



TMDL Development for La Moine/Missouri Creek 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	Segment ID	Designated Use	Impairment(s)
La Moine River	IL_DG-01	Primary Contact Recreation	Fecal Coliform
La Moine River	IL_DG-04	Primary Contact Recreation	Fecal Coliform
Missouri Creek	IL_DGD-01	Aquatic Life	Manganese
Little Missouri Creek	IL_DGDA-01	Aquatic Life	Manganese, Dissolved Oxygen

Watershed Map



Watershed Information

The La Moine/Missouri Creek watershed is located in west central Illinois. The project area begins downstream of the Upper La Moine watershed at the confluence of the east fork and main stem of the La Moine River, approximately 15 miles south of the Mississippi River and Iowa/Illinois border. The project area continues through agricultural and forested land, ending downstream of Beardstown at the confluence with the Illinois River. The project area covers nearly 851 square miles, and includes land within Adams, Brown, Fulton, Hancock, McDonough and Schuyler Counties.

Land use in the watershed is heavily influenced by agriculture. There is a small amount of urban area surrounding the town of Rushville and other small towns in the watershed, but outside of agriculture the remainder of the watershed is mostly forested. Specific land use across the watershed includes agriculture – cultivated crops and pasture/hay (approximately 66 percent), forest (approximately 27 percent), and urban (approximately 5 percent). Corn and soybeans are the primary crops grown in the watershed and account for 26 and 21 percent of the total watershed area. Forest is prevalent near streams where steep valley walls preclude row crop agricultural activities.

Potential Pollutant Sources

There are 13 point source discharges (e.g. municipal or industrial wastewater treatment plant and concentrated animal feeding operations) in this watershed. Potential nonpoint sources include: crop production, stormwater runoff, erosion, septic systems, animal agriculture and agricultural tile drainage, abandoned coal/surface mining lands, 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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