



## TMDL Development for Galena/Sinsinawa Rivers Watershed

### Background

Over the last 30 years, waters in Illinois have been monitored for chemical, biological and physical conditions. In some cases, the conditions of those rivers and lakes fall short of the need to support basic water quality use goals. These waters are deemed impaired since they cannot meet use expectations set for them under state and federal law. When this happens Total Maximum Daily Load (TMDL) reports are developed for impaired waters to determine the maximum amount of a pollutant a water body can receive and still meet water quality standards and support its designated uses. Designated uses include aquatic life, public water supply, swimming, recreation, fish consumption, and aesthetic quality.

TMDLs are done in stages to allow for public involvement and input. TMDL development in Illinois begins with the collection data—water quality, point source discharge, precipitation, soils, geology, topography, and land use—within the specific watershed. All impaired water body segments within the watershed are identified, along with potential pollutants causing the impairment. Illinois EPA determines the tools necessary to develop the TMDL. In most cases, computer models are used to simulate natural settings and calculate pollutant loads. Along with data analysis, model recommendations are made in the first stage of the TMDL. This information is presented at the first public meeting.

The appropriate model or models are selected based on the pollutants of concern, the amount of data available and the type of water body. In some cases, additional data needs to be collected before continuing. The model is used to determine how much a pollutant needs to be reduced in order for the water to be meeting its designated uses.

An implementation plan is developed for the watershed spelling out the actions necessary to achieve the goals. The plan can specify limits for point source dischargers and recommend best management practices (BMPs) for nonpoint sources. Another public meeting is held to discuss this plan and to involve the local community. Commitment to the implementation plan by the citizens who live and work in the watershed is essential to success in reducing the pollutant loads and improving water quality.

### Waterbody Designated Uses and Impairments

Waterbody	Designated Use(s)	Impairment(s)
Sinsinawa River	Aquatic Life	<i>Sedimentation/Siltation*</i>
Frentress Reservoir	Aquatic Life, Aesthetic Quality	<i>Total Phosphorus, Dissolved Oxygen, Turbidity*, Total Suspended Solids*</i>
Galena River	Aquatic Life, Primary Contact Recreation	<i>Zinc, Fecal Coliform, Sedimentation/Siltation*, Total Suspended Solids*</i>

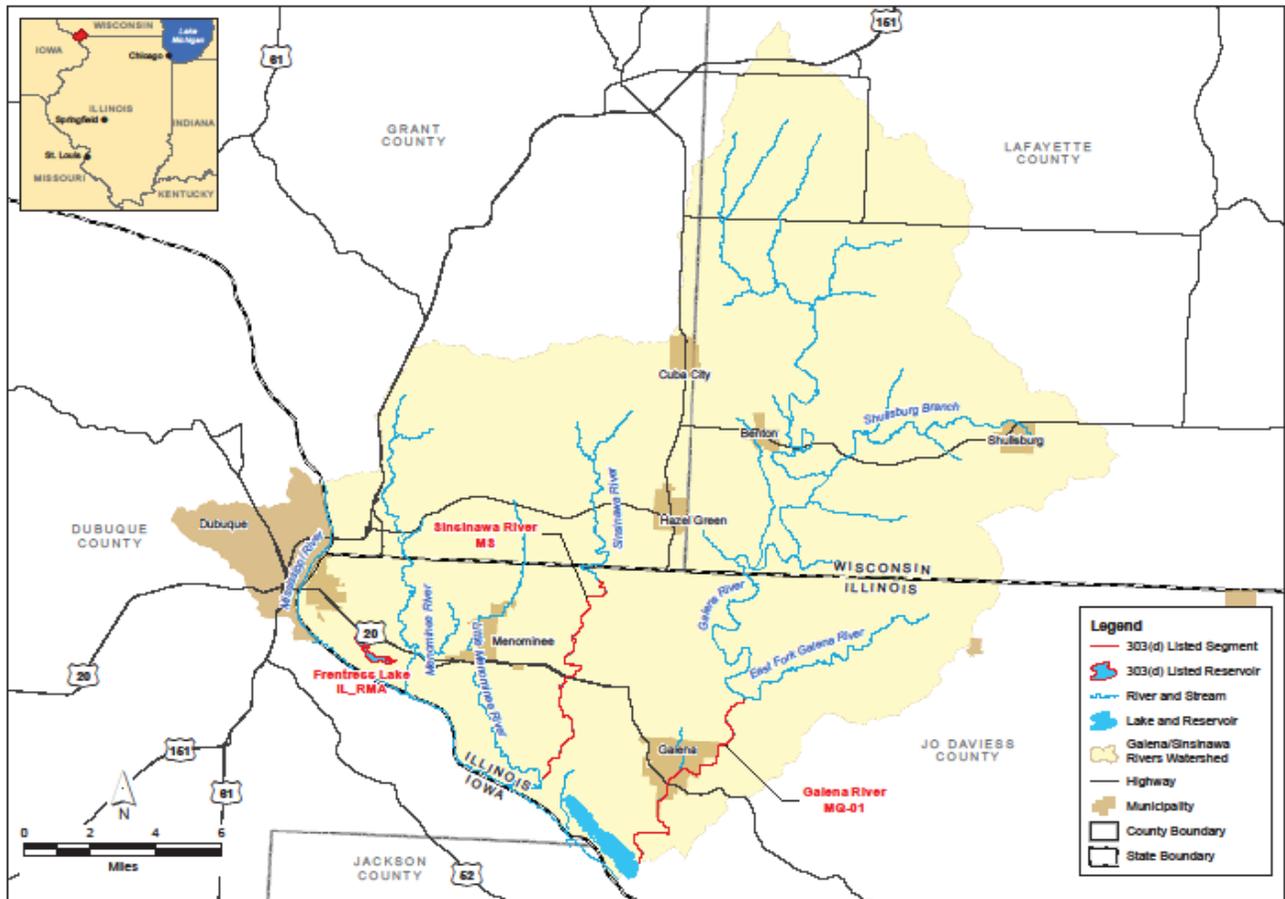
*\*Italicized causes of impairments do not have numeric water quality standards and a Load Reduction Strategy (LRS) may be developed where appropriate.*

### Watershed Information

The Galena/Sinsinawa Rivers watershed is located in northwestern Illinois and southwestern Wisconsin. The watershed flows in a southerly direction and drains approximately 211,000 acres. Approximately 77,000 acres (37 percent) are located in Jo Daviess County, Illinois, and the remaining 134,000 acres (63 percent) are located in Grant and Lafayette Counties, Wisconsin.

Land cover data reveal that approximately 76 percent of the total watershed area supports agricultural vegetation, approximately 14 percent is forest and woodland and approximately 7 percent is developed. The remainder consists of open and water and shrubland/grassland.

## Watershed Map



## Potential Pollutant Sources

There are two point source discharges (e.g. municipal or industrial wastewater treatment plant) in this watershed. Potential nonpoint sources include: agriculture, urban runoff/storm sewers and unknown sources.

For more information on this specific TMDL or the TMDL program, visit the Illinois EPA website at <http://www.epa.state.il.us/water/tmdl/>.

For information on the assessment of Illinois waters, refer to the Integrated Report and 303(d) List at <http://www.epa.state.il.us/water/tmdl/303d-list.html>.

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