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# OCWA Hydrant Inspection Program

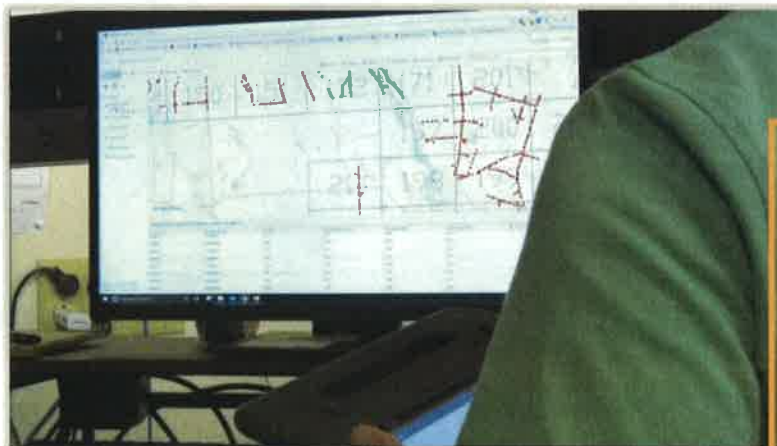
Onondaga County  
Water Authority, New York



The Onondaga County Water Authority (OCWA) is responsible for inspecting and maintaining over 14,000 fire hydrants in its service area. Providing accurate documentation of inspections and maintenance reports for each hydrant is important for fire districts in order to obtain ISO credit and insurance benefits. To more efficiently record, assess and provide sufficient upkeep for the hydrants OCWA needed to implement a new system of record keeping. Their previous monitoring procedure, consisted of filing paper logs, which was laborious, time-consuming and often restricted the availability to easily share reports among employees.

Barton & Loguidice (B&L) worked with OCWA to develop a new Hydrant Maintenance Inspection Program. Combining OCWA's existing asset management and GIS systems, B&L created a computer-based system to track and report all collected data through a user friendly, streamline process. The new system also addressed the following needs determined by OCWA:

- Replace the paper hydrant log books with a computer-based tool to track and report all data
- Installation, Field Testing, and Maintenance of Fire Hydrants (AWWA M17)



*B&L used GIS mapping to track the location of each hydrant, enabling the staff to quickly and efficiently file a conditions report.*

- Inspect hydrant elements in accordance with published standards
- Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems (NFPA 25)
- Have the ability to easily report the inspections to support ISO ratings for fire departments
- Easily identify and track follow-up maintenance requirements identified in the field

B&L and OCWA conducted several workshops to thoroughly understand the current process for hydrant inspections, and all the objectives and needs of the hydrant inspection program. The team then evaluated several commercial off-the-shelf software and hardware options that could support the program. Some considerations in selecting the solution include:



- Leverage OCWA's Maximo asset management software
- Find a solution that minimizes any investments in software licenses, and provides for flexible licensing as there could be up to 40 different individuals performing hydrant inspections in any given year
- Use Android tablets that do not have cellular connectivity and function in a store and forward configuration

The team decided to use a GIS-based application from ESRI, Collector, to support the project, which also required accelerating some elements of a GIS project at OCWA.

OCWA started the new inspection procedure in January 2017 with 24 tablet computers. The staff was trained on the use of the software and tool in a 1-hour session, which demonstrates the user-friendly nature of the system. In the first 3-months of use, 25% of OCWA's hydrants have been inspected with more details than prior inspections and detailed reports are now easily developed. The project has already been used to have ISO rate fire systems with a higher rating which in turn results in lower insurance bills for everyone in the fire districts. OCWA recently met with the local ISO representative, who claimed he would begin reflecting the efforts of this project in his ratings of all fire systems within OCWA's service area.

*Within the first 3 months of implementing the new system 25% of OCWA's hydrants had been inspected.*

