



# Frequently Asked Questions about Michigan's Great Lakes Areas of Concern Program

*Prepared by the Statewide Public Advisory Council for Michigan's Areas of Concern Program*

March 2005

## Introduction

Below are answers to a number of basic questions about Michigan's Great Lakes Areas of Concern program. The answers are brief and general in nature. Additional details about the overall program as well as individual Areas of Concern are available online from a number of sources. Web sites relevant for specific questions are noted and a comprehensive list is provided at the end of the document along with contacts for each of Michigan's Areas of Concern. This document was prepared by the Statewide Public Advisory Council for Michigan's Great Lakes Areas of Concern Program in consultation with the Department of Environmental Quality. For more information on the Council and Michigan's Great Lakes Areas of Concern, visit the Council's web site at [www.glc.org/spac/](http://www.glc.org/spac/) or contact the Council support staff at the Great Lakes Commission at 734-971-9135, [SPAC@glc.org](mailto:SPAC@glc.org).

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## How did the Great Lakes Areas of Concern program come about?

The Areas of Concern program is an outgrowth of 1987 amendments to the Great Lakes Water Quality Agreement, a U.S.-Canadian agreement originally signed in 1972 under which the two countries agreed to cooperate in protecting and restoring the Great Lakes. As part of the 1987 amendments, the United States and Canada agreed to cooperate with state and provincial governments in identifying and cleaning up the most polluted areas in the Great Lakes. In followup, 43 Areas of Concern were formally designated: 26 in the United States, 12 in Canada, and five that are shared by both countries. The Areas of Concern were identified based on specific beneficial use impairments (see box on next page). Each area is impacted by one or more of these impairments, which are the focus of cleanup plans. The text of the agreement, including the Annex that created the Areas of Concern program, is available online at [www.ijc.org/rel/agree/quality.html](http://www.ijc.org/rel/agree/quality.html).

## What are Remedial Action Plans?

Remedial Action Plans are documents that guide cleanup efforts in the Areas of Concern. The plans take a comprehensive, ecosystem approach to restoring and protecting beneficial uses that have been impaired by pollution. They are typically created in three stages: 1) identify and assess environmental problems; 2) develop solutions to the problems and strategies for implementing them; and 3) document that the problems have been solved and beneficial uses restored. In practice, these stages often overlap and the states have taken different approaches to developing the plans. After developing the initial documents for its Areas of Concern, Michigan now prepares periodic updates rather than following the three-stage process. The Areas of Concern program emphasizes broad public involvement and participation from stakeholders in affected communities. The Areas of Concern are unique in the range and severity of environmental problems they face and how they are being addressed. A list of Remedial Action Plan documents for Michigan's Areas of Concern is available online at [www.glc.org/spac/rapdocs.html](http://www.glc.org/spac/rapdocs.html). The documents are available on CD free of charge from the Great Lakes Commission (734-971-9135; [SPAC@glc.org](mailto:SPAC@glc.org)).

### Beneficial Use Impairments in the Areas of Concern

- Loss of fish and wildlife habitat
- Degradation of aesthetics
- Restrictions on dredging activities
- Degradation of benthos
- Restrictions on fish and wildlife consumption
- Beach closures
- Fish tumors or other deformities
- Degradation of fish and wildlife populations
- Tainting of fish and wildlife flavor
- Eutrophication or undesirable algae
- Bird or animal deformities, reproduction problems
- Restrictions on drinking water consumption, or taste and odor problems
- Added costs to agriculture or industry
- Degradation of phytoplankton and zooplankton populations

## Where are the Areas of Concern in Michigan?

Michigan has 14 designated Areas of Concern spread throughout the state, from southeast Michigan, to western Michigan to the Upper Peninsula (see map on page one). The areas include rivers, bays and lakes. Some are in heavily industrialized areas, such as the Rouge and Saginaw rivers. Others are in more rural areas, such as those in the Upper Peninsula. In some cases, a single industry or facility is responsible for the major pollution problems. In most cases, however, pollution stems from a number of sources.

## How were the Areas of Concern designated?

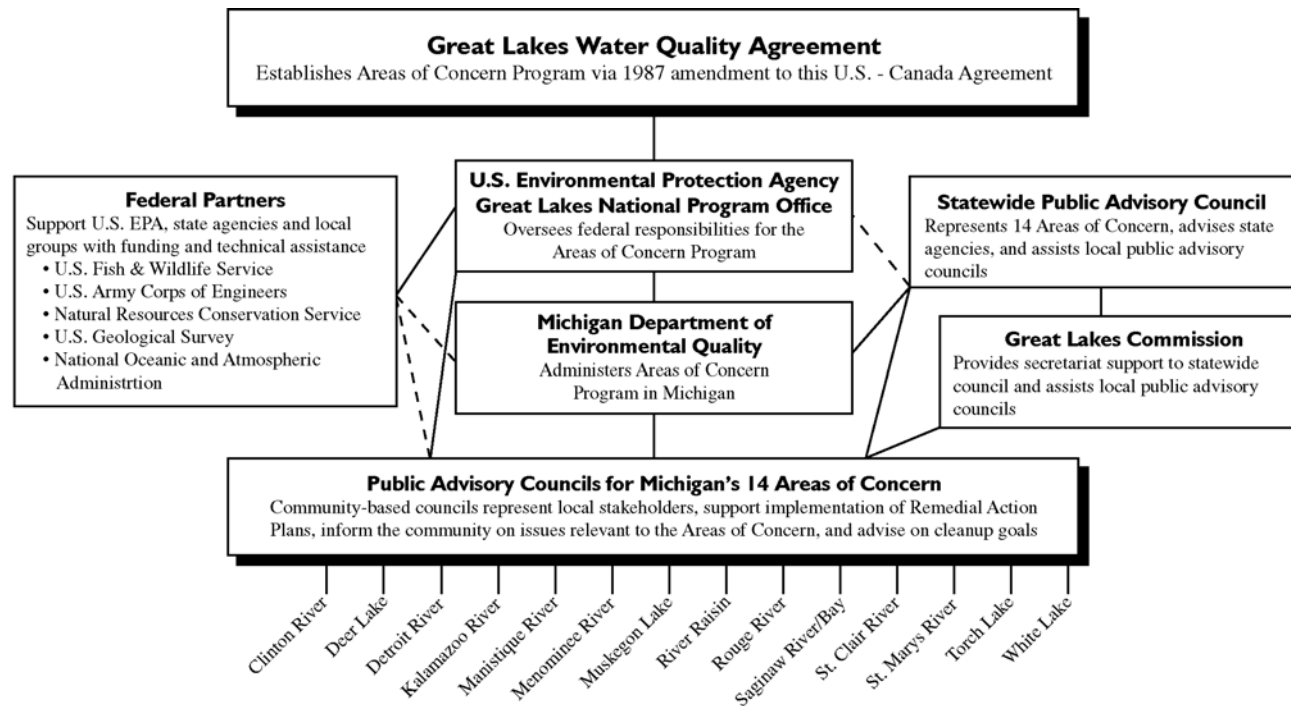
The Areas of Concern were formally designated by the U.S. Environmental Protection Agency (EPA), the federal agency with lead responsibility for the program. The areas designated in Michigan were based on work conducted by the State of Michigan in the late 1970s and early 1980s that identified polluted water bodies in the state. State and federal personnel contributed to the work of the International Joint Commission and their work led to the 1987 amendment to the Great Lakes Water Quality Agreement under which the Areas of Concern and Lakewide Management Plan programs were formed. The EPA ultimately relied on input from both the International Joint Commission and the Great Lakes states in designating the Areas of Concern.

## What is the U.S. Environmental Protection Agency's role in the Areas of Concern program?

EPA's Great Lakes National Program Office is the lead federal agency for the Areas of Concern program in the United States and is responsible for overseeing its implementation and reporting to Congress and the International Joint Commission (the U.S.-Canadian body that oversees the Great Lakes Water Quality Agreement). EPA establishes regional policies for the program and administers technical and financial support to the states and local groups for developing and implementing cleanup plans known as Remedial Action Plans. The agency is also involved in numerous programs, either directly or via delegated authority to the states, that support cleanup efforts in the Areas of Concern. EPA staff serve as liaisons to each Area of Concern to provide technical assistance, coordinate with other federal programs, and help identify funding sources for cleanup activities. Background on EPA's Areas of Concern activities is available online at [www.epa.gov/glnpo/aoc/index.html](http://www.epa.gov/glnpo/aoc/index.html).

## How are the states involved in the Areas of Concern Program?

EPA has delegated authority for implementing the Areas of Concern program to the states, including developing Remedial Action Plans, coordinating with local public advisory councils, and implementing cleanup activities (see organizational chart below). Federal support to the states declined in the late 1990s and resulted in a reduction in dedicated state support for the Areas of Concern (although indirect support is provided through many state programs). The states generally view the Areas of Concern program as a federal responsibility that should be supported with federal resources.



## How is Michigan's Areas of Concern program administered and funded?

Michigan's Areas of Concern program is administered by the Department of Environmental Quality (DEQ). Staff in the Inland Lakes and Remedial Action Unit of the department's Water Bureau provide direct support to the state's 14 Areas of Concern. The majority of program funding is provided by U.S. EPA. Federal funding has declined dramatically over the past decade and, as a result, DEQ staff dedicated to the program has fallen from a high of approximately 16 in 1994 to 2 in 2004. U.S. EPA has offered funding for additional staff, contingent on DEQ being able to hire new staff for the AOC program. This staff also assists U.S. EPA in developing Lakewide Management Plans for the Great Lakes that border Michigan. Insufficient staffing is a major problem that severely limits DEQ's capacity to implement restoration activities in the Areas of Concern and monitor and report on progress. Staff shortages also hamper DEQ's ability to utilize technical and financial resources from federal agencies and limit the assistance it can provide to local public advisory councils. Hiring freezes and departmental staffing caps have prevented DEQ from filling staff positions and may be an obstacle to increasing staff support for the program should additional federal funds become available. In addition to dedicated staff support, other state programs address environmental problems in the Areas of Concern, such as nonpoint source pollution and cleanup of contaminated sediments.

## What are public advisory councils and what role do they play?

Public advisory councils were established in the Areas of Concern to facilitate public involvement in cleanup efforts, provide advice to state and federal agencies on issues of concern to local communities, and review and help write the Remedial Action Plans. They are intended to be broadly representative of stakeholders in each Area of Concern. As state support for the Areas of Concern has declined, the councils have been called upon to assume greater leadership in the overall process. Direct funding to support this expanded role has been limited, however, and the capacity of the groups has varied widely. Generally, the groups are well suited to manage public

involvement activities and small-scale cleanup or pollution prevention projects. Costly and technically complex remediation work, such as cleaning up contaminated sediments, is beyond the capability of most local groups.

### **What is the Statewide Public Advisory Council?**

The Statewide Public Advisory Council is a coalition of representatives from the 14 community-based public advisory councils that are guiding cleanup efforts in Michigan's 14 Areas of Concern. The Council was established in 1991 to provide advice and input to the State of Michigan on program priorities, policies, public participation strategies and technical issues of common interest to the state's Areas of Concern. The Council also acts as a forum for information sharing among the many groups and individuals involved in Area of Concern cleanup efforts. Funding for the Council has been provided by EPA, DEQ and local sources in the Areas of Concern, with significant volunteer support from members of local public advisory councils. The Council is supported by the Great Lakes Commission. More information about the Council, a list of its members, its newsletter, and information on Michigan's Areas of Concern is available from the Council's website at [www.glc.org/spac](http://www.glc.org/spac).

### **What are the major environmental problems in the Areas of Concern? How are they being addressed?**

The Areas of Concern face a wide range of environmental problems. The most common include contaminated sediments from past industrial practices; polluted runoff from streets, parking lots and agricultural operations; bacterial contamination from sewer overflows and leaking septic tanks; soil erosion and sedimentation from poor land use development practices; destruction of fish and wildlife habitat by development, pollution and other causes; and excessive levels of contamination in fish and wildlife. The range and severity of environmental problems differ widely among the Areas of Concern. Some face a wide variety of problems, while others have just a few significant pollution sources. A multitude of federal, state and local programs are addressing these problems. A key challenge for the Areas of Concern program is coordinating and focusing the resources of these programs on critical environmental restoration needs. For a detailed summary of environmental problems and restoration activities in each area, see EPA's Areas of Concern website at [www.epa.gov/glnpo/aoc/index.html](http://www.epa.gov/glnpo/aoc/index.html).

### **How much progress has been made in improving environmental conditions in the Areas of Concern? How is this progress being monitored?**

A great deal of progress has been made over the past decade in controlling both point source and nonpoint source pollution. New stormwater regulations are being implemented to control polluted runoff in urban areas. Many communities are making substantial investments in wastewater infrastructure to minimize discharges of inadequately treated sewage into local water bodies. Finally, the Superfund program, the Clean Michigan Initiative and the new Great Lakes Legacy Act are supporting costly cleanup work at a number of contaminated sediment sites. Environmental monitoring is usually conducted under specific implementation programs, such as the National Pollutant Discharge Elimination System, and for site-specific cleanup projects, such as those supported by the Superfund program. (More detailed progress reports are provided in Remedial Action Plan documents and from EPA's Areas of Concern website.) Unfortunately, monitoring programs often do not assess environmental conditions in the same way they are being addressed in the Areas of Concern program. Thus, a key challenge is to compile and analyze monitoring information in a manner that illustrates the status of specific beneficial use impairments that form the basis of the Areas of Concern program.

### **What will it take to clean up the Areas of Concern?**

The Areas of Concern will be considered "cleaned up" when beneficial uses have been restored based on established cleanup goals. For some impairments, state or federal laws establish clear cleanup standards that must be met. In some cases, however, there may be no legally-mandated cleanup goal. When this occurs, stakeholders in the Area of Concern must establish cleanup goals that reflect community values and reasonable and achievable levels of restoration. For example, most Areas of Concern will not be able to restore fish and wildlife habitat to levels that existed before human settlement. Thus, stakeholders must determine how much fish and wildlife habitat, and of what quality, they desire for their individual Area of Concern, and how this will be measured. When this restoration "target" is achieved, and federal and state agencies concur, the beneficial use will be considered restored. When all beneficial uses are restored, the Area of Concern can be formally "delisted," or removed from the list of Great Lakes Areas of Concern.

## How will individual Areas of Concern be delisted?

The U.S. State Department, at EPA's recommendation, is responsible for formally "delisting" the Areas of Concern, or removing them from the list of Great Lakes "toxic hot spots." In 2002 EPA published guidelines for delisting Areas of Concern and a process for reaching that goal. The guidelines provide a great deal of flexibility, including delisting an entire Area of Concern, specific geographic portions, or even individual beneficial use impairments. Areas can also shift to an "Area of Recovery" status when all feasible cleanup actions have been taken, but time is needed for the ecosystem to respond. EPA's guidelines require each area to establish measurable delisting targets, consistent with existing legal requirements and community values, that provide an objective mechanism for gauging progress in restoring beneficial uses. EPA will look to local public advisory councils to initiate the delisting process in partnership with the state, including preparing final reports that document, via monitoring data, that restoration targets have been met. After reviewing this report and consulting with state agencies, the International Joint Commission and the public, the EPA will formally recommend delisting to the State Department. To date, no U.S. Areas of Concern has been formally delisted, while one – Presque Isle Bay in Pennsylvania – has shifted to an Area of Recovery status. How the delisting process will work in practice remains an open question. It is unclear whether local public advisory councils have the technical capacity to coordinate the delisting process without substantial assistance from state agencies. EPA's delisting guidelines are available online at [www.epa.gov/glnc/aoc/delist.html](http://www.epa.gov/glnc/aoc/delist.html).

## How has the Clean Michigan Initiative supported cleanup efforts in the Areas of Concern?

The Clean Michigan Initiative (CMI) environmental bond program, approved in 1998, authorized \$675 million for a variety of environmental, parks, and brownfield/waterfront redevelopment initiatives. Most of the activities being pursued under the CMI will address problems in the Areas of Concern in some way. Two components of the CMI program were directed specifically at the Areas of Concern: \$25 million for cleaning up contaminated sediments; and \$8 million for implementing water quality recommendations from Remedial Action Plans and Lakewide Management Plans. Below is a status report on how these funds are being spent, including a brief review of specific cleanup projects underway or planned. More information on the CMI is available from the DEQ's website at [www.michigan.gov/deq/0,1607,7-135-3307\\_3662---,00.html](http://www.michigan.gov/deq/0,1607,7-135-3307_3662---,00.html).

### *Contaminated Sediment Projects:*

The CMI provided \$25 million for removing contaminated sediments from rivers and lakes, most of which are in the Areas of Concern. Of this, approximately \$13.5 million has been expended or proposed for specific cleanup work, as summarized in the following table.

Area of Concern	Estimated Cost	Description	Status
Deer Lake	\$4 million	Sediment sampling completed in 2000; remediation alternative report completed in 2001. Final remedy implementation under review.	Ongoing
River Raisin	\$10 million	PCB remedial alternative report completed in June 2003. Funding options being considered under the Superfund process.	Ongoing
Muskegon Lake	\$7-\$9 million	Ruddiman Creek: Funding anticipated under the Great Lakes Legacy Act with remediation expected to begin in 2005.	Ongoing
White Lake	\$3.1 million	Tannery Bay: Dredging completed.	Done
Detroit River	\$7.2 million	Black Lagoon: Funding provided under the Great Lakes Legacy Act; remediation begun in September 2004 with completion expected in early 2005.	Ongoing
Rouge River	\$300,000	Final design sampling in 2004; remediation expected in 2005.	Ongoing
Pine River (Saginaw River/Bay Area of Concern)	\$1.7 million	150,000 cubic yards of DDT-contaminated sediment removed; additional 200,000 cubic yards to be removed and slurry wall repairs completed by 2006.	Ongoing
Unnamed Tributary to Wolf Creek (Saginaw River/Bay Area of Concern)	\$100,000	Remediation of mercury-contaminated sediments completed.	Done

*Remedial Action Plan/Lakewide Management Plan Water Quality Improvement Projects:*

Approximately \$8 million was allocated for implementing water quality improvement recommendations in Remedial Action Plans and Lakewide Management Plans. Of this, approximately \$7.7 million has been awarded for the 15 projects summarized in the following table.

Area of Concern or Lakewide Management Plan	Project	Project Coordinator	Funding
Saginaw River/Bay	Stark Road Subdivision	Thomas Township	\$214,200
Muskegon Lake	Muskegon Lake RAP Project	Muskegon Conservation District	\$324,599
Kalamazoo River	Kalamazoo River Watershed Critical Erosion Sites Mitigation	Kalamazoo Conservation District	\$213,830
River Raisin	Pollard Drain	Lenawee County Drain Commissioner	\$210,806
Rouge River	City of Westland Hazardous Material & Outfall Inventories	City of Westland Department of Public Service	\$50,258
Rouge River	City of Westland Storm Water Management Plan	City of Westland DPW	\$284,079
Torch Lake	Portage Lake Remedial action for Stamp Sands Using Topsoil and Bio.	Portage Lake Water & Sewage Authority	\$52,000
Saginaw River/Bay	CREP Easements to Implement RAPs and LaMPs	Saginaw Basin Land Conservancy	\$2,800,000
Clinton River	Clinton River Permanent Riparian Conservation Easement	Charter Township of Waterford	\$898,555
Lake Erie LaMP	Malletts Creek Wetland Detention	Washtenaw County Drain Commissioner	\$1,250,946
Rouge River	Village of Beverly Hills Shared Parking Lot BMP Project	Village of Beverly Hills	\$316,185
Saginaw River/Bay	Mott-Hashbarger Children's Farm Water Quality Improvements	Friends of Mott Farm	\$126,940
Rouge River	Idyl Wyld Regional Storm Water Facility	City of Livonia	\$669,000
Lake Michigan LaMP	McMurray/Kladzyk Wetlands Property Preservation Project	Grand Traverse Regional Land Conservancy	\$150,000
Lake Superior LaMP	Whetstone Brook Restoration Project	City of Marquette	\$180,000

**How does the federal Great Lakes Legacy Act work? Is funding under the Act being used in any of Michigan's Areas of Concern?**

The Great Lakes Legacy Act, passed by Congress in 2002, authorizes \$270 million over five years for cleaning up contaminated sediments in Areas of Concern, conducting research on innovative technologies for treating and disposing of contaminated sediments, and for public outreach on sediment cleanup projects. The act requires that 35 percent of project costs come from nonfederal sources. Congress provided \$10 million for the Act in fiscal year 2004 and \$22.5 million in fiscal year 2005. President Bush has requested \$50 million for the Act in fiscal year 2006. The Act is being administered by U.S. EPA's Great Lakes National Program Office. More information on the Great Lakes Legacy Act is available online at [www.epa.gov/glnpo/sediment/legacy/index.html](http://www.epa.gov/glnpo/sediment/legacy/index.html).

The Department of Environmental Quality's Water Bureau has submitted three proposals for contaminated sediment cleanups under the Great Lakes Legacy Act: the Black Lagoon in the Detroit River Area of Concern (\$7.2 million); Ruddiman Creek in the Muskegon Lake Area of Concern (\$7-\$9 million); and the River Raisin (\$8-\$10 million). U.S. EPA is providing approximately \$4.7 million to match the \$2.5 million from the State of Michigan for the Detroit River/Black Lagoon cleanup. The cleanup project was initiated in September 2004 and is expected to be completed by January 2005. A summary of this, and other projects submitted for funding under the Legacy Act, is available online at <http://www.epa.gov/glnpo/sediment/legacy/projlst.html>.

The Water Bureau is continuing work on other projects in the Muskegon Lake and Detroit River Areas of Concern and will submit additional proposals for Great Lakes Legacy Act funding as appropriate. In addition, the parties responsible for the Cannelton Superfund Site in the St. Marys River Area of Concern and Cable Arm, Inc. in the

Connor Creek area of the Detroit River Area of Concern have submitted proposals for cleanup funding under the Great Lakes Legacy Act.

**Is funding and technical support from other federal agencies being used to support Areas of Concern cleanup efforts in Michigan?**

Numerous federal programs have supported cleanup work in Michigan's Areas of Concern. The most significant is the Superfund program, which is funding site cleanups in several areas. EPA's Great Lakes National Program Office, the Natural Resource Damage Assessment program, and the Army Corps of Engineers have also provided funding or technical assistance for Areas of Concern work. There is potential to utilize greater financial and technical assistance from federal agencies; however, doing so requires substantial planning and coordination. Insufficient staffing levels in DEQ's Areas of Concern program has limited the department's ability to leverage support from federal agencies.

**What are the critical needs facing Michigan's Areas of Concern program?**

Michigan's Areas of Concern program would benefit from additional technical and financial assistance in a number of areas. Specific needs among the Areas of Concern will vary depending on their cleanup priorities. For the statewide program, perhaps the most pressing need is additional staff to develop and implement cleanup projects; leverage funding and technical assistance from other agencies; review monitoring data; and work with local public advisory councils. Currently, Michigan has approximately two staff persons to support 14 Areas of Concern as well as the Lakewide Management Plans for lakes Michigan, Superior and Erie (one position is currently vacant). This level of support is clearly inadequate to maintain progress in cleaning up the Areas of Concern and ensure Michigan fully leverages funding from federal agencies. The DEQ has documented a need for approximately eight staff positions to adequately support Michigan's Areas of Concern cleanup program. The DEQ must actively seek additional resources for the program from EPA. Staffing caps for the department should not apply when federal funding is available for the state's program. Specific priorities for Michigan's Areas of Concern program are included in the Statewide Public Advisory Council's 2004 *Action Agenda for Restoring Michigan's Great Lakes Toxic Hot Spots*. This document is available from the Council's website at [www.glc.org/spac](http://www.glc.org/spac).

**What can I do to help?**

First and foremost, do your part to care for the environment and support local efforts to protect and restore the natural resources in your community. Participate on the local public advisory councils that are guiding cleanup efforts in the Areas of Concern and learn what you can do to help. Contact your state, federal and local elected officials and urge them to support programs that are helping to clean up and protect the Areas of Concern. Finally, support conservation groups in your community and volunteer your time for stream cleanups, volunteer monitoring activities, wildlife surveys, and other activities. Most of the public advisory councils are supported by watershed councils, conservation districts, or other organizations that organize members of the community to help protect the local environment. Contact the individuals listed below for your Area of Concern and find out what you can do to help.

## Contacts and Information Sources on Michigan's Great Lakes Areas of Concern Program

Area of Concern	Statewide Public Advisory Council Representative	Public Advisory Council Chair	State Contact	Federal Contact	Local Support Group
Clinton River	William Smith 586-468-4028	Mark Richardson, 586-469-5593, Mark.Richardson@macombcountymi.gov	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Laura Evans, U.S. EPA 312-886-0851 evans.laura@epa.gov	Clinton River Watershed Council 248-601-0606
Deer Lake	Diane Feller 906-486-9967 dkfeller@aol.com	Jerry Ely 906-227-2946 gely@nmu.edu	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Mary Beth Giancarlo Ross, U.S. EPA, 312-886-2253 ross.marybeth@epa.gov	Contact public advisory council chair
Detroit River	Charlie Bristol 313-282-6339 charliebristol@comcast.net	Charlie Bristol 313-282-6339 charliebristol@comcast.net	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Rose Ellison, U.S. EPA 734-692-7689 ellison.rosanne@epa.gov	Friends of the Detroit River, 313-388-8892
Kalamazoo River	Rich Koster 231-946-4074 richkoster2@aol.com	Rich Koster 269-353-5960 richkoster2@aol.com	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Virginia Narsete, U.S. EPA 312-886-4359 narsete.virginia@epa.gov	Kalamazoo River Watershed Council 269-327-4008
Manistique River	Merilee Blowers 906-341-4223 mblowers@ma.kruger.com	Merilee Blowers 906-341-4223 mblowers@ma.kruger.com	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Virginia Narsete, U.S. EPA 312-886-4359 narsete.virginia@epa.gov	Contact public advisory council chair
Menominee River	Nancy Douglas 715-735-8050 ndouglas@bamc.org	Nancy Douglas 715-735-8050 ndouglas@bamc.org	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Gary Cygan, U.S. EPA 312-886-5902 cygan.gary@epa.gov	Contact public advisory council chair
Muskegon Lake	Kathleen Evans 616-784-1090 muskegonlakepac@aol.com	Dr. Richard Rediske 616-331-3047 redisker@gvsu.edu	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Marc Tuchman, U.S. EPA 312-353-1369 tuchman.marc@epa.gov	Timberland Resource Conservation & Devel. Council, 616-784-1090
River Raisin	Frank Nagy 734-240-7375 frank_nagy@monroemi.org	Dan Stefanski 734-240-3110 dstefanski@monroemi.org	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Scott Cieniawski, U.S. EPA 312-353-9184 cieniawski.scott@epa.gov	River Raisin Watershed Council 517-264-4754
Rouge River	Rich Badics 734-995-5869 rbadics@yahoo.com	Dr. Orin Gelderloos 313-593-5339 ogg@umd.umich.edu	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Quintin White, U.S. EPA 312-886-0135 white.quintin@epa.gov	Friends of the Rouge 313-792-9900
Saginaw River/Bay	Kristi Kozubal 989-284-9997 kozubalk@msu.edu	Kristi Kozubal 989-284-9997 kozubalk@msu.edu	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov Charlie Bauer, Michigan DEQ, 989-686-8025 bauer@michigan.gov	Jamie Schardt, U.S. EPA 312-353-5085 schardt.james@epa.gov	Partnership for the Saginaw Bay Watershed 989-284-9997
St. Clair River	Sharon Bender 810-364-3983 bendersharon@yahoo.com	Patricia Troy 810-984-5736 pjtroym2004@yahoo.com	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Chris Christenson U.S. EPA, 312-353-6303 christenson.elmore@epa.gov	Friends of the St. Clair River 810-984-9730
St. Marys River	Mike Ripley 906-632-0072 mripley@sault.com	Mike Ripley 906-632-0072 mripley@sault.com	Shanna Draheim, Mich. DEQ, 517-241-4311 draheims@michigan.gov	Jamie Schardt, U.S. EPA 312-353-5085 schardt.james@epa.gov	Lake Superior State University 906-635-2470
Torch Lake	Jim Trevethan 906-482-4951	Dave Jukuri 906-482-0001 c21ncah@up.net	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Brenda Jones, U.S. EPA 312-886-7188 jones.brenda@epa.gov	Contact public advisory council chair
White Lake	Greg Mund 231-924-2060, x3 greg.mund@mi.usda.gov	Norm Ullman 231-894-9385, nullman524@aol.com	Sharon Baker, Michigan DEQ, 517-335-3310 bakers@michigan.gov	Marc Tuchman, U.S. EPA 312-353-1369 tuchman.marc@epa.gov	Muskegon Conservation District 231-773-0008

### Federal & State Agencies

U.S. Environmental Protection Agency  
[www.epa.gov](http://www.epa.gov)

U.S. EPA, Great Lakes National Program Office  
[www.epa.gov/glnpo](http://www.epa.gov/glnpo)

U.S. EPA, Region 5  
[www.epa.gov/region5](http://www.epa.gov/region5)

Michigan Dept. of Environmental Quality  
[www.michigan.gov/deq](http://www.michigan.gov/deq)  
(Select "Water," then "Great Lakes," and then "Areas of Concern" for DEQ's Areas of Concern web page.)

### Regional & Binational Agencies

International Joint Commission  
[www.ijc.org](http://www.ijc.org)

Great Lakes Fishery Commission  
[www.gljfc.org](http://www.gljfc.org)

Great Lakes Commission  
[www.glc.org](http://www.glc.org)

### Michigan's Areas of Concern

Statewide Public Advisory Council  
[www.glc.org/spac](http://www.glc.org/spac)

Michigan Areas of Concern News  
[www.glc.org/spac/aocnews.html](http://www.glc.org/spac/aocnews.html)

Recommendations and Contacts for Michigan's Great Lakes Areas of Concern  
[www.glc.org/spac/pdf/RAPsummaries.pdf](http://www.glc.org/spac/pdf/RAPsummaries.pdf)

### Information Resources

Great Lakes Information Network  
[www.great-lakes.net](http://www.great-lakes.net)

Areas of Concern in the Great Lakes  
[www.great-lakes.net/envt/pollution/aoc.html](http://www.great-lakes.net/envt/pollution/aoc.html)

Summaries of U.S. Great Lakes Areas of Concern  
[www.epa.gov/glnpo/aoc](http://www.epa.gov/glnpo/aoc)

Restoring U.S. Great Lakes Areas of Concern: Delisting Principles and Guidelines  
[www.glc.org/spac/pdf/delisting.pdf](http://www.glc.org/spac/pdf/delisting.pdf)

Great Lakes Water Quality Agreement  
<http://www.ijc.org/rel/agree/quality.html>

The Great Lakes Atlas  
[www.epa.gov/glnpo/atlas](http://www.epa.gov/glnpo/atlas)