

US EPA ARCHIVE DOCUMENT



Targeted Watersheds Grant

Honey Creek, OH



Honey Creek main stem at the Forrest Preserve, during low flow conditions. Here the stream fully meets the Ohio Environmental Protection Agency's biological criteria for Warm Water Habitat streams. *Photo by David Baker*



Tile drainage—the major pathway for nitrate export from cropland in Honey Creek. *Photo by Hans Gottgens*



Collecting samples at the Melmore stream gage on Honey Creek. Since 1976, 16,500 samples have been analyzed for nutrient and sediment export at this station. *Photo by Ellen Ewing*

Heidelberg College— Water Quality Laboratory

The Watershed

The Honey Creek watershed, located within the Sandusky River Basin in north central Ohio, drains into Lake Erie. The watershed spans 180 square-miles and includes predominantly agricultural land uses with some forested areas. Most of the agricultural lands are in corn, soybeans and wheat production, with a small number of livestock operations. As industries leave, this rural area continues to lose population.

Issues

Adoption of conservation tillage in the project area has resulted in substantial decreases in suspended sediment and particulate phosphorus export from area streams. However, these changes in tillage practices have been accompanied by large increases in the export of dissolved reactive phosphorus. Dissolved phosphorus is more readily available for uptake by algae and may be a factor in the recent downturn of water quality in Lake Erie, including the occurrence of extensive blue green algal blooms and an increase of hypoxia. Historical hydromodification of headwater streams to enhance agricultural drainage has degraded stream habitats, while changing crop rotations have increased the flashiness of streams. Consequently, aquatic communities in headwater streams are frequently impaired. Additionally, the extensive use of systematic tile drainage in the watershed, coupled with nitrogen fertilization practices, results in nitrate concentrations that often exceed drinking water standards.

Project Activities

The following activities will help reduce excess phosphorus, excess nitrate and sedimentation.

Michigan

Lake Erie



Honey Creek Watershed

Project Partners:

- Seneca County Soil and Water Conservation District
- Crawford Soil and Water Conservation District
- Huron Soil and Water Conservation District
- Sandusky River Watershed Coalition
- Heidelberg College—National Center for Water Quality Research
- University of Toledo
- Local Farmers

Leveraged Resources:

EPA Grant: \$899,938

Match in non-federal funds and in kind services: \$330,628

Cost share by local farmers: \$655,500

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• Best Management Practices (BMPs)

on Area Farms: The local Soil and Water Conservation Districts will work with farmers to implement BMPs, as well as conduct stratified soil testing for phosphorus. The testing results will be used to target specific areas for BMP implementation.

- **Incentive Payments:** Area farmers will be eligible for payments to implement practices to protect water quality, including filter strips, pasture and hay-land planting, annual cover, riparian buffers, wetland restoration, recharge areas, waste utilization, waste storage facilities, nitrogen application reduction and controlled drainage.



EPA's Targeted Watersheds Grant program is a competitive grant program designed to encourage collaborative, community-driven approaches to meet clean water goals.

For more information about the selected watersheds, please visit:
<http://www.epa.gov/twg>

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