

## **Opelika Utilities** Water Loss Solution

Opelika Utilities, located in Opelika, Alabama, serves nearly 20,000 customers. Their mission is to assert a broad, long-term view of the water needs of Opelika's citizens and industries to assure that facilities, sources and manpower are provided for pure, plentiful water now and for the future.

With drought conditions worsening in the South, Opelika Utilities began taking a closer look into potential revenue issues and how to find solutions that would help save the utility both time and money. While many utilities are concerned about water loss due to leaky infrastructure, losses of this kind are under accepted industry standards. Instead, non-operational meters are the primary concern for nonrevenue water.

Each day there is a report of over 14,000-meter readings and every month, one individual in the office would spend 8 hours going through the report by hand to look for high readings and potential non-operating meters. As anyone could imagine, this process led to the possibility of a lot of information slipping through the cracks and an estimated revenue loss of \$100,000 every month. They needed an automated way to review meter readings, analyze, and automatically generate work orders so that non-operating meters could be attended to.



GISinc worked with Opelika to build a fully automated web GIS based system, which runs a script to recognize when meters showed the same reading for three months in a row.

The script also recognizes irrigation meters and does not evaluate these during winter months. The system automatically flags non-functioning meters and notifies an Opelika Utilities manager, via email, to alert a service crew to check the meter to determine if it is, in fact, non-operational – or determining other causes, such as needed maintenance. Both new and previously identified non-operational meters are displayed on an operations dashboard so that managers have a visual understanding of where these issues are occurring. This provides additional context to help determine potential causes, priorities, and desired response. Opelika Utilities is now able to quickly identify, inspect, and replace non-operational meters to reduce revenue loss.









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## **Opelika Utilities** Supporting Efficient Field Operations Through GIS

Opelika Utilities, located in Opelika, Alabama, provides the city's growing population with clean, plentiful water through innovative use of technology. Opelika currently serves nearly 20,000 customers and recently opened a new state-of-the-art treatment facility combining the best design components of more than a dozen other facilities from across the country.

To support efficient field operations, Opelika Utilities needed to implement the latest location technologies. With only about 10% of water network data in their GIS database, they wanted a solution that would quickly populate the complete database to support their pending asset management system. With asset management and operations, their vision was to put interactive maps into the hands of field operations in order to communicate timely information back to managers – without the need to return to the office.

Opelika Utilities has an entirely cloud-based IT infrastructure. GISinc configured the ArcGIS Enterprise software on the application and database servers and set up ArcGIS Enterprise tools on the virtual desktops. We then migrated their limited GIS data into the ArcGIS for Local Government Information Model (LGIM) and configured the Water Utility Editing tools. Opelika began digitizing their network from georeferenced asbuilts and testing connectivity with the Water Utility Reporting tools as they went. Once comfortable with the workflow, we helped them set up an ArcGIS Online and Collector workflow to collect point features in the field directly into the database, replacing a cumbersome GPS import process. As management asked questions about progress on the data collection, we implemented an Operations Dashboard configured to display live field information.



In just 6 months, Opelika Utilities had collected 95% of their water network infrastructure. In that same timeframe, more than 10 Esri Water Utility solution applications have been deployed to ArcGIS Online including the Utility Trace, Plans and Drawings, Capital Projects, Field Notes, Inspections, and Main Break apps. These apps are becoming a primary communication tool for Opelika staff as the network data collection nears completion.









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