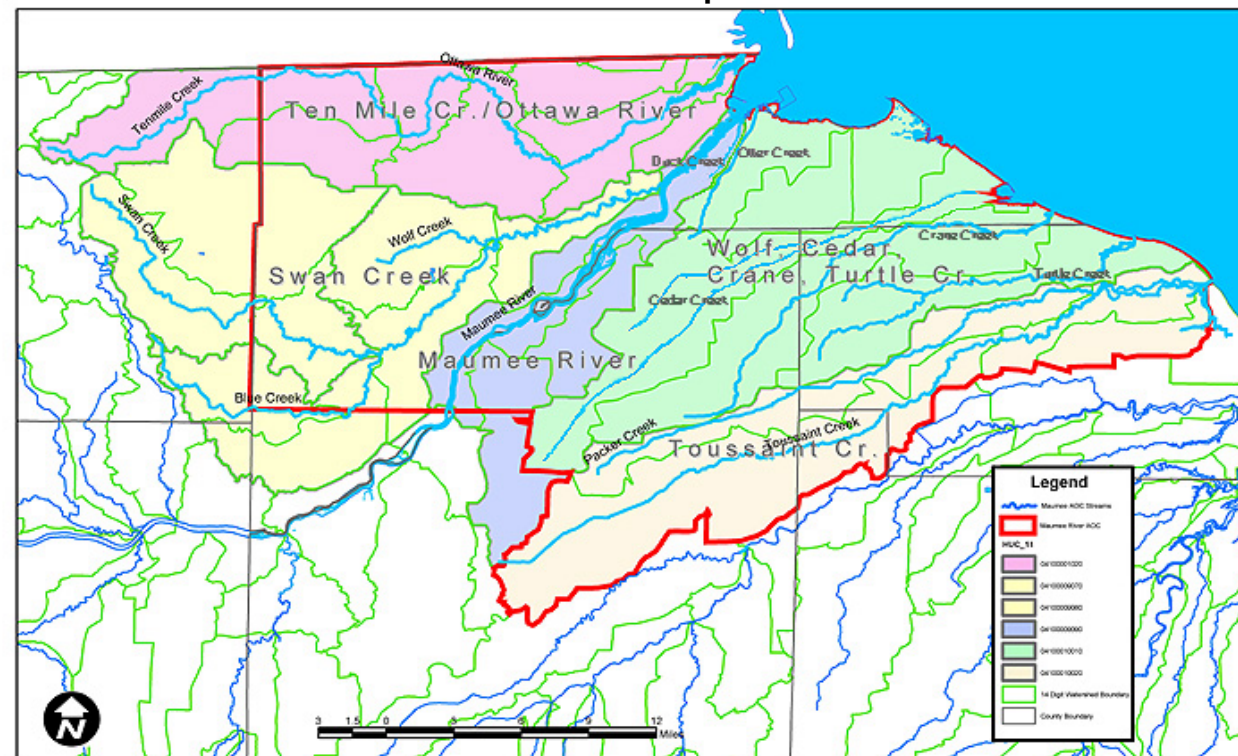


The *Stage 2 Watershed Plan* focuses on the Maumee AOC, plus the headwaters of the Ottawa River and Swan Creek. Whenever the Maumee AOC is referred to throughout the document, it includes the headwaters unless otherwise noted. Although these areas are not officially within the Maumee AOC they are often addressed by RAP projects.

The formal boundaries of the Maumee AOC extend from the Bowling Green water intake near Waterville along the Maumee River (RM 22.8) downstream to Maumee Bay. This area includes direct drainage into the waters that are within Lucas, Ottawa, and Wood counties. The watersheds include Ottawa River (Ten Mile Creek), Swan Creek, Grassy Creek, Duck Creek, Otter Creek, Wolf Creek, Cedar Creek, Crane Creek, Turtle Creek, Packer Creek, and the Toussaint River. The entire Area of Concern drains ultimately to Lake Erie. The Maumee AOC is comprised of six 11-digit HUCs and one large river unit. For ease of use, this plan has put both Swan Creek HUCs into one chapter and addressed the large river unit with the HUC that it flows through. The map illustrates the Maumee AOC, 11-digit HUC areas, large river unit area, and watershed grouping used throughout this document.

Maumee Area of Concern plus Headwaters



The Watershed Projects Tables (WPTs) are the portion of the report that will change and grow, as projects are implemented and goals are attained. These tables have been organized by Causes and Sources and include Projects, Potential Project Partners, Funding Sources, Timeline, Status, Performance/Environmental Measures, HUC/Stream Segment Addressed, and indicate the Beneficial Use Impairment (BUI) that could be effected by the project. Also incorporated into the table (where applicable) is a reference to the ODNR Coastal Management Measures that may benefit from the implementation of an identified project.

There are differing levels of detail in the WPTs, often depending on how soon a project will be implemented, what source will be funding it, or by the amount of data available for that watershed. The status of projects in the WPTs have been organized and color coded as follows:

- **In Progress:** These projects are currently funded, have a detailed workplan, and are underway. *In progress* projects have the text colored red in the WPTs.
- **Planning:** These projects may have a rough workplan or grant application developed, but are lacking some component to make it implementable (i.e. project coordinator, funding, project site). These are usually shorter range projects. *Planning* projects have the text colored pink in the WPTs.
- **Concept:** These project maybe something that is needed or desired, but a plan or method for implementation has not been developed. These are usually longer range projects. *Concept* projects have the text colored blue in the WPTs.
- **Ongoing:** These projects are reoccurring projects that repeat usually annually. These are commonly public involvement, outreach or educational projects (i.e. cleanups, sampling, monitoring). *Ongoing* projects have the text colored green in the WPTs.
- **Complete:** These projects are those that have been finished. Many past activities have been recorded in previous reports. Some of them have been kept here to explain past steps that are leading/developing to future projects. (i.e. hot spot delineation to risk assessment to remedial design). *Complete* projects have the text colored black in the WPTs.

Fourteen beneficial use impairments (BUI) have been used to define the problems in Areas of Concern. These problems are negative changes in the physical, chemical or biological integrity sufficient to cause any of the following:

- BUI #1 Restrictions on fish and wildlife consumption;
- BUI #2 Tainting of fish and wildlife flavor;
- BUI #3 Degradation of fish and wildlife populations;
- BUI #4 Fish tumors and other deformities;
- BUI #5 Bird or animal deformities or reproduction problems;
- BUI #6 Degradation of benthos;
- BUI #7 Restrictions on dredging activities;
- BUI #8 Eutrophication or undesirable algae;
- BUI #9 Restrictions on drinking water consumption, or taste and odor problems;
- BUI #10 Beach closings;
- BUI #11 Degradation of aesthetics;
- BUI #12 Added costs to agriculture or industry;
- BUI #13 Degradation of phytoplankton and zooplankton populations; and
- BUI #14 Loss of fish and wildlife habitats.

When the Maumee Area of Concern was defined in the late 1980s, the Maumee RAP Public Advisory Council determined which beneficial uses were impaired based on the entire AOC. This was done because the only way of delisting an AOC was a comprehensive one; all listed or all delisted. Now that there are alternative methods for incrementally delisting an AOC by watershed or impairment, the Maumee RAP will maintain a record of the status of each BUI in each major watershed of the Maumee AOC. The status of the BUIs in each watershed is summarized in the adjacent table.

The staff for the Maumee RAP (Ohio EPA and TMACOG) and Duck and Otter Creeks Partnership facilitated the creation of the *Stage 2 Watershed Plan*. They will also be responsible for maintaining this as a living document, which includes updating completed projects and adding any new projects being planned or implemented. If there are additions, changes, or updates to the plan please contact one of the following:

Ohio EPA – Northwest District Office
 Maumee RAP Coordinator
 347 N. Dunbridge Road
 Bowling Green, Ohio 43401
 (419)352-8461

Toledo Metropolitan Area Council of Governments (TMACOG)
 Lower Maumee River Coordinator
 PO Box 9508
 Toledo, Ohio 43697-9508
 (419)241-9155

Duck & Otter Creeks Partnership, Inc.
 Watershed Coordinator
 UT Lake Erie Center
 6200 Bayshore Road
 Oregon, Ohio 43618-1024
 (419)530-8366

**Beneficial Use Impairments In 2005
 for the Maumee Area of Concern**
(last updated 12/1/05)

	Ottawa	Swan	Maumee	Grassy	Duck	Otter	Wolf	Cedar	Crane	Turtle	Packer	Toussaint
BUI 1: Restriction on fish and wildlife consumption	Impaired	Not impaired	Impaired	Not impaired	Impaired	Impaired	Impaired	Not impaired	Impaired	Impaired	Impaired	Impaired
BUI 2: Tainting of fish & wildlife flavor	Unknown	Not impaired	Unknown	Not impaired	Unknown	Unknown	Not impaired	Not impaired	Not impaired	Not impaired	Not impaired	Not impaired
BUI 3: Degradation on fish and wildlife populations	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired
BUI 4: Fish tumors or other deformities	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Not impaired	Impaired	Unknown	Impaired
BUI 5: Bird or animal deformities or reproductive problems	Unknown	Unknown	Unknown	Not impaired	Not impaired	Not impaired	Not impaired	Not impaired	Not impaired	Not impaired	Unknown	Impaired
BUI 6: Degradation of benthos	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired
BUI 7: Restriction on dredging activities	Impaired	Not impaired	Impaired	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Impaired
BUI 8: Eutrophication or undesirable algae	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Impaired	Impaired
BUI 9: Restrictions on drinking water consumption, or taste and odor	Not impaired	Not impaired	Not impaired	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
BUI 10: Beach closings	Impaired	Impaired	Impaired	Impaired	Not impaired	Not impaired	Impaired	Not impaired	Impaired	Not impaired	Not impaired	Not impaired
BUI 11: Degradation of aesthetics	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired
BUI 12: Added cost to agriculture and industry	Impaired	Not impaired	Unknown	Unknown	Not impaired	Not impaired	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
BUI 13: Degradation of phytoplankton & zooplankton populations	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
BUI 14: Loss of fish and wildlife habitat	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired	Impaired