State of Illinois
Bruce Rauner, Governor

Illinois Environmental Protection Agency
Alec Messina, Acting Director

TMDL Development for Upper Kaskaskia 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 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.

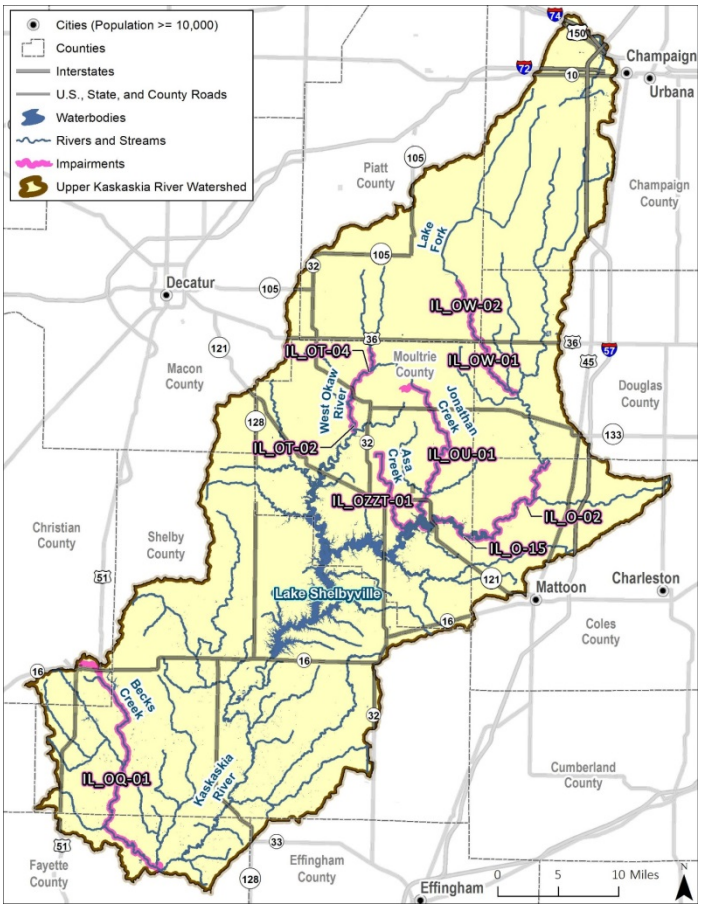
The appropriate model or models are selected based on the pollutants of concern, the amount of data available and the type of water body. In some cases, additional data needs to be collected before continuing. The model is used to determine how much a pollutant needs to be reduced in order for the water 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	Impairment(s)
Kaskaskia River (O-02)	Primary Contact	Fecal Coliform
Kaskaskia River (O-15)	Primary Contact	Fecal Coliform
Beck Creek (OQ-01)	Primary Contact	Fecal Coliform
West Okaw River (OT-02	Primary Contact	Fecal Coliform
West Okaw River (OT-04)	Aquatic Life	Dissolved Oxygen, pH
Jonathon Creek (OU-01)	Primary Contact	Fecal Coliform
Lake Fork (OW-01)	Aquatic Life	*Sedimentation/siltation*
Lake Fork (OW-01)	Aquatic Life	*Sedimentation/siltation*
Asa Creek (OZZT-01)	Aquatic Life	pH, *Sedimentation/siltation*
**Italicized causes of impairments do not have numeric water quality standards and a Load Reduction Strategy (LRS) may be developed where appropriate*		

Watershed Map



Watershed Information

The Upper Kaskaskia River is located in east-central Illinois, flows in a southwesterly direction, and covers nearly 1,568 square miles. Counties with land located in the watershed area include Champaign, Christian, Coles, Douglas, Effingham, Fayette, Macon, Moultrie, Piatt and Shelby. Area-weighted population in the project area is estimated to be 89,613.

Land use within the watershed includes agriculture – 805,443 acres of cultivated crops and pasture/hay (80 percent), 100,864 acres of forest (10 percent), and 78,564 acres of urban development (8 percent). The remaining two percent consists of wetlands and open water.

Potential Pollutant Sources

There are 16 point source discharges (e.g. municipal or industrial wastewater treatment plant) that drain to impaired waters in the study area. Potential nonpoint sources include: agriculture, crop production, channelization, 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.

If you have any questions, please contact the project manager, Trevor Sample (Planning Unit) at 217-782-3362 or at Trevor.Sample@Illinois.gov or Abel Haile by phone at 217/782-3362 or at Abel.Haile@illinois.gov.

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