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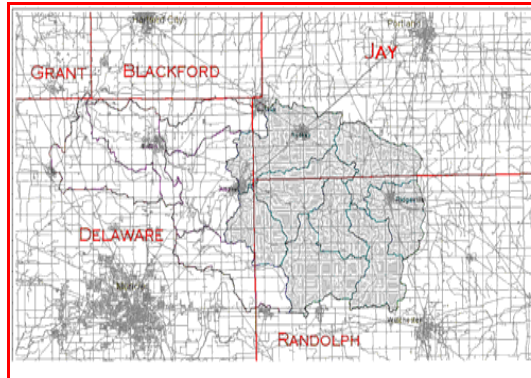
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www.delawarecountyswcd.com

www.in.gov/dnr/lare

The Mississinewa River Watershed Phase II

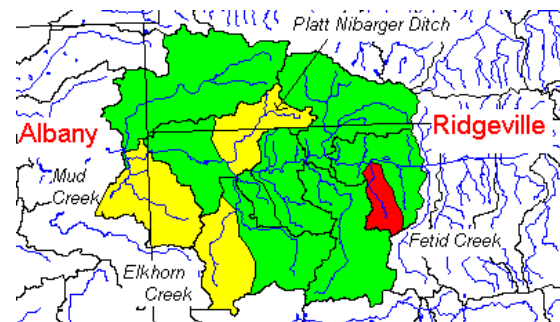


A typical scene on the river



Water quality impaired areas

Red = severe impairment Yellow = moderate impairment



Mississinewa River Watershed Diagnostic Study (Phase II)

Sponsored by:

Randolph and Delaware County
Soil & Water Conservation Districts

Funded by:

Indiana Department of
Natural Resources


Carried out by:

Commonwealth Biomonitoring



Why was this project needed?

The Randolph and Delaware County Soil and Water Conservation Districts received a Lake and River Enhancement grant (funded by state boat users) from the DNR Division of Soil Conservation in 2002. The purpose of the grant was to fund a study to “diagnose” the ecological health of the Mississinewa River watershed and to make suggestions for maintaining or enhancing its aquatic resources. Here are some of the tasks carried out by the project:

- **Compile known information about the watershed**
- **Fill-in information gaps** (water quality, land use, wetlands, flood plains, biology, habitat, erodible land etc.) L 
- **Modeling** (predict what to expect if we change conditions in the watershed).
- **Make recommendations** (what are the problems? What should be done?)
- **Educate** (pass on the information so it can be used by the watershed residents to make informed decisions)

What did we learn?

The watershed is vulnerable to potential water quality problems because of intensive livestock production and row crop agriculture, lack of access to sanitary sewers, and high sediment runoff potential.

Actual water quality in most areas of the watershed is relatively good during dry weather. However, nitrate, phosphorus and *E.coli* bacteria levels are high, especially during wet weather.

Sources of bacteria include sanitary overflows from septic tanks and town sewers. L



The biological condition of the tributaries is only “fair.” Water quality is adequate in most places but habitat alterations (ditching and tree cutting along streams) leave fewer places for fish to live.



Nuisance algal growths occur. One tributary has a severely degraded aquatic community. Fetid Creek near Ridgeville needs special attention to solve water quality problems.

What are some of the project recommendations?

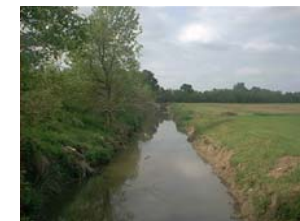
Continue to preserve the watershed’s wetlands so they can help clean-up water.



Grassed Waterway

Take advantage of “best management practices” for all land uses.

Restore stream bank vegetation where possible.



Trees cut on 1 side only

Use best available practices for stream drainage.