

Preface

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A Binational Great Lakes Program

The International Joint Commission (IJC) is a binational organization established by the Boundary Waters Treaty in 1909 to advise the Governments of the United States and Canada on preventing or resolving problems along their common border. This Treaty addresses the pollution problems of the Great Lakes. Over the years the IJC has become involved in issues related to such matters as water and air quality, lake levels, and power generation.

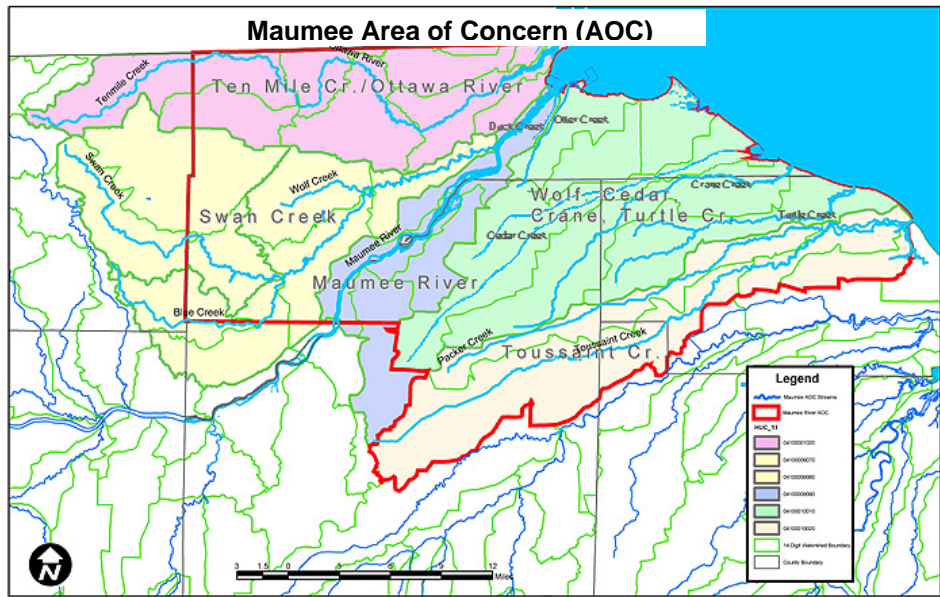
To provide a coordinated cleanup effort on phosphorus and the resulting eutrophication of the Great Lakes, the *Great Lakes Water Quality Agreement* was signed by the two governments in 1972. This Agreement was later revised in 1978 in order to focus on toxics using an ecosystem approach, as well as further defining phosphorus control. This ecosystem approach called for an integrated and comprehensive perspective to restoring and protecting water quality throughout the Great Lakes. The IJC oversees the implementation of the *Great Lakes Water Quality Agreement*.

In 1985, based on the recommendations of the US Great Lakes states and Canadian provinces, the International Joint Commission's Water Quality Board identified forty-two Areas of Concern (AOC) in the Great Lakes basin. An AOC is an area where water uses are impaired or where objectives of the *Great Lakes Water Quality Agreement* or local environmental standards are not being achieved. Areas of Concern generally included major municipal and industrial centers on Great Lakes rivers, harbors, and connecting channels. Four AOCs are located in Ohio: Ashtabula, Cuyahoga, Black, and Maumee rivers.



Map by Environment Canada

The Maumee AOC was originally identified as the area extending from the Bowling Green water intake near Waterville along the Maumee River at river mile 22.8 downstream to Maumee Bay. The area includes direct drainage into the waters that are within Lucas, Ottawa and Wood counties. This includes Swan Creek, Ottawa River (Ten Mile Creek), Duck Creek, Otter Creek, Cedar Creek, Grassy Creek, and Crane Creek. In 1992, this area was extended to the east to include Turtle Creek, Packer Creek, and the Toussaint River. Heavy metals and organic chemical sediment contamination are what led to the lower Maumee River being classified as an Area of Concern.¹ Also a noted concern was that the Maumee River contributes the largest tributary load of suspended sediments and phosphorus to Lake Erie.²



The 1987 amendments to the *Great Lakes Water Quality Agreement* were signed in Toledo at the 1987 Biennial Meeting of the IJC. The amendments re-emphasized the ecosystem approach and required the development of specific programs to achieve the goals previously listed in the 1978 agreement. The amendments presented

in Annex 2 were guidelines for the preparation of Remedial Action Plans to address the problems in the Areas of Concern and restore beneficial uses.

A Process: Remedial Action Plans

The process for the development of Remedial Action Plans (RAPs) to clean up Areas of Concern was outlined in Annex 2 of the *Great Lakes Water Quality Agreement*.³ The plans were to be created in three stages:

- Stage 1 – Identification of environmental problems and sources
- Stage 2 – Elimination of the pollution source to improve water quality
- Stage 3 – Protection of the improved state

Also outlined in Annex 2 were 14 beneficial use impairments (BUI) that were to be used to define the problems in Areas of Concern. These problems were 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.

Toxic substances, bacterial contamination, nutrient enrichment, and landfills are some of the causes of these environmental problems. Sources of these pollutants include urban storm water runoff,

commercial and residential development, municipal and industrial discharges, combined sewer overflows, sanitary sewer overflows, wastewater treatment plant bypasses, hazardous waste disposal sites, and agricultural runoff.

The development of Remedial Action Plans was to address the causes and sources of the use impairments. The RAPs would guide federal, state and local governmental agencies with the support of area business, industry, citizens and academia to restore the water quality and beneficial uses in each AOC. Ohio EPA was designated the lead agency for the RAP effort in Ohio. Local governments and citizens in the Maumee AOC expressed their interest in being involved in the process. The Toledo Metropolitan Area Council of Governments (TMACOG), with the assistance of Ohio EPA, organized the first Maumee Remedial Action Plan Public Meeting on October 1, 1987.

An Organization: Maumee RAP

The Maumee RAP as an organization was created after the first public meeting in October 1987. It has grown and changed over the years, but has always been a public-private partnership working to restore the health of our area's waterways to fishable and swimmable conditions.

The Maumee RAP involves a diverse cross-section of environmentally concerned businesses, industries, government agencies, non-profit organizations, educators, and citizens. The Maumee RAP Committee makes the official decisions for the organization and provides general program oversight. The Maumee RAP Committee has action groups (or sub-committees) that are integral to the progress of the Maumee RAP. These action groups address specific issues that affect the Maumee AOC, such as open space, wetlands, agriculture, rural, and urban concerns. There are two action groups utilizing a comprehensive watershed approach to improving Swan Creek and the Ottawa River. The Maumee RAP has focused on public outreach and education. This focus is ongoing and primarily coordinated through its own action group. Additional information on the Maumee RAP is available in Appendix B.

Since that initial public meeting a great deal of information has been compiled and developed concerning the Maumee AOC. Some of the reports written by the Maumee RAP include: *Maumee RAP Investigation Reports (1988, 1989)*; *Maumee RAP Stage I Investigation Report (1990)*; *Maumee RAP Recommendations for Implementation (1991)*; and *Activities and Accomplishments in the Maumee AOC 1991-2001 (2002)*.

The *Maumee RAP Stage I Investigation Report* identified the environmental problems of the Maumee AOC in 1990. This Report also identified the known sources of the pollutants and the impairments resulting from these problems. The *Stage I Report* was the first of three stages in the development of the complete remedial action plan trilogy. This document was referred to often during the development of the *Maumee Area of Concern Stage 2 Watershed Restoration Plan*.

The *Maumee RAP Recommendations for Implementation (1991)* was written as a comprehensive listing of the many issues and tasks that needed to be undertaken to restore the Maumee AOC. This report led to extensive sampling throughout the Maumee AOC and guided other research and community education projects.

The Maumee RAP continues to advocate and/or directly sponsor programs and activities to address the projects and issues outlined in the *Maumee RAP Recommendations for Implementation*. Many of these programs and activities, along with those projects conducted by others in the Maumee AOC

community were highlighted in the *Activities and Accomplishments in the Maumee Area of Concern 1991-2001 (2002)*.

While the above documents were being prepared, many other activities were also occurring. Research was being conducted and issues were being addressed. These occurred from both within the RAP structure by the action groups and outside through community partners.

Community Partnerships

The Maumee RAP philosophy, process, and program all rely on the power of partnerships. Without community partners the Maumee RAP would not succeed and the Maumee AOC would not be restored. A very critical partner in the success of the Maumee RAP is the Duck and Otter Creeks Partnership. The Partnership worked very closely with the Maumee RAP to develop this document for the Maumee Area of Concern and provided nearly all of the information concerning the Duck Creek and Otter Creek watersheds.

The Duck and Otter Creeks Partnership promotes human and ecological health through education, protection, and restoration of these watersheds with diverse collaborative efforts dedicated to building community stewardship. The Partnership is a voluntary non-profit organization whose members include citizens, local businesses, industries, government agencies, institutions, and public organizations.

The membership in the Partnership is comprised of three main groups: voting members, non-voting members, and the Friends of Duck and Otter Creeks. Signing the Charter and paying annual dues are conditions of a voting membership and each individual and/or organization signing the Charter receives one membership vote. Individuals and/or organizations that do not sign the Charter may participate in the Partnership as non-voting members. A number of governmental groups participate as non-voting advisory members. For those individuals or businesses interested in financially supporting the mission and activities of the Partnership, but not interested in becoming a voting board member, the Friends of Duck and Otter Creeks provides an appropriate avenue. The Friends of Duck and Otter Creeks are not voting members, but receive occasional mailings and special invitations to events for a small annual donation. Additional information on the Duck and Otter Creeks Partnership is available in Appendix C.

The members of the Maumee RAP and their community partners, like the Duck and Otter Creeks Partnership, all share a common goal of taking the remedial action plan beyond planning and discussion, and putting it into action for the benefit of all who live, work and play in our watersheds.

References

- ¹ International Joint Commission Great Lakes Water Quality Board, 1985 as referenced in *Maumee River Remedial Action Plan Stage I Investigation Report*, TMACOG, Oct. 1990, p 1.
- ² *Maumee River Remedial Action Plan Stage I Investigation Report*, TMACOG, Oct. 1990, p 4.
- ³ *Revised Great Lakes Water Quality Agreement of 1978 (as amended by Protocol signed November 18, 1987)*, International Joint Commission, 1988, pp 31-36.