



## TMDL Development for Ohio River 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 developed in stages to allow for public involvement and input. TMDL development in Illinois begins with the collection of data—water quality, point source discharge, precipitation, soils, geology, topography, and land use—within the specific watershed. 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. 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 pollutant loads can be calculated. The model is used to determine how much a pollutant needs to be reduced in order for the water to meet its designated uses. An implementation plan is developed for the watershed spelling out the actions necessary to achieve the pollutant reduction 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 present this information. For addressing nonpoint sources, 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

<i>Water Body</i>	<i>Impaired Designated Use</i>	<i>Impairments Addressed by TMDL</i>
Ohio River- Segment ID 849-910	Primary Contact (Swimming)	Pathogens- Fecal Coliform

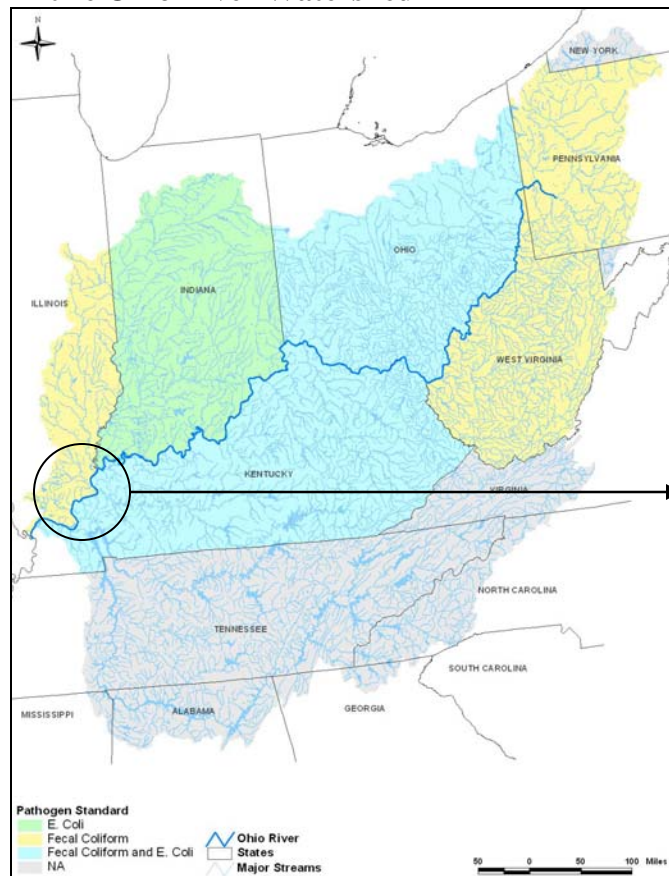
### Watershed Information

The entire Ohio River basin drains more than 200,000 square miles and the river is itself more than 900 miles long (500 miles are impaired). The watershed encompasses large portions of seven states and smaller portions of eight states. This interstate TMDL is being developed by USEPA in conjunction with the states of Indiana, Illinois, Kentucky, Ohio, Pennsylvania and West Virginia. Specifically in Illinois, segment IL\_A-894-910 (sixteen miles long) is impaired for primary contact (swimming) with a potential cause of pathogen indicated by total fecal coliform. The watershed that includes the mainstem of the Ohio River with the

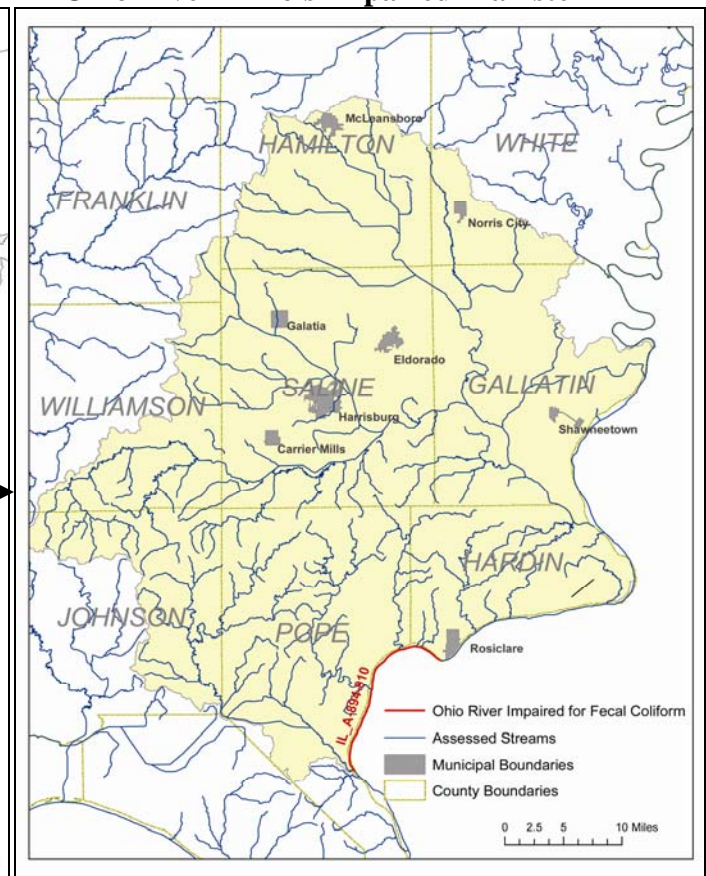
impaired Illinois segment is approximately 1,735 square miles (see map below). Land use is predominately agriculture (57 percent) and forest (31 percent).

## Watershed Maps

### Entire Ohio River Watershed



### Ohio River Illinois Impaired Mainstem



## Potential Pollutant Sources

There are point source discharges (e.g. municipal and industrial sewage treatment plants) in the watershed. Potential nonpoint sources include agriculture, animal operations, septic systems and natural sources.

## Public Participation

Illinois EPA holds a minimum of two public meetings for a TMDL watershed. One of the reasons for holding the first meeting early in the process is to collect information from the public (i.e., water quality data, livestock information). Each of the six states will be holding their first public meeting(s) in January of 2009. Illinois will hold a meeting in Golconda on January 12, 2009. A public notice will be sent out for this meeting.

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/>.

If you have any questions, please contact Jennifer Clarke by phone at 217/782-3362 or email at [Jennifer.Clarke@illinois.gov](mailto:Jennifer.Clarke@illinois.gov).

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