Rock utility maintenance supervisor John Chrestensen said. "But it was redundant. Now work orders are created and technicians can complete inspections more quickly. We're improving our billing processes, quickly responding to customer needs, and gathering data for our asset management program."

More Gains Grounded in Location

The value of spatial analytics doesn't stop there. GPS alone offers quantifiable gains. Take Fredericktown, Missouri, for instance. The town lowered its Insurance Service Office (ISO) rating three points just by documenting 300 hydrant locations, manufacturer year, and manufacturer name. The findings—publicized by a University of Missouri press release by Frank Wideman—showed an improvement in fire-services quality. The move also directly lowered property owners' annual premiums by 15 percent. In a town of fewer than 4,000 people, those savings directly impact the whole community.

The GPS solution had one more benefit: faster emergency response time. Wideman points out the obvious gains in Missouri's violent tornado season. For other geographies, the same solution could speed response in hurricanes, earthquakes, and so forth.

There are tangible benefits to GIS alone, but imagine what happens when you add GIS to GPS—when you enlist a true turnkey system. Imagine the benefits of knowing the location, age, and manufactured attributes of valves, hydrants, and pipes in areas experiencing catastrophic events, particularly when a natural disaster completely redefines the asset landscape.

GIS, GPS, and mobile asset awareness help overcome these hurdles. At the very least, they lessen the blow.

In fact, the application of these technologies now allows elevation recording in 3D via GPS. Replacing as-builts with this information can eliminate costly human errors to ensure more accurate data. Locating buried lines in an emergency, for instance, becomes more efficient. Also, routine field operations and regulatory compliance are optimized by

recording that the utility has met industry standards and insurance requirements, not to mention the value of these technologies in litigation situations.

The list of added value goes on. These tools support forward-thinking initiatives (e.g., identifying system-performance deficiencies), long-term planning, green conservation efforts, collaboration with authorities, and more.

Sky's the Limit

Hydrant and Valve Inspector exploits cloud computing too. Today, remote servers can network with each other, so computers and mobile devices share intelligence. Hydrant and Valve Inspector is also an app that's available at the iTunes store, at Google Play, or direct from Trimble to work on the Trimble Connect platform.

New features in the latest app release let utilities plan, dispatch, and approve work orders on a secured Trimble Connect website. Field technicians can record on a multitude of preferred devices (e.g., iPhone, iPad, Samsung Galaxy, Juno T41, Trimble Geo7X) and even pull directions to job sites and access detailed asset maps from the GIS. The app can work offline too. The GIS world offers so much more than asset-location identification.

So do you know where your assets are?

→ A Castle Rock, Colorado, utility inspector updates his records after inspecting one of 3,500 hydrants in the city's water distribution system.

For more information about Hydrant and Valve Inspector by AMERICAN Flow Control, visit www.american-usa.com/sales.html. Click Valves and Hydrants to connect with your local representative.

About the Author

Derek Scott is the marketing and technical manager for AMERICAN Flow Control. He holds a bachelor of science degree in mechanical engineering and has more than 30 years of experience in the water and wastewater industry. Scott joined AMERICAN in October 1988 and is currently responsible for the division's marketing and technical functions. He represents the company on several standards committees, including AWWA, ASCE, MSS, and NSF. He currently serves as the secretary for the ANSI/ AWWA Standards Committee on Gate Valves and Swing Check Valves.

