# **INDIANA'S CONSERVATION SHOWCASE**

Helping People...

...Help the Land





## Wildcat Creek Watershed Project—Clinton County, Indiana



Before the two-stage ditch was installed



**During** installation



#### **PROBLEM**

The Indiana Department of Environmental Management lists over 170 segments of streams in the Wildcat Creek Watershed on the 2008 303(d) Impaired Waterways List. Impairments noted on the list include: excessive sediment and nutrients, algae, impaired biotic communities and low levels of dissolved oxygen. According to the South Fork Wildcat Creek Pathogen, Sediment, and Nutrient Total Maximum Daily Load (TMDL), over 80 percent of the total nitrogen and total phosphorus and over 65 percent of the total suspended solids in the South Fork Wildcat Creek are a result of rural runoff. Likewise, MRBI models indicate that Indiana contributes over 10 percent of the total nitrogen over eight percent of the total phosphorus to the Gulf of Mexico's hypoxia each year.

#### PROGRAM HIGHLIGHTS AND FUNDING

This project took place in Clinton County, IN on James Boyles Ditch which is a tributary of Kilmore Creek and part of the South Fork Wildcat Creek Watershed. Primary funding for this project came from a 319 Nonpoint Source Grant as well as matching funds of 25% of the total project costs from the Clinton County Drainage Board. The purpose of this two-stage ditch project was to provide increased flood storage along with improved sediment transport and in-stream habitat. Construction of this project took place during the summer of 2011 with vegetation establishing during late summer and early fall. Natural Resources Conservation Service (NRCS) was a valuable partner in this 319-funded project, providing technical support for the planning, surveying, and design of the two-stage construction. Technical support was also provided by Resource Conservationist from the Indiana State Department of Agriculture, Division of Soil Conservation (ISDA).

#### **PARTNERS**

The Clinton County Drainage Board worked closely with the Clinton County Soil and Water Conservation District; NRCS District Conservationist; and a number of state and local partners, including ISDA. Partners contributed resources to support educating landowners about the functionality of two-stage ditches, identifying water quality issues, and conducting outreach to stakeholders.

### SUCCESSES

Water, when confined to a channel such as a stream or ditch, has the potential to cause great destruction. With too much water moving through an undersized area of land, there is nowhere for it to go but rush out its barriers. Since the two-stage ditch installation on the James Boyles Ditch, many improvements have been recorded. High water flows during the fall and winter of 2011 have already tested the project with the constructed benches being submerged multiple times without damage. Additional anticipated successes include reduced bank erosion and scouring along the ditch which will result in a decrease in total suspended solids and nutrient-loading in the South Fork Wildcat Creek.