Illinois Environmental Protection Agency Alec Messina, Director



# TMDL Development for East Fork La Moine River (II) 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.

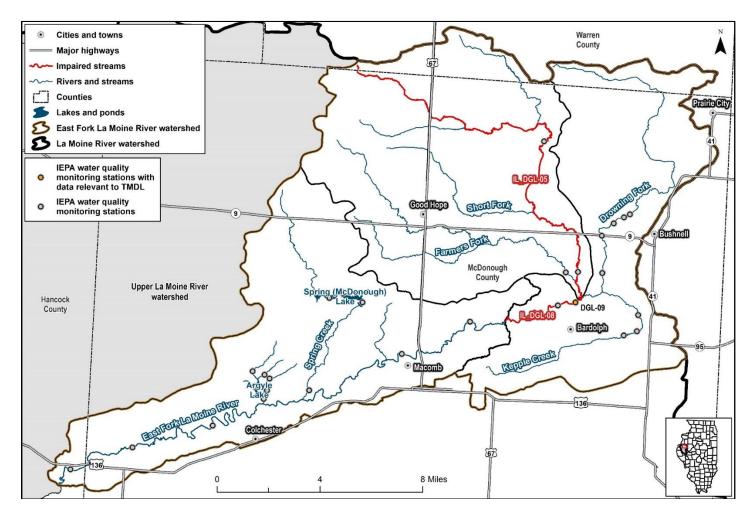
An implementation plan is developed for the watershed spelling out the actions necessary to achieve the goals. The plan can specify limits for point source dischargers and recommend best management practices (BMPs) for nonpoint sources. Another public meeting is held to discuss this plan and to involve 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)  |  |
|--------------------------|------------|----------------|--|--|
| East Fork La Moine River | IL_DGL-05  | Aquatic Life   | Dissolved Oxygen   |  |
| East Fork La Moine River | IL_DGL-08  | Aquatic Life   | Dissolved Oxygen   |  |
| Drowning Fork            | IL_DGLC-01 | Aquatic Life   | Phosphorus (Total)*, Sedimentation/Siltation*, Total Suspended Solids (TSS)* |  |

\*Italicized causes of impairments do not have numeric water quality standards and are not being addresses as part of this project.

### **Watershed Map**



#### Watershed Information

The East Fork La Moine River watershed is located in west-central Illinois, flows in a southwesterly direction, and drains approximately 143,000 acres within the state of Illinois. The watershed covers land within Hancock, McDonough, and Warren Counties.

Cultivated crops make up the majority of the land cover in the East Fork La Moine River watershed. There are several small cities and towns in the watershed, with much of the development located in the city of Macomb.

## **Potential Pollutant Sources**

There are three point source discharges (municipal wastewater treatment plants) in this watershed. Illinois EPA was not able to identify specific sources contributing to dissolved oxygen impairments. However, potential nonpoint sources include: crop production, animal agriculture and agricultural tile drainage, septic systems, and unknown sources.

For more information on this specific TMDL or the TMDL program, visit the Illinois EPA website at <a href="https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx">https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx</a>

For information on the assessment of Illinois waters, refer to the Integrated Report and 303(d) List at <a href="https://www2.illinois.gov/epa/topics/water-quality/watershed-management/resource-assessments/Pages/default.aspx">https://www2.illinois.gov/epa/topics/water-quality/watershed-management/resource-assessments/Pages/default.aspx</a>

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