

# Abstract

## **Managing Louisiana's Public Water Supply With GIS**

**Track:** Water Resources

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The Safe Drinking Water Act Amendments (SDWA) of 1996 requires all states develop a Source Water Assessment Program (SWAP) to ensure safe water for all citizens through the protection of water resources. In Louisiana, more than 3,200 public water wells and 50 surface water intakes supply the 4.5 million people of the state along with its estimated 20 million annual visitors. This paper will discuss the methods, techniques, and advantages of developing a full scale GIS to implement and manage a statewide source water protection program. Data collection, management, and presentation would not have been possible without ArcGIS as the foundation for an efficient and accurate SWAP project. ArcGIS was used to assemble data from over 20,000 field collection GPS points and 25 statewide datasets resulting in an extensive geodatabase. Reports and maps were generated that displayed sensitivity, vulnerability, and susceptibility analysis so that corrective action could be taken if necessary.

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