Michigan's Nonpoint Source Program

Federal Clean Water Act Section 319 Grant
Tracking code: 2011-0005

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Belle River Watershed Planning Project

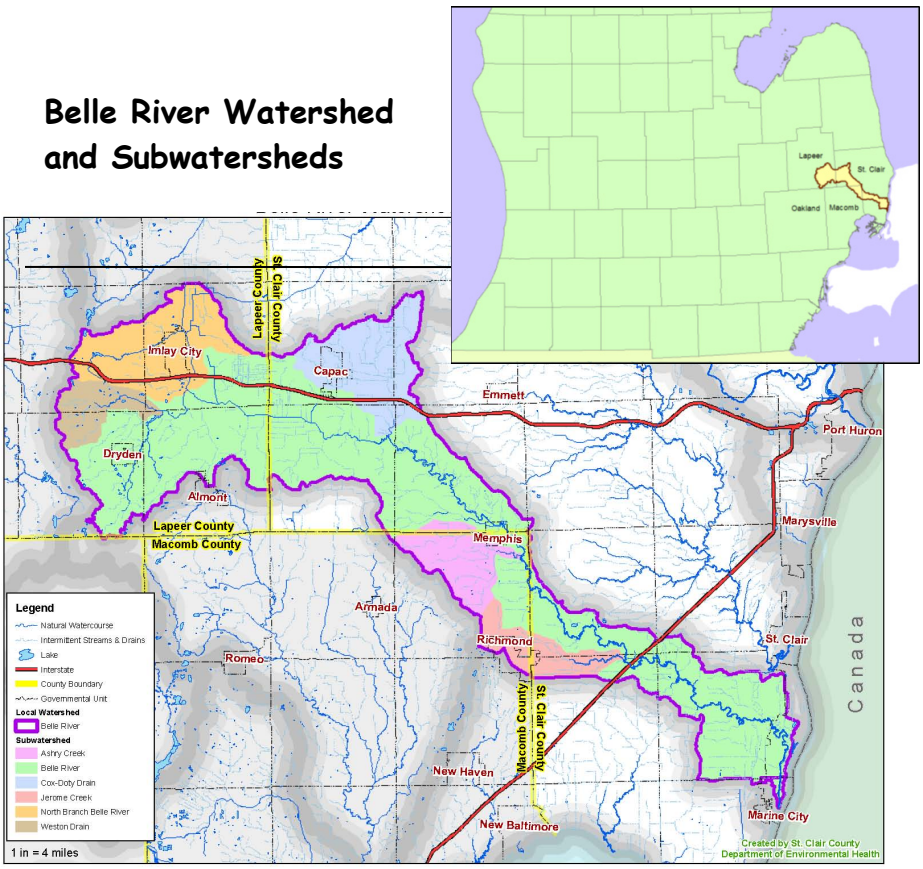
January 2012 – August 2015

The Belle River Watershed is dominated by agriculture land use (52%) covering 227mi^2 mostly in St. Clair County, but small portions of Lapeer, Macomb & Oakland Counties. The river is 73 miles long, with its headwaters in eastern Lapeer County, and flows into the St. Clair River at Marine City. The river has a Dissolved Oxygen Total Maximum Daily Load for 21 miles of its headwaters, is on the 303(d) list for *E. coli*, has excessive logjams, and has lost 79% of its wetlands. Yet, it remains one of the highest quality rivers in southeast Michigan, containing forested riparian areas and state threatened & endangered fish and mussel species. This project developed a woody debris management plan, identified upland and in-stream sediment and nutrient sources, and prioritized actions needed to support the plan's goals and designated uses, which resulted in an approved watershed management plan.

Grant Amount: $249,975
Match Funds: $50,155

Total Amount: $300,155

Belle River Watershed and Subwatersheds



Project Accomplishments:

- Conducted watershed inventories, including agricultural nonpoint source surveys, mussel surveys, sediment source assessments, and macroinvertebrate monitoring
- Developed a Woody Debris Management Plan based on a 36-mile river inventory
- Completed a Landscape Level Wetland Functional Assessment to identify highest priority areas for wetland protection & restoration
- Mapped agricultural and urban areas for restoration and protection
- Reviewed master plans for 11 cities & townships, and 3 counties
- Recommended 78 Best Management Practices

I&E Activities:

- Led 4 macroinvertebrate stream monitoring events at 4 sites
- Organized 2 River Day paddle events
- Implemented a public opinion survey with 3 direct mailings
- Maintained www.sccwater.org website
- Held 2 public meetings
- Distributed fact sheets and newsletters

Partners involved:

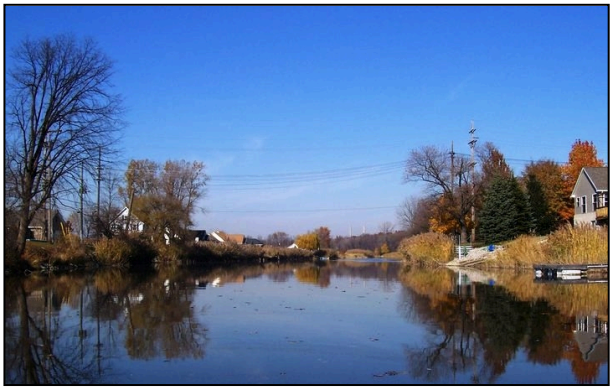
- Columbus Township
- Friends of the St. Clair River
- Hubbell, Roth and Clark, Inc.
- King and MacGregor Environmental
- Lapeer Conservation District
- Lapeer County Drain Office
- LimnoTech
- Macomb County Public Works Office
- Macomb County Health Department
- MI Dept of Environmental Quality
- Six Rivers Land Conservancy
- St. Clair County Health Dept.
- St. Clair County Community College
- St. Clair County Drain Office
- St. Clair Conservation District
- St. Clair Metropolitan Planning Commission
- St. Clair County Parks & Rec.
- Riley Township

The middle section of the Belle River in St. Clair County supports a diverse population of state and federally threatened and endangered mussel species

A majority of the headwaters of the Belle River in Lapeer County are predominately impacted by agricultural land use

Volunteers conducted windshield surveys to identify and prioritize areas for preservation such as this wooded wetland parcel

Residents identified "Supports Recreational Access" as a desired use for the Belle River



The downstream portion of the Belle River, which includes Marine City and other suburban areas, widens and deepens and is navigable by boat

Sediment from stream bank erosion and excessive logjams were identified as problems throughout the watershed

The middle section of the Belle River contains high quality significant natural features that have been prioritized for protection

The headwaters of the Belle River begin in marshy areas in eastern Lapeer County and are identified as priority conservation areas

Soil erosion and sedimentation are major issues primarily in the Inter-county Drain in 21 miles of the headwaters, where a TMDL has been developed for low dissolved oxygen

Thirty-five extensive logjams were identified during the 36-mile river survey and were recommended to be selectively managed throughout the priority areas