

**Big Eau Pleine River Volunteer Monitoring for Impaired Waters Characterization**

*The Big Eau Pleine Flowage is identified as an Impaired waterbody on the 303 d list. The flowage is located in Marathon County and > 70% of the watershed landuse is agriculture. Nutrient and sediment loading from the watershed causes severe summer algae blooms and contributes to low dissolved oxygen levels in the winter.*

*WCR began TMDL monitoring for the flowage in 2009 characterize impairments found on the flowage. This project will fund an advanced volunteer monitor for collecting monthly water chemistry samples from three major tributaries to the Big Eau Pleine Flowage. Samples will be collected the second week of each month and shipped to the SLOH for nutrient, chlor a and TSS analysis.*

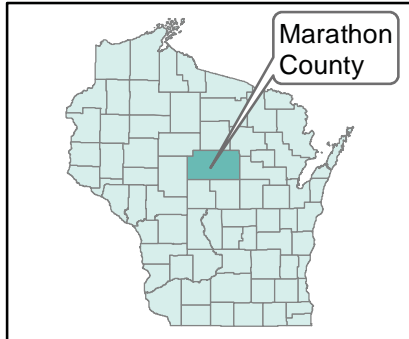
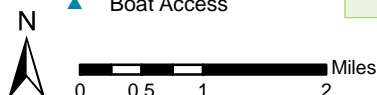
*The data will be collected in conjunction with other monitoring activities and used to develop a TMDL for the flowage. The study is designed for two years of monitoring and a third year might be necessary depending on precipitation and corresponding water levels in the flowage. This is a two-year project and funding was again requested and received in FY11.*



# Water Division Targeting Monitoring Project

## Big Eau Pleine River Citizen Monitoring

- ◆ Monitoring Stations
- Outfall
- ◆ Dam
- ▲ Boat Access
- Lake
- City/Town
- County
- Public Land
- Featured River
- Other River
- Interstate Highway
- US Highway
- State Highway
- County Highway
- Local Road



Becky Creek Downstream Site, East Channel, 2009

A citizen volunteer conducts long-term monitoring of tributaries to the Big Eau Pleine Flowage. This volunteer is contributing to the flowage's restoration.



### ***Project Goals:***

[Read More about the Big Eau Pleine Flowage](#)

The objective of this project is to provide multiple years of sediment and nutrient data to be used for the development of a TMDL for the Big Eau Pleine Watershed. Chemistry, physical, habitat and biological data will be collected over multiple years by combining monitoring efforts of The Wisconsin Valley Improvement Corporation, a citizen volunteer monitor, and DNR biologists.

Specifically, the project will provide multiple years of monthly tributary monitoring along with streamflow (already monitored by USGS) to provide more accurate loading estimates from the watershed. The project request funded the cost of sample analysis, postage and volunteer travel. This project began in FY10 and continues to the present day.

The citizen volunteer has collected monthly samples since July 2007 and the continuation of monthly sampling through June 2011 helped provide multiple years of loading data from three tributaries to the Big Eau Pleine Reservoir: the Big Eau Pleine River, Freeman Creek and Fenwood Creek. Monthly water chemistry samples have been analyzed for suspended solids, total phosphorus and dissolved phosphorus. In addition to the water chemistry samples, field parameters of dissolved oxygen, temperature, pH and turbidity tube measurements were collected during each visit. The data from this study will be analyzed by WDNR biologists and included in a summary analysis of conditions during the development of a larger study of impaired waters in Central Wisconsin. This information will be used with other data collected by DNR to calculate nutrient and sediment loads to the flowage from the watershed. The information will also be used with a response model (BATHTUB) to determine how the flowage responds to phosphorus increases and decreases from the watershed.