

GREAT LAKES WATER AUTHORITY: MOBILE-ACCESS WASTEWATER INTERCEPTOR AND RAIN GAUGE MAPPING TOOL

[Great Lakes Water Authority](#) developed a mobile-access, geographic information systems (GIS)-based map that incorporates real-time operational data along its wastewater interceptors and at its rain gauges.

Combined sewer overflow (CSO) events in urban areas are a known source of nutrient loading which can lead to surface water quality problems, including harmful algal blooms and hypoxia. The map minimizes the risk of CSOs by increasing access to information and improving the ability to communicate about and manage stormwater. This technology helps Great Lakes Water Authority optimize their wet-weather operations by providing data in real time and drives progress for the Source Water Initiative's first goal of protecting sources of drinking water from nutrient impacts.

The map was developed using ArcGIS, and has many features that assist Great Lakes Water Authority, including:

- Pop-up boxes that display information such as the level of water in the interceptors
- Interceptor segments that change colors depending on how close they are to reaching their conveyance capacity
- Symbols that flash when CSO outfall gates are open and discharging
- Symbols for precipitation gauges that illuminate when there is more than 0.1 inches of rain over a five-minute average
- Forecasted precipitation in inches from the National Weather Service
- Mobile access for team members in the field

TYPE

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