

## Portage River Watershed TMDL Report

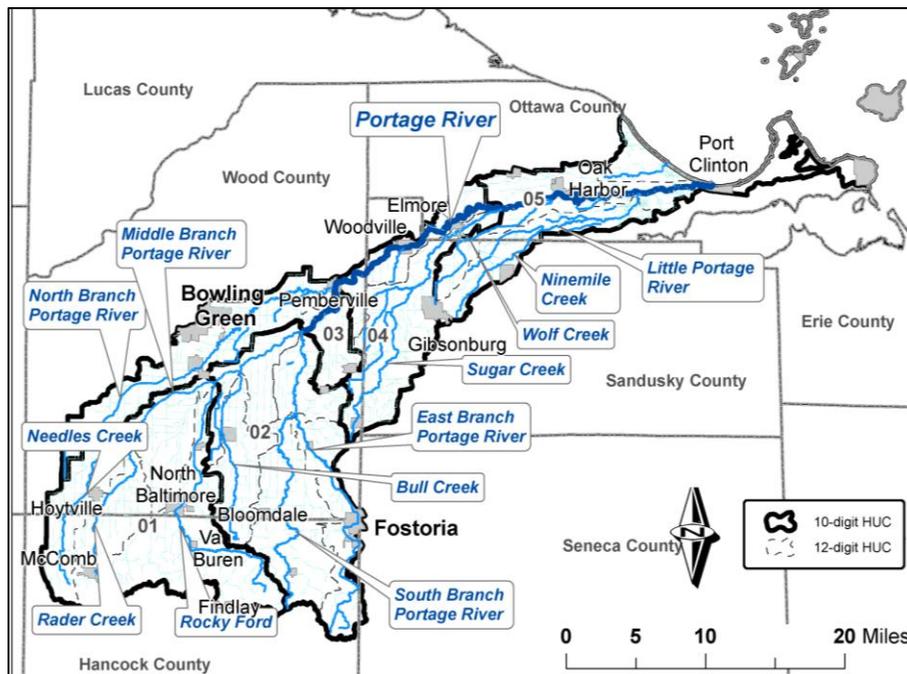
The Clean Water Act requires Ohio EPA to prepare a cleanup plan for watersheds that do not meet water quality goals. The cleanup plan, known as a total maximum daily load (TMDL) report, specifies how much pollution must be reduced from various sources and recommends specific actions to achieve these reductions.

### What are the essential facts?

- Ohio EPA studied the Portage River watershed and found water quality problems at 76 locations.
- Water quality improvements can be made with practical, economical actions.
- Making water quality improvement depends on the participation of the watershed's residents.

### Where is the Portage River watershed?

The Portage River watershed is located in northwest Ohio, flowing northeast to Lake Erie from its headwaters near Findlay and Fostoria. The watershed drains 585 square miles and encompasses all or part of 28 municipalities in Wood, Hancock, Ottawa, Sandusky, and Seneca counties. Tributaries to the Portage River include the North, Middle, South and East Branches; Needles Creek; Rader Creek; Bull Creek; Rocky Ford; Sugar



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Creek; Wolf Creek; and the Little Portage River.

The predominant land use is row crop agriculture (77 percent), with much less area devoted to developed land (11 percent), forest (6 percent) and wetlands (2 percent).

Approximately 67,000 people live in the Portage River watershed. Seventy percent of the population is concentrated on about five percent of the land. Streams in the watershed serve as the water public drinking water supplies for the communities of McComb, North Baltimore and Fostoria.

*A watershed is the land area that drains into a body of water.*

### How does Ohio EPA measure water quality?

Ohio is one of the few states to measure the health of its streams by examining the number and types of fish and aquatic insects in the water. An abundance of fish and insects that tolerate pollution is an indicator of an unhealthy stream. A large number of insects and fish that are sensitive to pollution indicate a healthy stream.

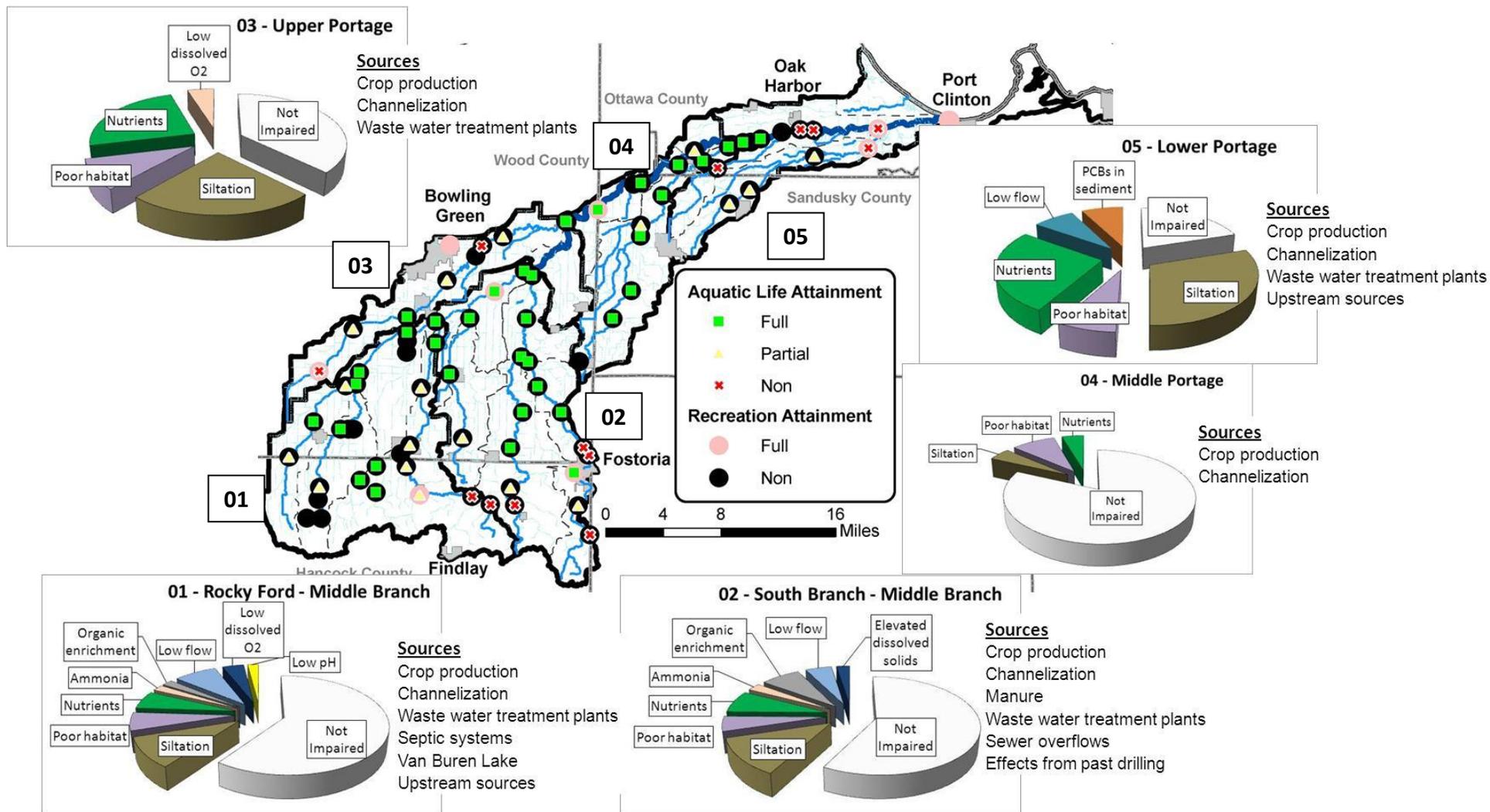
In 2008, comprehensive biological, chemical, and physical data were collected in the Portage River watershed by Ohio EPA scientists. The watershed's conditions were compared with state water quality goals to determine which streams are impaired, and how much needs to be done to restore good stream habitat and water quality.

### What is the condition of the Portage River Watershed?

In terms of aquatic life uses, thirty-seven (54%) of the evaluated sites fully met the aquatic life use criteria, eighteen (26%) partially met and thirteen (19%) met none of the criteria. Only ten of the sites surveyed met the recreation use criteria while the remaining 76 sites did not meet standards.

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What are the problems?



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## How can the problems be fixed?

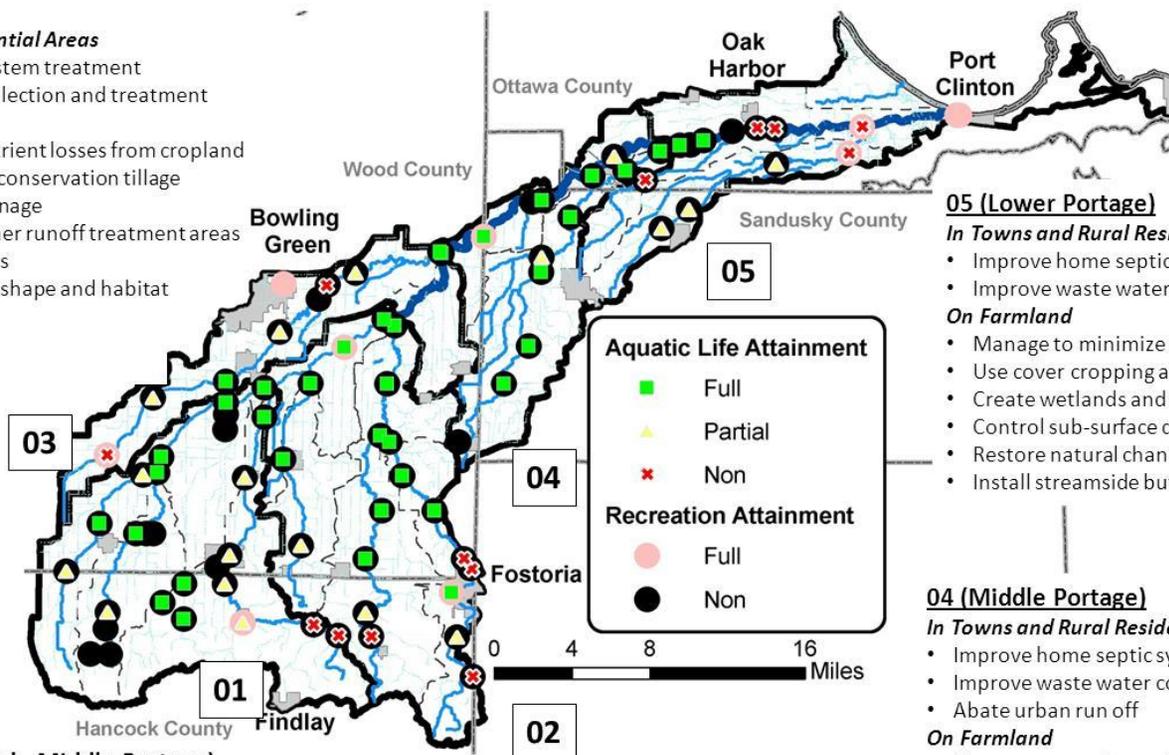
### 03 (Upper Portage)

#### In Towns and Rural Residential Areas

- Improve home septic system treatment
- Improve waste water collection and treatment

#### On Farmland

- Manage to minimize nutrient losses from cropland
- Use cover cropping and conservation tillage
- Control sub-surface drainage
- Create wetlands and other runoff treatment areas
- Install streamside buffers
- Restore natural channel shape and habitat



### 01 (Rocky Ford - Middle Portage)

#### In Towns and Rural Residential Areas

- Improve home septic system treatment
- Improve waste water collection and treatment

#### On Farmland

- Use cover cropping and conservation tillage
- Manage to minimize nutrient losses from cropland
- Create wetlands and other runoff treatment areas
- Install streamside buffers
- Restore natural channel shape and habitat

### 02 (South Branch Portage)

#### In Towns and Rural Residential Areas

- Improve home septic system treatment
- Improve waste water collection and treatment

#### On Farmland

- Manage to minimize nutrient losses from cropland
- Use cover cropping and conservation tillage
- Create wetlands and other runoff treatment areas
- Control sub-surface drainage
- Restore natural channel shape and habitat and stream bank protection

### 05 (Lower Portage)

#### In Towns and Rural Residential Areas

- Improve home septic system treatment
- Improve waste water collection and treatment

#### On Farmland

- Manage to minimize nutrient losses from cropland
- Use cover cropping and conservation tillage
- Create wetlands and other runoff treatment areas
- Control sub-surface drainage
- Restore natural channel shape and habitat and stream bank protection
- Install streamside buffers

### 04 (Middle Portage)

#### In Towns and Rural Residential Areas

- Improve home septic system treatment
- Improve waste water collection and treatment
- Abate urban run off

#### On Farmland

- Use cover cropping and conservation tillage
- Control sub-surface drainage
- Manage to minimize nutrient losses from cropland
- Install streamside buffers
- Restore natural channel shape and habitat

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## What are the most important “fixes” in the watershed?

- ◆ **Reduce amount of inadequately treated sewage from home septic systems**
  - Work with homeowners to identify deficiencies with the condition and/or operation of their systems
  - Provide centralized sewer collection and treatment services to some areas where feasible
- ◆ **Reduce pollutant loading from waste water treatment systems**
  - Reduce phosphorus loading from waste water treatment plants
  - Fix waste water collection system to reduce and/or eliminate overflows of untreated sewage
- ◆ **Reduce sediment and nutrient loading from the landscape, especially cropland**
  - Protect soil surface with cover crops and residues which also tie-up nutrients
  - Increase the retention of water in treatment areas such as wetlands, filter strips, or in the soil profile with controls on subsurface drainage systems
- ◆ **Improve the quality of stream channels and their corridors**
  - Facilitate floodplain connection and growth of riparian trees and vegetation

## What actions are needed to improve water quality?

There are many reasons why streams in the Portage River watershed fail to meet water quality goals, so several types of actions are needed to improve and protect the watershed.

The recommendations focus on reducing pollutant loads and/or increasing the capacity of the streams to better handle the remaining pollutant loads. Sources of water quality problems that should be focused on making water quality improvements include:

- Failing home septic treatment systems.
- Waste water treatment and collection systems.
- Pollutants in cropland runoff and subsurface drainage.

## Who can improve the situation?

Implementation of this report’s recommendations will be accomplished by federal, state and local partners, including the voluntary efforts of landowners.

Ohio EPA will issue permits to point source dischargers that are consistent with the findings of this TMDL report.

The Ohio Department of Natural Resources has programs dedicated to abating pollution from certain agricultural practices; promoting soil, water, and wildlife conservation; and dealing with storm water and floodplain protection. County agencies often work with state and federal partners in administering federal and state assistance programs to people in their counties. Several such programs are available to address home septic system upgrades and agricultural and urban conservation practices.

The Portage River Basin Council and the Sugar Creek Protection Society are specifically dedicated to improving the quality of the Portage River watershed. The Portage River Basin Council is sponsored by the Toledo Metropolitan Area Council of Governments, a publicly funded resource planning agency.

Additional funding may become available for agricultural conservation practices through provisions in the Farm Bill for buffer strips, wetlands and other land conservation practices.

## Where can I learn more?

The Ohio EPA report containing the findings of the watershed survey, as well as general information on TMDLs, water quality standards, 208 planning, permitting and other Ohio EPA programs, is available at <http://www.epa.ohio.gov/dsw/tmdl/index.aspx>.

The draft Portage River watershed TMDL report will be available for public review from July 15 through August 15, 2011. The final report was approved on September 30, 2011. The report is available at <http://www.epa.ohio.gov/dsw/tmdl/PortageRiverTMDL.aspx>.

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