



Federal Clean Water Act
Section 205j
Nonpoint Source Grant
2005-0149



Superior Watershed Partnership
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Two Hearted River Watershed Planning Project

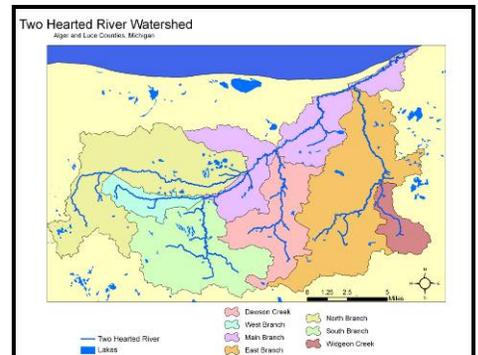
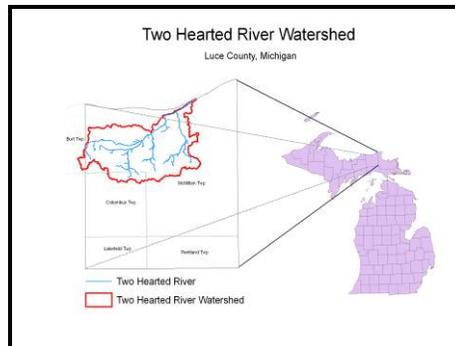
January 1, 2006, through December 15, 2008

The Two Hearted River Watershed encompasses over 130,000 acres (203 square miles) within the Lake Superior drainage of Michigan's Upper Peninsula. Many people are attracted to the Two Hearted River watershed, not only for its wilderness-like nature, but also for the recreational opportunities that it supports, such as excellent brook trout and steelhead fishing, canoeing, hunting, dog sledding, and many other activities. The Two Hearted River Natural River Plan (MDNR 2002) sums up the potential threats to this pristine water resource by stating, "As the demand for quality recreation increases, the natural beauty and wilderness characteristics of the area could be destroyed by unregulated land use." The overall goal of the Two Hearted River Watershed Management Plan is to provide guidance for the implementation of actions that will reduce the potential negative impacts that current and future land uses may have on water quality and designated and desired watershed uses. Key recommendations were based on prioritized sources of pollutants and other environmental stressors that are currently threatening this unique and high quality watershed. The envisioned endpoint is to support appropriate designated and desired uses while maintaining the pristine nature and significant natural features of the watershed.

Grant Amount: \$ 86,600

~~Match Funds: \$ 15,400~~

Total Amount: \$ 102,000



Partners involved:

- Superior Watershed Partnership
- The Nature Conservancy in Michigan
- Luce County Planning and Development
- Michigan Department of Natural Resources
- Lake Superior State University
- Forestland Group LLC
- Luce County Conservation District
- East Branch Sportsman's Club
- Grossman Forestry
- Two Heart Chapter Trout Unlimited
- Rainbow Lodge
- Luce County Road Commission
- McMillan Township
- Michigan Department of Environmental Quality

I&E Activities:

- TU River Awareness Day
- Great Waters Nature-based tourism trail guides
- ORV/ATV information and education campaign
- Project Web site
- Volunteer monitoring and invasive species removal
- Two Hearted River Riparian Analysis
- MDEQ Hydrologic Analysis
- Lake Superior Coastal Management Plan and Coastal Shoreline Viewer for Luce County (funded separately)

Proposed Best Management

Practices:

- Reduced sediment from man-made erosion sites
- Improved stewardship practices by landowners and tourists
- Increased nature-based tourism opportunities
- Increased public awareness and involvement

Anticipated Load Reductions:

- 125 tons (sediment) by Year 5
- 300 tons (sediment) by Year 10



Project Activity and Accomplishment Highlights

Watershed Inventory and Analysis

- Water quality monitoring at 6 sites (MiCorps Volunteer Stream Monitoring Program)
- Road/stream crossing inventory at 15 sites (with Lake Superior State University Fish and Wildlife Club)
- Inventory and analysis of natural and man-made erosion sites (GIS and field based)
- Watershed-wide analysis of limitations for various land uses (building development, septic, forest management)
- Functional riparian corridor analysis (GIS and field based)
- Visual inventories and photographic documentation



Road Stream Crossing Inventory Training



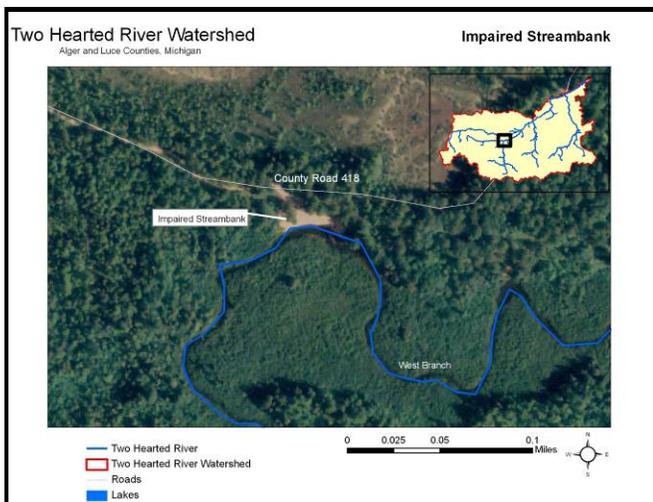
Trout Unlimited River Awareness Day

Riparian Corridor Analysis

- Define the functional riparian corridor
- Identify environmentally sensitive areas
- Identify limitations from various land uses (GIS and field based)
- Comparison with existing regulations (MDNR Natural Rivers, MDEQ voluntary buffer widths, Luce County Zoning)

Table 4.9 Percent of Riparian Area by Sensitivity Categories

Rank Category	Sum Rank	Acres	Percent of Riparian Area
Low	1 to 5	902	2
Low-moderate	6 to 9	20,408	35
Moderate	10 to 14	32,532	56
Moderate-high	15 to 18	4,012	7
High	19 to 22	60	<1



Erosion Inventory and Analysis - Example of Man-made Erosion Site