

# Ohio's Lake Erie Action List



Prepared by the  
Lake Erie Commission  
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Photos used throughout this publication are taken from the annual Life on Lake Erie photo contest entries. A special thanks to all the photographers for entering the contest and for allowing us to use their photos in this and other publications.

<b>Page Number</b>	<b>Photographer</b>	<b>Photo Location</b>
1	Jeaneen Sheehan	Bay Village
2	R. Joseph Jenulis	Cuyahoga River
3	Mike Rosa	Lorain
4	Andrea Nagy	Old Woman Creek
7	David Caldwell	Marblehead
8	Monnie Ryan	Lorain
9	Allan Braman	Catawba Island
10	Monnie Ryan	Fairport Harbor
11	Karen Waugh	Port Clinton
12	Jenny Amidon	Lucas County
13	Steve Lonneman	not specified
14	Lori Choquette	Catawba Cliffs
15	Dale Buchner	WW Knight Preserve
16	James Fulkert	Ottawa County
17	James Baughman	Marblehead
17	Donna Braig	South Bass Island
18	Lynne Russell	not specified
19	Ann Hitzhusen	Kellys Island Marina
20	Richard McBride	not specified
21	Barbara Radebough	Put-in-Bay Harbor
22	Allan Braman	Catawba Island
23	Todd Shaw	Sandusky Bay
24	John E. Rees	Put-in-Bay Dock
25	John E. Rees	Between Put-in-Bay and Catawba
26	Barbara Radebough	Marblehead
27	June Trefz-Bell	Marblehead
28	Amy Winger	Cleveland
29	R. Joseph Jenulis	Cuyahoga River
30	Steve P. Lonneman	Sandusky County
31	Arnold Ehram	City Dock/Sandusky

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## Introduction

In October 2003, the Governors of the Great Lakes States released nine priorities for preserving and restoring the region's most important ecological treasure, the Great Lakes.

This effort was led by Ohio Governor Bob Taft in his role as chairman of the Council of Great Lakes Governors.

Shortly thereafter, Governor Taft approached President George Bush to urge more recognition at the federal level of the need to take action to reverse the declining environmental condition of the Great Lakes.

### Great Lakes Regional Collaboration

The President responded in May 2004 with an Executive Order that created the Great Lakes Regional Collaboration, charged with creating a restoration plan.

The Collaboration brought together 1,500 individuals in an unprecedented year-long effort to identify the most important steps needed to restore the Lakes to greatness.

The *Great Lakes Regional Collaboration Strategy to Protect and Restore the Great Lakes* was released in December 2005.

The Collaboration Strategy is based on eight of the nine Governors' priorities. The remaining priority – ensuring sustainable use of water resources – is being addressed separately through the Great Lakes Charter Annex initiative.

Now that the plan is complete, the participants must turn to implementation if the effort is to have lasting meaning.

There are many barriers to turning the Collaboration plan into action.

No one is certain how comprehensive restoration of the Great Lakes will be financed. There are still multiple agencies and programs with overlapping responsibilities.

Many of the recommendations still need to be augmented by clear, prioritized action items. While it is important to address these obstacles, it is equally important to move forward on Great Lakes restoration. That is the purpose of *Ohio's Lake Erie Action List*.

### Ohio's Lake Erie Action List

*Ohio's Lake Erie Action List* identifies those activities that will be pursued by the member agencies of the Lake Erie Commission during 2006 and 2007. \*

This timeframe recognizes the Collaboration's Executive Committee intent that implementation begin with defined actions that can be accomplished within one to two years.

The actions on this list can be accomplished with available funding from a variety of sources.

In addition to representing Ohio's proactive initiative to implement the Great Lakes Regional Collaboration Strategy, *Ohio's Lake Erie Action List* also enhances the State's ongoing work to protect and restore Lake Erie.



\*The members of the Ohio Lake Erie Commission include the Ohio Departments of Agriculture, Health, Development, Natural Resources and Transportation, and the Ohio Environmental Protection Agency.



## Lake Erie Quality Index: State of the Lake Report

In 1998, the Lake Erie Commission released the *Lake Erie Quality Index: State of the Lake Report*.

As its name implies, this document provided a baseline evaluation of the Lake's condition.

By updating the *Index* every five years, the Commission is able to measure the effectiveness of its efforts to improve the Lake's quality.

## Lake Erie Protection and Restoration Plan

The Commission spelled out their efforts in the very successful *Lake Erie Protection & Restoration Plan* (LEPR), released in 2000 by Governor Taft.

The LEPR identified 84 action steps that the Lake Erie Commission would take to protect and restore Lake Erie.

As the third and final progress report on that plan demonstrates, a number of those actions have been completed, and most of the remainder are embodied in ongoing programs of the Lake Erie Commission agencies.

The most recent *Index* shows that these actions are resulting in measurable improvements.

However, after six years, the LEPR needs to be updated to reflect newly emerging issues and changing Lake Erie conditions, as well as the unified Great Lakes approach embodied in the Great Lakes Regional Collaboration.

The strategic direction set forth in the LEPR remains the benchmark for Ohio's approach to the economy and ecology of Lake Erie.

## A Plan for the Future

*Ohio's Lake Erie Action List* moves us forward through new commitments to Lake Erie for the next two years.

It reflects both the broad recommendations in the *Great Lakes Regional Collaboration Strategy* and the strategic direction of the *Lake Erie Protection & Restoration Plan*.

It demonstrates Ohio's continued leadership among the Great Lakes States.

Ohio was the first to develop a measurement index and action-oriented plan.

Ohio led the way in setting restoration priorities for all the Great Lakes.

Ohio took a leadership role in the Regional Collaboration.

Now, Ohio is the first State to commit to a clear, measurable set of restoration actions.

Ohioans can expect this leadership to continue into the future, as the actions on this list are completed and the Lake Erie Commission embarks on successive action agendas to protect Our Great Lake.

## Priority: Invasive Species

Lead Agency: Ohio Department of Natural Resources (ODNR)

*GOAL: To slow the introduction of new invasive species to Lake Erie, and to respond quickly to introductions to minimize the environmental damage they cause.*

### Asian Carp

Several carp species, including Asian carp, are prohibited from introduction by ODNR rules enacted in 2004. These rules also contain a blanket prohibition against introduction of any non-native fish.

Ohio supported the listing of Asian carp by the U.S. Fish and Wildlife Service (USFWS) as injurious wildlife under the Lacey Act; however, USFWS has yet to act.

**Timeframe:** Ongoing

The State of Ohio contributed \$68,000 in December 2004 for the construction of the dispersal barrier in the Chicago Sanitary and Ship Canal.

Governor Taft, Ohio EPA Director Joe Koncelik, and ODNR Director Sam Speck continue to lobby Congress to provide the funds necessary to complete construction of two permanent barriers and to operate them.

**Timeframe:** Lobbying activities continue in 2006.

### Rapid Response

The new Ohio Aquatic Nuisance Species State Management Plan will have a rapid response component, developed using regional and national templates.

A rapid response plan would guide interagency efforts in the event that an invasive species is released in Ohio.

There would be coordinated activities to immediately eradicate or control an infestation to minimize harm to Ohio aquatic systems.

**Timeframe:** Ohio's ANS State Management Plan will be revised by ODNR by the end of 2006. It will be submitted to the National ANS Task Force for approval.

### Boater Education

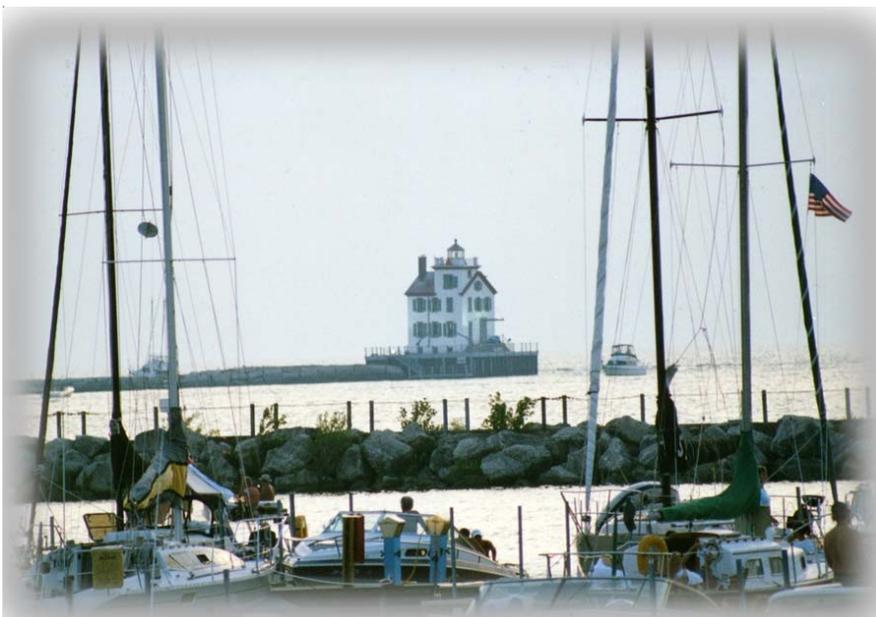
The ODNR Division of Watercraft will continue to educate Ohio boaters about aquatic invasive species through the Ohio Boater Education Course and the Ohio Boat Operator's Guide.

**Timeframe:** Ongoing

### NAISA

Governor Taft has repeatedly urged Congress to pass the National Aquatic Invasive Species Act.

**Timeframe:** Ongoing



## Priority: Coastal Health

Lead Agencies: Ohio EPA and the Ohio Department of Health

*GOAL: To eliminate the release of untreated and inadequately treated sewage to Lake Erie and its tributaries.*

### Combined Sewer Overflows

Combined Sewer Overflows (CSOs) are the primary source of untreated sewage discharges to Lake Erie.

These discharges impact water quality and introduce bacteria that can present a public health threat.

In the Lake Erie drainage basin, 64 communities had or have combined sewer overflows (CSOs). To date, ten communities have eliminated their CSOs but the remaining 54 must still do so.

An estimated eight billion gallons of untreated sewage was discharged into Lake Erie and its tributaries in 2004 from 11 of the CSO communities. See the map on the following page for specific information on CSO communities.

### *Small Communities*

(less than one million gallon per day treatment plant)

Thirty-five small communities in the Lake Erie basin have CSOs. Sewer separation is the preferred technology for smaller communities.

Seven out of the 35 have completed construction of all controls required under a Long Term Control Plan (LTCP). All seven opted to do this by sewer separation.

Sixteen small communities have an approved plan and are constructing required projects. Of those 16 communities, 15 have opted for sewer separation.

Seven small communities have submitted a LTCP and Ohio EPA is negotiating the terms with them. The remaining five small communities must submit their LTCP in 2006.

**Timeframe:** For the seven communities whose plans are in negotiation, Ohio EPA expects to conclude this process and approve the plans, or alternatively begin enforcement action, by Spring 2007.

For the five communities that have yet to submit their plans, generally Ohio EPA allots two years from submission of the draft plan to negotiate details before moving forward with an enforcement action.

### *Large Communities*

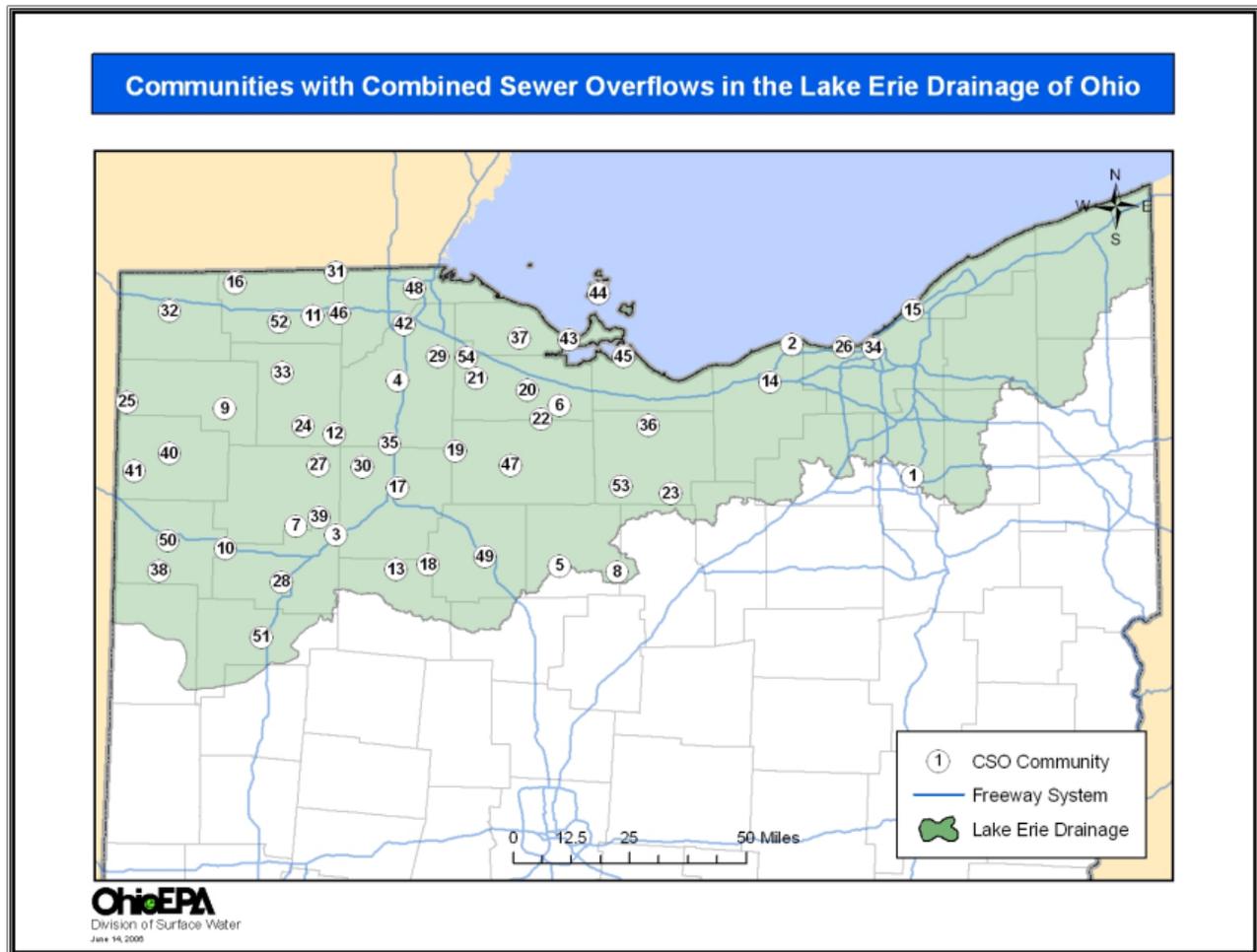
(more than one million gallon per day treatment plant)

Twenty-nine large communities in the Lake Erie basin have CSOs. In the larger cities, namely Toledo and Cleveland, sewer separation has been determined to be unaffordable.

Four of the 29 have completed construction of all required controls.

One community opted to do this by sewer separation, the other three by installing controls to treat or store the overflow.





The table on the following page lists Lake Erie Basin communities with Combined Sewer Overflows (CSOs). The table shows the number of CSOs in each community and an approximate cost to eliminate them. Costs followed by an \* are from long-term control plans that have been approved or are under review. Other costs are from U.S. EPA's 2000 *Clean Watersheds Needs Survey*.

The total number of CSO communities in the Lake Erie Basin is now 54. The following Lake Erie Basin communities have eliminated all CSOs as of June 2006.

- ◆ Ashtabula
- ◆ Attica
- ◆ Bloomville
- ◆ Continental
- ◆ Elmore
- ◆ Genoa
- ◆ Maumee
- ◆ Monroeville
- ◆ Pemberville
- ◆ Rockford

## Ohio's Lake Erie Action List

Community/ Map ID No.	Number of CSOs	Approved Long-Term Control Plan	Estimated Costs
1 Akron	38		\$384,000,000*
2 Avon Lake	14	✓	\$16,391,000
3 Bluffton	2	✓	\$1,393,000
4 Bowling Green	1	✓	\$1,429,000
5 Bucyrus	22		\$7,258,000
6 Clyde	3		\$7,411,000
7 Columbus Grove	4		\$6,329,000
8 Crestline	1		\$10,760,000
9 Defiance	44	✓	\$48,000,000*
10 Delphos	6	✓	\$13,956,000
11 Delta	9		\$6,464,000
12 Deshler	7	✓	\$3,717,000
13 Dunkirk	6		\$3,831,000
14 Elyria	27		\$37,639,000
15 Euclid	18		
16 Fayette	15		\$3,395,000
17 Findlay	18	✓	\$27,059,000
18 Forest	3	✓	\$7,147,000
19 Fostoria	5		\$20,262,000
20 Fremont	13		\$7,739,000
21 Gibsonburg	3		\$7,437,000
22 Green Springs	1		\$3,788,000
23 Greenwich	10		\$503,000
24 Hamler	6	✓	\$1,600,000
25 Hicksville	5		\$10,187,000
26 Lakewood	9		\$4,255,000
27 Leipsic	1	✓	\$5,296,000
28 Lima	19	✓	\$33,916,000
29 Luckey	4	✓	\$2,948,000
30 McComb	2	✓	\$3,511,000
31 Metamora	4	✓	\$1,136,000
32 Montpelier	3		\$8,772,000
33 Napoleon	3	✓	\$9,339,000
34 NE Ohio Reg. Sewer District	126		\$1,610,000,000
35 North Baltimore	2	✓	\$9,804,000
36 Norwalk	3	✓	\$15,825,000
37 Oak Harbor	9	✓	\$5,272,000
38 Ohio City	2		\$478,000
39 Pandora	7		\$2,133,000
40 Paulding	2	✓	\$7,634,000
41 Payne	2		\$4,334,000
42 Perrysburg	4	✓	\$7,011,000
43 Port Clinton	2	✓	\$5,232,000
44 Put-In-Bay	3		\$1,003,000
45 Sandusky	15	✓	\$6,656,000
46 Swanton	9		\$8,454,000
47 Tiffin	30		\$26,937,000
48 Toledo	33		\$346,210,000
49 Upper Sandusky	1		\$10,659,000
50 Van Wert	6	✓	\$2,402,000
51 Wapakoneta	3		\$9,244,000
52 Wauseon	4	✓	\$5,324,000
53 Willard	3	✓	\$14,109,000
54 Woodville	17		\$6,847,000

Nine large communities have an approved LTCP and are constructing required projects. Of those nine communities, four have opted to do this by sewer separation, the other five by installing controls to treat or store the overflow.

Eleven large communities have submitted a LTCP and Ohio EPA is negotiating the terms. Many of these communities have already begun installation of required controls.

Five large communities still need to submit a LTCP. All five communities are required to submit their LTCP by 2008 or earlier.

**Timeframe:** All but two communities that should have an approved LTCP are already in enforcement. Generally, Ohio EPA allots two years from submission of the draft plan to negotiate details before moving forward with an enforcement action.

## State Facility Improvements

ODNR is investing more than \$2.25 million to improve wastewater collection and treatment and public drinking water supplies at several Lake Erie Parks, including South Bass Island, East Harbor, Cleveland Lakefront, Kelleys Island, and Geneva.

## On-Lot Sewage Treatment Systems

The Ohio Department of Health regulates sewage treatment systems for one-, two- and three-family dwellings, and small flow sewage treatment systems (facilities that treat up to 1,000 gallons per day).

ODH issues rules for permitting and inspections that are enforced by the local health districts.

ODH is updating its rules with an effective date of January 1, 2007. The new rules will establish standards for the siting, design, permitting, installation, alteration, operation, monitoring, maintenance, and abandonment of sewage treatment systems serving homes and small nonresidential facilities.

The rules also establish local registration of installers, service providers and septage haulers, with competency testing requirements and recognition of state/national certification programs.

Emphasis is placed on system owner education, and operation inspections and maintenance of systems to help prevent future contamination and public health nuisances.

Standards for land application of septage are also established.

ODH estimates that 25 percent of existing on-lot systems are discharging raw sewage, making them a significant source of nutrient loadings and bacteria contamination in Lake Erie tributaries.

**Timeframe:** New rules will be effective January 2007.

The Cuyahoga County Board of Health received \$49,080 from the Lake Erie Protection Fund to inspect 4,000 household sewage treatment systems throughout Cuyahoga County and educate 1,000 homeowners on their proper maintenance.

Homes were selected according to their proximity to lake tributaries.

**Timeframe:** The project was completed in December 2005.

The Toledo Metropolitan Area Council of Governments received \$50,000 from the Lake Erie Protection Fund for a GIS inventory of septic systems in urban and rural counties on the lake.

The project will help local health departments on the lake manage septic system records and identify communities with a high potential for bacterial contamination from faulty systems.

**Timeframe:** The project is ongoing.





### Beach Safety

Rebecca Bushon of the U.S. Geological Survey received \$10,000 from the Lake Erie Protection Fund to continue to study a "*Rapid Method for detecting E. coli in the Cuyahoga River.*"

The survey will test the accuracy of the previously introduced model for the test for *E. coli* and, if necessary, develop a more accurate model.

Results obtained from this study will provide for more timely testing results. If successful, this method may have applicability for beach areas.

**Timeframe:** Research is underway.

Amie Brady of the U.S. Geological Survey received \$10,000 from the Lake Erie Protection Fund to examine the discharge of *E. coli* and suspended sediment from the Berger Ditch and Maumee Bay State Park beach into Lake Erie.

The results will help determine *E. coli* levels in the water and provide information for the design of a wetland to treat water before it enters Maumee Bay.

**Timeframe:** Research is underway.

Von Sigler of the University of Toledo received \$53,945 to develop a mitigation plan for certain types of contamination in Maumee Bay to lower the incidences of area beach closings.

**Timeframe:** Research is underway.

Donna Francy of the U.S. Geological Survey received \$93,871 to implement a system for "nowcasting" bacteria levels and beach advisories for Huntington Beach and compare to current methods of determining water quality.

The project will develop models for Lakeview and Century Beaches for an Internet-based beach advisory program.

**Timeframe:** Research is underway.

Ohio Water Development Authority is providing \$132,651 to the U.S. Geological Survey to improve the timeliness of beach advisories.

The work will take place at three Lake Erie beaches in Cleveland, Ohio—Edgewater, Villa Angela, and Huntington, during the recreational seasons of 2006 and 2007.

Current methods to determine concentrations of bacteria require at least 18 to 24 hours from sample collection to availability of results. This time frame is too long to adequately assess the safety of the water based on recreational standards.

Bacteria concentrations in the water can change overnight. Because results of the current day's bacteria concentrations are not available until the following day, recreational users may be at risk of coming into contact with water that has exceeded the standards and is not considered safe for recreation.

Alternatively, the beach may be posted when the risk is low, resulting in lost recreational use and revenue.

The need for a method to rapidly determine concentrations of fecal indicator bacteria in recreational waters is widely recognized.

**Timeframe:** The research will take place in 2006 and 2007.

## Sand Mapping

Because sand is essential for recreational opportunities, erosion protection and improvement of nearshore water quality, documenting the sand that remains will assist in the protection and restoration of this critical resource.

ODNR is using side-scan sonar substrate mapping to develop a physical account of what sand remains in the coastal area.

In 2004-2006, ODNR budgeted approximately \$300,000 for the project.

**Timeframe:** Ongoing

## Coastal Erosion Mapping

ODNR's Division of Geological Survey is remapping the Coastal Erosion Area, which estimates 30-year recession rates along the Lake Erie Coast.

Besides aiding property owners with erosion and flooding concerns, this mapping can be used by researchers to predict changes in nearshore habitat as well as how the ecosystem may be affected by erosion.

Approximately \$640,000 was budgeted for this in 2004-2006. One-third of this amount is subcontracted aerial photography.

**Timeframe:** This mapping is required by statute to be done every 10 years. The project will be completed by the end of 2007.

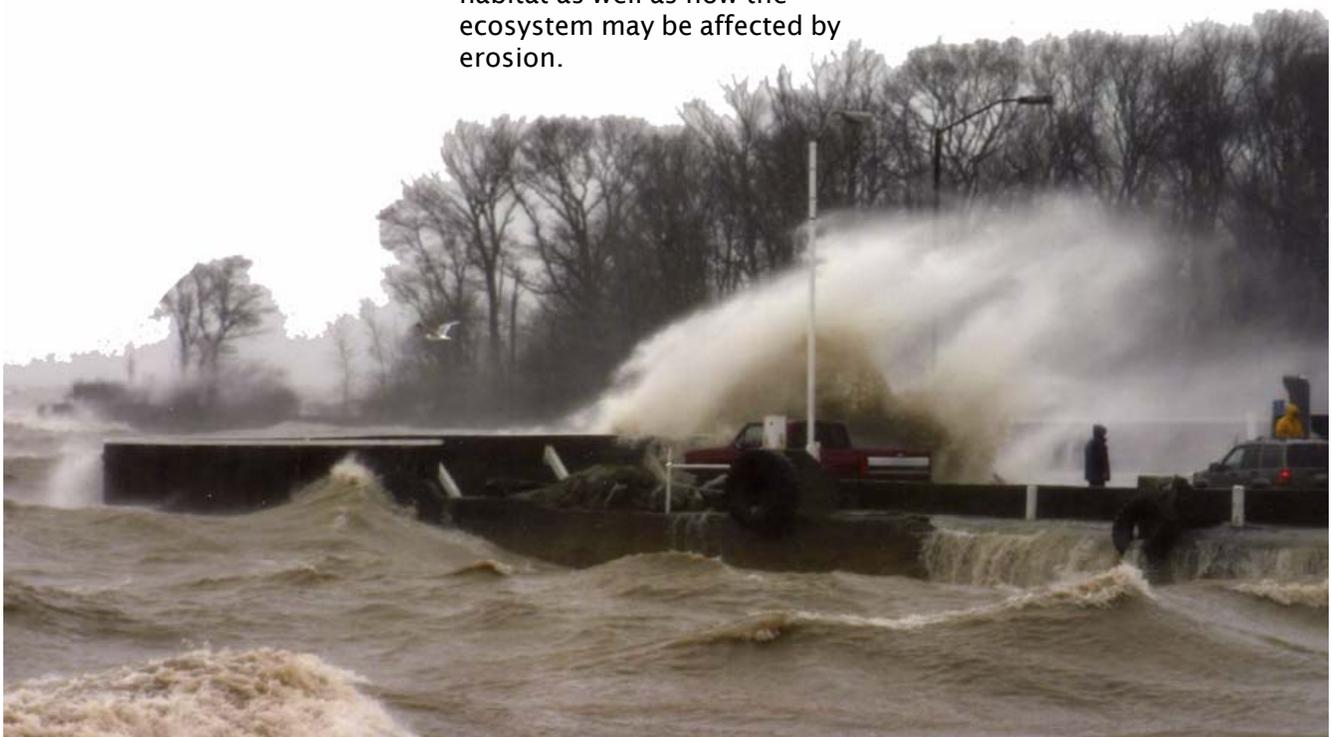
## Water Quality Standards

Ohio EPA is updating the State's surface water quality standards rules for the Lake Erie basin.

The update will include more standards for the protection of human health based on the latest recommendations from U.S. EPA.

This update will help to ensure that Lake Erie remains a safe source of fish to eat and water to drink.

**Timeframe:** Rules will be drafted in 2006.



### Priority: Areas of Concern

Lead Agencies: Ohio EPA and local Remedial Action Plan Partners (RAPs)

*GOAL: To restore all beneficial uses in Ohio's four Areas of Concern: the Black River, Ashtabula River, Cuyahoga River and Maumee River.*

The International Joint Commission has designated four Areas of Concern in Ohio. These are major tributaries to Lake Erie that suffer from various impairments resulting from past industrial use along their banks and other human activities.

Locally based committees develop Remedial Action Plans (RAPs) that define the sources and causes of impairment and propose remedial actions. The RAP committees are comprised of state, federal and local agency representatives as well as local stakeholders.

Once the committee has identified needed actions, those actions are taken collectively by the committee or implemented by the member agency/partner with the proper regulatory authority.

Implementation is often based on the grants that the RAP committee or its individual partners are able to procure.

Funding for RAP development and implementation comes from a variety of federal, state and local sources as well as private foundations and local fund-raising efforts.

Core support staff for each AOC are funded by a continually changing mix of federal, state and local funds that is difficult to estimate with accuracy, as it changes on a yearly basis.

The following projects are the major activities the RAPs will do over the next two years.

### Ashtabula River

The State of Ohio is providing \$7 million toward the dredging of the Ashtabula River, a Great Lakes Legacy Act project.

Construction of the federally-permitted landfill for dredge spoils began in April 2006.

Dredging is expected to begin in October 2006 and will continue over two or three dredging seasons. 600,000 cubic yards of contaminated sediment will be dredged, removing approximately 25,000 pounds of PCBs.

Dredged sediment will be pumped upland, passively dewatered, and the liquids drained will be treated to meet Ohio water quality standards and pumped back to the river.

Post-dredging monitoring will be done and clean fill used to cover any areas where PCBs may still be elevated.

Over the next five years, an additional 100,000 cubic yards of sediment will be removed from the navigation channel downstream of the Legacy Act project area, under the Corps of Engineers operation and maintenance dredging authority.

These sediments will also be placed in the upland landfill.

Habitat mitigation will be done over 1,000 to 2,000 linear feet along the east bank of the river.



Once the sediment remediation project is complete follow-up monitoring will be done to determine when all beneficial uses have been restored and if additional restoration is needed.

Total cost of this project is estimated at \$50 million with a 50/50 federal/local cost-share.

**Timeframe:** Dredging will begin in October 2006 and will continue until completed, likely in 2009.

## Cuyahoga River

Under a \$500,000 appropriation to the Corps of Engineers, the Cuyahoga RAP group will design and install three habitat prototypes to test innovative shoreline structure options in the navigation channel.

The channel poses a major barrier to fish movement between the lake and the river.

These structures will be used in place of standard sheet pile bulkheads to provide aquatic habitat to support fish passage while still protecting the shoreline.

As required under the Clean Water Act, Ohio EPA has completed a study of the Lower Cuyahoga River that describes the pollutant reductions needed to attain water quality objectives.

A study is underway to explore the feasibility of removing the Rt. 82 dam, an action that will improve the river's capacity to assimilate upstream discharges as well as remove barriers to fish passage (approximately \$150,000 in local funds).

Another study is underway to identify unknown stressors in Tinkers Creek that continue to prevent the total attainment of water quality objectives (funded by a \$200,000 grant from the Ohio Water Development Authority with local match).

The Cuyahoga RAP committee is reassessing beneficial use impairments, establishing final restoration targets, and continuing the development of individual sub-watershed plans and stewardship groups, all of which contribute to the overall restoration of the Cuyahoga River.

**Timeframe:** 2006-2008

## Black River

The Black River RAP has adopted Ohio EPA delisting criteria and is reassessing beneficial use on a sub-watershed basis using these criteria.

A sub-watershed group has been established along the West Branch and others are being formed along French Creek and the East Branch.

Ohio EPA and RAP volunteers will conduct monitoring on the West Branch in 2006 to test the correlation between the quality of the fish community and turbidity in the hope that a simple test using a sediment stick can be used to measure stream improvements in the future.



## Ohio's Lake Erie Action List

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Much of the assessment work in the Black River AOC has been done by Ohio EPA staff.

A study is underway with a strong focus on managing nonpoint sources.

**Timeframe:** 2006-2008

### Maumee River

The Maumee RAP has completed a Stage 2 Watershed Restoration Plan assessing the status and needs of all the sub-watersheds in the Maumee AOC.

Over the next two years RAP partners will be working to identify and implement the actions relevant to their agencies.

A Great Lakes Legacy Act application was submitted by the City of Toledo to remove approximately 2,100 cubic yards of contaminated sediment from the Ottawa River at a cost of \$1.2 million.

However, U.S. EPA determined that additional sampling and analysis was needed to better scope out the project components.

This additional field data has been collected and U.S. EPA is working with the city to redefine the project.

Federal/local cost-share for this project would be 65/35.

Field sampling on several tributaries in the AOC will be done by Ohio EPA in 2006, with results in 2007. This will also provide data to assess the current state these tributaries and provide the basis for the identification of remedial actions.

The dam at Ottawa Hills on the Ottawa River will be removed in 2006, followed by stream bank and floodplain restoration in 2006 and 2007.

The Maumee RAP committee is funding preparation of the overall design plan, the dam is being removed as a mitigation project by the Ohio Department of Transportation, and a Clean Water Act Section 319 grant is funding the stream bank restoration work

**Timeframe:** 2006-2008

### RAP Program

Ohio EPA funds the RAP/Lake Erie program at \$200,000 per year.

A federal grant of approximately \$400,000 provides funding for the core support of state RAP coordinators for each RAP.

Other state and federal grants fund local watershed coordinators in the lower Maumee and Black River AOCs.

The Cuyahoga RAP maintains a local staff of three via various grants and dues.

**Timeframe:** Ongoing



## Priority: Toxic Pollutants

Lead Agency: Ohio EPA

*GOAL: To reduce the loadings of persistent bioaccumulative toxics, in particular mercury, to Lake Erie.*

### Mercury Legislation

Ohio EPA is developing draft legislation that would ban the sale of thermometers, thermostats and novelty items containing mercury.

**Timeframe:** The Agency is seeking a sponsor who will introduce the legislation in 2006.

### Auto Salvage Program

Ohio EPA is developing a voluntary program to encourage salvage yards to remove mercury switches from vehicles.

**Timeframe:** The program will begin by the end of 2006.

### Mercury in Schools

The Ohio Mercury Reduction Group is developing a guide for school administrators on mercury-containing equipment in schools, and is developing a checklist for local health inspectors on mercury in schools.

**Timeframe:** The checklist is complete. The guide for administrators is scheduled to be rolled out for the beginning of the 2006-2007 school year.

### Mercury Collection

Ohio EPA's district offices participate in mercury collection from private homes and nonprofits. This effort is linked to Bowling Green State University's Elemental Mercury Collection and Reclamation Program.

**Timeframe:** Ongoing

### Mercury Discharges

Under the Great Lakes Initiative (GLI), wastewater discharge limits for mercury have become more stringent. Approximately 50 permittees in the Lake Erie basin currently have mercury limits.

Ohio EPA anticipates that at least 100 more permittees in the basin will have permit limits after November 2010, the date when mixing zones for bioaccumulative chemicals of concern are phased out.

Permit holders that have variances for these limits are developing Pollutant Minimization Plans (PMPs) to help reduce mercury discharges.

Ohio EPA is beginning to require these plans in cases where a discharger cannot meet the mercury limit, even if the discharger has not yet requested a mercury variance.

PMP costs vary widely for different plants depending on the type of industrial process, the size of a wastewater collection system and the number and type of its industrial users.

**Timeframe:** Ongoing, as permits come due for renewal.



### Fish Consumption Advisory

Ohio EPA is the lead agency for the sport fish advisory program and cooperates with the Ohio Department of Health and ODNR.

Approximately 115 to 120 fish tissue samples are collected each from the Lake Erie basin. Another 80 samples are collected every three to four years from within Lake Erie itself.

The samples are analyzed for mercury, PCBs and other metals and pesticides.

Ohio EPA prints and distributes advisory brochures, some specifically designed to reach women and children.

In addition, the Lake Erie Protection Fund funded and completed a project in 2005 designed to reach underserved and at-risk populations with Ohio's fish consumption advisory information.

Ohio EPA spends approximately \$135,000 on sampling, analysis, staff and outreach each year in the Lake Erie basin on this program.

**Timeframe:** Ongoing

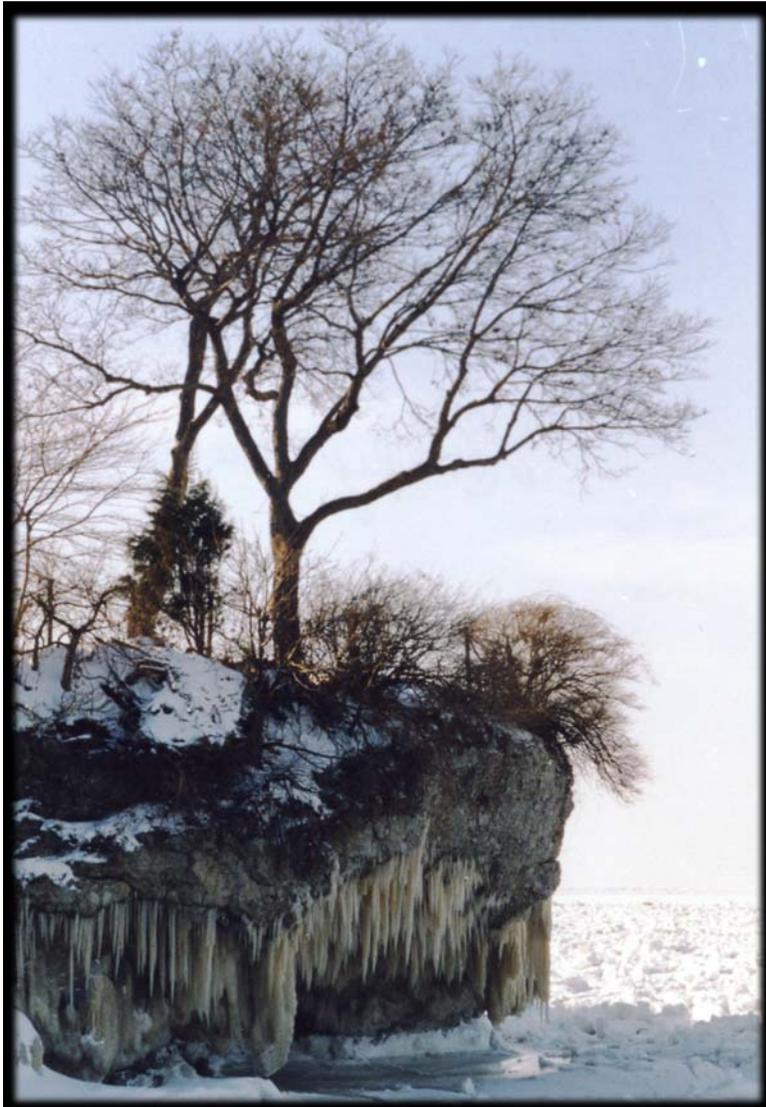
### Hazardous Waste Recycling

Ohio EPA provided technical and regulatory assistance, and the Lake Erie Protection Fund granted \$184,500 to BIZMAT, a low-cost hazardous waste recycling and collection center for small businesses.

The center serves businesses in Cuyahoga and Summit counties as a two-year pilot project. If the project proves successful, it is anticipated that similar small business recycling centers will open elsewhere in Ohio.

Eligible businesses can take a variety of hazardous wastes to BIZMAT, including spent chemicals, fluorescent bulbs, used batteries, pesticides, mercury-contaminated materials, etc.

**Timeframe:** The Center opened in November 2005 as a two-year pilot project.



## Priority: Habitat and Species

Lead Agencies: ODNR and Ohio EPA

*GOAL: To promote diversity by protecting and restoring habitat.*

### National Wetlands Inventory

Organized through ODNR's Division of Wildlife, the inventory will meet USFWS standards for wetlands inventory.

Funding is coming from ODNR, OEPA, Lake Erie Commission, ODOT, USDA, NRCS, The Nature Conservancy, Ducks Unlimited and Cleveland MetroParks.

It may be possible to categorize all of the coastal wetlands to better identify critical areas. Ohio EPA is spending \$239,000 on this project (funded from a federal wetland grant). The cost of the infrared photography is \$925,000.

**Timeframe:** The infrared photography for the project began in spring 2006. The project will be completed in 2008.

### Water Quality Certifications

Within the last year Ohio EPA has hired two additional Section 401 coordinators in the two northern district offices.

These coordinators are in place to help to address the project applications along the Lake Erie shoreline and across the basin more efficiently and effectively. They review applications for 401 water quality certifications and respond to complaints of alleged illegal discharges.

Their proximity to the project allows for quicker response times and increases the visibility of the program, which helps to deter potential violators.

Their field presence also helps to ensure that wetland impacts are being matched with appropriate mitigation requirements in the certifications issued by Ohio EPA.

Ohio EPA is using fee and federal grant funds to provide approximately \$150,000 per year to fund these positions.

**Timeframe:** Ongoing

### Assessment of Wetland Mitigation Projects

To ensure the state of Ohio suffers no net loss of wetlands, applicants are required to perform mitigation for unavoidable wetland impacts.

Studies on both the federal and state levels have demonstrated that many mitigation wetlands are not performing as anticipated.

Ohio EPA is hiring a staff person whose sole responsibility will be to oversee the wetland mitigation program and serve as a technical resource to Ohio EPA staff and the regulated community.

Ohio EPA will then have the resources to ensure that mitigation projects are performing as required and to provide technical assistance in cases where they are not.

A federal grant is providing approximately \$100,000 a year for a three-year period to fund this position.

**Timeframe:** The position will be filled in 2006.

### Toledo Harbor Spoil Disposal

For more than 10 years, Ohio EPA has been working with a number of organizations and agencies to reduce open lake disposal of dredged material in the western basin of Lake Erie.

It is the state's belief that this process is harmful to the aquatic health of the western basin and alternative methods of disposal need to be utilized.

An agreement between the Army Corps of Engineers, ODNR and Ohio EPA sets us on a course to reduce open lake disposal, while at the same time helps reestablish some coastal features that have eroded away.





However, the Corps did not receive federal funding for a \$1.2 million feasibility study needed to move the project forward.

Governor Taft, Ohio EPA Director Joe Koncelik and ODNR Director Sam Speck have all lobbied Congress to appropriate funds for the feasibility study in the next federal budget.

**Timeframe:** The feasibility study is scheduled to be done in 2006 - 2008, subject to available funding.

### Habitat Restoration

Using funds from the sale of the bald eagle license plate, ODNR's Division of Wildlife purchased 41 acres for the Pickerel Creek Wildlife Area for \$99,000, and a 20-acre parcel at Grand River in Trumbull County for eagle habitat and restoration for \$25,000.

**Timeframe:** Complete.

ODNR is proposing to use 224,000 cubic yards of clean sediment dredged from East Harbor to restore wetlands and coastal habitat in Middle Harbor.

The project would restore 10 acres of wetlands and 68 acres of vegetative shallows.

A deep-water fishery will be created and two culverts installed to aid fish passage and hydrologic connectivity.

The estimated project cost is \$2 million for dredging, monitoring, construction and culvert construction.

**Timeframe:** Permits for these projects are pending at Ohio EPA.

ODNR is in the third year of a six-year study to assess the impact of the removal of the St. John's dam on the Sandusky River. The project will document ecosystem improvements and may support additional dam removals.

The Division of Natural Areas and Preserves is providing \$16,000 a year plus staff time. Project partners are OSU and Heidelberg College.

**Timeframe:** Project will continue through 2009.

Ohio EPA's Water Resource Restoration Sponsorship Program is providing \$1 million to protect riparian habitat along the Conneaut Creek State Scenic River.

**Timeframe:** Contracts are being finalized in 2006.

ODNR is purchasing a conservation easement along the Grand State Scenic River to protect a half-mile of riparian habitat. The cost of the purchase is \$616,000.

**Timeframe:** Completed March 2006.

### Habitat Research

The Lake Erie Protection Fund awarded \$66,505 to The Ohio State University to study stopover sites for migrating land birds.

Researchers assessed the abundance and diversity of migrating birds in three forest habitats on the lake and how birds use these habitats as staging areas.

The information will be key to protecting areas that are vital to the survival of these bird species.

**Timeframe:** The project concluded in November 2005.

The Maumee Bay State Park Monarch butterfly research facility, in cooperation with ODNR's Division of Wildlife, raised 780 butterflies in 2005.

Researchers and volunteers now raise and release 500 to 800 butterflies annually, up from 23 butterflies raised in 1993.

Monarch butterflies are unlike any other in that they migrate 2,000 miles from Canada to Mexico each year.

**Timeframe:** Ongoing.

## Priority: Nonpoint Source Pollution

Lead Agencies: Ohio EPA and ODNR

*GOAL: To reduce nonpoint source loadings to Lake Erie tributaries, with particular emphasis on reducing sedimentation reaching the western basin of the Lake. As the shallowest portion of Lake Erie, the western basin is inordinately impacted by sediment loadings, and the Maumee watershed is the greatest contributor of sediment in the Lake Erie basin.*

### Erosion Control

The Lake Erie Protection Fund is providing \$100,000 for projects to reduce erosion from agricultural lands.

**Timeframe:** Projects underway.

### 319 Grants

Section 319(h) of the Clean Water Act provides important federal funding to allow Ohio EPA to make sub-grants to local governments, watershed organizations, and nonprofit organizations to implement restoration and other types of projects designed to reduce nonpoint source pollution and to restore impaired waterways.

In the Lake Erie basin, 319(h) sub-grant funding has been awarded to 16 local projects.

These projects address a variety of water quality impairments caused by nonpoint source pollution.

The projects will restore more than 2,700 linear feet of streams; remove two dams to improve in-stream and riparian habitat; acquire conservation easements on more than 12,600 linear feet of streams and more than 20 acres of riparian wetlands; and replace up to 268 failing home sewage treatment systems.

**Timeframe:** 2006

**Timeframe:** The project is projected to continue through 2011.

### Watershed Coordinators

Ohio EPA and ODNR have jointly created the Watershed Coordinator Grant Program.

Through this program, full-time watershed coordinators are working to develop and implement watershed action plans in the Maumee River; Duck and Otter Creeks; the Sandusky River; Euclid Creek; the Grand River; Chagrin River; Portage River; Black River; Rocky River; Tinkers Creek; Old Woman Creek; and the West Creek watershed.

### Conservation Reserve

Through the Lake Erie Conservation Enhancement Program (CREP), Ohio has a goal to enroll 67,000 acres in conservation practices over a ten-year period.

As of June 2006, 39 percent of this goal (29,359 acres) was realized.

An investment of nearly \$7,152,589 million in state funds to landowners has helped generate nearly \$19 million in in-kind contributions.

Projects include 2,241 acres of wetland restoration; 19,832 acres of filter strips; 1,750 acres of riparian forest buffers; and 2,233 acres of field windbreaks.



## Ohio's Lake Erie Action List

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State and local resources contribute approximately half the annual \$800,000 cost of the program; the remainder is supplied by Clean Water Act Section 319 federal funds.

Each watershed coordinator position is funded for multiple years, after which the group is expected to support the position.

State funding will be directed to support coordinators in other watersheds.

**Timeframe:** Ongoing.

### Soil and Water Conservation Districts

The State provides approximately \$4 million in matching funds annually to the Soil and Water Conservation Districts in the Lake Erie Basin. They assist landowners with conservation practices, and provide community education regarding soil erosion prevention and water management.

**Timeframe:** Ongoing.

### Nutrient Criteria

High levels of nutrients cause water quality problems in both lakes and streams through creating excessive growths of algae.

This is harmful to stream ecology in a number of ways, including causing major shifts in the species composition of fish and invertebrates.

Where sunlight reaches nutrient rich streams, rivers and lakes there can be unsightly blooms of algae that detract from recreation on the water.

In the near shore and open waters of Lake Erie, even relatively small changes in phosphorus concentrations can lead to algal blooms that reduce water clarity and, more significantly, reduce oxygen levels in deeper waters.

Researches are still investigating all the variables associated with the expanding anoxic conditions in Lake Erie, but nutrients most certainly play an important role.

The development of ambient nutrient criteria (nitrogen, phosphorus and chlorophyll a) for both lakes and rivers is a priority for Ohio EPA.

A multi-year sampling program is underway to collect the data necessary to derive a set of nutrient criteria that will be protective of the ecology of rivers and streams that flow into Lake Erie.

The ambient criteria will supplement the current narrative criteria that allow the Agency to impose technology based effluent limits on point sources within the Lake Erie basin.

Once ambient criteria are adopted in rule, then more restrictive water quality based limits will lead to reductions in nutrient loadings to stream, rivers and Lake Erie.

**Timeframe:** Rules for nutrient criteria are scheduled to be drafted in 2008.





### Water Quality Trading

Ohio EPA recently drafted new rules to implement a water quality trading program. The purpose of these rules is to leverage opportunities to achieve water quality improvements by implementing nonpoint source controls upstream of wastewater treatment plants.

Through this program Ohio hopes to reduce nutrient and sediment loadings to streams.

**Timeframe:** Rules should be final by the end of 2006.

### Fertilizer/ Pesticide Loadings

The Ohio Department of Agriculture's (ODA) Division of Plant Industry, Pesticide & Fertilizer Regulation Section administers programs to help protect Lake Erie from unintentional releases of pesticides and fertilizer materials.

In 2006 this section will continue to coordinate regional pesticide disposal programs in northwest and northeast Ohio.

Additionally, this section will continue to work with farmers in Ohio to meet the January 1, 2007 fertilizer secondary containment mandate.

This regulation requires that all producers who store more than 5,000 gallons of liquid fertilizer for more than 30 days have an approved secondary containment system in place.

This measure will help prevent unintentional fertilizer discharges from entering Ohio waterways.

**Timeframe:** 2006

### Confined Animal Feeding Operations

ODA's Livestock Environmental Permitting Program is now issuing Permits to Install for all Large Confined Animal Feeding Facilities.

These permits include requirements for siting criteria; containment of all contaminated storm water; design and construction criteria; and requirements for construction inspection and as-built documentation for all expanding or new facilities.

The permits also require extensive operating requirements and record-keeping.

At a minimum, ODA will conduct inspections every six months. More frequent inspections will be conducted if there are compliance problems or complaints.

**Timeframe:** Ongoing

### Priority: Indicators and Information

Lead Agencies: Ohio EPA, ODNR, Lake Erie Commission

*GOAL: To measure the effectiveness of various efforts to improve and protect Lake Erie.*

#### Lake Erie Index

Ohio developed and has continued to update the Lake Erie Index, a collection of indicators used to monitor the success of implementation of the Lake Erie Protection & Restoration Plan.

**Timeframe:** The Index is updated every five years. The next update is due in 2008.

#### Biomonitoring

Ohio EPA has a nationally recognized stream monitoring program and has established in rules a set of biological performance measures (criteria) applicable to rivers and streams.

The Agency is developing additional methods and criteria for other aquatic environments including wetlands, headwater streams and the near shore areas of Lake Erie.

Data collected as part of Ohio's biological sampling program helps determine whether we are seeing results from the investment in pollution abatement, habitat enhancement, invasive species control and other efforts to improve Lake Erie.

**Timeframe:** Regulations that address wetlands and headwater habitats are in draft form and could be adopted in 2007.

Near shore assessment methods have been developed but there is no ongoing work to derive and adopt specific performance measures in rule.

#### Drinking Water Attainment

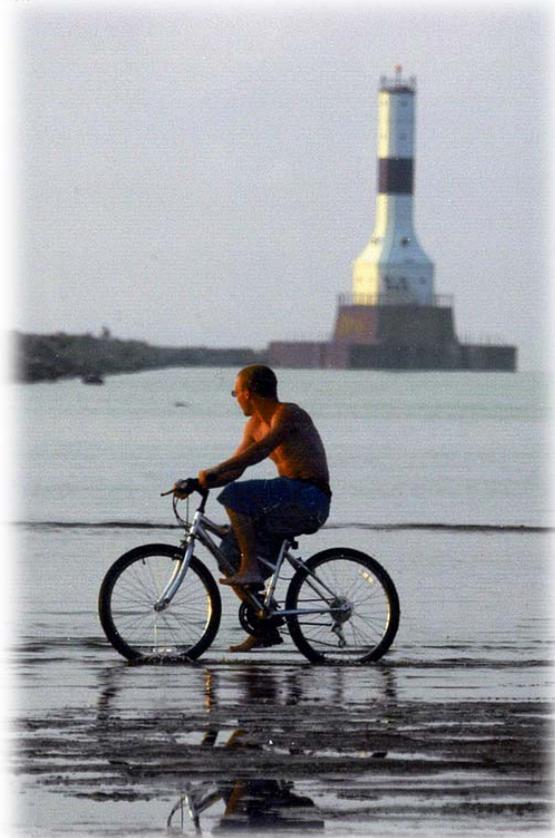
U.S. EPA recognizes Ohio's method for assessing attainment of drinking water designated uses as the most comprehensive in Region V.

This standardized methodology will allow an objective rating on the condition of raw public potable water supplies throughout the Lake Erie watershed.

The specific water body locations with impaired water supply uses can then be the subject of a TMDL and a set of implementation measures designed to meet the drinking water standards.

Initial indications suggest that nitrates and pesticides are the parameters likely to be targeted.

**Timeframe:** The State's goal is to incorporate assessment data into the 2008 Integrated Report.



## Credible Data

Ohio's credible data law (enacted in 2003) will allow for the collection of additional data by the private sector.

The program is designed to encourage and standardize the collection and analysis of water chemistry and biological data.

There are requirements established in regulation for collecting data suitable for purposes that vary from simple public awareness and education to regulatory functions such as setting water quality standards and conducting required stream studies.

While the benefits realized are dependent upon the level of volunteer participation, at its most elementary level the program could help promote basic stewardship of Lake Erie and its watershed at the interested citizen level.

Participation by watershed groups should lead to more involved and committed local community leaders with the insight and motivation to promote grassroots solutions to water quality issues.

Finally, participation by more professional organizations and post secondary academia has the potential to provide the highest caliber biological monitoring data, thereby supplementing Ohio EPA's biological monitoring program.

Ohio EPA has hired one staff person dedicated to this program.

Statewide, the total cost of this program including staff time, database development and maintenance, overhead and training offered to volunteers is approximately \$200,000.

**Timeframe:** Rules for the credible data program were effective in March 2006.

## Scenic River Stream Quality Monitoring

Streams in the Ohio Scenic River Program are monitored by volunteers who have been trained to assess benthic aquatic macroinvertebrate communities.

These organisms lack a backbone and are large enough to see with the naked eye. They include mayflies, worms, crayfish, and snails. They are important indicators of biologic integrity and water quality.

Scenic Rivers in the Lake Erie Basin include Conneaut Creek, the Chagrin River, the Grand River, the Maumee River, the Sandusky River and the Upper Cuyahoga River.

**Timeframe:** Ongoing

## Coastal Atlas

ODNR is updating the Ohio Coastal Atlas at a cost of \$191,000. Data in the Atlas include: aquatic habitat, important bird habitat, land cover/land use, and detailed information about soils and ground water.

**Timeframe:** 2006



## Priority: Sustainable Development

Lead Agencies: Lake Erie Commission and ODNR

*GOAL: To practice and promote sustainable practices that protect the natural resources of the Lake Erie basin and make them available for current and future generations to enjoy through outdoor recreational opportunities.*

The Sustainable Development chapter of the Great Lakes Regional Collaboration Strategy focuses on land use, and its appendix contains a section on Recreation, Tourism and Fishery.

The following actions also reflect the strategic actions in the Lake Erie Protection & Restoration Plan dealing with coastal recreation, boating, fishing, beaches, and tourism.

### Access

ODNR is investing several million dollars to acquire and develop boating and fishing access opportunities on the mainland.

The Division of Watercraft will be providing over \$3.5 million dollars per year in 2006 and 2007 for Cooperative Boating Facility Improvement Grants to local communities statewide.

**Timeframe:** 2006 and 2007

The Divisions of Wildlife and Watercraft and the City of Huron are collaborating to acquire and develop much-needed public access on the Huron River by purchasing property that will be used to develop boat-launching facilities and in part be redeveloped by the City to stimulate new economic growth.

**Timeframe:** The purchase of the Con-Agra property was completed in July 2006. Still ongoing are the transfer of part of the property to the city and the development of launch facilities.

### Recreational Opportunities

ODNR anticipates initiating construction of improvement to Middle Bass Island State Park in late 2007.

Planned improvements include renovation and expanding the existing marina, construction of a campground, boat ramp and a water and wastewater treatment facility.

These improvements will greatly enhance recreational access and opportunity for Lake Erie Island visitors.

At East Harbor State Park, ODNR's Division of Parks and Recreation will begin a five-year dredging and habitat improvement project in 2007.

The project will improve navigation and recreational boating as well as restore a degraded wetland in Middle Harbor.

**Timeframe:** 2007

### Tourism

ODNR has adopted a Lake Erie Islands Vision Plan, encompassing the Lake Erie islands and nearshore mainland areas in Ottawa and Erie counties.

The plan establishes 14 priorities for the future, based on the key themes of resource management, land use designation, service and potential partnerships.

By addressing conservation and recreation, the plan seeks to preserve a heritage of natural and cultural resources of the Lake Erie Island area for the future enjoyment and healthful recreation of Ohioans for generations.

**Timeframe:** Ongoing



The Toledo Harbor Lighthouse Preservation Society received \$10,000 for a *Toledo Harbor Lighthouse Access Dock & Ramp*.

The goal of the Lighthouse Society is to help restore and preserve the Toledo Harbor Lighthouse.

This project will help to construct a floating dock and ramp at the lighthouse in order to provide safe access to the structure. Currently, visitors are only able to approach the lighthouse by boat.

**Timeframe:** June 2007

Lake Erie Coastal Ohio, Inc. received a grant award of \$47,700 from the Lake Erie Protection Fund for a *Lake Erie Coastal Ohio Image Study - Linking Preservation to Economic Development*.

This project is a study to examine Lake Erie's image among potential visitors and reveal their needs and expectations when visiting Lake Erie.

This study will identify features important for an effective public awareness/advertising campaign and strategies to attract new visitors and businesses to the Lake Erie region which are important economic development tools to enhance Lake Erie tourism.

**Timeframe:** October 2006

The Maritime Archaeological Survey Team, Inc. (MAST) received \$10,000 from the Lake Erie Protection Fund for *Historic Shipwreck Mooring Blocks - Public Access*.

MAST will install permanent mooring anchor blocks adjacent to the shipwrecks moored by MAST in 2005.

Transfer of the existing moorings from connection on the shipwrecks to permanent mooring anchors will prevent damage to the wrecks and accommodate larger dive vessels.

This furthers our efforts to encourage cultural and ecotourism along the Lake Erie coast.

**Timeframe:** April 2007

The Ohio State University Sea Grant program was awarded \$9,955 by the Lake Erie Protection Fund for *The Development of an Underwater Trailways System from Ohio's Lake Erie*.

This project will develop a four-color guide and Web site to help Ohio residents and visitors locate the many historical, cultural and recreational shipwrecks and unique underwater habitats in Ohio's Lake Erie waters and to promote ecotourism and economic development.

Both products will not only effectively serve to promote cultural and ecotourism as tools to expand Lake Erie tourism revenues, but will also be valuable assets in the conservation and protection of important shipwreck sites.

**Timeframe:** June 2007

The Ashtabula Marine Museum received \$10,000 for the *Restoration of the Ashtabula Lighthouse 4<sup>th</sup> Order Fresnel Lens*.

This project addresses the need for specialized maintenance and restoration of the 109-year-old Fresnel lens on display at the Ashtabula Marine Museum.

Repair work to the lens will continue to enhance the museum as a destination for Lake Erie tourism while enhancing the Lake Erie Circle Tour and newly dedicated Lake Erie Coastal Trail Scenic Byway.

**Timeframe:** January 2007





### Boating

The Ohio State Sea Grant program received \$20,243 from the Lake Erie Protection Fund for the *Ohio Clean Boater Program, with a Focus on Lake Erie*.

This project work will help continue support of the Ohio Clean Boater Program in which a database of clean boaters will be developed with boaters and marina operators being trained to minimize the creation of hazardous wastes.

Completion of this project will help to integrate the Clean Boater Program into the Clean Marinas Program.

**Timeframe:** March 2007

ODNR's Division of Watercraft will continue its initiative to increase and enhance boating access on Lake Erie.

Lake Erie-based projects in the planning stages include:

- ◆ launch ramp and dockage construction and rehabilitation through the Cooperation Boating Facility Grant Program;
- ◆ development of transient marina facilities through the new Recreational Marine Loan Program and the federal Boating Infrastructure Grant Program;
- ◆ dredging for navigational safety through the Recreational Harbor Evaluation Program; and
- ◆ installation of vessel pump-out/dump stations to enhance the quality of the recreational boating experience and protect water quality.

The Division of Watercraft, through implementation of the Boating on Ohio Waterways Plan, will continue to collaborate with local governmental entities and private sector boating interests, in our shared responsibility to provide safe, convenient, quality recreational boating experiences on Lake Erie.

**Timeframe:** 2006-2007

### Cooperative Boating Facility Grant Program

- ◆ Ashtabula Twp. Park Commission - Improvements to Lake Shore Park ramp.
- ◆ City of Sheffield - New boat ramp.
- ◆ Conneaut Port Authority - Improvements to ramp and docks.
- ◆ Cleveland Lakefront State Park - Improvements to Gordon boat ramp.

The Cooperative Boating Facility Grant Program deadline for the next funding cycle was June 1, 2006. \$3.6 million will be available statewide during the next cycle.

### Boating Infrastructure Grant Program

- ◆ Middle Bass Island State Park Federal Grant funds \$1,855,518
- ◆ Lyman Harbor, Sandusky - \$100,000
- ◆ Beaver Park Marina/Boat Club, Lorain - \$113,000
- ◆ Glass City Marina, Toledo - \$326,500

The deadline for applications for the next funding cycle was August 1, 2006.

## Clean Vessel Act (pump-outs/dump stations)

- ◆ Borac's Landing, Eastlake Federal Grant Funds - \$90,375
- ◆ Edgewater YC, Cleveland - \$40,500
- ◆ Gull Harbor, Huron - \$9,375
- ◆ Huron Boat Basin, Huron - \$8,250
- ◆ Bulan's Boatyard, Vermilion - \$10,500
- ◆ Lakeside YC, Cleveland - \$24,000
- ◆ Maumee River YC, Toledo - \$4,500
- ◆ Coastal Marine II, Port Clinton - \$27,750
- ◆ Glass City Marina, Toledo - \$35,625
- ◆ Riverbend Marina, Painesville - \$41,250
- ◆ Catawba Island Marina South, Port Clinton - \$11,250
- ◆ Shrocks Marina, Marblehead - \$21,250

New projects may be added for the next funding cycle within the next 24 months.

## Recreational Harbor Evaluation Program

- ◆ Ottawa River Dredging, Toledo - \$450,000
- ◆ Mentor Lagoons (sand by-pass), Mentor - \$189,000

New projects may be added for the next funding cycle within the next 24 months.

## Marine Loan Program

We cannot predict how many private marina operators will participate in this program. \$4 million is available.

## Fishing

Aquatic Ecology Laboratory was awarded \$28,234 by the Lake Erie Protection Fund for *Determining Stream Origin & Migration of Walleye Stocks in Lake Erie Using Otolith Analysis*.

This project will help to provide the necessary information to identify and characterize important walleye spawning stocks and determine the relative contribution of those stocks to the adult population in Lake Erie.

These data will help managers develop specific plans to protect and enhance spawning stocks and will provide valuable research to enhance and protect areas in greatest need of conservation.

**Timeframe:** October 2006

The Ohio State University received \$29,933 from the Lake Erie Protection Fund to study the *Effects of Temperature & Elemental Concentration on the Chemical Composition of Percid Otoliths*.

This project is a first step in addressing questions related to identifying habitats important in recruitment of Lake Erie sportfish, in particular yellow perch and walleye.

By quantifying the effects of temperature and water elemental concentration on otolith chemical composition, baseline data will be developed for future projects in Lake Erie that will address contributions of different spawning habitats to lake wide production of sportfish.

**Timeframe:** October 2006





ODNR's Division of Wildlife will work with partners to remove the Ballville Dam as part of ecological restoration of the Sandusky River, particularly to enhance the walleye spawning stock that uses that river.

The Division of Wildlife will continue to review and improve fish stock assessment efforts on Lake Erie, particularly for walleye, yellow perch, and smallmouth bass.

The division will also continue interagency initiatives to evaluate appropriate fishery harvest levels on Lake Erie yellow perch and to research walleye movements and mortality rates.

**Timeframe:** 2006-2007

### Lake Erie Balanced Growth

The Ohio Lake Erie Commission is directing the Balanced Growth Program, a pilot program to encourage local governments to make sustainable land use decisions.

Three pilots are underway, financed by a \$600,000 grant from the Ohio Water Development Authority.

They are: Chagrin River (Chagrin River Watershed Partners, Inc.); Swan Creek (Maumee RAP and Toledo Metropolitan Area Council of Governments); and Upper West Branch of Rocky River (Medina Soil and Water Conservation District).

Components of the Balanced Growth Program include:

- ◆ Focus groups of private developers of both residential and commercial development to help determine what incentives would spur them to choose property locally designated for development and/or avoid property locally designated for conservation.
- ◆ Identifying all current Ohio watershed education programs and information networks and developing a mutual plan to integrate Balanced Growth.
- ◆ Developing a Balanced Growth awareness program (PowerPoint) and conduct sessions in the Lake Erie Basin.
- ◆ Developing fact sheets and Web resources to support the Balanced Growth Awareness and Training programs and creating an outreach/training handbook.

**Timeframe:** The pilot projects will continue through 2007.

Best Local Land Use Practices are also part of the Balanced Growth Program.

The Balanced Growth Task Force prepared a document of Best Local Land Use Practices.

Currently, the document contains models for Storm Water Management and Riparian/Wetland Protection and for Meadow Protection.

There is a place in the document for a Coastal Protection model, but this chapter was not finalized.

The Task Force recommended that a group of local land use control experts be convened to draft model local coastal protection regulations to be recommended to local governments.

This group will be charged with developing a model that incorporates shoreline land use decisions into local zoning and subdivision regulations and is compatible with existing state law.

Funding for this project is being sought from the Office of Coastal Management.

We will develop a technical assistance/outreach training program concerning Best Local Land Use Practices.

This will provide introductory sessions for local government officials concerning the Best Local Land Use Practices document and accompanying examples and models.

Funding for this project will be from the Lake Erie Protection Fund.

**Timeframe:** Second half of 2006.

The Chagrin River Watershed Partners, Inc. received \$61,520 for *Implementing Best Local Land Use Practices*.

They will work with local governments to implement land-use practices to minimize the impacts of development.

The project will support the model regulations recommended by the Balanced Growth Task Force and may significantly enhance their implementation and, in turn, lead to improvements in water quality throughout the basin.

**Timeframe:** January 2008

Western Reserve Land Conservancy was awarded \$100,000 by the Lake Erie Protection Fund for the *Prioritization of the Western Reserve's Lake Erie Basin*.

This project will utilize a Geographic Information System (GIS) to prioritize parcels of land in the Lake Erie portion of Ohio's Western Reserve Region that contain the most sensitive tributaries, floodplains, wetlands, rare species habitat, and other important features.

This project may help the Balanced Growth Program by providing key information in designating Priority Conservation Areas and may result in thousands of acres of protected land and water resources.

**Timeframe:** January 2008

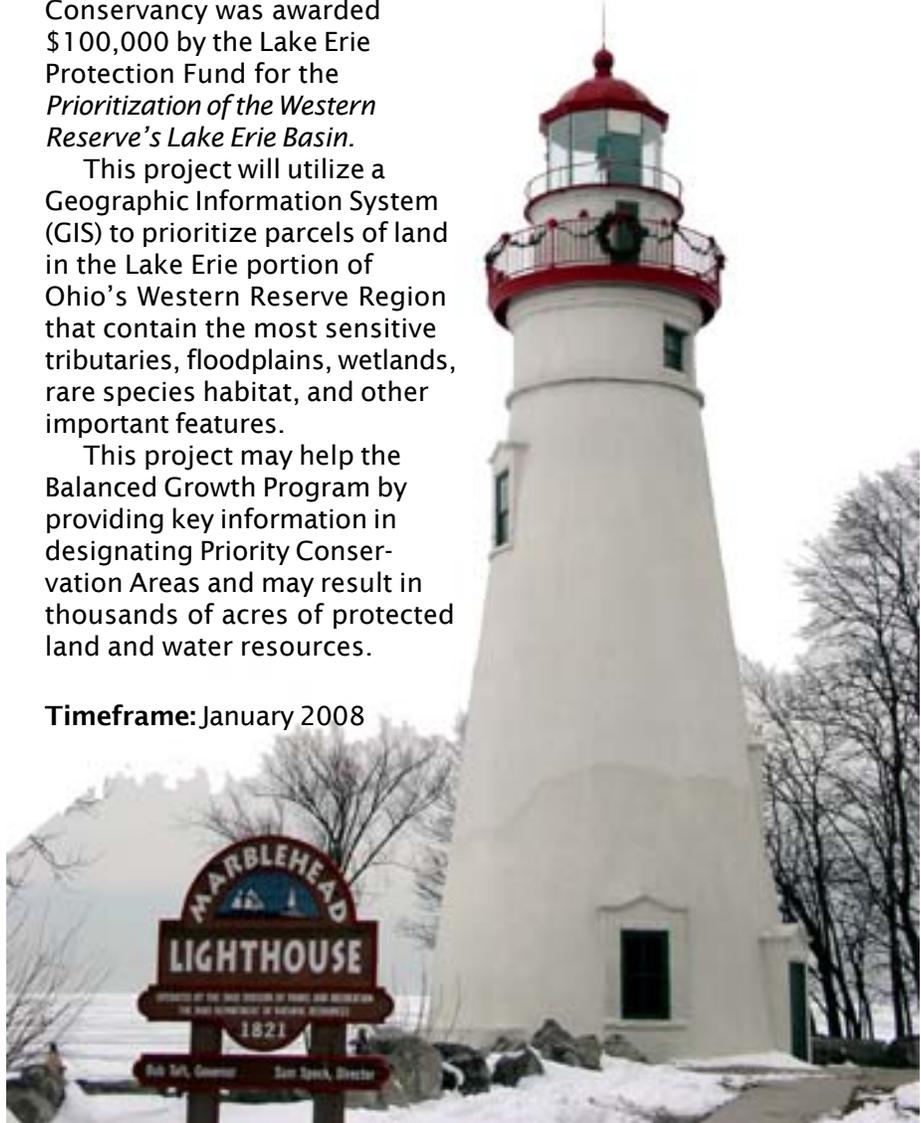
## Brownfields Redevelopment

The Clean Ohio Fund, approved by the voters in 2001, was allocated \$200 million over four years to clean up contaminated properties so they can be returned to productive use.

This competitive grants program has awarded \$117 million to local governments, attracting nearly \$10 in local and private investment for each grant dollar.

Attached is a list of projects that will be completed in the Lake Erie basin during 2006 and 2007.

**Timeframe:** 2006 and 2007



## Clean Ohio Fund Project Descriptions

### 702 S. Main (Brownfield Commercial Demolition)

The City of Lima received \$130,000 in Clean Ohio Assistance Funds to acquire the property, remove asbestos, and demolish an old commercial building. The 0.2 acre property is a former movie theater and assembly hall near downtown Lima.

### Coltman Road

The City of Cleveland received \$900,000 in Clean Ohio Assistance Funds to conduct a cleanup for the property located at the intersection of Coltman Road & East 119<sup>th</sup>.

The 1.2 acre property consists of several abandoned buildings that formerly served as a bulk oil storage and retail facility.

Twenty-one underground storage tanks and their contents, including chlorinated solvents and oil, will be removed, contaminated soil will be cleaned up to meet both commercial and residential uses, and all remaining structures will be demolished.

### Morgana Run (Steel Slitting)

The City of Cleveland received \$750,000 in Clean Ohio Assistance Funds to clean up this former foundry.

The 1.4 acre property is located at 7011 Aetna Road, near Broadway Avenue in the Slavic Village area of Cleveland.

All structures will be demolished after asbestos has been abated and soil contaminated with arsenic and polycyclic aromatic hydrocarbons will be removed to meet residential uses.

### St. Luke's Hospital

The City of Cleveland received \$750,000 in Clean Ohio Assistance Funds to remove asbestos from the historic St. Luke's hospital wings, prior to renovation. The 5.2 acre property is a portion of the larger former hospital campus located at 11311 Shaker Boulevard.

### Monarch Aluminum/Trinity Bldg

The City of Cleveland received \$750,000 in Clean Ohio Assistance Funds to abate asbestos, demolish all structures, and to clean up soil and ground water impacted with arsenic, lead, polynuclear aromatic compounds, and chlorinated solvents for commercial/industrial use.

This 5.6 acre, former aluminum products manufacturing facility is located at 9203 Detroit Ave. on the west side of Cleveland.

### Arena Project

The City of Toledo received \$3,000,000 in Clean Ohio Revitalization Funds to clean up Toledo's civic arena and neighboring industrial parcels.

The 54 acre project is located at 1 Main Street, along the southern bank of the Maumee River across from downtown Toledo.

Cleanup will include demolition of all structures and the removal of soil contaminated with benzene, naphthalene, metals, and polycyclic aromatic hydrocarbons to meet both commercial and residential uses.



## Clean Ohio Fund Project Descriptions

### Marina Project

The City of Toledo received \$3,000,000 in Clean Ohio Revitalization Funds to clean up the former Toledo Edison Acme Power Plant next to the Maumee River and adjacent to the Arena Project.

Both commercial and residential uses are planned for this 29 acre project located at 1401 Front Street.

Cleanup activities will include the capping of two former fly ash ponds, the dismantling and reuse of the former turbine building, and removal of PCB transformer equipment.

Contaminants of concern include arsenic, lead, PCB, and polycyclic aromatic hydrocarbons. A new marina will be constructed on the eastern portion of the property.

### Beech Street

The City of Akron received \$3,000,000 in Clean Ohio Revitalization Funds to clean up the former Ohio Edison Steam Plant located at 40 Beech Street, just north of downtown.

The 0.5 acre property is located adjacent to the Ohio & Erie Canal National Heritage Corridor.

Cleanup activities include the removal of asbestos, fly ash, and mercury containing equipment followed by the dismantling of the former steam plant.

Soil, impacted with arsenic and polycyclic aromatic compounds, will be removed from the property to meet recreational uses.

### Middlebury Grocery Project

The City of Akron received \$2,800,000 in Clean Ohio Revitalization Funds to clean up a former warehouse/distribution facility located at 881 East Exchange Street.

The 6.5 acre property will be remediated to address benzene, toluene, xylene, ethylbenzene, naphthalene, arsenic, and polycyclic aromatic compounds in soil and ground water.

After all asbestos is removed, all structures will be demolished to make way for a new neighborhood grocery store.

### Hemisphere Industrial Park

The City of Cleveland received \$3,000,000 in Clean Ohio Revitalization Funds to clean up a former rail yard, scrap yard, and varnish factory.

This 25 acre project is located at East 80<sup>th</sup> Street and Kinsman Road. Contaminated soil will be both removed off-site and capped in place to be protective for future commercial and industrial uses of the property.

Contaminants of concern include lead, chromium, cadmium, benzene, toluene, xylene, ethylbenzene, chlorinated solvents, and polycyclic aromatic hydrocarbons.

### Cuyahoga Youth Center (Schmidt's Brewery)

Cuyahoga County received \$3,000,000 in Clean Ohio Revitalization Funds to clean up this 13.4 acre property located at East 93<sup>rd</sup> Street and Quincy Avenue.

This former industrial property once housed automobile manufacturing, stone grinding and polishing, enameling, and most recently a brewery.

Soil that has been impacted with arsenic, lead, polycyclic aromatic compounds, oils, and PCB will be removed from the property to meet unrestricted use standards for a new county youth center.

### Lakeview Bluffs Round 1

Lake County received \$3,000,000 in Clean Ohio Revitalization Funds to clean up 102 acres of the former Diamond Shamrock facility on the shores of Lake Erie.

The property is located on Fairport Nursery Road near Painseville and adjacent to the Village of Fairport Harbor. The project is a portion of a 1,100 acre industrial property where various soda products, chlorinated chemicals, and acids were manufactured.

Soil contamination will be addressed with both off-site disposal and capping to meet recreational and residential end uses for the property.

Contaminants at the property include arsenic, metals, chlorinated solvents, polycyclic aromatic compounds, and PCBs.



## Clean Ohio Fund Project Descriptions

### MidTown Tech

The City of Cleveland received \$3,000,000 in Clean Ohio Revitalization Funds to clean up this 7.5 acre property located between East 57<sup>th</sup> and East 61<sup>st</sup> Streets and Euclid and Chester Avenues.

Historical uses of the property include knitting mills, nut and screw manufacturing, engine repair, and warehousing.

Soil and ground water impacted with chlorinated solvents, metals, polycyclic aromatic compounds, and oils will be cleaned up for commercial reuse.

### Cleveland Pneumatic

The City of Cleveland received \$3,000,000 to clean up the former manufacturing facility located at 3781 East 77<sup>th</sup> Street. Electric generators, pneumatic tools, and aircraft landing gear were produced at this 7.5 acre property.

Cleanup will include the removal of interior hazardous materials (wood block flooring, PCB ballasts, transformers), asbestos removal, and cleaning of sumps and pits.

In addition, soil contaminated with PCB, metals, oil, and volatile organic compounds will be removed and disposed off-property to meet industrial and unrestricted uses.

### Napoleon Commerce Park

The City of Napoleon received \$2,737,700 in Clean Ohio Revitalization Funds to clean up a former auto salvage yard on the eastern edge of the city.

The 62 acre property is located at 1651 Commerce Drive. Soil, contaminated with oil, metals, and polycyclic aromatic hydrocarbons, will be removed and disposed off-property to meet commercial and industrial uses.

### Bayfront Paper District

The City of Sandusky received \$3,000,000 in Clean Ohio Revitalization Funds to clean up waterfront property located at 401 W. Shoreline Drive.

This 18.9 acre property is located on Lake Erie and formerly supported manufacturing facilities for the paper industry.

Asbestos, transformers, and PCB ballasts will be removed from all structures. One building will be demolished to make room for a new marina.

Two additional buildings will be renovated into residential and commercial space.

Soil contaminated with arsenic, metals, polycyclic aromatic compounds, and PCB will be removed and capped to meet a combination of commercial and residential uses.

### Maumee Riverfront

The City of Toledo received \$2,999,717 in Clean Ohio Revitalization Funds to clean up this 44.5 acre property located at 1968 Miami Street.

The property is located on the south bank of the Maumee River and includes former settling basins for the Pilkington (previously known as Libbey-Owens-Ford) glass manufacturing facility.

Arsenic and PCB contaminated soil will be capped to meet residential and commercial uses and riverbank improvements will be completed to protect the river.

### Warrensville Heights Town Center

The City of Warrensville Heights received \$1,637,017 in Clean Ohio Revitalization Funds to clean up these former commercial/retail buildings.

The 16.7 acre property is located 4417 Northfield Road. Cleanup activities included the removal of sediments from the on property stream impacted with metals and polycyclic aromatic compounds.



## Clean Ohio Fund Project Descriptions

In addition, asbestos was removed from the buildings prior to their demolition. On completion of cleanup, the property will meet residential use standards.

### Lakeview Bluffs Round 3

Lake County received \$3,000,000 in Clean Ohio Revitalization Funds to clean up the coke and cement plants of the former Diamond Shamrock site located at 1200 Fairport Nursery Road near Painesville.

This 78.3 acre property lies along Lake Erie and the Grand River corridor. Impacted soil will be capped with clean soils to protect future recreational and residential uses.

Responsible parties will complete waste pile removal, Lake Erie shoreline stabilization, and demolition of all structures to meet their obligations under a consent order with Ohio EPA.

### Lockheed Martin

The Summit County Port Authority received \$3,000,000 in Clean Ohio Revitalization Funds for PCB cleanup in the former Goodyear Airdock facility located at 1210 Massillon Road near the Akron airport.

PCB contaminated soil and sediment, and ground water impacted with chlorinated solvents will also be remediated at this 19.5 acre property to meet commercial and industrial uses.

### Gradel Property

The City of Sandusky received \$2,744,267 in Clean Ohio Revitalization Funds to clean up this lumber yard and materials storage facility.

This 17.9 acre project, located at 931 W. Water Street, lies adjacent to Lake Erie and is a continuation of Sandusky's Bayfront redevelopment.

Cleanup activities will include capping of soil and sediment impacted with polycyclic aromatic hydrocarbons, the installation of a cut-off wall to prevent migration of coal-tar to Lake Erie, and demolition of all structures at the property.

Cleanup activities will be conducted to meet both commercial and residential end uses at the property.

### Flats East

Cuyahoga County received \$3,000,000 in Clean Ohio Revitalization Funds for demolition and excavation/disposal of soil contaminated with arsenic, lead, and polycyclic aromatic hydrocarbons.

This vacant 5.3 acre property, formerly used for industrial and entertainment uses, is located on Old River Road, near the Cuyahoga River and downtown Cleveland.

Cleanup will meet residential use standards.

### Ameritrust (9<sup>th</sup> & Euclid)

Cuyahoga County received \$3,000,000 in Clean Ohio Revitalization Funds for the removal of asbestos from the former Ameritrust Building, located at 9<sup>th</sup> and Euclid Avenues in downtown Cleveland.



**CLEAN OHIO FUND  
Approved Projects North Of State Route 30**

<u>Grant Type</u>	<u>Grantee</u>	<u>Name of Project</u>	<u>Amount Funded</u>	<u>Controlling Board Approval Date</u>
COAF	Campbell	Wilson Ave	\$ 65,400	10/28/02
	City of Lima	702 S. Main (Brownfield Commercial Demolition)	\$ 130,000	09/27/04
	Cleveland	Coltman Road	\$ 900,000	01/12/04
	City of Cleveland	Morgana Run (Steel Slitting)	\$ 750,000	08/15/05
	City of Struthers	Former Youngstown Sheet and Tube Coke Plant	\$ 565,200	09/26/05
	City of Cleveland	Saint Luke's Hospital Redevelopment	\$ 750,000	01/23/05
	City of Cleveland	Monarch Aluminum/Trinity Building	\$ 750,000	03/27/06
<i>Total Amount Funded For COAF Grants</i>			<b>\$ 3,280,000</b>	

CORF Round 1	Toledo-Lucas Port Authority	Toledo - Arena Project	\$ 3,000,000	8/26/2002	
	City of Toledo Dept. of Economic Devl.	Toledo - Marina Project	\$ 3,000,000	8/26/2002	
	City of Akron	Akron - Beech St	\$ 3,000,000	8/26/2002	
	City of Akron	Akron - Middlebury Site	\$ 2,800,000	8/26/2002	
	City of Cleveland	Cleveland - Hemisphere	\$ 3,000,000	8/26/2002	
	Cuyahoga County Board of County Comm.	Cuyahoga County - Youth Center	\$ 3,000,000	8/26/2002	
	Lake County	Painesville - Lakeview Bluffs	\$ 3,000,000	8/26/2002	
	City of Cleveland	Cleveland - MidTown Tech	\$ 3,000,000	8/26/2002	
	<i>Total Amount Funded for CORF R1</i>			<b>\$ 23,800,000</b>	

CORF Round 2	Canton	Kresge Block	\$996,027	1/12/2004	
	City of Cleveland	Pneumatic Company Site	\$2,800,000	1/12/2004	
	Mahoning County	CASTLO Industrial Park	\$201,091	1/12/2004	
	Napoleon	Napoleon Commerce Park Remediation Project	\$2,737,700	1/12/2004	
	City of Sandusky	Bayfront Paper District	\$3,000,000	1/12/2004	
	City of Toledo	Maumee Riverfront	\$2,999,717	1/12/2004	
	City of Wairrensville Heights	Warrensville Heights Town Ctr.	\$1,637,017	1/12/2004	
	<i>Total Amount Funded for CORF R2</i>			<b>\$13,174,434</b>	

CORF ROUND 3	Lake County	Lakeview Bluffs	\$3,000,000	1/23/2006	
	Summit County Port Authority	Lockheed Martin	\$3,000,000	1/23/2006	
	Sandusky	Gradel Property	\$2,744,267	1/23/2006	
	Cuyahoga County	Flats East	\$3,000,000	1/23/2006	
	Cuyahoga County	Ameritrust (9th and Euclid)	\$3,000,000	1/23/2006	
	<i>Total Amount Funded for CORF R3</i>			<b>\$14,744,267</b>	

**Total Grants Funded \$ 54,998,701**

Indicates Projects Adjacent to a waterbody  
Indicates Clean-up is Completed or Will Be Completed within 2006-2007