

# Galien River Watershed

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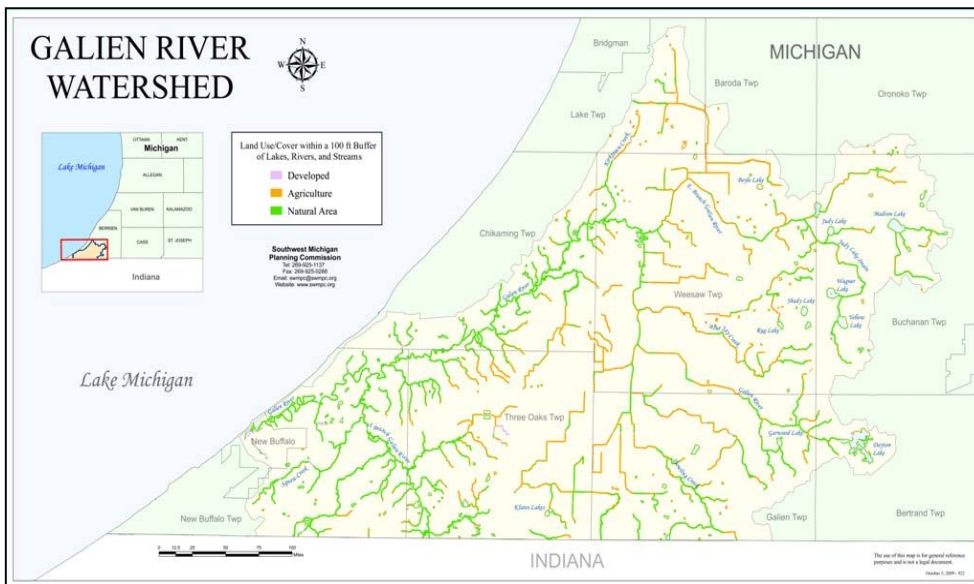


Fact Sheet Volume 1

June, 2010

The Galien River Watershed is located in Southwestern Michigan and Northwestern Indiana. The portion of the watershed located in Michigan is approximately 82,200 acres, all located in Berrien County and emptying into Lake Michigan in New Buffalo. Land use in the Michigan area of the watershed is 62% rural and agriculture, 23% forest, and 5% urban, with the remainder lakes, streams and wetlands. Since presettlement times the Watershed has lost 52% of its original wetlands.

Wetlands are crucial to watershed health. Forming the boundary between the uplands and open water, wetlands store excess water, reduce flooding downstream, act as a filter for sediment and other pollutants, help to control erosion, provide habitat for a diverse collection of plants and animals and, in turn, are great places for recreation and scenic enjoyment.



### Buffer Map

Southwest Michigan Planning Commission created a buffer map (pictured at left) for the watershed showing the land use cover within 100 feet of the waterways. The green indicates areas with natural vegetation along the river while the yellow indicates agricultural areas having little vegetation along the river. Having a strip of vegetation along the river can greatly reduce the erosion of the banks and the amount of sediment being washed from the fields into the river. The photo below shows spring flood water flowing directly into the drainage ditch.

### Riparian Buffers

Buffers are strips of land planted to permanent vegetation between developed land and open water. Buffers provide cooling for water, stabilize banks, slow run-off and trap and filter pollutants. Buffers are often used in agricultural settings to help control the movement of sediment, nutrients and pesticides. Excess sediment can increase the need for county drain dredging or clean out so reducing sediment reduces the costs of drain maintenance. Excess nutrients reaching open water causes increased algal growth, which reduces oxygen and degrades aquatic habitats.

Residential settings can use buffers for the same purposes. You can buffer your home by not mowing down to the edge of the river or ditch. Buffers can also be used to enhance fish and wildlife habitat.

Properly installed buffers can reduce up to 50% of nutrients and pesticides, up to 60% of some pathogens, and up to 80% of sediment coming off the land.

In the photo to the right a farm field is shown on the left, a buffer strip in the center and a stream with naturally vegetated banks on the right.



## Wetlands Assessment

The Michigan Department of Natural Resources and Environment has completed an assessment of the wetlands in the Galien River Watershed. The assessment looks at presettlement and present day wetlands and identifies possible areas for wetland restoration. The Conservation Fund will complete the watershed assessment this spring by collecting "on-the-ground" evaluations of wetland habitat in the identified wetland areas. Assessment results will be the topic of a Galien River Steering Meeting this fall.

## Galien Watershed Survey

During the summer of 2009, the Southwest Planning Commission conducted two surveys in the Watershed. The first was a door-to-door survey conducted in the areas around Three Oaks and Weesaw Townships known to have unsafe levels of pollutants in the River and tributaries. The second survey was mailed to randomly selected Watershed residents.

Most residents responded that canoeing, kayaking and boating were of high importance, and felt that the scenic nature of the area was of highest importance. People generally recognized that *E.coli* presented a problem for swimming and though about 50% of those surveyed did not know if *E.coli* was a problem, *E.coli* had a higher recognition than other pollutants. Approximately 45% did not know about fish consumption safety. Ninety percent felt they were personally responsible to help protect water quality, but this figure dropped to 60% when financial responsibility was added to the question.



## The Glorious Galien

Tune in to this program on WRHC Harbor Country Radio (106.7 FM) to hear the daily information and tips about the natural world and the Galien Watershed, such as this installment:

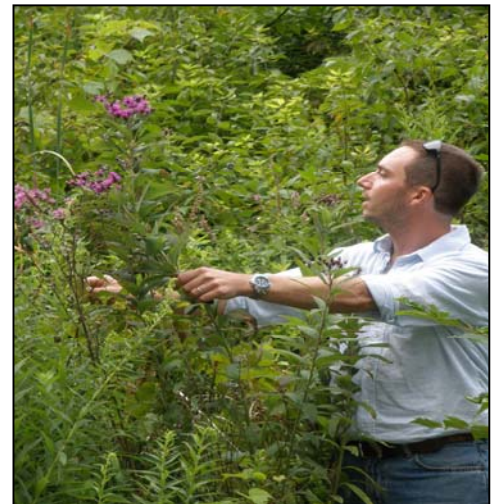
### Stop the Muddiness

Welcome to the Glorious Galien and a plea to stop the mud. Mud in the Galien River suffocates fish by clogging their gills and also prevents fish from seeing their food. Mud carries chemicals like fertilizers and pesticides. It costs hundreds of thousands of dollars to dredge the New Buffalo Marina. Mud is the largest nonpoint pollution problem facing the Galien River.

So what can you do? Check around your home to see if there are bare spots in your lawn, driveway or around shrubs. Re-seed these areas with grass to stop erosion. Wash your car on the lawn not in the drive way. For WRHC this is Peg Kohring from the banks of the Galien River.

## Galien River Marsh Restoration

Chikaming Open Lands, using a grant from AEP, and in cooperation with other Marsh landowners, has completed an assessment of the Galien River Marsh, a high quality Great Lakes Marsh which is suffering habitat degradation. Invasive, non-native species such as purple loosestrife, common reed and reed canary grass have become abundant in some areas, crowding out native vegetation. Excess sediment and nutrients in the river also collect in the Marsh, which impacts the plants and animals that live there. Reducing populations of the invasive species will be the first priority of the restoration plan.



Brian Majka of JF New describes the beetle release program which will help eradicate purple loosestrife in the Galien Marsh.

**Michigan DNRE Fish Survey**—The Michigan Department of Natural Resources and Environment plans to do a fish survey in the Galien Watershed during August of 2010. During the survey, fish species populations will be sampled and habitat health will be evaluated. The public can become involved by providing fishing reports, which give DNRE biologists additional information on the distribution of fish species and the utilization of those species by anglers. Dates of the survey are weather dependent and will not be set until 2 weeks before sampling. For further information, contact Brian Gunderman at [GundermanB@michigan.gov](mailto:GundermanB@michigan.gov)

**The Galien River Steering Committee** meets three times a year to inform and have discussion about ways to improve the water quality in the Galien River Watershed. The meetings are open to all. If you would like to be on the email list please call The Conservation Fund at 269-426-8825.

**The Galien River Watershed Management Plan**, along with additional watershed information, is available at: [http://www.swmpc.org/galien\\_river.asp](http://www.swmpc.org/galien_river.asp)

