



# Lake Erie

*Protection & Restoration Plan*

**Third Progress Report  
September 2006**

## **OUR MISSION**

The Ohio Lake Erie Commission was created for the purposes of preserving Lake Erie's natural resources, protecting the quality of waters and ecosystem, and promoting economic development. The Commission is comprised of the Directors of the Ohio Environmental Protection Agency and the Departments of Natural Resources, Agriculture, Development, Health, and Transportation.

The Commission maintains a staff at One Maritime Plaza located in Toledo, Ohio. The staff administers the business of the Commission and executes many Lake Erie Commission programs such as the Lake Erie Protection Fund, Ohio's Coastweeks program, Lake Erie License Plate Sales program, and the Lake Erie Quality Index. The Lake Erie Commission meets quarterly and the meetings are open to the public.

## **OHIO LAKE ERIE COMMISSION**

*Lieutenant Governor Bruce Johnson, Director, Ohio Department of Development  
Dr. Samuel W. Speck, Chairman; and Director, Ohio Department of Natural Resources  
Cash Misel, Secretary and Assistant Director, Ohio Department of Transportation  
Gordon Proctor, Director, Ohio Department of Transportation  
Joseph Koncelik, Director, Ohio Environmental Protection Agency  
Fred L. Dailey, Director, Ohio Department of Agriculture  
Dr. J. Nick Baird, Director, Ohio Department of Health*

# INTRODUCTION

In 1998, the Ohio Lake Erie Commission, comprised of the directors of Ohio EPA, Departments of Agriculture, Development, Health, Natural Resources, and Transportation released the *Lake Erie Quality Index*. This project was an effort to gather available data measuring the status or quality of the Lake Erie ecosystem, establish specific goals, and devise scoring systems to communicate the current condition of the lake to the citizens of Ohio. Following the release of this report, the Commission was tasked with focusing on the various quality metrics established in the *Index*, cataloging all of the current efforts of our constituent agencies, and identifying additional initiatives or resources necessary to accomplish the *Quality Index* goals and objectives.

The result of that undertaking was the *Lake Erie Protection & Restoration Plan*, Ohio's blueprint for the future of Lake Erie and how to achieve those goals. The plan proposes the implementation of 84 strategic actions for improving the environment, recreational opportunities, and economy of the Lake Erie region and assigns each strategy to the respective State of Ohio agency that could best address these concerns. Included within these areas are recommendations for water quality (WQ), pollution sources (PL), habitat (H), biology (B), coastal recreation (CR), boating (BT), fishing (F), beaches (BCH), tourism (T), and shipping (S). This concerted effort towards balanced growth and the stewardship of the state's most unique and important body of water was the first of its kind for Ohio.

The following report details the work that has been completed in the past six years by the assigned agencies in regard to each of the 84 strategic actions. The lists given build upon information that was included in the first and second progress reports released in September 2001 and 2004.

# HIGHLIGHTS

## Lake Erie Protection & Restoration Plan

This ambitious action-oriented program unveiled by Governor Taft in 2000 featured 84 strategic actions to improve the environment and economic condition of Lake Erie, its tributaries and its Ohio basin. It focused on the relationship between what happens on the land and the impact on Lake Erie and it is intended to address issues that are measured by the Lake Erie Quality Index. This document is the third of three tracking the progress of the Ohio Lake Erie Protection & Restoration Plan.

## Lake Erie Quality Index

The 1998 and 2004 State of the Lake Report: Lake Erie Quality Index provided a comprehensive look at the Lake Erie ecosystem and established benchmarks, measurements systems and goals to evaluate the health of Lake Erie as well as to identify areas which need improvement. This allowed the State to determine the effectiveness of its management and regulatory programs, identify priorities for the Lake Erie protection and restoration efforts and evaluate future trends in the ecosystem.

## Lake Erie Protection Fund

A total of \$4.5 million in grants from the Ohio Lake Erie Protection Fund were awarded since 2000 to fund projects that will assist in reaching the goals of the Lake Erie Protection & Restoration Plan. Special highlights of this grants program have included funding to create and implement a tourism program (Lake Erie Coastal Ohio), several fishery management research projects, support for watershed restoration efforts, and support for Balanced Growth to assure environmental protection and enhance economic development.

### **Lake Erie Conservation Reserve Enhancement Program**

This program was established in April 2001 to protect 5,000 miles of tributary streams by reducing soil erosion and runoff pollution. The program has been successful in enrolling practices that will protect both sides of the stream for 1,075 miles and approved a total of 2,334 linear miles of buffers.

### **Lake Erie Coastal Ohio**

Implementing a program to promote cultural and eco-tourism has been accomplished through Lake Erie Protection funding provided for the creation and support of Lake Erie Coastal Ohio. This non-profit organization has developed and implemented a plan to increase Lake Erie tourism and to take advantage of tourism opportunities.

### **Great Lakes Regional Collaboration**

Ohio Governor Bob Taft led the development of nine Great Lakes restoration priorities by the Council of Great Lakes Governors. Those priorities formed the organizing principle for a Great Lakes Restoration and Protection Strategy, developed through an unprecedented collaborative process. Fifteen hundred people representing federal, state and local governments; tribes; business, agriculture and environmental groups; academia; and private citizens came together in the Great Lakes Regional Collaboration. Now that the Collaboration has released its Strategy, Governor Taft continues to play a leadership role in seeking the financial resources necessary to implement it, and in making sure Ohio is moving forward to carry out actions that advance the goals of the Collaboration.

### **Great Lakes Charter Annex Implementing Agreements**

On December 13, 2005, the Great Lakes governors and premiers signed agreements at the Council of Great Lakes Governors' (CGLG) Leadership Summit that will provide unprecedented protections for the Great Lakes-St. Lawrence River Basin. The agreements detail how the states and provinces will manage and protect the Great Lakes-St. Lawrence River Basin and will provide a framework for each state and province to enact laws protecting the basin and include the following points:

- There will be a ban on new diversions of water from the basin. Limited exceptions could be allowed, such as for public water supply purposes in communities near the basin, but exceptions would be strictly regulated.
- The states and provinces will use a consistent standard to review proposed uses of Great Lakes water.
- The collection of technical data will be strengthened, and the states and provinces will share the information, which will improve decision-making by the governments.
- Regional goals and objectives for water conservation and efficiency will be developed, and they will be reviewed every five years. Each state and province will develop and implement a water conservation and efficiency program.
- Lasting economic development will be balanced with sustainable water use to ensure Great Lakes waters are managed responsibly.
- The waters of the basin are recognized as a shared public treasure and there is a strong commitment to continued public involvement in the implementation of the agreements.

### Lake Erie Balanced Growth

In April 2004, the Ohio Lake Erie Commission adopted recommendations for a voluntary, incentive-based program to achieve balanced growth in the Ohio Lake Erie Watershed. The program was developed by a task force that was comprised of property owners, government officials, business leaders, conservationists, academia, agriculture and other stakeholder groups and is intended to help communities more effectively plan for the location and design of development. The Lake Erie Balanced Growth Program includes:

- A new focus on land use and development planning in the major river tributary watersheds of Lake Erie. The goal is to begin to link land-use planning to the health of watersheds.
- The creation of Watershed Planning Partnerships composed of local governments, planning agencies, nonprofit organizations, and other parties in each watershed. Participation in these partnerships is voluntary but encouraged by incentives.
- The locally determined designation of Priority Conservation Areas and Priority Development Areas in each watershed.
- The development of suggested model regulations to help promote best local land use practices that minimize impacts on water quality.
- The alignment of state policies, incentives, and other resources to support watershed planning and implementation.

### Ohio Department of Agriculture Highlights

#### Farmland Preservation

The Ohio Department of Agriculture (ODA) is committed to a statewide, competitive application process for the Clean Ohio Agricultural Easement Purchase Program (AEPP), which preserves Ohio's most important farmland. Including pending offers in 2006, ODA has 6,252.32 acres preserved in the Lake Erie Basin area, through this Ohio Agricultural Easement Purchase, and Donation Programs.

#### Pesticide & Fertilizer Regulation

ODA continues to administer programs to help protect Lake Erie from unintentional releases of pesticides and fertilizer materials. They have enacted pesticide containment regulations, conducted ground water and surface water monitoring, and coordinated pesticide disposal programs to remove unwanted agricultural pesticides from farmers in the watershed areas of Lake Erie.

#### Livestock Environmental Permitting Program

ODA's Livestock Environmental Permitting Program is now issuing Permits to Install for all Large Confined Animal Feeding Facilities which include requirements for siting criteria, containment of all contaminated storm water, design and construction criteria, requirements for construction inspection and as-built documentation for all expanding or new facilities. They also require extensive operating requirements and record keeping as well as conduct inspections every six months and more frequently if compliance problems or complaints occur.

### Ohio Department of Development Highlights

#### **Brownfields Revitalized with Clean Ohio Fund**

The Clean Ohio Fund, proposed by Governor Taft in 2000, includes funding to help revitalize blighted neighborhoods by cleaning up polluted properties. These projects can have multiple benefits: keeping contaminants from reaching Lake Erie and its tributaries; supporting the local economy; and improving recreational opportunities associated with the Lake.

Thirty-seven acres of waterfront property on Sandusky Bay are being revitalized with \$6 million from the Clean Ohio Fund. Formerly contaminated property will be cleaned up and redeveloped with 478 new condominiums with 100 private boat dockage slips, 12,000 feet of retail space, and a marina with at least 200 public and private boat slips. The project attracted \$7.9 million in matching funds.

Lakeview Bluffs is a redevelopment project on the shores of Lake Erie in northern Lake County, Ohio. This project involves reclaiming nearly 1,000 acres of a former chemical plant for residential and recreational use. The plant, known as the Diamond Shamrock Painesville Works, operated from 1912 through 1977 and produced a wide variety of chemicals. Companies that polluted the site are paying to make it suitable for future industrial use. Because its lakefront location makes it more suitable for commercial, residential and recreational uses, the Clean Ohio Fund is contributing \$6 million dollars to make the cleanup more protective.

### Ohio Department of Health Highlights

#### **Beach Monitoring**

The Ohio Department of Health's (ODH) Bathing Beach Monitoring Program is in full swing. Most public beaches along the Lake Erie border as well as those at inland state parks are regularly tested for *E. coli* bacteria content. This year, the standard used to evaluate the test results is based on a single sample maximum of 235 colony forming units (cfu)/100 mL of water tested. Any individual sample result exceeding this standard will result in the posting of advisory signs warning swimmers of the potentially harmful condition. The advisory signs warn that the very young, the very old, and those in ill health are advised not to swim. Results of the beach sampling can be found on ODH's Web site.

#### **Sewage Program**

With passage of HB 231 in the 125th General Assembly, the Ohio Department of Health regulates residential sewage treatment systems across the state through statutory authority established under Ohio Revised Code Chapter 3718 and Ohio Administrative Code Chapter 3701-29. These sewage treatment systems include one-, two- and three-family dwellings, and small flow sewage treatment systems (facilities that treat up to 1,000 gallons per day). This regulatory structure establishes state rules that are implemented by local health districts through the process of issuing permits, conducting inspections and enforcing the rules.

With an effective date of January 1, 2007, the rules establish standards for the siting, design, permitting, installation, alteration, operation, monitoring, maintenance, and abandonment of sewage treatment systems serving homes and small non-residential 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. An emphasis is placed on system owner education, operation inspections and maintenance of sewage treatment systems.

The law provides mechanisms for enforcement and penalties for non-compliance. Standards for land application of septage were also established. These efforts will help reduce public health nuisances and contamination in the Lake Erie watershed and across the state.

### Ohio Department of Natural Resources Highlights

#### Lake Erie Islands

Under the Taft Administration, the Ohio Department of Natural Resources (ODNR) has acquired nearly 750 acres of island and nearshore habitat to conserve and protect the Lake Erie Islands, including 140 acres on Middle Bass Island, 664 acres on North Bass Island, and nine acres at Marblehead Lighthouse.

These acquisitions will enable island visitors to experience a variety of recreational activities, including traditional and primitive camping, hiking, picnicking, fishing, boating, swimming, and biking. In addition, visitors will have the option of utilizing facilities on a developed, modernized island (South Bass), and family friendly, traditional atmosphere (Middle Bass and Kelleys Island) or a low-impact, secluded natural experience (North Bass Island).

#### Lake Erie Fishery

Recovery of sport fishing stocks is another success story for the citizens of Ohio. Under the leadership of Governor Taft, the ODNR, Division of Wildlife negotiated conservative limits on the Total Allowable Catch (TAC) for walleye and yellow perch stocks, which were reaching low levels in the late 1990s and resulting in poor catches and concern about reproductive capacity. In addition, early season smallmouth bass fishing was restricted and the daily bag limit reduced to protect that species, which had also been stressed by poor reproduction and nesting pressure from round gobies, a foreign invader.

Thanks to several years of sound management and good spawning conditions, in 2003 Lake Erie experienced record hatches of both Walleye and Yellow Perch, which are now being caught and enjoyed by thousands of anglers and causing a resurgence in Lake Erie sport fishing interest. While biologists remain concerned for smallmouth stocks, recovery of the Walleye and Yellow Perch has been remarkable.

#### Lake Erie Drilling Ban

Governor Taft declared his strong opposition and signed an executive order to ban drilling for oil and gas in Lake Erie.

#### Bald Eagle Reintroduction Program

Ohio's wildlife reintroduction program reports 87 bald eagles nests in the Lake Erie basin.

### Ohio Department of Transportation Highlights

#### Lake Erie Coastal Ohio Scenic Byway

The Lake Erie Coastal Trail was added to the federal government's National Scenic Byways Program when the Federal Highway Administration (FHWA) designated the Trail as one of 125 National Scenic Byways across the United States. The more than 290-mile trail begins in Ashtabula County and journeys along Lake Erie, ending in Lucas County. The route closely follows the Lake Erie coastline from Conneaut on the east side to downtown Toledo on the west side. The byway mostly follows SR 2 and US 6, but also includes other local and state routes. The Lake Erie Coastal Trail is the second longest byway in Ohio.

#### Maumee River Crossing

The \$220 million Maumee River Crossing represents the largest, most expensive single project undertaken in the history of the Ohio Department of Transportation (ODOT). The new crossing will carry six lanes of traffic on I-280 and the roadway will reach about 130 feet high near the center of the river. This new bridge will be landmark symbol of Toledo and the western end of Lake Erie for many years to come.

### **Cleveland Lakefront Plan**

In 2004, the City of Cleveland adopted a comprehensive update of the City's Lakefront Plan. ODOT has initiated engineering and environmental studies to deliver the transportation element of the resulting plan for the West Shoreway-designated as the Lakefront West Project. The Lakefront West Project is a portion of the designated Lake Erie Coastal Ohio Scenic Byway. The Lakefront West Project will explore concepts along SR 2/USR 6/20 (West Shoreway), between West Boulevard and the Main Avenue Bridge to establish multi-modal connections to the Lakefront for adjacent neighborhoods. A range of transportation alternatives for specific access points will be developed with public input before the ultimate selection of a preferred alternative.

## **Ohio Environmental Protection Agency Highlights**

### **Safe Drinking Water**

Expanded financial assistance to improve drinking water systems has been provided to help Ohio families and communities have safe, affordable drinking water. Since 1999, statewide low-interest loans totaling almost \$437 million have been made through Ohio EPA's Water Supply Revolving Loan Account.

### **Clean Water – Statewide**

More than \$2 billion has been provided to Ohio municipalities for wastewater treatment improvements through Ohio EPA's Water Pollution Control Loan Fund to improve water quality. Ohio has also provided \$34 million in federal funds to local communities for projects to control unregulated sources of water pollution.

### **Protecting and Restoring High Quality Water Resources**

Governor Taft initiated a program to provide incentives for communities to "sponsor" the protection and restoration of high quality water resources, such as streams, lakes and wetlands. Since October 2000, the Water Resources Restoration Sponsor Program has provided more than \$75 million to 46 projects statewide.

### **Protecting Ohio's Wetlands**

When federal protections of isolated wetlands disappeared, Ohio approved of a new law to protect these valuable resources. This law has provided Ohio EPA with the opportunity to both provide for economic growth in Ohio while at the same time protecting wetlands for future generations.

### **Protecting Lake Erie From Chemical Contamination**

In 2001, an \$8.5 million investment was completed that greatly reduced contamination entering the Ottawa River and Lake Erie. The Dura Avenue Landfill in Toledo borders the Ottawa River about six miles from Lake Erie.

Ohio EPA reached agreement with the parties responsible for the contamination to install improved cover on the landfill and a barrier to prevent the most highly contaminated material from entering the river. Since the project was implemented, it is estimated that every day approximately 10 to 20 million gallons of contaminated leachate is prevented from entering the Ottawa River. Since the installation of this project and other projects in the area, Ohio EPA has seen a decrease in the PCB concentration in fish in the Ottawa River near the landfill.

### **Improvements in the Black River**

The Black River was once known as the “river of fish tumors.” Sediments contaminated by discharge from steel mills and coking facilities along the river were considered to be the primary cause of the tumors. This contamination also led to the issuance of a fish consumption and no-contact advisory in 1983. Other fish anomalies and deformities were also high in the lower river. Due largely to the impacts of the contaminated sediments, the Black River was identified as an Area of Concern, one of the most degraded area around the Great Lakes.

An enforcement-related dredging project removed most of the contaminated sediments in 1989 and 1990. Extensive sampling analysis over the years led to the conclusion that contact with the sediment and water in the area was no longer a risk and the Ohio Department of Health lifted the 21-year old contact advisory in 2004. Removal of the sediments also greatly reduced the prevalence of fish tumors and external anomalies, to the extent that no additional remedial dredging is recommended.

A shallow fish shelf along the Black River mainstem was constructed in 2001-2003 as mitigation for the construction of port facilities in a brownfield area along the lower river. This underwater ledge has proven to be remarkably successful in providing spawning and nursery habitats as well as general habitat improvements for resident and transitory fish populations.

Improvements to the Elyria wastewater collection system and an upgrade to the Grafton wastewater plant allowed a complete recovery of bottom dwelling insects and bugs (macroinvertebrates) in the East Branch of the Black River. Under the Remedial Action Plan Program of the Great Lakes Water Quality Agreement, this area was the first on the US side to be reclassified as restored for benthic communities.

### **Ashtabula River Dredging**

Also an Area of Concern, the sediments in the lower two miles of the Ashtabula River were contaminated by years of unregulated discharge from industrial activity. The local community worked with the state and federal agencies for years to remove the contaminated sediments.

The passage of the Great Lakes Legacy Act in 2002 established a source of federal funds focused specifically on the remediation of contaminated sediments. The Ashtabula River Partnership was successful in obtaining Great Lakes Legacy Funding and removal of the contaminated sediment will begin in September 2006. This approximately \$50 million project is funded 50 percent by federal funds and 50 percent by local funds, including a \$7 million contribution from the State of Ohio. The removal of these contaminated sediments is a major step toward the total restoration of the Ashtabula River Area of Concern.

### **Fish Consumption Advisory Program**

Since 2002, Ohio EPA has been the lead agency for the sport fish advisory program and cooperates with the Ohio Department of Health and Ohio DNR. Approximately 115 to 120 fish tissue samples are collected from the rivers in the Lake Erie watershed. Another 80 samples are collected every three to four years from 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. A user-friendly Web site has been created to provide extensive information on the location of advisories, fish identification, human health related information and recommendations on how to best prepare fish to minimize potential health risks. In addition, the Lake Erie Protection Fund funded and completed a project in 2005 designed to reach under served and at-risk populations with Ohio's fish consumption advisory information.

### **Combined Sewer Overflows**

Combined sewer overflows (CSOs) have been identified as a significant source of elevated bacteria concentrations in the Lake Erie watershed and at Lake Erie beaches. Consistent with U.S. EPA's CSO Strategy, efforts are underway to eliminate or control discharges from CSOs.

There are a total of 64 communities in the Lake Erie watershed with CSOs. Thirty-five are small communities with a wastewater treatment plant discharge of less than 1 MGD (million gallons per day), and 29 are large communities with a discharge of greater than 1 MGD.

To date, 36 communities have eliminated or controlled CSOs, or have approved Long Term Control Plans (LTCP). Further, 18 communities are in the process of negotiating final LTCPs. Of the remaining 10 communities, the five small communities must submit a plan by 2006 and the five large communities must submit a plan by 2008.

# LAKE ERIE PROTECTION FUND

The State of Ohio's Lake Erie Protection Fund (LEPF) was established in 1990 to award research and implementation grants that serve to protect and restore Lake Erie and its Ohio watershed. The Fund is administrated by the Ohio Lake Erie Commission. The LEPF's primary source of funding comes from sales of the Lake Erie license plates. Currently there are two plates (Marblehead Lighthouse and Toledo Harbor Light) which were designed by noted Lake Erie artist Ben Richmond. Each sale includes a \$15.00 donation to the Lake Erie Commission which is used solely to award grants through the LEPF.

The Ohio Lake Erie Commission funds projects that address one or more of the 84 strategic actions within the Lake Erie Protection & Restoration Plan which is Ohio's blueprint designed to improve various environmental, recreational and economic resources within the Lake Erie Basin. In 2006, the Commission agreed to expand this to include projects that are supportive of the Great lakes Regional Collaboration Strategy to protect and restore the Great Lakes as well.

The LEPF has traditionally conducted large and small grant programs. Large grants are awarded annually and are generally limited to \$100K (although awards have been made for up to \$250K for truly innovative and collaborative efforts). The small grant awards are limited to \$10K and are commonly used for small research or improvement projects. They are also used as seed money to promote speculative research initiatives or leverage additional funding resources.

Grants may be awarded to any Ohio not-for-profit organization that has the expertise and capability to conduct research or improvement projects concerning the lake. These have included:

- colleges and universities;
- townships,
- cities and counties;
- regional planning organizations;
- non-profit organizations; and
- local, state and federal government agencies.

Since 1990, the Lake Erie Protection Fund has been able to sponsor more than 230 research and improvement projects throughout the Lake Erie watershed. The total value of this grant portfolio exceeds \$8 million.

Grant projects have focused on an array of issues critical to the effective future management of the lake. These include:

- fisheries management;
- watershed planning;
- non-point pollution abatement (particularly agricultural);
- wetlands restoration ecology;
- exotic species;
- Lake Erie ecological shifts;
- ecotourism; and
- environmental measurements.

The projects have also attracted significant amounts of federal funding into Ohio, as they are often matched with funds from one of numerous federal agencies.

The following tables show grant projects funded though the Lake Erie Protection Fund.

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Small Grant Award Summary		
Amount	Organization	Project Name
\$9,465	Cuyahoga River Community Planning Organization	Prioritizing Restoration Opportunities in the Chippewa Creek Watershed
\$10,000	OSURF	ExPost Benefits of the Ashtabula River Dredging Project: Preliminary Data Collection
\$10,000	Toledo Harbor Lighthouse Preservation Society	Toledo Harbor Lighthouse Access Dock & Ramp
\$10,000	U.S.G.S.	<i>E. Coli</i> and Suspended Sediment in Berger Ditch
\$10,000	U.S.G.S.	Rapid Method for <i>E. Coli</i> in the Cuyahoga River
\$9,576	University of Toledo	Survey Fish Diversity: Testing the Impact of Vegetative Encroachment
\$2,000	Heidelberg College	The Sandusky River Watershed Symposium
\$10,000	Maritime Archeological Survey Team, Inc.	Historic Shipwreck Mooring Blocks- Public Access
\$8,000	Ohio State University	Solid-Phase Microextraction Fibers as Models to Predict Contaminant Bioaccumulation
\$9,955	OSURF	The Development of an Underwater Trailways Systems from Ohio's Lake Erie
\$1,000	DNR-Lakefront State Park	Lake Kleenerz Stop Aquatic Hitchhikers Campaign
\$6,759	NEFCO	Breakneck Creek Watershed Management Plan-Phase 1
\$10,000	Ashtabula Marine Museum	Restoration of the Ashtabula Lighthouse 4th Order Fresnel Lens
\$7,700	Doan Brook Watershed Partnership	Restoration of Doan Brook on an Urban Public School Campus
\$9,965	TMACOG	GIS: Upgrading Systems for Bacterial Elimination
\$9,450	Cuyahoga Soil & Water Cons. Dist.	Putting Urban Landscapes to Work for Water Quality
\$10,000	Portage Park District	Breakneck Creek Watershed- Parcel Data Inventory and Targeted Landowner Outreach
\$9,300	Heidelberg College WQL	Characterization of mayfly ( <i>Hexagenia</i> ) Population Refugia in the Central Basin of Lake Erie
\$9,100	University of Toledo	Riparian Forests in NW Ohio Watersheds: Relations Between Landscape Structure, Land Use, and Water Quality in Regional Rivers
\$10,000	Tinkers Creek Land Conservancy	Tinker's Creek Land Conservancy- A Comprehensive Watershed Land Conservation Plan
\$10,000	Heidelberg College WQL	Lake Erie Tributary Loading Data: Access, Analysis and Interpretation

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Lake Erie Protection Fund Small Grant Award Summary		
Amount	Organization	Project Name
\$9,406	Sandusky River Watershed Coalition	Recreational Resources of the Sandusky Watershed
\$5,000	Henry Soil & Water Cons. Dist.	Turn Key Operation for New & Innovative Conservation Tillage Equipment
\$9,516	Miami University	Competitive Interactions Between Yellow Perch & Round Goby
\$9,975	OSURF	Impact of Dreissenid Mussel Population Changes on Lake Erie Nutrient Dynamics
\$9,623	Heidelberg College WQL	Mayflies & Zebra/Quagga Mussels in Lake Erie's Central Basin Surveyed with ROV
\$9,988	Heidelberg College WQL	Subwatershed Planning in the Sandusky River Basin
\$9,999	Ohio Environmental Council	Communicating Safe Fish Consumption Advisory Information to at Risk Communities in the Lake Erie Basin
\$10,000	OSURF	Legal & Policy Options for Improved Agricultural Drainage Ditches
\$9,993	OSURF	Investigating the Release of PCBs during Dewatering of Ashtabula River Sediments
\$9,986	OSURF	Evaluating of Egg Quality in Yellow Perch from Lake Erie
\$10,000	OSURF	Exurban Land Use Change, Watershed Management, and Surface Water Quality in Ohio's Lake Erie Watershed
\$9,695	Cleveland State University	Economic and Fiscal Aspects of Coastal and Watershed Stewardship Practices
\$7,000	Ashtabula County CVB	Nature Brochure Series
\$9,914	Ohio Environmental Council	Board Development Training for Watershed Organizations
\$10,000	Henry Soil & Water Conservation District	Seeding Buffer Strips in Targeted Townships for the Henry county Wildlife Habitat Improvement Project
\$9,980	Heidelberg College	Hypoxia Effects on Burrowing Mayfly Recolonization of Lake Erie's Central Basin
\$9,914	OSURF	Benthic Biotic Integrity of Phragmites Stands in the Old Woman Creek Coastal Wetland
\$10,000	The Delta Institute	West Creek Valley Watershed Implementation Strategy and Plan
\$9,988	OSURF/OSGCP	Steelhead Anglers Survey in Lake Erie Tributaries
\$10,000	Ohio Dept. of Natural Resources	Lake Erie Water Snake Abundance & Habitat Use: Implications for Recovery
\$5,500	U.S. Coast Guard Auxiliary	Great Lakes Officer Snook
\$9,900	The Ohio State University	Beach Profiles and the Seward Limit of Disturbance Along the Ohio Lake Erie shoreline
\$10,000	The Ohio State University	Nutrient Regeneration by Veliger & Adult Dreissenids

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Amount	Organization	Project Name
\$10,000	Bowling Green State University	Quantifying Round Goby Dispersal Mechanisms: Impacts on Mitigation Effectors
\$9,988	OSURF	Trophic transfer of heavy metals to top predators; quantifying the role of non-native species
\$10,000	University of Toledo	Biotoxicity of Heavy Metals & PAHs in Lake Erie Basin Soil
\$9,370	Bowling Green State University	Assessment of the Potential for In Situ PCB Bioremediation by RT PCR Molecular Profiling
\$10,000	Henry SWCD	One pass fall tillage w/30% residue & adequate seed bed preparation
\$7,500	East Harbor State Park	Middle Harbor Boardwalk
\$10,000	Ohio Coastal Management Program	Kelleys Island Underwater Preserve Shipwreck Mooring Buoys
\$9,959	OSURF	Viability of the Progenies of Lake Sturgeon in Lake Erie Most Endangered Acipenserid Fish
\$8,500	Village of Put-in-Bay	Put-in-Bay Fish Cleaning Station
\$10,000	Ohio Dept. of Agriculture	Pesticide Use Survey Program
\$9,980	Cleveland State University	An Environmental Model to Improve Public Understanding of the LEQI
\$6,946	Seneca SWCD	GIS Implementation
\$9,504	The Ohio State University	Fish Communities of Coastal Wetlands: Corroboration of a Vegative Index of Biotic Integrity
\$7,480	The Ohio State University	Western Lake Erie Waterfront Guide
\$7,500	Ottawa County Visitors Bureau	Portage River Basin Tourism Resources Inventory
\$7,500	Heidelberg College	Confirmation of Rapid Population Increase of Burrowing Mayflies in the Central Basin of Lake Erie
\$7,500	The Ohio State University	Coastal Tourism Visitor Activities & Expenditures with a Focus on Nature Based Tourism
\$3,750	University of Toledo	Zoning for Headwater Protection
\$7,500	Kent State University	Native Unionid Mussel & Zebra Mussel Distributions in Crane Creek Wetland at ONWR
\$2,700	East Harbor State Park	Middle Harbor Trail Bird Observation Decks
\$7,500	Toledo Lucas Co. Port Authority	Great Lakes Cruising Coalition
\$7,500	The Ohio Environmental Council	Assisting Local Watershed Efforts in NE Ohio-Year 2
\$7,500	West Creek Preservation Committee	West Creek Biocriteria Study & Riparian Corridor Assessment
\$7,500	OSURF	Economic Value of Recreational Boating in Ohio

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Lake Erie Protection Fund Small Grant Award Summary		
Amount	Organization	Project Name
\$6,230	Geauga County General Health	Extended Aeration Training
\$7,500	Case Western Reserve University	A Chemical Transport Model of Internal Loading in Lake Erie
\$6,920	Kelleys Island Audubon Club	Natural Resource Protection & Ecotourism Promotion
\$7,500	Heidelberg College	Tracking Rapid Populations Change of Burrowing Mayflies in the Central Basin of Lake Erie
\$7,500	Chagrin River Watershed Partners	Preliminary Survey of Wetland & Stream Restoration Sites in the Chagrin River Watershed
\$7,491	Medical College of Ohio	Surveillance of Waterfowl Feces for Presence of Microbes Pathogenic to Humans
\$7,493	City of Toledo	Pre-capping characterization of the Macroinvertebrate Community for the Ottawa River Restoration
\$7,445	OSURF	Phase 1 Development of a Comprehensive GIS for the Mentor Marsh & its Proximal Watershed
\$7,480	The Ohio State University	Distribution Vegetation & Floristic Diversity in a Lake Erie Coastal Wetland
\$7,500	University of Toledo	Maumee Area of Concern Uncontrolled Waste Site Database
\$7,500	Western Reserve RC&D	Common Groundwork-A Handbook for Making Land Use Decisions
\$7,414	Ohio State University	Changes in Plasma Levels of Free & Conjugated ~ During Maturation of Yellow Perch
\$7,500	U.S. Geological Survey	Daily Foraging Habits of Adult Double-Crested Cormorants and Cormorants as Indicators of Fish Distribution in Western Lake Erie
\$7,500	Ottawa River Coalition	Enhances Monitoring in the Ottawa River Watershed
\$4,290	Owens Community College	Pollution Prevention in Northwest Ohio
\$5,000	Case Western Reserve University	International Assoc. for Great Lakes Research '99 Annual Conference
\$4,125	University of Toledo	Characterization of Old Wood Sample From Lake Erie
\$7,401	Bowling Green State University	Does Trace Metal Availability Constrain Phytoplankton Growth & Standing Crop in Lake Erie
\$7,500	University of Toledo	Investigation of Microbial Activity in Seeps along Williams Ditch
\$7,500	Cleveland State University	Pilot Project for the Evaluation of Standard Biotic Metrics in Urbanized Watersheds
\$7,462	The Ohio State University	Differentiating Weather Driven Trends from Management/ Food Web Driven Trends in Lake Erie Fish Populations
\$7,480	Miami University	Genetic Analysis of Freshwater Mussel Populations Across the Lake Erie/Ohio River Drainage Divide
\$7,500	Ohio University	Field Demonstration for Mechanical Control of Zebra Mussels

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Small Grant Award Summary		
Amount	Organization	Project Name
\$7,500	The Ohio State University	Economic Contribution of Recreational Boating in Ohio
\$6,800	Submerged Lands Advisory Committee	Shipwreck Archeology & Biological Studies for Recreational Divers
\$7,068	OSURF	Analysis of 1997-98 Lake Erie Plankton Dynamics Samples
\$6,105	The Ohio State University	Valuing the Ottawa River: Recreational Value & Direct Economic & Fiscal Impacts
\$7,500	Ashtabula River Partnership	Ashtabula River PAH Sampling
\$7,500	Bowling Green State University	DNA Microsatellites to Identify White Bass Stocks in Lake Erie
\$3,675	City of Toledo	Profiling the Ottawa River II
\$7,500	John Carroll University	Macrobenthic Invertebrate Fauna from Nearshore Waters of Central Lake Erie in 1995
\$7,500	Heidelberg College	Stream Habitat & Land Use Assessment for North Central Tributaries to Lake Erie
\$7,500	West Creek Preservation Committee	West Creek Greenway
\$7,500	City of Lima Ohio	Great Lakes Initiative-Implementation Seminar
\$7,500	Case Western Reserve University	Genetic Characterization of Yellow Perch in Lake Erie
\$7,480	Lake Erie Alliance	Lake Erie LaMP Illumination Project
\$7,370	Ohio Environmental Council	The Lake Erie Toxics Elimination Project
\$2,460	ODNR-Maumee Bay State Park	Avian Distribution, Population Status & Implications for Management of the Maumee Bay State Park Wetland
\$7,435	The Ohio State University	Lake Aware Kids Engaged in Relevant Science-LAKERS
\$7,500	Chagrin River Watershed Partners	Critical Area & Flooding & Erosion Problems Survey
\$6,642	The Ohio State University	Estimating the Recreation Value of Two Lake Erie Beaches
\$6,200	Submerged Lands Advisory Committee	Shipwreck Archeology for Recreational Divers
\$2,000	Ohio Sea Grant Extension-Toledo	News Waves-A Newsletter for Sustainable Coastal Development
\$7,500	Bowling Green State University	Aquatic Insects of Old Woman Creek OH
\$7,450	US Geological Survey	Diet of the Double Crested Cormorant in Western Lake Erie
\$7,228	The Ohio State University	Costs of Reducing Sediments Delivered to the Toledo Harbor
\$7,500	Notre Dame College of Ohio	Effects of low POC/DOC on Metal Speciation in Lake Erie
\$5,000	U.S. Fish & Wildlife	Monitoring Fishery Response to Wetland Restoration in W Lake Erie
\$7,485	Case Western Reserve University	Genetic Characterization of Invasive Gobies in the Great Lakes

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Small Grant Award Summary		
Amount	Organization	Project Name
\$7,500	Shaker Lakes Regional Nature Center	Doan Brook Watershed Management Plan Start-up
\$7,500	Village of Bay View	Old Sandusky Bay Bridge Causeway Management Plan
\$7,500	University of Toledo	Plasmid Fingerprinting to Identify the Pollution Source at the Maumee Bay State Park
\$3,450	National Biological Service	Food & Growth of First Year Yellow Perch from Western Lake Erie
\$5,650	TMACOG	From Satellites to Earthworms: Improving Farm Management
\$7,436	Miami University	Analysis of Lake Erie Coastal Wetland Communities
\$7,500	ODNR-DNAP	Nitrogen Recycling by the Microbial Food Web in Lake Erie Wetlands
\$4,950	The Ohio State University	Induced Spermination & Characterization of Spermatozoa of the Sea Lamprey
\$4,970	The Ohio State University	A Cost-effective Trap to Remove Carp & Bullhead from Diked Wetlands
\$5,000	Heidelberg College	Impact of Round Goby Invasion on Zebra Mussel Dominated Hard Substrate Communities
\$3,525	Heidelberg College	Interactions of Burrowing Mayflies and Zebra Mussels and Effects on Sediment Oxygenation
\$5,000	U.S. Geological Survey	Effects of Sediment Stored Fecal Indicator Bacteria on Recreational Water
\$5,000	U.S. Fish & Wildlife	Monitoring Fishery Response to Wetland Restoration in W. Lake Erie
\$5,000	Shaker Lakes Regional Nature Center	The Doan Brook Project
\$5,000	Ohio Dept. of Natural Resources	Lake Michigan Diversion Mediation
\$5,000	USGS	Development Periphyton Biocriteria a Review of Collection Methods & Evaluation Indices
\$5,000	Erie-Ottawa County Chap/ Pheasants Forever	Soil Conservation Through Native Prairie Restoration
\$3,870	Cleveland Public Schools	Living at the Edge: Exploring Our North Coast Heritage
\$4,000	ClearWater, Inc.	Community Partnership Initiative, Ottawa River Study
\$4,350	The Ohio State University	Training Teachers: The Geologic Setting of Lake Erie
\$4,983	Miami University	Physiological Condition of Burrowing Mayflies as an Environmental Assessment Tool for Lake Erie
\$5,000	Kent State University	Leem: The Base of the Food Web
\$4,996	Case Western Reserve University	Reconciliation of Downcore Sediment Chemical Data and Biological Mixing

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>Lake Erie Protection Fund Small Grant Award Summary</b>		
<b>Amount</b>	<b>Organization</b>	<b>Project Name</b>
\$3,876	The Ohio State University	EROD Activity and P4501A Protein Content in Liver of Yellow Perch as Biomarkers of PCBP Exposure
\$4,980	The Ohio State University	Bioindicators of Contaminant Exposure
\$4,980	The Ohio State University	A Protein Biomarker for Tumors in Fish
\$5,000	The Ohio State University	Effect of Organochlorine Xenobiotics on Ovarian Steroidogenesis in Yellow Perch
\$5,000	TMACOG	Portage River Water Quality Education Project
\$4,480	Maumee RAP/OH EPA	Maumee RAP Public Outreach Campaign
\$3,500	TMACOG	1994 Farm City Forum
\$1,411	Media County SWCD	School Water Quality Analysis Test Kit Distribution Project

<b>Lake Erie Protection Fund Large Grant Award Summary</b>		
<b>Amount</b>	<b>Organization</b>	<b>Project Name</b>
\$61,520	Chagrin River Watershed Partners, Inc.	Implementing Best Local Land Use Practices
\$100,000	Western Reserve Land Conservancy	Prioritization of the Western Reserve's Lake Erie Basin
\$20,243	OSURF	Ohio Clean Boater Program, with Focus on Lake Erie
\$53,945	University of Toledo	Molecular & Physiological-Based Characterization of Fecal Coliform Reservoirs in Maumee Bay
\$28,234	OSU-Aquatic Ecology Laboratory	Determining Stream Origin & Migration of Walleye Stocks in Lake Erie Using Otolith Analysis
\$89,965	The Ohio State University	Watershed Effects on Lake Erie Water Quality: The Algal Loading Hypothesis
\$29,922	OSURF	Effects of Temperature & Elemental Concentration on the Chemical Composition of Percid Otoliths
\$47,700	Lake Erie Coastal Ohio, Inc.	Lake Erie Coast Ohio: Linking Preservation to Economic Development
\$55,391	University of Toledo: Lake Erie Center	Maumee Bay & Western Lake Erie Water Quality Monitoring
\$97,640	Conservation Action Project	Implementing Innovative Farming Practices that Reduce Soil Erosion
\$29,500	Lake Erie Coastal Ohio, Inc.	The Lake Erie Islands: Nature-based Field Guide & Survey
\$93,871	USGS	Implementation of a System for Forecasting Bacteria Levels and Beach Advisories

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Large Grant Award Summary		
Amount	Organization	Project Name
\$49,060	Cuyahoga County Board of Health	Identification of Pollution Sources & Bacterial Reduction in a Lake Erie Watershed
\$50,000	OSURF	Develop & Establish a Clean Boater Program for Ohio with Focus on Lake Erie
\$100,000	Cuyahoga River Community Planning Organization	A Decision-Support System to Integrate Watershed & Transportation Planning NE Ohio
\$23,750	Ohio DNR	Bottom Substrates Around the Bass Islands & Kelleys Island
\$50,000	TMACOG	GIS Septic System Inventory
\$66,505	OSURF	Forested Habitats in Fragmented Landscapes Near Lake Erie Defining Quality Stover Sites for Migrating Landbirds
\$99,913	Cleveland State University	Genetic Detection & Monitoring of Aquatic Nuisance Goby & Mussel Populations
\$78,084	Cuyahoga Community College	West Creek Preserve Urban Wetland Project
\$184,500	Ohio Organization for Recycling & Reuse	Business Hazardous Waste Recycling & Brownfield Abatement Fund Project for Cuyahoga & Summit Counties
\$123,834	NOACA	Developing Regional Watershed Based Model Storm Water Permit Implementation Plans
\$65,900	Cuyahoga River Community Planning Organization	Prioritizing Wetlands for Restoration & Preservation in the Cuyahoga River Area of Concern
\$64,735	Chagrin River Watershed Partners, Inc.	Technical Implementation Program for Natural Resource Protection in the Chagrin River Watershed
\$275,000	Ottawa County Visitors Bureau	Lake Erie Heritage Area Implementation Plan for Economic Development
\$79,689	NEFCO	Yellow Creek Watershed Storm Water Management Consortium
\$85,510	Conservation Action Project	Securing Quality Data Using Farmer Clusters & Summer Interns
\$100,000	Ohio Department of Agriculture	Bulk Pesticide Fertilizer Containment Cost Share Program
\$98,876	USGS	Gap Analysis of Lake Erie Wetlands
\$99,913	Cleveland State University	Genetic Markers for Defining & Evaluating Stock Structure of Yellow Perch in Lake Erie
\$77,240	OSURF	Food Web & Feeding Influences on PCB Bioavailability
\$80,157	University of Toledo	Water Quality Simulation Modeling in the Sandusky Watershed
\$148,000	U.S. Geological Survey	Development & Evaluation of a Coupled Model to Predict Escherichia Coli at Public Beaches
\$49,854	U.S. Geological Survey	Critical Habitats for Young Fishes in Coastal Areas of West Central Lake Erie
\$51,600	Wright State University	Developing the Bald Eagle as a Lake Erie Biosentinel
\$91,617	OSURF	A Hydrologic Assessment of Mentor Marsh

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Large Grant Award Summary		
Amount	Organization	Project Name
\$50,952	Miami University	Conservation Genetics of Freshwater Mussels & the Potential for Translocation into the Lake Erie Watershed
\$15,500	TMACOG	Maumee River Regional Storm Water Management District
\$86,375	Portage County Health Depart.	Managing Portage County's Semi-Public Wastewater Systems to Benefit Lake Erie Watershed
\$11,100	ODNR-Div. of NA&P	North Pond Kiosk Project
\$122,066	Sand. River Watershed Coalition	Watershed Planning & Implementation for the Sandusky River Watershed
\$93,712	OSURF	Wetland Renovation in East Harbor State Park
\$229,635	Ohio Lake Erie Buffer Team	Ohio Lake Erie Buffer Team Initiative
\$17,337	ODNR- Div. of Geo. Survey	Sediment Distribution of the Lower Maumee & Ottawa Rivers
\$99,391	OSU	Calibration of Lake Erie Foodweb Models with Field Data
\$69,878	OSU	Modeling Nutrient Enriched Sediments Transport During Coastal Erosion Processes
\$65,977	Cleveland State University	Genetic Markers for Discriminating Stocks of Walleye in the Western Basin of Lake Erie
\$90,593	Case Western Reserve University	Modeling the Effect of Tile Drainage on the Export of Nitrate from Agricultural Lands Tributary to Lake Erie
\$99,443	Kent State University	Effects of Zebra Mussels on Depth-Integrated Phytoplankton Productivity
\$91,130	NOACA	Survey of NE Ohio Home Sewage Disposal Systems & Semi-Public Sewage Disposal Systems
\$117,574	OSURF	Turtles as Environmental Monitors of Priority Pollutants & Significance to Human Consumers
\$98,021	OSURF	Development of Sediment Transport Modeling Component for Lake Erie Portion of the Great Lakes Forecasting System
\$142,526	University of Toledo	Tracing Diffuse Sources of Fecal Contamination Through Phenotypic and Genotypic Characterization of <i>E. Coli</i> Isolates
\$93,037	University of Toledo	Long-Term Nonpoint Abatement by a Lake Erie Marsh & its Implications for Wetland Restoration Policies
\$82,850	Maumee Valley RC&D	Precision Nutrient Application of Agriculture Fertilizers
\$50,000	TMACOG	Toledo Metropolitan Area Regional Storm Water Management Study
\$50,272	Wright State University	Endocrine Biomarkers for Monitoring Contaminant-Associated Health Effects in Fish-Eating Birds of Lake Erie
\$83,021	NEFCO	Yellow-Creek Watershed Comprehensive Watershed Management Plan Phase I

## Lake Erie Protection & Restoration Plan: Third Progress Report

Lake Erie Protection Fund Large Grant Award Summary		
Amount	Organization	Project Name
\$69,767	Heidelberg College	Ecosystem Change in Lake Erie: Recolonization by Burrowing Mayflies & their Contribution to Fish Diets
\$51,064	Heidelberg College	Transport of Particulate Pollutants in Lake Erie Tributaries: The Role of Particle Size & Size Specific Chemistry
\$100,000	TMACOG	Swan Creek Watershed Plan of Action
\$191,855	City of Toledo	Ottawa River Restoration Project
\$42,000	ODNR-Div. of Parks	Avian Habitat Preferences & Implications for Management of the Maumee Bay State Park Wetland Y2K
\$37,100	USGS	Factors Affecting E-coli Concentrations at Lake Erie Public Bathing Beaches
\$71,197	Ashtabula County Health Dept.	Implementation of a House Bill 110 Project in Ashtabula County
\$13,000	Wood/Lucas Pheasants Forever	Establishment of Native Grasses Along the Toussaint River & Other Streams in Lucas County
\$98,925	Kent State University	Field & Lab Test of the Hypothesis that Zebra Mussels Release Phytoplankton from P-Limitation
\$71,110	Lorain County Community Dev.	Model Township Zoning & Community Guide
\$73,561	ODNR/REALM	Twenty-Year Landcover Change Analysis in Ohio's Lake Erie Watershed
\$99,999	OSURF	Effect of Stratification on Ecosystem Changes in Lake Erie
\$57,998	ODNR-Div. of Natural Areas	Rare Plant Species & Plant Community Inventory of the Lake Erie Coast
\$98,500	CAMP, Inc.	Collaborative Demo & Development Project to Reduce Emissions of Suspected Human Carcinogen Tetrachloroethylene to Lake Erie and to Ohio's Air, Water & Soil
\$25,592	City of Port Clinton	Sanitary Mayfly Disposal through Composting
\$41,678	NEFCO	A Demonstration of a Constructed Wetland for Home Wastewater Treatment
\$39,253	OSURF	A Model Course for Lake Erie Environmental Teacher Education
\$72,512	John Carroll University	Determination of Algal Metrics for Lake Erie Estuaries
\$60,000	Heidelberg College	Recovery of Burrowing Mayflies
\$99,820	Cleveland State University	Genetic Stock Structure of Walleye in Lake Erie & Its Tributaries
\$83,750	Ohio EPA	Develop. of Biological Indices using Macroinvertebrates in Ohio Nearshore Waters/Harbors/Lacustuaries of Lake Erie in Order to Evaluate Water Quality
\$54,166	University of Toledo	Metzger Marsh Restoration Project Phase I (95-96) Habitat & Avian Comm. Response to Dike Construction & Drawdown
\$100,000	Kent State University	Assess. of Retrofitted Stormwater Basins as a way to Reduce NPSP in the Cuyahoga Watershed

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>Lake Erie Protection Fund Large Grant Award Summary</b>		
<b>Amount</b>	<b>Organization</b>	<b>Project Name</b>
\$53,861	ODNR/REALM	Cuyahoga River Basin Non-point Source Assessment Project Using Remote Sensing & GIS
\$69,404	Heidelberg College	Seasonal Loading Characteristics of Herbicides & Their Major Metabolites
\$14,950	Maumee RC&D	Marketing Wetlands for Profit
\$27,166	TMACOG	Western Lake Erie Stream Monitoring Project
\$91,539	Ohio EPA	The Spatial Process Model to Determine Agricultural Impacts on Lake Erie
\$65,368	John Carroll University	Ecology & Assessment of the Algae of Four Lake Erie Estuaries
\$4,860	ODNR-DNAP	Proposed Modifications to a Wetland in Order to Restore Habitat for Select Rare Plant Species
\$95,700	ODNR-Div. of Wildlife	Determination of Toxic Substances in Lake Erie Fish
\$98,050	OSURF	Assessment of Tumor Frequency & Liver Pathology in Black River Bullhead
\$75,000	Heidelberg College	The Lake Erie Tributary Loading Program

## **STRATEGIC ACTION PROGRESS**

Submitted to the Ohio Lake Erie Commission  
September 2006

<b>Water Quality</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
WQ-1	Great Lakes Standard Fish Consumption Protocol	26	<b>COMPLETE</b>
WQ-2	Fish Consumption Protocol Public Communication	26	<b>ONGOING</b>
WQ-3	Contaminant Bioaccumulation Research	27	<b>ONGOING</b>
WQ-4	Contaminated Sediment Remediation	28	<b>ONGOING</b>
WQ-5	Information Clearinghouses	29	<b>ONGOING</b>
WQ-6	Private Home Septic System Permitting	30	<b>ONGOING</b>
WQ-7	Semi-public Sewage Inspection Program	33	<b>ONGOING</b>
WQ-8	Lake Erie "No Discharge Zone"	33	<b>ONGOING</b>
WQ-9	Beach Advisory Postings	34	<b>ONGOING</b>
WQ-10	Beach Advisory Forecasting System	35	<b>ONGOING</b>
WQ-11	Bacterial Tracing Research	35	<b>ONGOING</b>
WQ-12	Drinking Water Quality Information	36	<b>COMPLETE</b>
WQ-13	Water Quality Monitoring System	37	<b>ONGOING</b>
WQ-14	Area of Concern Restoration	37	<b>ONGOING</b>

<b>Pollution Sources</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
PL-1	NPDES Permit Revisions	42	<b>COMPLETE</b>
PL-2	Hazardous Substance Reduction and Substitution	42	<b>COMPLETE</b>
PL-3	Conservation Tillage	43	<b>ONGOING</b>
PL-4	Conservation Buffers	44	<b>ONGOING</b>
PL-5	Ohio Coastal Nonpoint Plan	45	<b>ONGOING</b>
PL-6	Soil Conservation Research	47	<b>ONGOING</b>
PL-7	Precision Fertilizer Application Research	48	<b>ONGOING</b>
PL-8	Concentrated Animal Feed Operation Legislation	48	<b>ONGOING</b>
PL-9	Voluntary Action Program	49	<b>COMPLETE</b>
PL-10	Hazardous Waste Cleanup Standards	50	<b>COMPLETE</b>
PL-11	Hazardous Waste Cleanup Program	51	<b>COMPLETE</b>
PL-12	Hazardous Waste Cleanup Resources	51	<b>ONGOING</b>
PL-13	LEQI Urban Nonpoint Pollution Objectives	53	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>Pollution Sources</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
PL-14	Regional Hazardous Waste Recycling Facilities	54	<b>ONGOING</b>
PL-15	Watershed Storm water Management Planning	55	<b>ONGOING</b>
PL-16	Combined Sewer Overflow Strategy	56	<b>ONGOING</b>
PL-17	Urban Riparian Buffers	57	<b>ONGOING</b>
PL-18	LEQI Atmospheric Pollution Objective	58	<b>DROPPED</b>
PL-19	Air Contaminant Collectors	58	<b>ONGOING</b>
PL-20	Research into Electrical Deregulation Opportunities	59	<b>ONGOING</b>

<b>Habitat</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
H-1	Dam Removal	61	<b>ONGOING</b>
H-2	Flood Retention	62	<b>ONGOING</b>
H-3	Comprehensive Watershed Planning	62	<b>ONGOING</b>
H-4	Local Watershed Hydrology	63	<b>ONGOING</b>
H-5	Lake Erie Model Zoning Ordinance	64	<b>ONGOING</b>
H-6	Lake Erie Lighthouse Designation	64	<b>NOT YET UNDERWAY</b>
H-7	Governor's Lake Erie Balanced Growth Awards	64	<b>NOT YET UNDERWAY</b>
H-8	Balanced Growth Blue Ribbon Task Force	65	<b>ONGOING</b>
H-9	Ohio Farmland Preservation Program	65	<b>ONGOING</b>
H-10	Reforestation	66	<b>ONGOING</b>
H-11	Coastal Parcel Acquisition	67	<b>ONGOING</b>
H-12	Water-dependent Shoreline Development	68	<b>ONGOING</b>
H-13	Lake Erie Marshes Focus Plan	68	<b>ONGOING</b>
H-14	Shoreline Erosion Structures	69	<b>ONGOING</b>
H-15	Exotic Plant Eradication	71	<b>ONGOING</b>
H-16	Beach Conservation Management	71	<b>ONGOING</b>
H-17	Lake Erie Educational Program	72	<b>ONGOING</b>
H-18	Wetland Protection Inventory	73	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>Biological</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
B-1	Ohio Aquatic Nuisance Species Plan	75	<b>ONGOING</b>
B-2	Biological Diversity Strategic Plan	75	<b>ONGOING</b>
B-3	Bald Eagle Management	76	<b>ONGOING</b>
B-4	Rare Species Restoration	77	<b>ONGOING</b>
B-5	Index of Biotic Integrity Development	77	<b>ONGOING</b>
B-6	Lake Erie Quality Index	78	<b>ONGOING</b>

<b>Coastal Recreation</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
CR-1	Coastal Parcel Acquisition	79	<b>ONGOING</b>
CR-2	Hiking and Biking Paths	80	<b>ONGOING</b>
CR-3	Lake Erie Underwater Sanctuaries	81	<b>ONGOING</b>

<b>Boating</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
BT-1	LEQI Boat Dockage Objective	82	<b>ONGOING</b>
BT-2	LEQI Launching Facility Objective	83	<b>ONGOING</b>
BT-3	State Launching Facility Evaluation	84	<b>ONGOING</b>
BT-4	Ohio Fuel Tax Review	84	<b>ONGOING</b>
BT-5	Online Boater Registration	85	<b>COMPLETE</b>
BT-6	Increase State & Local Law enforcement	85	<b>ONGOING</b>

<b>Fishing</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
F-1	Special Protection Areas	87	<b>ONGOING</b>
F-2	Sturgeon, Muskie & Northern Pike Fisheries	87	<b>ONGOING</b>
F-3	Offshore Artificial Reefs	88	<b>ONGOING</b>
F-4	LEQI Shoreline Fishing Objective	88	<b>ONGOING</b>
F-5	State Fishing Facility Evaluation	88	<b>ONGOING</b>
F-6	Fish Consumption Advisory Information	89	<b>ONGOING</b>
F-7	Portable Fishing Education Program	89	<b>ONGOING</b>
F-8	"Smart" Ice Fishing Guidebook	89	<b>NOT YET UNDERWAY</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

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<b>Beaches</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
BCH-1	LEQI Beach Availability Objective	90	<b>ONGOING</b>
BCH-2	State Beach Evaluation	90	<b>ONGOING</b>
BCH-3	Beach Sponsorship & Stewardship Program	91	<b>ONGOING</b>

<b>Tourism</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
T-1	Ecotourism	92	<b>ONGOING</b>
T-2	Great Lakes Cruising Industry	93	<b>INCOMPLETE</b>
T-3	Lake Erie Circle Tour	93	<b>COMPLETE</b>

<b>Shipping</b>			
<b>Action</b>	<b>Subject</b>	<b>Page</b>	<b>Progress</b>
S-1	Ship Ohio Program	94	<b>ONGOING</b>
S-2	Great Lakes Support of Shipping	94	<b>ONGOING</b>
S-3	Intermodal Transportation Access	95	<b>ONGOING</b>

## **LEGEND OF AGENCY ACRONYMS**

ATSDR	Agency for Toxic Substances and Disease Registry
CAP	Conservation Action Project
LEC	Lake Erie Commission
LECO	Lake Erie Coastal Ohio
NOAA	National Oceanic and Atmospheric Administration
ODA	Ohio Department of Agriculture
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
DNAP	Division of Natural Areas and Preserves
DSWC	Division of Soil and Water Conservation
REALM	Real Estate and Land Management
OCMP	Ohio Coastal Management Program
DOW	Ohio Division of Wildlife
ODOD	Ohio Department of Development
ODOT	Ohio Department of Transportation
OEEF	Ohio Environmental Education Fund
OEPA	Ohio Environmental Protection Agency
DDAGW	Division of Drinking and Ground Waters
OPP	Office of Pollution Prevention
OHS	Ohio Historical Society
OLC	Ohio Livestock Coalition
ORDC	Ohio Rail Development Commission
OSU	The Ohio State University
OSUE	Ohio State University Extension
SWCD	Soil and Water Conservation District
TMACOG	Toledo Metropolitan Area Council of Governments
USACE	United States Army Corp of Engineers
USCG	United States Coast Guard
USDA	United States Department of Agriculture
FSA	Farm Service Agency
NRCS	Natural Resources Conservation Service
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish & Wildlife Service
USGS	United States Geological Survey

## WATER QUALITY

<b>WQ-1 Promote the acceptance by all Great Lakes states of the standardized Great Lakes protocol for the determination of fish consumption advisories by 2001. ODH, ODNR, OEPA</b>			
<b>ACTION COORDINATOR: W. Gene Phillips; Chief, Division of Prevention – ODH</b>			
Year	Agency	Action	Status
2002	ODH	Fish advisory responsibility moved to OEPA in 2002; ODH posts fish consumption advisories at agency Web site and listserve information to all local health districts in Ohio.	<b>ONGOING</b>
1994	ODH, ODNR, OEPA	All agencies agreed to adopt the Great Lakes Protocol with minor modification. This was first applied to Lake Erie in 1994, and subsequently adopted for all Ohio water bodies.	Ohio was one of the first states to adopt principles of the Great Lakes Protocol. <b>COMPLETE</b>

<b>WQ-2 Support efforts to communicate fish consumption advisories with the public. Reach out to the majority of the Ohio fishing population with this information by 2001. ODH</b>			
<b>ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water – OEPA</b>			
Year	Agency	Action	Status
2006	OEPA	Continue to work with ODNR and ODH to issue annual fish consumption advisories	<b>ONGOING</b>
2005	OEPA	OEEF \$49,832 grant to Ohio Environmental Council for translating and adapting fish consumption advisory information for special populations (WIC clinics, Amish/Mennonite, Spanish and Chinese)	<b>ONGOING</b>
2004	OEPA, ODNR	Advisory cards will again be printed and distributed.	<b>ONGOING</b>
2004	OEPA, ODNR	OEPA updates advisories and Web site.	<b>ONGOING</b>
2003 - 2004	LEC	Lake Erie Protection small grant was awarded to Ohio Environmental Council to assist in outreach to sensitive populations in the Lake Erie basin.	<b>ONGOING</b>
2003	OEPA	Created an interactive Web site to provide information on fish consumption advisories, identifying fish, how to cook fish to minimize risk, etc.	<b>COMPLETE</b>
2002	OEPA	OEPA assumed duty of maintaining Ohio Sport Fish Tissue Monitoring Program.	<b>ONGOING</b>
2000	ATSDR, LEC, ODH	Promotional souvenir magnets and posters distributed by Lake Erie Commission Office to north shore school systems as part of environmental education.	<b>COMPLETE</b>
2000	ODH	Promotional posters displayed through State of Ohio Library System.	<b>COMPLETE</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>WQ-2 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2000	ODH	Souvenir magnets made available at the ODH Ohio State Fair Display Booth.	<b>COMPLETE</b>
1999	ODH	Advisories distributed through the Ohio Environmental Council.	<b>ONGOING</b>
1999	ODH	Advisories distributed through Women's Health, WIC, and Help Me Grow Programs.	<b>ONGOING</b>
1999	LEC, ODH	Lake Erie Commission Office volunteered to distribute advisories.	Improved outreach to Lake Erie anglers. <b>ONGOING</b>
1999	ODNR, ODH	ODNR agreed to disseminate advisories through their distribution system.	Improved outreach to general public. <b>ONGOING</b>
1999	ODH	Established mailing list based on advisory inquiries.	Improved outreach to general public. <b>ONGOING</b>
1999	ODH	Established toll-free telephone number to receive advisory inquiries.	Improved outreach to general public. <b>ONGOING</b>
1998	ODH	Advisories distributed through National Technical Association of Black Envoys and the Native American Indian Council.	Improved outreach to minorities. <b>ONGOING</b>
1998	ODH	Advisories distributed through Ohio River Lockmasters.	Improved outreach to Ohio River anglers. <b>ONGOING</b>
1998	ODH, OEPA, USEPA	Advisory information posted on all three Web sites.	Improved outreach to general public. <b>ONGOING</b>

<b>WQ-3</b>			
<p><b>Prioritize funding for research concerning the bioaccumulation of contaminants and their pathways, and health impacts to humans and wildlife.</b>  <b>OEPA, ODH, Lake Erie Commission, Ohio Sea Grant</b></p> <p><b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b></p>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	LEC, Ohio Sea Grant	Continued to compare and coordinate priorities and funding available from Ohio Sea Grant and the Lake Erie Protection Fund to achieve needed information on bioaccumulation and contaminants in the environment.	<b>ONGOING</b>
2000 - 2004	OEPA	As research or additional monitoring was identified as needed to make management decisions, OEPA has contacted researchers with expertise in that particular area to collaborate on developing a project. OEPA then assisted the researchers by helping to find funding.	Results of projects allow determination of use impairments, where sediment remediation is needed and where there may still be ongoing sources of contaminants. <b>ONGOING</b>

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<b>WQ-3 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2000	LEC	Lake Erie Protection Fund grant (\$77K) awarded to The Ohio State University for project "Food Web and Feeding Influences on PCB Bioavailability." Will investigate contaminant bioaccumulation in zebra mussel – round gobies pathway.	<b>FINAL REPORT PENDING</b>
2000	LEC	Lake Erie Protection Fund (LEPF) grant (\$52K) awarded to Wright State University for project "Developing the Bald Eagle as a Lake Erie Biosentinel." Determined contaminant trends in bald eagle tissue samples from 1994-1997.	<b>COMPLETE</b>
2000	LEC	Cooperative project between OSU and OEPA to assess contaminants in snapping turtles.	<b>COMPLETE</b>
1999 - 2003	OEPA	Assessed background sediment contaminant concentrations in streams in the Lake Erie basin.	<b>COMPLETE</b>

**WQ-4** More strongly support efforts to assess and address contaminated sediments. Consider sediment remediation as part of overall environmental improvement and as a cross program issue – not as a separate topic. *OEPA, ODH*

- Establish standardized criteria by which to evaluate sites in the Lake Erie watershed.
- Continue to support weight of evidence approach to prioritize sites in the Lake Erie watershed.
- Continue to expand assessments to include ecological risks as well as human health factors.

**ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water – OEPA**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
Ongoing	OEPA	Continue efforts to develop a long term management plan for maintenance dredging of the Toledo Harbor ship channel and eliminate open lake disposal by 2012.	Currently pursuing the use of dredged sediments to construct Habitat Restoration Units (HRU) in Maumee Bay.
2003	OEPA	Developed guidance for determining the reuse of dredged sediment for beach nourishment (building).	Draft guidance developed.
2002	USEPA	Congress passed the Great Lakes Legacy Act (GLLA) to assist in the remediation of contaminated sediments in Great Lakes Areas of Concern.	Proposed FFY 2007 budget provides \$49.6 million for sediment remediation.
2004 - 2006	USEPA	To implement the GLLA, \$10 million appropriated in 2004. \$22.5 million appropriated for 2005. \$30 million appropriated for 2006.	City of Toledo and Ashtabula River Partnership submitted applications to dredge the Ottawa and Ashtabula Rivers.
2005	USEPA	Additional sampling done on the Ottawa by USEPA to better scope out a GLLA project.	Ongoing discussions between Toledo and USEPA.

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<b>WQ-4 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2005	USEPA	Ashtabula River Partnership received a GLLA award of \$25 million to dredge Ashtabula River upstream of the 5 <sup>th</sup> St. Bridge. OEPA contributing \$7 million toward local match. Cost share is 50/50.	Landfill construction to begin spring 2006. Dredging to begin fall 2006 and completed by 2009.
2002 - 2003	OEPA	Conducted sediment and fish tissue assessment of the Old Channel of the Cuyahoga River.	<b>COMPLETE</b>
2002 - 2003	OEPA	Evaluated existing biocriteria reference site surficial sediment data to determine regional reference values for metals concentrations in sediment.	<b>COMPLETE</b>
2002	LEC	Lake Erie Protection Fund grant (\$10K) awarded to the Ohio State University Research Foundation to establish beach profiles and the seaward limit of disturbance along the Lake Erie shoreline. This information will help to constrain the amount of contaminated sediments that may be suspended in the water column.	<b>COMPLETE</b>
2002	OEPA, USGS, USEPA, Env. Canada	As part of the Lake Erie Lakewide Management Plan (LaMP), mapped and evaluated surficial sediment data in Lake Erie proper and tributary/harbor areas.	<b>COMPLETE</b>
2001 - 2003	OEPA	OEPA has developed ecological risk assessment guidance that includes sediment screening criteria to determine when remedial action may be needed.	Completed for the VAP program.
2001	OEPA	Adopted updated sediment sampling methods manual into Agency procedures and put up on Web site. Use of common methods by all collecting sediments samples, either within or outside the agency will result in comparable data sets.	<b>COMPLETE</b>

### **WQ-5 Create information clearinghouse for all Ohio Lake Erie contaminant sediment and fish tissue data by 2003. OEPA**

**ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water – OEPA**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA	Continued to enter sediment and fish tissue data into a common agency database.	Updated sediment and fish tissue databases. <b>ONGOING</b>
2002	OEPA	As part of the USGS National Water Quality Assessment Program (NAWQA), and the Lake Erie LaMP, USGS has collected much existing sediment and fish tissue data for the Lake Erie Basin into a common database for use in GIS mapping. OEPA is working with them to coordinate and expedite entering additional data.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

- WQ-6 Implement laws and rules for new permitting requirements and operation of private home septic systems. *ODH, Ohio General Assembly***
- **Require permits to install and operate home septic systems.**
  - **Require operational assessments of new and existing home septic systems.**
  - **Establish funding mechanisms at both state and local levels to cover costs of sewage disposal program activities.**
  - **Support additional use of existing OEPA Division of Environmental & Financial Assistance funding programs for replacement or upgrades of malfunctioning home sewage systems.**

**ACTION COORDINATOR: W. Gene Phillips; Chief, Division of Prevention – ODH**

Year	Agency	Action	Status
2006	ODH	ODH regulates sewage treatment systems across the state through statutory authority recently enacted and established under ORC Chapter 3718 and Ohio Admin. Code Chapter 3701-29. Administrative rules were adopted by the Public Health Council on May 4, 2006 with an effective date of January 1, 2007.	Effective date January 1, 2007
2006	ODH	With passage of HB231, ODH regulates residential sewage treatment systems across the state through statutory authority established under ORC Chapter 3718 and Ohio Admin. Code Chapter 3701-29. Sewage treatment systems include one, two and three family dwellings, and small flow sewage treatment systems (facilities that treat up to 1000 gallons per day.) Regulatory structure establishes state rules that are implemented by local health districts through the process of issuing permits, conducting inspections and enforcing the rules.  The rules establish standards for the siting, design, permitting, installation, alteration, operations, monitoring, maintenance, and abandonment of sewage treatment systems serving homes and small non-residential 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.	Effective date January 1, 2007
2003	ODH	ODH staff met with a number of local health departments to discuss procedures for review of experimental sewage treatment systems.	Increased numbers of local health departments have submitted and been approved for use of new sewage treatment technologies (e.g. mounds, drip irrigation, ET systems).

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>WQ-6 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	ODH, ODNR, SWCDs, NRCS	ODH, in conjunction with ODNR, SWCDs, and NRCS, has offered annual field soil identification training sessions for local health department sanitarians.	Over 100 local health department sanitarians have received this hands-on specialized soil training which will assist local health departments perform better site/soil evaluations regarding proposed sewage treatment systems.
2003	OEPA	WPCLF linked deposit financing of up to \$2 million to Seneca County to create low interest loans to homeowners for upgrades and replacements.	<b>ONGOING</b>
2003	OEPA	OEEF award provided \$2476 to train 160 home septic system installers in Defiance, Fulton, Henry and Williams Counties on efforts by 18 health districts to align their regulatory requirements and specifications.	<b>ONGOING</b>
2003	OEPA	OEEF award provided \$2555 for workshop for installers and inspectors of small package plant wastewater treatment systems in Geauga and surrounding counties on operation and maintenance at facilities such as mobile home parks.	<b>ONGOING</b>
2003	ODH, Ohio General Assembly	Introduction of House Bill 231 regarding comprehensive changes to state and local sewage treatment programs, including state oversight of local programs, funding mechanisms for both state and local programs, and use of new technology in conducting programs.	Bill passed by Ohio House of Representatives in May 2004.
2002 - Ongoing	ODH, OEPA	ODH in conjunction with OEPA and local health districts continued to provide information on funding sources for upgrading or replacement of malfunctioning sewage systems.	<b>ONGOING</b>
2002 - 2003	ODNR	Contracted through sub-grant with Cuyahoga County Board of Health to conduct inspections of home sewage treatment systems, conduct water quality monitoring in local streams, and provide education within priority watersheds.	Inspections of home sewage treatment systems, water quality monitoring in local streams conducted, and education within priority watersheds provided. <b>COMPLETE</b>
2002	LEC	Lake Erie Protection Fund grant (\$50K) awarded to Toledo Metropolitan Council of Governments (TMACOG) to complete a GIS-based inventory of home septic systems in Lucas and Wood counties.	<b>COMPLETE</b>

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<b>WQ-6 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	ODH	Survey conducted of local health district programs for operation and maintenance of private sewage systems.	Results of survey provided to all health districts for consideration of possible implementation by those districts not conducting such a program. Results of survey have also been published in a nationally recognized sewage program journal.
2000 - 2003	OEPA	Financing to Seneca County of \$575,000 in grants and \$106,000 in WPCLF loans allowed 91 system upgrades and replacements through the local revolving loan program.	<b>COMPLETE</b>
2000 - 2001	ODH	ODH cooperated with the OEPA in the development of a draft National Pollutant Discharge Elimination System (NPDES) General Permit for discharges from household sewage disposal systems. Adoption of this permit will allow better control of discharges to the waters of the State from these types of systems.	HB 231 was passed in the 125 <sup>th</sup> General Assembly
2000 - 2001	ODH	Coordinated with OEPA and local health districts in providing information on potential funding sources for upgrading or replacement of malfunctioning sewage systems. An information handout on funding sources was developed by ODH for distribution to interested persons.	Information on funding sources has been made available to home-owners that need to repair or replace individual sewage systems.
2000 - 2001	ODH	Reviewed and drafted revisions to the state minimum sewage code. Input was gathered from all interested parties through a series of public meetings held around the state.	Based on an Agency decision, the current sewage rules, with no changes, were presented and re-authorized by Public Health Council.
2000	ODH, Ohio General Assembly	Introduction of Senate Bill 105 regarding comprehensive changes to state and local sewage treatment programs, including operational assessments of systems, funding mechanisms for programs, state oversight of local programs, and use of new technology in conducting programs.	SB 105 passed the Ohio Senate by a 31 to 1 vote but failed to be passed by the Ohio House of Representatives.

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<b>WQ-7 Assist each Lake Erie watershed county in establishing a self-supporting House Bill 110 inspection program by 2003. OEPA, Lake Erie Commission</b> • Require biennial inspections for semi-public sewage treatment facilities.  <b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b>			
Year	Agency	Action	Status
Ongoing	LEC	The LEC will encourage counties in the Lake Erie watershed that have not yet implemented House Bill 110 programs to compete for Lake Erie Protection Fund support or other grant fund support to do so.	<b>ONGOING</b>
1999 - 2000	LEC	Lake Erie Protection Fund grants awarded to Ashtabula and Summit counties to implement House Bill 110 programs to establish self-supporting semi-public sewage treatment facility inspection programs.	Grants instituted inspection programs in Ashtabula and Summit counties.

<b>WQ-8 Declare Ohio's portion of Lake Erie a "No Discharge Zone" by 2003. ODNR, ODH</b>  <b>ACTION COORDINATOR: Michael Quinn; Acting Chief, Division of Watercraft – ODNR</b>			
Year	Agency	Action	Status
2001 - 2002	ODNR	ODNR coordinated with Ohio Sea Grant to collect data on effects of overboard sewage discharged from boats and update the current inventory of locations, condition and cost to use the facilities. The survey also included a summary of the number of boats w/pump-outs, M.S.D.s (Marine Sanitary Devices) and port-a-potties. These actions provided direction for application for a "No Discharge Declaration" from the U.S. Environmental Protection Agency.	<b>COMPLETE</b>
2001 - 2002	ODNR	Successfully completed 1999, 2000 & 2001 Clean Vessel Act grant cycles. Received federal funds each year for both public and private facility additions and improvements. Ohio is continuing to work towards a goal of 75% of marinas and launch ramps having disposal facilities.	<b>ONGOING</b>
2001	ODNR	Updated Lake Erie Coastal Clean Vessel Act plan. Document titled: "Ohio's Plan for Proper Disposal of Marine Sewage." Plan improved the definition of needs, target areas or determined the "voids" in coverage, geographic areas of concern.	<b>COMPLETE</b>
2000 - 2004	ODNR	All actions taken towards meeting USEPA's guidelines to obtain a "No Discharge Zone" declaration.	<b>ONGOING</b>
2000	ODNR	Completed a survey of existing private and public facilities including pump-outs & dump stations on Lake Erie. ODNR has an inventory and database of existing facilities, with the condition of some geographically referenced. The public facilities are in a document titled: "Ohio's Public Boating Facilities."	<b>COMPLETE</b>

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**WQ-9 Fully implement new state law mandating posting of swimming advisories at Ohio beaches. ODH, ODNR**

**ACTION COORDINATOR: W. Gene Phillips; Chief, Division of Prevention – ODH**

Year	Agency	Action	Status
2006	ODH	Routine collection of water samples from selected public beaches along the Lake Erie border as well as from all inland state park beaches continues. Monitoring activities at the lake are funded by a grant from USEPA. Of those agencies and organizations eligible for funding, contracts with ODH for beach monitoring services were secured with the Cuyahoga County Board of Health, Lake County General Health District, and the Northeast Ohio Regional Sewer District. In 2006, Cleveland City Health District, Erie County General Health District, and the Ashtabula Township Park Commission were added to the list of contractors.	<b>ONGOING</b>
2006	ODH	US. Geological Survey and Cuyahoga County Board of Health conducted a pilot program for beach monitoring using a model for “predicting” probability of whether <i>E. coli</i> bacterial level will exceed the state maximum standard for recreational waters. The model, called “Nowcasting”, is based on a formula using several environmental factors specific to a particular beach and promises to provide real-time data for evaluating beach quality.	<b>ONGOING</b>
2003-2004	ODH	The Department of Health conducted the beach monitoring along Lake Erie in 2003 using funding from the USEPA grant. Additionally, USEPA grant funding has been awarded to the department for monitoring, notification and reporting activities in 2004. Results and other pertinent information was made available to the public through the ODH Web site, contact with the monitoring program, and through the media. Funding was made available to local health departments along the Lake to assist in conducting their own beach monitoring efforts. The funding was also instrumental in assisting one local health district in the development of a model code for the regulation of public beaches.	<b>ONGOING</b>
2002	ODH	New state law continued to be fully implemented. With the assistance of a grant from USEPA, two college interns hired to sample water from public beaches on Lake Erie. All state-owned and several other heavily used beaches, for a total of 20, are sampled 4 times per week for <i>E. coli</i> . Real-time information available to the public either through the ODH Web site or through contact with the beach monitoring program. A larger number of primary public beaches on Lake Erie sampled more frequently for bacterial contamination. Increased staffing also allowed for better identification of potential pollution sources, which is of assistance to local planners and public health officials.	<b>COMPLETE</b>

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<b>WQ-10      Establish Internet based forecasting system for presenting bacterial levels and beach advisories at state beaches to provide timely and accurate warning to citizens by 2003. ODH, Lake Erie Commission</b>  <b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b>			
Year	Agency	Action	Status
2003	LEC	Lake Erie Protection Fund grant (\$94K) awarded to USGS to test and refine statistical models for Huntington Beach and compare them to currents methods for determining water quality. The study will also develop predictive models for Lakeview and Century Beaches for use in the internet based forecasting system.	Results expected in 2006.
2003	USEPA	As part of a national beach research effort by EPA, Huntington Beach will be studied to develop a new generation of DNA-based water quality tests that provide same-day results and can be used to reduce the risk of waterborne illness among beachgoers.	Results expected in 2006.
2000	LEC	Lake Erie Protection Fund grant (\$148K) awarded to US Geological Survey (Donna Francy) and OSU (Keith Bedford) to begin process of completing extensive modeling of 3 beaches (Huntington, Edgewater, and Euclid) to construct predictive models of bacterial contamination as a function of past and prevailing meteorological conditions. Access to this model will be incorporated into the Great Lakes Forecasting System. This project will hopefully serve as the prototype for a future system that will provide predictions for all major Ohio Lake Erie beaches.	<b>COMPLETE</b>

<b>WQ-11      Development of technologies and field studies to identify and trace sources of local bacterial contamination. ODH, OEPA, Lake Erie Commission, Ohio Sea Grant</b>  <b>ACTION COORDINATOR: W. Gene Phillips; Chief, Division of Prevention – ODH</b>			
Year	Agency	Action	Status
2006	ODH	Beach monitoring efforts will identify areas of contamination. The sewage program, once effective in January 2007, will help reduce sources of contamination by creating rules that provide for proper sewage treatment. The rules will require residential sewage treatment systems be designed based on the characteristics of the soil in which they will be placed.	<b>ONGOING</b>
2003	LEC	Lake Erie Protection Fund grant (\$49K) awarded to the Cuyahoga County Board of Health to conduct household sewage treatment system (HSTS) inspections and water quality monitoring throughout the county to determine nonpoint sources of pollution and bacterial contamination.	<b>COMPLETE</b>

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<b>WQ-11 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	LEC	Lake Erie Protection Fund grant (\$50K) awarded to TMACOG to complete a GIS inventory of septic systems. The project will also identify the highest priorities for field investigation and further documentation so that failed systems may be eliminated.	<b>COMPLETE</b>
1999	LEC	Lake Erie Protection Fund grant (\$7K) awarded to Medical College of Ohio to identify sites throughout northwest Ohio contaminated with pathogenic microorganisms found in fecal droppings of giant Canada geese.	<b>COMPLETE</b>

<b>WQ-12 Publicize availability of drinking water quality information through OEPA drinking water Web sites. OEPA</b>			
<ul style="list-style-type: none"> <li>• <a href="http://www.epa.gov/safewater">www.epa.gov/safewater</a></li> <li>• <a href="http://www.epa.gov/enviro/html/ef_overview.html">www.epa.gov/enviro/html/ef_overview.html</a></li> <li>• <a href="http://www.epa.state.oh.us/ddagw/">www.epa.state.oh.us/ddagw/</a></li> </ul>			
<b>ACTION COORDINATOR: Mike Baker; Chief, Division of Drinking and Ground Water – OEPA</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA-DDAGW	The Ohio EPA has completed source water assessment and protection (SWAP) reports for public water systems that use Lake Erie as a source of their drinking water. These SWAPs provide public water system officials and the general public additional information to protect their source of drinking water.	<b>COMPLETE.</b> Report status information is available online at: <a href="http://www.epa.state.oh.us/ddagw/pdu/swap_update.html">www.epa.state.oh.us/ddagw/pdu/swap_update.html</a> .
2002	OEPA-DDAGW	The Ohio EPA updated its Web page to include more detailed information concerning public water system consumer confidence reports and their report distribution requirements. <a href="http://www.epa.state.oh.us/ddagw/ccr.html">www.epa.state.oh.us/ddagw/ccr.html</a>	<b>COMPLETE</b>
2001 - 2002	OEPA-DDAGW	Completed Ohio's Public Water System Annual Compliance Report for 2000 and 2001. Both reports are available on the division's Web site. <a href="http://www.epa.state.oh.us/ddagw/annualreports.html">www.epa.state.oh.us/ddagw/annualreports.html</a>	<b>COMPLETE</b>
2000	OEPA-DDAGW	September 27 <sup>th</sup> , 2000 Agency News Release of availability of Public Water System Annual Compliance Report for 1999. Reference Ohio EPA Web site in News Release and report has reference to USEPA EnviroFacts Web site.	<b>COMPLETE</b>

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<b>WQ-12 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
1999 - 2001	OEPA-DDAGW	During October 1999 and May of 2001, the Agency issued News Releases of availability of Community Public Water System Consumer Confidence Reports. Consumer Confidence Reports are annual drinking water quality reports prepared by public water systems and distributed to all their consumers. USEPA maintains a Web site that has links to annual reports for all water systems serving greater than 100,000 consumers. It is voluntary for smaller systems to link their reports to this site. Both News Releases referenced OEPA and USEPA consumer confidence report Web site addresses: <a href="http://www.epa.state.oh.us/ddagw/ccr.html">www.epa.state.oh.us/ddagw/ccr.html</a> <a href="http://www.epa.gov/safewater/ccrl.html">www.epa.gov/safewater/ccrl.html</a>	<b>COMPLETE</b>

<b>WQ-13 Collaborate with federal, local, and private organizations in establishing monitoring stations and regular sampling schedules that include offshore and nearshore stations for water clarity, water chemistry and biological sampling by 2001. OEPA, ODNR, Ohio Sea Grant</b>			
<b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2004	LEC	Lake Erie Protection Fund grant (\$90K) award to OSU to study watershed connections to Lake Erie Water Quality	Results expected in 2007
2003	LEC	Lake Erie Protection Fund grant (\$55K) awarded to University of Toledo to monitor water quality in the western basin, particularly Maumee Bay.	Results expected in 2006.
2003	LEC	Lake Erie Protection Fund grant (\$10K) awarded to Heidelberg College to study hypoxia effects on burrowing mayflies by continuing to sample stations throughout the western and central basins.	<b>COMPLETE</b>

<b>WQ-14 Support efforts that assist in restoring and protecting all the beneficial uses to Ohio's four Areas of Concern (AOC). OEPA*</b>			
<b>ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water – OEPA</b>			
<b>*Although Ohio EPA is listed as the responsible agency, most actions are the combined efforts of the Remedial Action Plan (RAP) partners/stakeholders. This list does not represent a complete list of the many actions implemented or planned to restore Ohio's four Areas of Concern.</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA USEPA USACE ARP	Prepared Ashtabula Project Cooperation Agreement to designate lands, easements, rights-of-way, etc. resulting in final bid and specifications package for Ashtabula River dredging.	<b>COMPLETE 2006</b>
2003	USEPA	Remediation of Fields Brook Superfund site, a prerequisite to dredging the Ashtabula River.	<b>COMPLETE</b>

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<b>WQ-14 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002 - 2008	OEPA USFWS	Natural Resource Damage Assessment for Ashtabula River.	<b>ONGOING</b>
2004	OEPA	With the US Army Corps of Engineers and the Ashtabula River Partnership, released the final Comprehensive Management Plan/EIS for dredging contaminated sediment from the Ashtabula River.	<b>COMPLETE</b>
2001 - 2006	OEPA	Final design of dredging project, dewatering site, disposal site, dewatering tests, bulkhead study, additional sediment analysis, monitoring requirements, etc. for Ashtabula River remediation.	<b>ONGOING</b>
2000 - 2004	OEPA	Grant from OEEF (\$103,794) to fund Ashtabula "Waterways Adventure" program to raise water quality and watershed awareness.	<b>COMPLETE</b>
2005 - 2009	USEPA	Great Lakes Legacy Act award of \$25 million approved to support sediment remediation in the Ashtabula River. OEPA to provide \$7 million toward total project cost of \$50 million.	Landfill construction to begin spring 2006. Dredging to begin fall 2006 with completion expected in 2009.
2004	OEPA	Field work for development of Black River TMDL	<b>COMPLETE</b>
2005 - 2007	OEPA	TMDL under development for the Black River	<b>UNDERWAY</b>
2005	OEPA	East Branch of Black River delisted for benthic community impairment.	<b>COMPLETE</b>
2004	Black River RAP	Submitted an application to USEPA to have the fish tumor and deformities status in the river changed from "impaired" to "in recovery."	USEPA approved request in April 2004.
2003	OEPA	Corps of Engineers sediment transport study of the Black River.	Lack of federal funding to complete. <b>ONGOING</b>
2003	OEPA, ODH	Improvements to sediment quality and fish tumor incidence led ODH to conduct risk assessment of contact advisory currently in effect in the lower Black River.	Advisory was lifted April 22, 2004.
2002 - 2006	OEPA	Coordinated with the Corps of Engineers to conduct an inventory study of French Creek (Black River watershed) and produce an owner's manual entitled "Living Along French Creek." The manual is being used to initiate a sub-watershed restoration/implementation plan within the Black River AOC.	Study and Manual are complete. Outreach efforts to begin sub-watershed initiative have begun.
2002 - 2004	OEPA	Coordinated with the Lorain Co. Health District to implement pilot project along a targeted section of the Black River to implement a surveillance, operation and maintenance program for home sewage treatment systems (HSTS).	<b>COMPLETE</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>WQ-14 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2003	OEPA	Water Resource Restoration Sponsor Program (WRRSP) award of \$1,730,000 on the East Fork of the East Branch of the Black River for restoration of stream banks, in stream and riparian habitat restoration and land acquisition.	<b>COMPLETE</b> , but expected restoration of beneficial use will take more time.
2001 - 2003	OEPA	Construction of a fish habitat shelf at the Black River Landing brownfield redevelopment site. The structure has shown dramatic improvement to the number of fish and the fish community diversity.	<b>COMPLETE</b>
2001 - 2003	OEPA	319 funded project in the Black River AOC to demonstrate the use of precision farming in lessening agricultural NPS impacts, identify areas of failing onsite septic systems, assist local health departments in implementing an HSDES maintenance and inspection program and ten outreach events.	<b>COMPLETE</b>
2001 - 2002	OEPA	Coordinated 2-year comprehensive DO modeling effort of the lower Black River with several government agencies and the four major dischargers to that segment of the river.	<b>COMPLETE</b>
2000 - 2003	OEPA	OEEF grant provided \$67,028 to incorporate the Black River RAP issues and efforts into a water resources curriculum for Lorain County students.	<b>COMPLETE</b>
Ongoing	Cuyahoga County Planning Comm.	Completed County Greenspace Plan and is developing Cuyahoga Valley Initiative to identify zoning and ordinance modifications for future development and protection.	Cuyahoga Valley Initiative is <b>ONGOING</b>
2004	OEPA	RAP is participating in the Tinkers Creek Stressor ID study identified in TMDL.	<b>ONGOING</b>
2003	OEPA	Stream restoration project along Mill Creek in Highland Hills in Cuyahoga AOC	<b>COMPLETE</b>
2003	OEPA	Created "RAP Guide to Understanding TMDL" for local citizens and elected officials (Cuyahoga).	<b>COMPLETE</b>
2003	USACE	Navigation Channel Habitat Feasibility study to identify habitat restoration techniques and opportunities in the navigation channel.	<b>COMPLETE</b>
2003	USACE	Sediment transport model data collected for Cuyahoga.	Lack of federal funding to complete.
2003 - 2006	CRCPO	Scientific Outreach and Application using Remote Sensing (SOARS) project studied urban sprawl over 25-year period and impacts on the entire Cuyahoga watershed. Excellent maps produced. Workshops held with local communities to use SOARS to assist in selecting appropriate BMPs to reduce NPS runoff.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>WQ-14 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA	Pond Brook Streamside Vegetation Project	<b>COMPLETE</b>
2002 - 2025	OEPA	Support funding/plans to reduce/eliminate CSOs and SSOs in the Cuyahoga River AOC. LCTP have been approved for Akron and Cleveland.	<b>ONGOING</b>
2002 - 2005	OEPA CRCPO	Developed and support tributary watershed groups in Yellow Creek, West Creek, Mud Brook and Chippewa Creek with goal of establishing watershed councils to develop and implement watershed restoration strategies.	Groups established. <b>ONGOING</b>
2002 - 2003	OEPA	Implemented GLNPO grant to assess extent of sediment contamination and fish tumors in the Old Channel of the Cuyahoga River.	<b>COMPLETE</b>
2002 - 2003	OEPA	Stearns Farm stream and wetland restoration project along West Creek	<b>COMPLETE</b>
2002	OEPA	Wetland restoration along West Creek	<b>COMPLETE</b>
2001 - 2005	OEPA	TMDLs underway for the Middle, Lower and Upper Cuyahoga River.	TMDLs for Middle and Lower Cuyahoga have been approved by USEPA.
2001 - 2003	OEPA	LEPF grant identified wetlands in the Cuyahoga watershed to serve as basis to keep future mitigation for wetland destruction within the watershed.	Maps complete.
2001 - 2003	OEPA	Held three workshops to educate local managers and elected officials on streamside/wetland restoration and enhancement techniques.	<b>COMPLETE</b>
2004 - 2006	OEPA	Study to identify unknown stressors in Tinkers Creek underway (Cuyahoga TMDL)	<b>ONGOING</b>
2005 - 2007	OEPA	Feasibility study to remove Rte. 82 dam in the Cuyahoga AOC	<b>ONGOING</b>
2003 - 2007	OEPA CRCPO	Additional wetlands studies done in Cuyahoga to classify wetland quality throughout the AOC	<b>ONGOING</b>
2006 - 2008	CRCPO	RAP will participate in a \$500,000 WRDA 401 project to develop and test a "green bulkhead" prototype along the Cuyahoga River ship channel to create habitat and provide shoreline stability.	<b>ONGOING</b>
Ongoing	OEPA	Continuation of very active public outreach and education program in the Maumee AOC.	<b>ONGOING</b>
2003 - 2005	OEPA	Development of TMDL for the Toussaint River (Maumee AOC).	TMDL to be final in 2006
2003-2006	OEPA	"Give Water a Hand" multi-media public education campaign to alert people to the importance of conservation, septic system maintenance and storm water management. (OEEF)	Small business campaign now underway. <b>COMPLETE</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>WQ-14 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA	Produced "Considering Conservation Easements" brochure to promote conservation easements in the southern Lake Erie watershed.	<b>COMPLETE</b>
2005	OEPA	Developed minimum State delisting targets and milestones for monitoring progress in restoring beneficial uses to Ohio AOCs.	<b>COMPLETE</b>
2002 - 2006	OEPA	Preparation of Stage 2/Watershed Restoration Plan report highlighting needed restoration and protection activities and plans for implementing them for the Lower Maumee.	Report complete in 2006
2002 - 2005	OEPA	GLNPO funded Ottawa River Sediment Remediation Priorities project preparing for actual cleanup and qualifying for Great Lakes Legacy funds.	<b>COMPLETE</b>
2002 - 2003	OEPA	Preparation of Fate of a River video. (OEEF-\$48,785) Documentary of past, present state of the river and future needs. Aired on PBS stations and at many local venues. (Maumee RAP)	Video <b>COMPLETE</b> , presentations <b>ONGOING</b>
2002	OEPA	Preparation of 10-year Progress report for Maumee RAP.	<b>COMPLETE</b>
2002	OEPA	Prepared Storm water Management Standards Manual to provide assistance to local communities in controlling/managing storm water runoff.	<b>COMPLETE</b>
2001 - 2003	OEPA	Identification of wetlands in the Maumee AOC to be protected, enhanced, or expanded. Provide ready list for mitigation.	<b>COMPLETE</b>
2001 - 2003	OEPA	Continue implementation of Toussaint River improvement Incentive Program to promote set-asides, filter and buffer strips and conservation tillage practices.	<b>ONGOING</b>

## POLLUTION SOURCES

**PL-1** Rewrite all Ohio Lake Erie NPDES permits to comply with new Great Lakes Quality Initiative standards and Ohio anti-degradation standards by 2003. *OEPA*

- Enforce tighter compliance of approved permits.

**ACTION COORDINATOR:** George Elmaraghy; Chief, Division of Surface Water – OEPA

Year	Agency	Action	Status
2005	OEPA	15 DFFOs and 2 Consent Orders issued in Lake Erie watershed. Statewide, \$1,041,680 in penalties were assessed with an additional \$442,918 in supplemental environmental projects.	<b>COMPLETE</b>
2004	OEPA	18 DFFOs and 14 Consent Orders issued in Lake Erie watershed. Statewide, \$1,786,715 in penalties were assessed with an additional \$9,166,837 in supplemental environmental projects.	<b>COMPLETE</b>
2003	OEPA	Adoption of revised anti-degradation rules. Rules were adopted February 2003 and effective July 2003.	<b>COMPLETE</b>
2003	OEPA	Continued to reissue NPDES permits consistent with the GLI and antidegradation.	All permits updated by 2003.
2003	OEPA	16 DFFOs and 11 Consent Orders issued in Lake Erie Watershed. Statewide, \$829,048 in penalties was assessed with an additional \$488,150 in supplemental environmental projects.	<b>COMPLETE</b>
2002	OEPA	Statewide 29 Orders were issued. \$2,968,524 in penalties was assessed.	<b>COMPLETE</b>
2001	OEPA	Instituted a tracking system to measure environmental improvement related to enforcement actions.	<b>ONGOING</b>

**PL-2** Expand efforts to reduce and substitute for the use of hazardous materials in industry and small business and provide technical assistance by 2002. *Ohio Environmental Education Fund, OEPA, Lake Erie Commission*

- Prioritize pollution prevention implementation and research for Lake Erie Protection Fund projects.
- Set goal of 90% of watershed dischargers to have implemented P2 plans by 2015.

**ACTION COORDINATOR:** Mike Kelley; Chief, Office of Pollution Prevention – OEPA

Year	Agency	Action	Status
2003	OEPA - OPP	OPP review of <i>Ohio Prevention First</i> voluntary pollution prevention planning initiative to determine number of wastewater dischargers in the Lake Erie Basin portion of Ohio that have completed pollution prevention plans.	<b>COMPLETE</b>
2002	OEPA	OEEF award of \$16,357 to Bowling Green State University for mercury education and thermometer exchange program in 22 counties.	<b>COMPLETE</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-2 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	OEPA	OEEF award of \$11,707 to Small Business Assistance Office for BMP video for the vehicle salvage industry.	<b>COMPLETE</b>
2001 - 2015	OEPA - OPP	OPP continues to provide pollution prevention technical assistance to wastewater dischargers and other facilities in the Lake Erie Basin portion of Ohio on an as requested basis.	<b>ONGOING</b>

<b>PL-3 Increase from 52% to 80% the percentage of agricultural acreage in the Lake Erie watershed under conservation tillage practices by 2010. ODNR, OEPA, ODA</b>			
<b>ACTION COORDINATOR: David Hanselmann; Chief, Division of Soil &amp; Water Conservation – ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
Ongoing	SWCDs NRCS OSUE	Provide technical assistance to farmers on all aspects of conservation tillage using new technologies to promote conservation tillage.	According to CTIC, 2002 saw 1,613,522 acres in conservation tillage, and 1,503,624 in 2004
2003 - 2004	CAP SWCDs	Implementing a \$30K grant from the Great Lakes Basin Program for sediment and erosion control, "Reducing Soil and Nutrient Loss by Cutting Nitrogen Rates." The project selected 25 farmers to demonstrate cultural practices that reduce compaction and soil erosion, assess each farm to determine the demo practices and the potential for quality data, conduct workshops and showcase new technologies of field trials.	<b>COMPLETE</b> <ul style="list-style-type: none"> <li>• Learned that surface applied nitrogen can have a detrimental effect on soil erosion</li> <li>• 500 participants in two field days.</li> </ul>
2003 - 2005	LEC	Lake Erie Protection Fund grant (\$98K) awarded to Conservation Action Project (CAP) for "Implementing Innovative Farming Practices that Reduce Soil Erosion." CAP selected 22 farmers in doing a two-year demo program on how to change their fertility and tillage programs.	<b>COMPLETE</b>
2001 - 2005	SWCDs OSUE	Continue and expand opportunities in working through local chemical and grain dealers as links from industry/government to growers as CAP has done. Providing technical assistance to dealers to expand use of grid sampling and mapping.	<b>ONGOING</b>
Ongoing	SWCDs NRCS OSUE	Continue promoting local demonstrations in new technologies (e.g., ridge till, strip till, compaction reduction methods) that manage crop residue in a conservation tillage system.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-3 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
Ongoing	CAP, SWCDs	Organized five clusters (20 growers) of growers/dealers who are innovators and respected in their community to demonstrate new ideas, equipment, etc. to other growers in their vicinity. Yearly field days in each SWCD are held to provide forums to present state of the art conservation.	<b>ONGOING</b>
2001 - 2002	LEC	Lake Erie Protection Fund grant (\$85K) awarded to CAP to remedy problems of soil compaction experienced by conservation tillage practices. Project leases machinery, provides technical assistance to farm community, and collects detailed data on the effectiveness of specialized equipment and techniques.	<b>COMPLETE</b>
2000 - 2003	OEPA	WPCLF linked deposits of \$16,728,000 for agricultural BMPs in the Lake Erie watershed. Provided low interest financing for 540 loans.	<b>ONGOING</b>

<b>PL-4</b>			
<p><b>Establish buffers on 80% of Lake Erie watershed ditches, streams and tributaries.</b>  <b>ODNR, OEPA, ODA, Lake Erie Commission</b></p> <ul style="list-style-type: none"> <li>• Support Ohio Lake Erie Buffer Team Initiative.</li> <li>• Support initiatives that promote or fund the placement of buffers, including the Lake Erie Buffer Program and the Conservation Reserve Enhancement Program (CREP).</li> </ul> <p><b>ACTION COORDINATOR: David Hanselmann; Chief,            Division of Soil &amp; Water Conservation – ODNR</b></p>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA	OEEF award of \$42,612 for Ohio Greenways initiative to assist local officials with responsibility for open space decision making to select, define and fund projects that will maximize ecological and community benefits.	<b>ONGOING</b>
2001	ODNR-DSWC	The Ohio Farm Bureau Federation has coordinated the development of a Core 4 Conservation Alliance. The Ohio Agricultural Environmental Assurance Alliance was established in October 2001 for the purpose of developing an environmental self-audit program for Ohio's agricultural and horticultural commodities. The self-audit program will promote the benefits of Core 4 Conservation (better soil, cleaner water, greater profits, and brighter future) from the perspective of assessing the risk to several natural resource issues.	<b>ONGOING</b>

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<b>PL-4 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - ongoing	ODNR-DSWC	Lake Erie Conservation Reserve Enhancement Program implementation. Efforts are also underway to make modifications to the cost-share rate and other elements of the program to motivate greater participation.	Since May 1, 2000 the Ohio Lake Erie CREP Partnership has been successful in enrolling practices that will protect both sides of the stream for 1,075 miles and approved a total of 2,334 linear miles of buffers.
2000 - 2004	NRCS Multiple Agencies	Ohio Lake Erie Buffer Team published final report, available on the web: <a href="http://www.oh.nrcs.usda.gov/programs/Lake_Erie_Buffer/final_report/home.html">http://www.oh.nrcs.usda.gov/programs/Lake_Erie_Buffer/final_report/home.html</a>	<b>COMPLETE</b>

<b>PL-5 Complete and begin implementing Ohio's Coastal Nonpoint Plan by 2000. OEPA, ODNR</b>			
<ul style="list-style-type: none"> <li>• Provide funding and technical resources to help meet the highest priority objectives and geographic target areas of the finished plan.</li> </ul>			
<b>ACTION COORDINATOR: David Hanselmann; Chief, Division of Soil &amp; Water Conservation – ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
Ongoing	ODNR	Develop programs, policies, and/or initiatives to implement management measures specified in the Coastal Nonpoint Pollution Control Program Plan.	Irrigation Water Management Project and the Ohio Clean Marinas Program (OCM) elements of the Coastal Nonpoint Program received full approval from NOAA and USEPA, reducing the number of program conditions from 22 to 17.
Ongoing	Multiple	Implement the Ohio Clean Marinas Program.	Program launched summer 2005. Eight marinas pledged in 2004; nine marinas certified in 2005.
2005	ODNR	Award Coastal Management Assistance Grants to Lake Erie Watersheds to support development of watershed action plans which describe local strategies to implement coastal NPS management measures.	CMAG grants awarded to Euclid, Black, Portage and Sandusky watersheds received grants. Results expected in 2006.
Ongoing	ODNR	Soliciting feedback on the Plan's 178 recommendations from various stakeholder groups.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-5 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002 - 2003	ODNR	Coordinated with Division of Water and Heidelberg College Water Quality Lab to inventory agricultural water withdrawals and study water quality impacts of agricultural irrigation. GIS database developed for agricultural withdrawal/ irrigation. Research conducted to determine water quality significance of agricultural withdrawal/ irrigation within Lake Erie Watershed.	<b>COMPLETE</b>
2002 - 2003	ODNR	Coordinated with Wood County Engineers Office, Division of Wildlife, and OSU to demonstrate 2-stage drainage ditch construction that may provide water quality and habitat improvements while minimizing long-term ditch maintenance costs.	<b>COMPLETE</b>
2002 - 2003	ODNR	Subcontract with OSU and private consultant to unify various land use/ hydrologic models and calibrate for local conditions.	<b>COMPLETE</b>
2002 - 2003	ODNR	Contracted through sub-grant with Cuyahoga County Board of Health to conduct inspections of home sewage treatment systems, conduct water quality monitoring in local streams, and provide education within priority watersheds.	<b>COMPLETE</b>
2002	ODNR	Revised Division of Soil & Water Conservation Strategic Plan and incorporated CNPCP Plan elements.	<b>COMPLETE</b>
2002	ODNR	Submitted draft legal opinion to NOAA & USEPA as required by CNPCP conditional approval.	<b>COMPLETE</b>
2002	ODNR	Established CNPCP Management Measures as required implementation elements to watershed management with Lake Erie Watershed.	<b>COMPLETE</b>
2002	ODNR	Coordinated with TMACOG to incorporate CNPCP elements into 208 Plan.	<b>COMPLETE</b>
2002	ODNR	National Oceanic and Atmospheric Administration (NOAA) & USEPA granted "Conditional Approval" to Ohio's CNPCP. The conditions divided into 1-year and 2-year conditions.	<b>ONGOING.</b> 1-year conditions met. Actively working with NOAA and USPEA to address 2-year conditions.
2002 - Ongoing	ODNR	Coordinate with various agencies and marina industry to develop an Ohio Clean Marinas Program, a voluntary/incentive based program.	<b>ONGOING</b>
2001 - Ongoing	ODNR	Coordinate with DSWC field staff to provide technical assistance to local governments, watershed groups, and SWCDs.	<b>ONGOING</b>
2001 - Ongoing	ODNR	Coordinate with various agencies to implement policy-related elements of CNPCP.	<b>ONGOING</b>

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<b>PL-5 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2002	ODNR	Facilitated distribution of Great Lakes Coastal Restoration Grant funds to state and local agencies for implementation of CNPCP.	Implementation of CNPCP elements by local and state agencies.
2000 - Ongoing	ODNR	Actively publicizing the existence of the CNPCP Plan through organized meetings. Promoting usefulness of plan as a regional coordination mechanism.	<b>ONGOING</b>
2000	ODNR	Coastal Nonpoint Pollution Control Program (CNPCP) available in electronic format from Division of Soil & Water Conservation Web site. Executive Summary printed (also available on DSWC Web site).	<b>COMPLETE</b>

<b>PL-6 Prioritize funding for implementation of soil conservation projects and research into new conservation practices. <i>Lake Erie Commission</i></b>			
<b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	LEC	Lake Erie Protection Fund grant (\$10K) awarded to the Henry Soil & Water Conservation District to assist with the Henry County Wildlife Habitat Improvement Project. The goal of this program is to improve water quality and establish wildlife habitat by seeding buffer strips along streams and ditches in the county.	<b>COMPLETE</b>
2003	OEPA	OEEF grant (\$16,198) to demonstrate solar powered watering system to prevent livestock from degrading streams and stream banks when they go to drink.	<b>ONGOING</b>
2002	OEPA	OEEF grant (\$46,320) to Ohio Farm Bureau Federation to implement Agricultural Environmental Assurance Program to help Ohio farmers conduct self-audits and incorporate results into conservation plans to reduce siltation and nutrient pollution of waterways.	<b>ONGOING</b>
2001	LEC	Lake Erie Protection Fund grant (\$85K) awarded to the Conservation Action Project, entitled <i>Securing Quality Data Using Farmer Clusters and Summer Interns</i> . Goal of project is to demonstrate and monitor new technologies available to address problems associated with conservation tillage for corn that have prevented more farmers from adopting conservation tillage practices.	<b>COMPLETE</b>

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**PL-7** Continue funding research and implementation into precision fertilizer application and other best management technologies. *Lake Erie Commission, ODA*

**ACTION COORDINATOR:** Edwin J. Hammett; Executive Director,  
Lake Erie Commission Office

Year	Agency	Action	Status
2003 - 2004	CAP, SWCDs	Implement a \$30K grant from the Great Lakes Basin Program for sediment and erosion control, "Reducing Soil and Nutrient Loss by Cutting Nitrogen Rates." The project will select 25 farmers to demonstrate cultural practices that reduce compaction and soil erosion, assess each farm to determine the demo practices and the potential for quality data, and conduct workshops and showcase new technologies of field trials.	<b>COMPLETE</b>
2003	LEC	Lake Erie Protection Fund grant (\$98K) awarded to Conservation Action Project (CAP) for "Implementing Innovative Farming Practices that Reduce Soil Erosion." The project will select 25 farmers to demonstrate cultural practices that reduce compaction and soil erosion, assess each farm to determine the demo practices and the potential for quality data, and conduct workshops and showcase new technologies of field trials.	<b>COMPLETE</b>
2002	LEC	Lake Erie Protection Fund Grant (\$10K) awarded to Henry SWCD for project titled "One pass fall tillage with 30% residue & adequate seed bed preparation."	<b>COMPLETE</b>

**PL-8** Enact legislation to improve regulation for concentrated animal feed operations by 2001. *ODNR, ODA, OEPA*

- Encourage County Soil & Water Conservation districts to educate livestock producers regarding requirements for concentrated animal feeding operations and all producers for meeting Best Management Practices (BMPs) requirements to minimize water quality impacts to meet the goals established under the federal Clean Water Act.
- Formulate strategy to encourage implementation of best management practices on farms with less than 1,000 animal units.

**ACTION COORDINATOR:** Michael D. Bailey; Executive Director,  
Office of Farmland Preservation -ODA

Year	Agency	Action	Status
2006	ODA	Finalizing CAFO/NPDES delegation package to be submitted to USEPA for their review and ultimately their approval.	<b>ONGOING</b>
2005	ODA	Finalized revisions to ODA rules to be uniform with Federal CAFO/NPDES rules as required by HB152	Revised rules become effective September 2005

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<b>PL-8 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2005	ODA OLC OSUE ODNR USDA- NRCS CSREES	Developed Certified Livestock Manager Training program to educate custom manure applicators, manure brokers, and producers on the requirements for land application of manure and recordkeeping.	<b>ONGOING</b>
2003	ODA	Began seeking federal delegation authority for CAFO/NPDES permitting. Delegation authority request process begun August 2003.	<b>ONGOING</b>
2003	ODA	Changed state law and rules to meet federal requirements for uniformity in CAFO/CAFF regulations (new federal rules effective April 2003) and allow for delegation of CAFO/NPDES permitting authority.	HB 152 signed August 2003 and became effective November 2003.
2002	ODA	Began state-permitting all CAFFs and inspecting twice a year.	Permitting program began August 2002.
2001	ODA	Developed rules for implementation of SB 141 for permitting CAFFs.	Rules in effect August 2002.
2001	ODA, ODNR, OEPA, OSUE, OLC	Formulated strategy to encourage and provide incentives for implementation of BMPs on farms with less than 1,000 A.U by assisting with the preparation of Comprehensive Nutrient Management Plans (CNMP).	Livestock Environmental Assurance Program Level II begun in 2003.
2000	ODA, ODNR, OEPA, OLC, OSUE	Encouraged education of Livestock Producers regarding CAFO requirements and BMPs for minimizing impacts to Water Quality through Livestock Environmental Assurance Program Level I.	LEAP I has provided education to more than 4,000 producers.
2000	ODA, ODNR, OEPA	Enacted legislation to improve regulations on concentrated animal feed facilities (CAFF) for protection of water quality and management of odors, flies, rodents and other pests. Legislation required the development of rules for issuing permits to install, permits to operate, inspection and enforcement procedures and transferred authority to permit CAFFs from Ohio EPA to OSA.	SB 141 became effective March 2001.

**PL-9 Clarify requirements and expand the number of sites eligible for Voluntary Action Program (Brownfields). OEPA**

**ACTION COORDINATOR: Cindy Hafner; Chief,  
Division of Emergency & Remedial Response – OEPA**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	OEPA	Legislation adopted.	<b>COMPLETE</b>
2001	OEPA	Agencies worked with the General Assembly and the Taft Administration to pass the legislation and expand VAP eligibility.	<b>COMPLETE</b>

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### PL-9 Continued

Year	Agency	Action	Status
2001	OEPA	Agencies sought stakeholder input on draft legislation and incorporated changes satisfying stakeholders. Consensus legislation was redrafted.	<b>COMPLETE</b>
2000 - 2001	OEPA	OEPA, the Ohio Attorney General's Office and the Ohio Department of Commerce prepared draft legislation to expand Voluntary Action Program (VAP) eligibility to include underground storage tank cleanups.	<b>COMPLETE</b>

### PL-10 Improve the hazardous waste cleanup program by developing uniform cleanup standards, using new and improved methods for remediation and improving site assessment methodologies. *OEPA*

**ACTION COORDINATOR: Cindy Hafner; Chief,  
Division of Emergency & Remedial Response – OEPA**

Year	Agency	Action	Status
2002	OEPA	Waste Steering Committee (WSC) recommended that project be concluded. Chair of WSC agreed and project was concluded. Many of the project's "products" now being used by hazardous waste division. Other divisions evaluated this work to determine what other outcomes could be used in their day-to-day activities. Approximately 70 employees participated in the five-year-long effort.	<b>COMPLETE</b>
2001	OEPA	Participated more fully in the Interstate Technology Resource Council by reviewing and commenting on new cleanup technologies, training and participating in conference calls when appropriate.	<b>ONGOING</b>
2001	OEPA	Additional papers written and prepared for peer review. Expert peer review conducted for aspects of process and "overview" paper also being written to help give "big picture" about this project. Public review of all the papers.	<b>COMPLETE</b>
1999 – 2000	OEPA	Concept papers for various aspects of the process, including human and ecological risk assessment, ground water response requirements, and chemical leaching from soils to ground water, completed.	<b>COMPLETE</b>
1998	OEPA	WSC chartered subcommittees to work on various aspects of the unified standards process.	<b>COMPLETE</b>
1997	OEPA	Director chartered the WSC to oversee the unification of the agency's cleanup standards.	<b>COMPLETE</b>

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**PL-11 Implement recommendations of the Divisions of Emergency and Remedial Response & Hazardous Waste Management Advisory Committee for improvements in the hazardous waste cleanup programs. OEPA**

**ACTION COORDINATOR: Cindy Hafner; Chief,  
Division of Emergency & Remedial Response – OEPA**

Year	Agency	Action	Status
1999 - 2002	OEPA	The consensus recommendations of the Divisions of Emergency and Remedial Response & Hazardous Waste Management Advisory Committee were implemented before the beginning of state fiscal year 2000. This extensive list of actions implemented may be obtained by contacting the action coordinator.	<b>COMPLETE</b>
2003	OEPA	Held workshops on headwater stream importance and assessment.	<b>COMPLETE</b>
2002	OEPA	Distributed a white paper on the ecology, policy and regulatory aspects of primary headwater streams (<1 square mile) for external stakeholder comments to assess technical, policy and regulatory factors associated with the adoption of headwater stream water quality standards.	<b>COMPLETE</b>
2002	OEPA	Fact sheets were prepared addressing the importance and benefits of headwater streams, key findings of the headwater stream project, NPS impacts, and economic reasons for sound management of headwater streams.	Posted on OEPA-Division of Surface Water Web site: <a href="http://www.epa.state.oh.us/dsw">www.epa.state.oh.us/dsw</a>
2002	OEPA	Prepared technical documents concerning fish, amphibians and macrobenthic communities found at headwater stream habitats. A field evaluation manual was also prepared.	Documents posted on OEPA-Division of Surface Water Web site: <a href="http://www.epa.state.oh.us/dsw">www.epa.state.oh.us/dsw</a>

**PL-12 Provide resources for cleanup. OEPA, Ohio General Assembly**

- Establish a state cleanup fund for sites which impact public health.
- Establish grant/loan fund for local communities to access sites, perform cleanups and/or attract federal matching funds.
- Take further advantage for site cleanups through the Water Pollution Control Loan Fund.

**ACTION COORDINATOR: John Magill, ODOD**

Year	Agency	Action	Status
2005	ODOD OEPA	In December 2005, the Clean Ohio Council awarded 15 projects, a total of \$40,392,943, in Clean Ohio Fund grants for brownfield cleanup.	<b>ONGOING</b>
2005	ODOD	BRLF loan to Columbus and Franklin County Metropolitan Park District for demolition and soil remediation.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-12 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2005	ODOD	ODOD awarded \$9,618,230 in grants through the Clean Ohio Assistance Fund. Twenty-three grants were awarded: 1 for Phase 1 assessments; 14 for Phase II assessments; and eight for cleanups of brownfield properties.	<b>ONGOING</b>
2004	ODOD	ODOD awarded \$7,891,840 in grants through the Clean Ohio Assistance Fund. Twenty-eight grants were awarded: three for Phase I assessments; 18 for Phase II assessments; and seven for cleanups of brownfield properties.	<b>ONGOING</b>
2003	ODOD OEPA	In December 2003, the Clean Ohio Council awarded 18 projects, a total of \$39,602,244, in Clean Ohio Fund grants for brownfield cleanup.	<b>ONGOING</b>
2003	ODOD	BCRLF loan to Broadview Heights to remove asbestos.	<b>ONGOING</b>
2003	OEPA	OEEF awarded \$42,612 for Ohio Greenways initiative to assist local officials to select, define and fund projects that will maximize ecological and community benefits. In 2005, OEEF awarded another \$47,168 for further distribution of these materials to local officials.	<b>COMPLETE</b>
2003	ODOD	ODOD awarded \$3,984,178 in grants through the Clean Ohio Assistance Fund. Seventeen grants were awarded: three for Phase I assessments; 12 for Phase II assessments; and two for cleanups of brownfield properties.	<b>ONGOING</b>
2002	ODOD OEPA	Clean Ohio Council awarded projects in the Lake Erie watershed, a total of \$23,800,000 in grants, through the Clean Ohio Fund for brownfield cleanup. Brownfield cleanup allows reuse of idle commercial and industrial property.	<b>ONGOING</b>
2002	ODOD	ODOD awarded \$681,000 in grants through the Clean Ohio Assistance Fund. Two grants were awarded for Phase II assessments of brownfield properties.	<b>ONGOING</b>
2001 - 2007	ODOD	Ohio Department of Development has \$2,357,286 of Brownfield Cleanup Revolving Loan Fund (BCRLF) money to use during the project and budget period 10/2001 to 9/2007.	<b>ONGOING</b>
2001	General Assembly/ Gov. Taft	Passed enabling legislation into law. Created the Clean Ohio Fund. Process being developed to administer funds and award grants for brownfield cleanups and greenspace conservation.	First Clean Ohio Fund grants awarded in July 2002

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-12 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001	Ohio House	Enabling legislation introduced by Representative Blasdell.	House Bill 3
2001	OEPA ODOD ODA ODNR	Agencies drafted vision for enabling legislation for Clean Ohio Fund proceeds distribution.	Vision statement complete

<b>PL-13 Establish an objective for Urban Nonpoint pollution reduction for inclusion in the 2004 Lake Erie Quality Index (LEQI). <i>Lake Erie Commission</i></b>			
<b>ACTION COORDINATOR: David Hanselmann; Chief, Division of Soil and Water Conservation – ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2006	Multiple	Effort underway being led by USEPA partnering with OSU Extension and OEPA to develop social indicators for nonpoint source programs. In the area of urban NPS, a social indicator will likely serve as the most feasible. An example of a social indicator may be, “number of homeowners applying lawn products according to soil test,” or “population percentage residing in Low Impact Development neighborhoods.	<b>ONGOING</b>
Ongoing	LEQI Task Force	Discussed means of establishing an objective for inclusion in the 2004 LEQI.	The group was not able to arrive at a suitable measure for use in the 2004 LEQI. <b>ONGOING</b>
Ongoing	Lake SWCD, OEPA, ODNR	Promotion of Headwater Habitat Evaluation Index.	Lake County is in the process of fully assessing all headwater streams. This has piloted and refined protocols to be established by OEPA.
Ongoing	ODNR, County and Areawide Planning Agencies	Encourage local land use planning that includes green space protection and storm water control through workshops in the Lake Erie region.	<b>ONGOING</b>
2003	OEPA	Tracking and monitoring NPDES Storm water Phase II compliance will serve as a measure of activities underway by local government to control urban NPS pollution.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-13 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2011	ODNR, Regulatory Air Pollution Control agencies, Local storm water utilities	Increase size and scope of urban forests, including riparian forested buffers, to address pollution prevention and abatement as part of a comprehensive planning process. Goal is a 10% canopy increase within 10 years.	<b>ONGOING</b>
2001 - 2004	OEPA	Alter priorities of State Revolving Loan Fund to provide greater incentives for nonpoint source control plans and implementation. Increased percentage of WPCLF dollars for nonpoint BMPs.	<b>ONGOING</b>
2001 - 2002	ODOT, ODNR	Integrated stream protection standards and specifications into ODOT's Location and Design Manuals and standard drawings to improve consistency in engineering design and construction statewide.	Development of revised standards and specifications. <b>COMPLETE</b>

<b>PL-14 Assist Lake Erie communities in developing regional recycling facilities for disposal of hazardous wastes from small businesses, households and agriculture – set goal of making such services available in all Lake Erie watersheds by 2010. OEPA, ODOD, ODA, Lake Erie Commission</b>			
<b>ACTION COORDINATOR: Michael Savage; Chief, Division of Hazardous Waste Management – OEPA</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	OEPA	OORR submitted an application for permitting exemption from hazardous waste permitting requirements in order to construct and operate.	Exemption approved March 2005
2001 - 2003	OEPA	Continued to provide the Summit/Akron Solid Waste Authority with technical assistance and regulatory guidance on their established permanent drop-off facility for household hazardous waste. Also continue to explore with them options available to expand their program to accept hazardous waste from small businesses. A major hurdle will be to address hazardous waste permitting requirements during a two-year pilot and then long-term if pilot proves successful.	BizMat center opened November 2005 as a two-year pilot project.
2001	LEC	Lake Erie Protection Fund grant (\$185K) awarded to the Ohio Organization for Recycling and Reuse for the project <i>Business Hazardous Waste Recycling Center and Brownfield Abatement Fund Project for Cuyahoga and Summit Counties</i> . This grant allowed OORR to establish and operate the center for a three-year period.	BizMat center opened November 2005 as a two-year pilot project.

## Lake Erie Protection & Restoration Plan: Third Progress Report

**PL-15 Encourage and fund the completion of comprehensive watershed storm water management plans in all Lake Erie sub-watersheds by 2005 and assist in their implementation. OEPA, ODNR, Lake Erie Commission**

**ACTION COORDINATORS: David Hanselmann; Chief, Division of Soil & Water Conservation – ODNR and George Elmaraghy; Chief, Division of Surface Water – OEPA**

Year	Agency	Action	Status
2005	ODNR	Award Coastal Management Assistance Grants to Lake Erie Watersheds to support development of watershed action plans which describe local strategies to implement coastal NPS management measures.	CMAG grants awarded to Euclid, Black, Portage and Sandusky watersheds received grants. Results expected in 2006.
2005	LEC	Awarded grants to pilot watersheds to develop Balanced Growth Watershed Plans.	<b>ONGOING</b>
2003 - 2008	ODNR SWCDs NGOs	Three additional watershed coordinators hired within the Lake Erie Watershed with support from ODNR grant program (West Creek, Euclid Creek, and Lower Grand River watersheds). Will develop comprehensive watershed plans to address, among other NPS issues, storm water management as it relates to water quality and stream channel protection and restoration.	<b>ONGOING</b>
2003 - 2008	ODNR	Five Storm water Specialists hired by SWCDs within Lake Erie Watershed with support from ODNR grant program. Will facilitate completing of Phase II requirements incorporating storm water management as it relates to water quality and stream channel protection and restoration.	<b>ONGOING</b>
2003	OEPA	OEEF awarded 3 grants (total \$104,488) to TMACOG and Lake County for storm water public awareness campaigns. See: <a href="http://www.maumeerap.org/GWAH.html">www.maumeerap.org/GWAH.html</a> and <a href="http://www.lakecountyohio.org/smd/">www.lakecountyohio.org/smd/</a>	<b>COMPLETE</b>
2005	OEPA	OEEF grant (\$4,195) funds guidance manual on illicit discharge detection and elimination methods for local communities.	<b>ONGOING</b>
2002 - 2007	OEPA	Under the Phase I Storm Water Program, industries and municipalities serving a population >100,000 require NPDES permits for storm water discharge. As part of the Phase II Storm Water Program, OEPA developed general permits for municipalities <100,000 to include BMPs to reduce pollutants to the maximum extent practicable. Many of these areas are located in the densely populated Lake Erie Basin. Designated municipalities and unincorporated areas must submit storm water management plans by 2003, and fully implement them by 2007. Depending on the level of local cooperation, the plans may be developed on either a regional or watershed basis.	There are 112 Municipal Separate Storm Sewer Systems (MS4) communities or groups of communities in the Lake Erie watershed that have submitted storm water management plans.

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-15 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2013+	OEPA	TMDLs to determine maximum daily loads of contaminants and associated stream impacts are scheduled throughout the state through 2013. Development of restoration plans under TMDLs will include storm water management activities in the impacted stream segments.	Nine TMDLs have been completed in the Lake Erie watershed and approved by USEPA. Nine are underway.
2001	LEC	Lake Erie Protection Fund grants awarded to NEFCO- <i>Yellow Creek Storm Water Management Consortium</i> (\$80K) and NOACA- <i>Developing Regional Watershed Based Model Storm Water Permit Implementation Plans</i> (\$123K) for comprehensive watershed storm water planning efforts.	<b>COMPLETE</b>
2000 - 2001	ODNR- DSWC	Defined methods and procedures for designing storm water management facilities that will protect natural channel integrity.	Contracted with Dr. Andrew Ward, OSU, to develop and define methods and procedures.
2000 - 2001	ODNR- DSWC	Developed storm water discharge criteria to minimize impact on natural stream morphology.	Contracted with Dr. Andrew Ward, OSU, to research and develop storm water discharge criteria.
2000	ODNR- DSWC	Lake SWCD prepared a comprehensive watershed plan for Arcola Creek. The plan detailed measures to protect or enhance water resources based on completed landowner surveys, monitoring of stream sites, and meetings with public officials and stakeholders.	<b>COMPLETE</b>

<b>PL-16 Support USEPA's Combined Sewer Overflow (CSO) Strategy. OEPA</b>			
<b>ACTION COORDINATOR: George Elmaraghy Chief, Division of Surface Water – OEPA</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2006	OEPA	35 small communities (1MGD) in the Lake Erie watershed have CSOs and are required to complete LTCPs to separate sewers or treat or store CSO.	Seven communities have completed construction and separated sewers. 16 communities have approved LTCPs and are under construction. Negotiations are underway with seven communities that have LTCPs. Five communities still need to submit LTCPs and must do so by 2006.

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-16 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2006	OEPA	29 large communities (>1MGD) have CSOs and are required to complete LTCPs to separate sewers or treat or store CSO.	Four communities have completed construction of all controls required in the LTCPs. Nine communities have approved LTCPs and construction is underway. 11 LTCPs are under negotiation but many of these communities have already begun installing controls to reduce CSO. Five communities still need to submit LTCPs and must do so by 2008.
Ongoing	OEPA	Continue to follow the existing OEPA program in support of the USEPA CSO strategy. The main focus now is on the review of long-term control plans (LTCP) for improvements needed in communities with CSOs.	NPDES permits issued since 1994 are consistent with the USEPA strategy. OEPA will continue to issue NPDES permits and review control documents consistent with the USEPA CSO strategy.
2003	OEPA	33 LTCPs have been approved. 11 of the 33 communities have completed separating their sewers.	<b>ONGOING</b>
2003	OEPA	2 of the 33 communities (Bowling Green and Findlay) required to complete LTCPs have completed all the projects in the LTCPs.	<b>COMPLETE</b>

**PL-17**      **Establish urban riparian buffers. Set goal of reestablishing forested buffers on 50% of residential tributaries and 25% of urban tributaries. ODNR**

**ACTION COORDINATOR: Mark Ervin; Administrator of Special Programs, Division of Forestry – ODNR**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2004	OEPA	WRRSP funding of \$326,000 to implement BMPs, purchase land and conservation easements for West Creek preservation (Cuyahoga watershed).	<b>ONGOING</b>
2003	OPWC	Ohio Public Works Commission awarded 137 grants totaling \$38 million for greenspace preservation through the Clean Ohio Fund. About \$15 million was for projects in the Lake Erie watershed.	<b>ONGOING</b>
2003	OEPA	OEEF grant (\$42,612) for Ohio Greenways initiative to assist local officials responsible for open space decisions to select, define and fund projects that will maximize ecological and community benefits.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-17 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002 - 2006	ODNR-Forestry, REALM	Update maps (annually, if possible) to show progress toward goal. Share with public via internet.	<b>ONGOING</b>
2002 - 2005	ODNR-Forestry	Develop grant program for cooperating communities to assist with buffer establishment.	<b>ONGOING</b>
2002 - 2005	ODNR-Forestry	Offer technical assistance to local communities that support the initiative to ensure properly implemented/established forest buffers (i.e. species selections, planting method, maintenance).	Ten communities were offered assistance that supports the initiative during FY 2003.
2002 - 2003	ODNR-Forestry	Implement an awareness campaign (videos, power point, articles, etc.) for communities, tree commissions – to gain local support.	An urban team was created locally and started the development of a Web page to be part of the buffer team Web site. The LE buffer team Web site not yet available.
2002	ODNR-Forestry, REALM	Identify (map) urban tributaries in need of reforestation (less than 25% forested or otherwise determined by the Division of Forestry).	Not completed yet: no resources identified to accomplish this task.
2002	OPWC	OWPC awarded about \$15 million in grants for projects in the Lake Erie watershed for greenspace preservation.	<b>ONGOING</b>

**PL-18**      **Establish an objective for Atmospheric Pollution for inclusion in the 2004 Lake Erie Quality Index. OEPA, Lake Erie Commission**

**ACTION COORDINATOR: Robert Hodanbosi; Chief, Division of Air Pollution Control – OEPA**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002 - 2004	OEPA	Develop an RFP for the development of an objective measure of atmospheric deposition on Lake Erie water quality.	This activity will not be completed due to lack of staffing and available resources.

**PL-19**      **Establish two state-funded air contaminant collectors as part of the Great Lakes Integrated Atmospheric Deposition Network. OEPA, Lake Erie Commission**

**ACTION COORDINATOR: Robert Hodanbosi; Chief, Division of Air Pollution Control – OEPA**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OEPA	Continued operation of existing deposition site.	<b>ONGOING</b>
2003	OEPA	Based upon obtaining funding of the acquisition and operation of the two air monitors, purchase the instruments.	This activity has been delayed due to a reduction in staffing and available resources to complete this action.

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>PL-19 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	OEPA	Initiated operation of Integrated Atmospheric Deposition site in Cleveland. Operated by the Cleveland Division of Environment.	Initiated in December 2002.
2002	OEPA	Examine alternative funding mechanisms for the operation (analysis and labor) for two air deposition sites-estimated cost \$60,000 per year.	This activity has been delayed due to a reduction in staffing and available resources to complete this action.
2002	OEPA	Examine alternate funding mechanisms for the purchase of two air deposition samplers – estimated cost \$140,000.	This activity has been delayed due to a reduction in staffing and available resources to complete this action.
2002	OEPA	Develop a detailed plan to establish two state funded air deposition sites as part of the Great Lakes Integrated Atmospheric Deposition Network.	This activity has been delayed due to a reduction in staffing and available resources to complete this action.

**PL-20** **Prioritize funding for projects that encourage energy conservation through reducing electrical consumption, retire emission credits or result in other environmental improvements in the advent of electrical deregulation. *ODOD, Lake Erie Commission***

**ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2006	ODOD	The Governor announced in February that the Energy Office will implement a \$25 million fund to support a production incentive program for wind developed in Ohio with priority given to installation of turbines with Ohio manufactured parts. The ODOD established the Ohio Wind Working Group (OWWG) to work with state agencies to support responsible development of Wind energy in Ohio.	Pending passage of draft legislation
2003			<b>ONGOING</b>
Ongoing	LEC	Funding for projects that encourage energy conservation through reducing electrical consumption, retire emission credits or result in other environmental improvements in the advent of electrical deregulation is included in the priorities of the Lake Erie Protection Fund. No proposals were received or funded in the 2001, 2002, and 2003 grant cycles.	<b>ONGOING</b>

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<b>PL-20 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2006	ODOD	The Energy Office awarded grant funds for Distributed Energy Resources (DER) projects that address fuel cells, solar electric, wind turbines, microturbines, and other energy efficient and clean burning advanced energy technologies.	As of July, 2006 , a total of \$2,982,758 was awarded for 86 projects.
2003	OEPA	Ohio EPA has adopted regulations for the control of nitrogen oxide emissions from power plants and large industrial boilers. These regulations provide certain allocations on the amount of emissions that are allowed from regulated sources. Ohio EPA provided a set-aside for energy efficiency and innovative controls. These set-asides will provide an incentive for energy efficiency projects.	Program will come into effect in 2006.

# HABITAT

<b>H-1 Assess the environmental and economic benefit of each Lake Erie tributary dam and encourage the removal of non-beneficial dams, or modify existing dams with fish passage structures where appropriate by 2025. ODNR</b> <b>ACTION COORDINATOR: Richard Bartz; Chief, Division of Water- ODNR</b>			
Year	Agency	Action	Status
June 2004	ODNR	Dam removal inventory and assessment workgroup.	<b>COMPLETE</b>
2002 - 2003	ODNR	Dam Removal Inventory and Assessment Workgroup consisting of ODNR Divisions (Wildlife, Water, Soil and Water Conservation, Watercraft), OEPA (Division of Surface Water), ODOT, and OSU (College of Civil and Environmental Engineering) was formed.	Workgroup produced a framework of issues to be considered by agencies, organizations and individuals when considering a dam removal project. An inventory of low head dams is being constructed and case studies of recent dam removal projects are being collected. Regular meetings took place throughout both years.
2002 - 2003	OEPA	Two WRRSP awards totaling \$2,440,000 for the planning, design and implementation of the Munroe Falls Dam modification. Expected result is attainment of aquatic life beneficial use on the Middle Cuyahoga River.	<b>ONGOING</b>
2001 - 2003	OEPA	Three WRRSP awards totaling \$3,940,000 for the planning, design and implementation of the Kent Dam modification. The expected result is attainment of aquatic life use of the Middle Cuyahoga River and fish passage up and downstream.	<b>ONGOING</b>
2001 - 2002	ODNR	Contacted other state, federal and state agencies to identify interest in dam removal and to identify contacts for future workgroup discussions.	<b>COMPLETE</b>
2001	ODNR	Created a workgroup within ODNR to draft a project charter to identify tributary dams using existing dam safety information as well as watercraft and wildlife data. Dams identified, but not currently in the dam safety database because they are not jurisdictional, would be added into the database.	<b>COMPLETE</b>

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<b>H-2 Limit additional development and restore flood retention capabilities of Lake Erie tributary floodplains. ODNR, OEPA, Lake Erie Commission</b> <ul style="list-style-type: none"> <li>Use federal and state conservation reserve programs to purchase conservation easements on flood plain and upland wetlands</li> </ul> <b>ACTION COORDINATOR: Richard Bartz; Chief, Division of Water- ODNR</b>			
Year	Agency	Action	Status
June 2005	ODNR	Providing additional support on "No adverse impact."	<b>COMPLETE</b>
2003	OPWC	Ohio Public Works Commission awarded 137 grants totaling \$38 million through the Clean Ohio Fund for greenspace preservation. Over 60 of the funded projects were to protect wetlands or flood plains.	<b>ONGOING</b>
2001 - 2003	ODNR	Provided additional support to Lake Erie tributary communities in developing criteria that would support a "no adverse impact" floodplain management approach. Specifically, worked with the Chagrin River Watershed Partners in the development of their model code that can be used to educate other Lake Erie tributary communities on a possible approach to limit loss of flood retention capabilities.	<b>ONGOING</b>

<b>H-3 Support local jurisdictions and conservation groups by providing funding and technical assistance for comprehensive watershed planning. ODNR, OEPA, Lake Erie Commission</b> <b>ACTION COORDINATOR: David Hanselmann; Chief, Division of Soil &amp; Water Conservation- ODNR</b>			
Year	Agency	Action	Status
2003	LEC	Lake Erie Protection Fund grant (\$10K) awarded to Ohio Environmental Council to provide board development training for watershed organizations in the Lake Erie basin.	Training completed in November 2003.
2002	LEC	Lake Erie Protection Fund grant (\$100K) awarded to Cuyahoga River Community Planning Organization to develop a GIS-based decision support system to integrate watershed and transportation planning in Northeast Ohio.	Results expected in 2006.
2002	ODNR-DSWC	Third round of watershed coordinator grants offered competitively statewide. Ohio Coastal Management Program joined as sponsor of the watershed coordinator grants, which offers a guarantee of two additional watershed coordinators in the Lake Erie Watershed.	Three coordinator positions funded in the Lake Erie Watershed: The West Creek Preservation Committee; Euclid Creek by the Cuyahoga SWCD; and the Grand River Partners, Inc.

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<b>H-3 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001	ODNR-DSWC	Second round of funding for watershed coordinators offered competitively statewide.	One coordinator position funded in the Maumee watershed with TMACOG.
2000	LEC	Lake Erie Protection Fund grant (\$65K) awarded to Chagrin River Watershed Partners for watershed planning.	<b>COMPLETE</b>
2000	ODNR-DSWC	Watershed Coordinator grants awarded. One goal was to create permanent positions in local units of government, non-profit organizations or other non-governmental organizations to plan and implement watershed programs to restore or protect a water resource. Another focus of the coordinator program was the partnership aspect between ODNR, OEPA, OSUE, local watershed groups and other local partners. These groups came together to support community-based watershed protection (with real dollars and on-going training and support).	Two coordinator positions were awarded in the Lake Erie watershed in 2000: Sandusky River under WSOS Community Action and Duck and Otter Creek Partnership.

<b>H-4 Give greater scrutiny concerning maintaining local watershed hydrology during the permitting of future development projects. ODNR, OEPA Establish headwaters water quality standards. OEPA</b>			
<b>ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water- OEPA</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003 - 2006	OEPA	Develop stream mitigation rule. This rule will assist in providing guidance and consistency in decision-making related to proposed projects affecting streams. Consideration of adding primary headwater stream classification to water quality standards postponed while stream mitigation rule development proceeds.	<b>ONGOING.</b> Stream mitigation rules drafted and released for public comment in February 2006.
2003	OEPA	Held workshops on headwater stream importance and assessment.	<b>COMPLETE</b>
2002	OEPA	Distributed a white paper on the ecology, policy and regulatory aspects of primary headwater streams (<1 square mile) for external stakeholder comments to assess technical, policy and regulatory factors associated with the adoption of headwater stream water quality standards.	<b>COMPLETE</b>
2002	OEPA	Fact sheets were prepared addressing the importance and benefits of headwater streams, key findings of the headwater stream project, NPS impacts, and economic reasons for sound management of headwater streams.	Posted on OEPA- Division of Surface Water Web site: <a href="http://www.epa.state.oh.us/dsw">www.epa.state.oh.us/dsw</a>
2002	OEPA	Prepared technical documents concerning fish, amphibians and macrobenthic communities found at headwater stream habitats. A field evaluation manual was also prepared.	Documents posted on OEPA- Division of Surface Water Web site: <a href="http://www.epa.state.oh.us/dsw">www.epa.state.oh.us/dsw</a>

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<b>H-5</b> <b>Publish and distribute a Lake Erie Model Zoning Ordinance and Building Code by 2003 and encourage its voluntary acceptance by local communities. <i>ODOD, Lake Erie Commission</i></b> <ul style="list-style-type: none"> <li>• <b>Ensure that all interested concerns (local communities, property owners, developers, conservationists, agriculture, etc.) have the opportunity to fully participate.</b></li> </ul> <p><b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b></p>			
Year	Agency	Action	Status
2001 - 2003	LEC	Commissioned a "Blue Ribbon Panel on Balanced Growth" composed of various stakeholders in Ohio. One of the panel's three work groups is developing model codes or recommendations for storm water, wetlands, riparian setbacks, sediment control, conservation development, and coastal protection that can be adopted by local communities.	The panel's recommendations were accepted by the Lake Erie Commission in April 2004.

<b>H-6</b> <b>Institute a Lake Erie Lighthouse designation for entities practicing sound Balanced Growth principles by 2003. <i>Lake Erie Commission</i></b> <ul style="list-style-type: none"> <li>• <b>Establish a suite of practices and/or characteristics that would qualify for Lighthouse designation.</b></li> <li>• <b>Create suitable awards to recognize and celebrate those entities receiving the designation.</b></li> <li>• <b>Consider making the Lighthouse designation a factor in the selection process for specific Ohio grants and loan programs.</b></li> <li>• <b>Types of entities may include communities, farms, businesses, schools, etc.</b></li> </ul> <p><b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b></p>			
Year	Agency	Action	Status
		Not Yet Underway	

<b>H-7</b> <b>Establish by 2003 the Governor's Lake Erie Balanced Growth Awards – monetary award program from the Lake Erie Protection Fund for innovative examples of balanced growth practices. <i>Lake Erie Commission</i></b> <ul style="list-style-type: none"> <li>• <b>Award money would be earmarked for continued implementation of these practices.</b></li> </ul> <p><b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b></p>			
Year	Agency	Action	Status
		Not Yet Underway	

## Lake Erie Protection & Restoration Plan: Third Progress Report

**H-8 Commission a Balanced Growth Blue Ribbon Task Force, comprised of property owners, government officials, business leaders, conservationists, academia, agriculture, and other stakeholder groups to be charged with advising the Lake Erie Commission on ways to develop strategies that will balance the protection of the Lake Erie watershed with continued economic growth. *Lake Erie Commission***

**ACTION COORDINATOR: Edwin J. Hammett; Executive Director;  
Lake Erie Commission Office**

Year	Agency	Action	Status
2001	LEC	Commissioned a "Blue Ribbon Panel on Balanced Growth" comprised of various stakeholders in Ohio. The panel is comprised of three work groups: Planning & Incentives, State Policy & Funding, and Model Zoning. The goal of these work groups is to develop a Balanced Growth Program for Ohio.	The panel's recommendations were accepted by the Lake Erie Commission in April 2004.

**H-9 Fully implement Ohio Farmland Preservation Program. *ODA, OEPA, ODNR***

- Provide incentives and easements to keep productive farmland in use to preserve natural wildlife habitats and achieve other social and economic goals.

**ACTION COORDINATOR: Michael Bailey; Executive Director,  
Office of Farmland Preservation-ODA**

Year	Agency	Action	Status
2006	ODA	ODA's Division of Plant Industry, Pesticide and Fertilizer Regulation Section works with farmers to ensure prevention of unintentional fertilizer discharges from entering Ohio's waterways.	Ensuring that by January 1, 2007, all producers who store more than 5,000 gal. of liquid fertilizer for more than 30 days have approved secondary containment system in place.
2006	ODA	Office of Farmland Preservation assists local landowners, townships, and counties in implementation of newly enacted Ohio Agricultural Security Area (ASA) legislation.	8,196 acres of farmland in four counties enrolled in new 10-year ASA program.
2006	ODA	Office of Farmland Preservation continues implementation of Clean Ohio Agricultural Easement Purchase Program (AEPP) and Ohio Agricultural Easement Donation Program	Through 24 additional purchases and three additional donations, a total of 20,368 acres on 109 Ohio farms preserved through ODA's agricultural easement programs.
2005	ODA	ODA Office of Farmland Preservation continues implementation of Clean Ohio Agricultural Easement Purchase Program (AEPP) and Ohio Agricultural Easement Donation Program.	Total of 15,338 acres of productive farmland on 82 Ohio farms permanently preserved through ODA's agricultural easement acquisition programs.

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<b>H-9 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	ODA	ODA Office of Farmland Preservation implemented new ag easement donation and purchase programs.	Over 11,000 acres of productive farmland (30-plus farms) enrolled in agricultural easement donation and purchase programs by August 2003.
2000 - 2001	ODA	Sought voter approval for Clean Ohio Fund Agricultural Easement Purchase Program.	HB 3, signed in July 2001, provided \$25 million for ag easement purchases; it is projected that amount would procure 30-40 farms and 2,200 acres annually.
1998 - 1999	ODA	Sought authorization for landowners to sell or donate agricultural easements to ODA in perpetuity.	SB 223, signed in January 1999, allows for agricultural easements to preserve farmland.
1996 - 1997	ODA	Educated farmers, local officials and citizens on the economic, environmental and social benefits of farmland preservation.	Participated in approximately 75 meetings and conferences throughout Ohio.

<b>H-10 Reforest marginal agricultural acreage, floodplains and wetlands of the Ohio Lake Erie watershed, utilizing the Lake Erie Buffer Initiative, Conservation Reserve Enhancement Program (CREP), the Governor's Bicentennial Tree Planting Program and other programs. ODNR</b>			
<b>ACTION COORDINATOR: Mark Ervin; Administrator of Special Programs, Division of Forestry- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003 - 2004	ODNR-Forestry	Work to develop and encourage tree planting vendors; investigate opportunity for "turnkey" tree planting program similar to NW Ohio Windbreak.	Watershed forester for western Lake Erie Basin and the Erie Basin RC&D has developed a "turnkey" tree planting program for riparian areas and windbreaks in a 10 county area.
2003	ODNR-Forestry, DSWC	Identified methodology to use direct and indirect marketing of tree planting to owners of "MAA" (marginal agricultural acreage) – identified funding and implement.	Through CREP funding, annual windbreak planting through the NW Ohio Windbreak program has more than doubled in total row feet from previous years.
2003	ODNR-Forestry, DSWC	With funding from Lake Erie Buffer Team published the "Ohio Windbreak Guide," which will assist SWCDs and landowners in planning and promoting windbreak planting in Ohio.	<b>COMPLETE</b>

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<b>H-10 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002 - 2003	ODNR-Forestry, REALM	REALM identified and mapped acres, meeting definitions available to reforestation, by sub-watershed.	<b>ONGOING</b>
2002	ODNR-Forestry, DSWC	With funding from Lake Erie Buffer Team updated and reproduced the brochure for the Northwest Ohio Windbreak program.	<b>COMPLETE</b>
2002	ODNR-Forestry, DSWC	Jointly developed parameters that would identify "marginal agricultural acreage" (MAA).	<b>ONGOING</b>
1999 - 2003	ODNR	Governor Taft initiated the Bicentennial Legacy Tree Planting Program to plant one tree for every Ohio school child.	Two million trees were planted throughout the state. <b>COMPLETE</b>

- H-11**      **Make coastal parcels a high priority for state or local acquisition through direct purchases or purchase of conservation easements from willing sellers. ODNR, Ohio General Assembly**
- **Create list of high priority parcels for purchase when available or other protection strategies by 2002.**
  - **Create special fund for property purchases or purchase of easements on valuable coastal properties for recreation and habitat conservation.**

**ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management-ODNR**

<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003 - 2005	ODNR	The Office of Coastal Management is developing a Coastal and Estuarine Land Conservation Plan (CELCP) that includes an assessment of priority land conservation needs. The plan must be approved by the National Oceanic and Atmospheric Administration (NOAA) in order for Ohio to be eligible to compete for possible future funding under the CELCP Program. A draft plan, which included significant public input and review, has been developed and submitted to NOAA for comments. Final plan approval is expected in 2006.	To be completed in 2006
2001 - 2005	ODNR	The Office of Coastal Management administered a 2001 federal one-time appropriation for Great Lakes Coastal Restoration Grants. Ohio was awarded \$4.489 million which was divided between state and local projects. A significant State project was the acquisition of 10 acres of shoreline property adjacent to the Marblehead Lighthouse State Park. A second State project acquired a conservation easement on 342.5 acres of property that featured riparian corridor along the Grand State Wild and Scenic River. Twelve local projects were awarded for the fee or easement acquisition of wetlands and floodplain/corridor or for riparian restoration. More information can be found at <a href="http://www.ohiodnr.com/coastal/grants/">www.ohiodnr.com/coastal/grants/</a> .	<b>COMPLETED</b> as of June 30, 2006

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>H-11 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2004	ODNR	ODNR acquired 589 acres on North Bass Island that included nearly 2.5 miles of undeveloped shoreline, 58 acres of natural coastal wetlands and unique geologic features.	<b>COMPLETED</b>

<b>H-12 Encourage local communities through financial inducements to limit shoreline development to water-dependent uses. <i>ODNR, Lake Erie Commission</i></b>			
<ul style="list-style-type: none"> <li>• <b>Prioritize funding for coastal planning grants.</b></li> </ul>			
<b>ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management-ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2004 - 2005	ODNR	The Ohio Coastal Management Program established comprehensive planning and watershed planning in 2004 and added Balanced Growth planning in 2005 as the priorities for the annual Coastal Management Assistance Grants. The Coastal Management Program funded six planning grants in 2004 and six in 2005 awarding a total of \$473,458.	<b>COMPLETE</b>
2001 - 2003	ODNR	Established comprehensive planning as the priority for the annual Coastal Management Assistance Grants. The Coastal Management Program funded three planning grants in each of the last three grant cycles (5, 6, 7).	<b>COMPLETE</b>
2000	ODNR, LEC	Sustainable Development Cross-training workshop was conducted to familiarize agency staff with principles and management. Liaisons were also established among OCMP networked agencies.	<b>COMPLETE</b>
2000	ODNR	Established priorities in Coastal Management Assistance Grants for comprehensive planning, growth management, and sustainable communities planning, and planning for reduction of risks from coastal hazards. Four planning projects funded for coastal communities.	<b>COMPLETE</b>

<b>H-13 Implement Lake Erie Marshes Focus Plan as part of North American Waterfowl Plan by 2020. <i>ODNR</i></b>			
<b>ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2010	ODNR-Wildlife	Identify a Lake Erie Marshes Focus Area to concentrate wetland management activities.	Three wetland focus areas have been identified.
2001 - 2010	ODNR-Wildlife	Protect, enhance and restore adequate wetland habitat to maintain viable populations of all wetland wildlife native to Ohio.	National Wetland Inventory initiative is underway.

## Lake Erie Protection & Restoration Plan: Third Progress Report

### H-14 Use incentives to encourage proper use and placement of shoreline erosion structures.

#### ODNR

- Prohibit use of inappropriate fill materials on shorelines.
- Promote the natural movement of sand along Lake Erie's shoreline and nearshore area.
- Promote use of non-structural shoreline protection strategies.
- Develop and implement cost effective technologies to move available offshore sand deposits into the littoral zone for beach nourishment, barrier building, etc.

**ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management- ODNR**

Year	Agency	Action	Status
2002 - 2005	ODNR	ODNR's Lake Erie Geology Group has been involved in an ongoing effort with the U.S. Army Corps of Engineers to find cost effective ways to take clean sand dredged from federal navigation projects and place it in the nearshore littoral zone. Dredged sand resources from the Grand River have been placed in the nearshore areas downdrift of Fairport Harbor. These sand resources are being tracked by the Lake Erie Geology Group to determine the effectiveness of the nearshore disposal efforts. The information gathered from this project will be used as a guide for future efforts to bring sand resources to the littoral zone.	<b>ONGOING</b>
2002 - 2005	ODNR	ODNR utilized the regulatory authority provided under ORC 1521.22 to prohibit the use of inappropriate fill materials along the Lake Erie shoreline. ODNR also works under the technical assistance provisions of ORC 1521.29 to help shoreline property owners recognize the impacts to the shoreline from using inappropriate fill material.	<b>ONGOING</b>
2002 - 2005	ODNR	ODNR is currently working with the U.S. Army Corps of Engineers on a project at Sheldon Marsh State Nature Preserve to protect the barrier beach and the wetland utilizing alternative shoreline protection techniques. The method of shore protection chosen incorporates the non-structural shoreline protection strategy of beach nourishment with nearshore submerged rubblemound breakwaters and a terminal rubblemound groin. This non-structural and structural method of shore protection is reasonably non-invasive, and the outcomes of the project will be useful in devising non-structural and structural methods of shore protection at other locations along the shoreline.	<b>ONGOING</b>
2005	ODNR	The Office of Coastal Management provides technical assistance to shoreline property owners, consultants, and local government agencies regarding shoreline erosion and structure issues. The Office also promotes the natural movement of sand along the shoreline by encouraging the use of pass-through structures for docks, groins, and other shore structures.	<b>ONGOING</b>

## Lake Erie Protection & Restoration Plan: Third Progress Report

<b>H-14 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2005	ODNR	The Office of Coastal Management drafted a project plan and was awarded a NOAA coastal fellow to work on the Lake Erie Shore Erosion Management Plan. Once developed, this plan will be used in addressing Lake Erie-based erosion and flooding concerns, restoration of shore and nearshore habitats and resources, and support policy development that focuses on protecting and restoring coastal properties.	<b>ONGOING</b>
2002 - 2005	ODNR	ODNR's Lake Erie Geology Group has been involved in an effort to research and map the nearshore substrates around the Ohio Lake Erie Islands. Research/fieldwork was conducted in 2002-2003 and the mapping was finalized during 2004-2005.	<b>COMPLETE</b>
2004 - 2005	ODNR	The Office of Coastal Management developed and distributed the first edition of the Ohio Coastal Atlas, which contains maps of nearshore substrates and a sand transport map. Accompanying text addresses sand resource distribution, littoral transport, sources of sand and gravel, human impact on sand and gravel resources and its mitigation, and sand sources for restoration. A second edition of the Atlas will include the maps and text previously mentioned along with additional text that discusses sand transport, coastal structures, and fill materials.	1 <sup>st</sup> Edition <b>COMPLETE</b>  2 <sup>nd</sup> Edition Available fall 2006

## Lake Erie Protection & Restoration Plan: Third Progress Report

**H-15 Establish intensive programs by 2003 to eradicate purple loosestrife, *Phragmites*, and other noxious exotic plants in prime Lake Erie coastal wetlands by 2015. ODNR**

**ACTION COORDINATOR: Steven Gray, Chief, Division of Wildlife-ODNR**

Year	Agency	Action	Status
2002	LEC	<p>Lake Erie Protection Fund grant (\$10K) awarded to The Ohio State University Research Foundation to study the "Benthic Biotic Integrity of <i>Phragmites</i> Stands in the Old Woman Creek Coastal Wetland. One of the goals of the study is to determine the effects of chemically controlling <i>Phragmites</i> on macroinvertebrates.</p> <p><u>Research:</u> Macroinvertebrate identifications have been completed by Old Woman Creek and other coastal wetlands (Arcola, Mentor, Dupont, Sheldon, Darby, Crane Creek &amp; Metzger.) Regression analyses indicate that both macroinvertebrate diversity, as computed as Shannon indices, density, and production are not related to <i>Phragmites</i> in the system. Herbicide application appears to have no effect on macroinvertebrate, epiphytic algae, and juvenile fish abundance in relatively small patches of <i>Phragmites</i>.</p> <p><u>Management response:</u> Using funds from USFWS Aquatic Nuisance Species grant, DOW treated over 20 acres of Old Woman Creek wetland that had been impacted by <i>Phragmites</i> in Aug. 2005. This funding source was used by DOW in 2004 and 2005 to treat <i>Phragmites</i> in other coastal wetlands including sites at Maumee Bay State Park, Metzger Marsh, Mallard Club, Magee Marsh, Pickeral Creek, Willow Point and Pipe Creek Wildlife Areas.</p>	Study is <b>COMPLETE</b> . Manuscript is in preparation and will likely be submitted to Wetlands Ecology & Management summer of 2006.
1999	LEC	<p>Lake Erie Protection Fund grant (\$94K) awarded to The Ohio State University Research Foundation for "Wetland Renovation in East Harbor State Park, Lakeside/Marblehead, Ohio." Part of the project is to use management of water levels in the wetland to control <i>Phragmites</i> populations.</p>	Update should be provided by ODNR – Division of Parks & Recreation.

**H-16 Educate coastal beach managers on integrating conservation of rare beach habitats into beach maintenance programs by 2001. ODNR**

**ACTION COORDINATOR: Dan West; Chief, Division of Parks & Recreation- ODNR**

Year	Agency	Action	Status
2002 - 2003	ODNR – DNAP, Wildlife	Inventoried rare/sensitive beach and shoreline habitat locations for entire Lake Erie shoreline and islands.	Extensive inventories have been completed along Lake Erie and incorporated into the Ohio Natural Heritage Database. <b>ONGOING</b>

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**H-17 Implement voluntary program for all Lake Erie watershed schools to receive an extensive Great Lakes curriculum and field experience by the 8<sup>th</sup> grade by 2005. ODNR, Lake Erie Commission, Ohio Sea Grant**

**ACTION COORDINATOR: Carolyn Watkins, Office of Environmental Education- OEPA**

Year	Agency	Action	Status
2004 - 2005	OEPA	OEEF awarded \$56,724 for water-related camp and school programs for students in Ashtabula, Erie, Lucas, Ottawa and Sandusky Counties.	<b>ONGOING</b>
2004 - 2005	OEPA	OEEF grant (\$45,960) funds alignment of <i>Project WET</i> and <i>Healthy Water, Healthy People</i> curricula with Ohio Department of Education new academic content standards for science education so that teachers may continue to use the materials. 40 new <i>HWHP</i> facilitators are trained, and approximately 250-300 teachers attend <i>HWHP</i> workshops annually.	<b>ONGOING</b>
2002 - 2003	ODNR	<i>Healthy Water, Healthy People</i> curriculum from International Project WET and Hach Scientific was designed to help students in grades 6-12 and adult watershed volunteers understand links between water quality and human health and learn proper monitoring techniques. 50 educators were trained as facilitators in train-the-trainer workshops and 285 additional educators attended workshops introducing classroom activities. Further outreach continues.	<b>ONGOING</b>
2001 - 2003	OEPA	OEEF awarded \$5000 to train teachers and nonformal educators in the <i>Healthy Water, Healthy People</i> curriculum.	<b>ONGOING</b>
2001 - 2003	OEPA	OEEF awarded \$225,422 in grants for local watershed curriculum development for schools in Ashtabula and Lorain counties; \$8,862 for watershed festivals in Hancock and Sandusky Counties; \$5,000 to Cleveland Metroparks for watershed programming; \$4,960 for field trips to Stone Lab for a Summit Co. school; and \$3,850 for implementation of the National Ocean Science Bowl competition for high school students.	<b>ONGOING</b>
2001 - 2003	OEPA	OEEF granted \$5,000 to Ohio Academy of Science to align Ohio's Natural Heritage curriculum with the Ohio Department of Education's new Academic Content Standards for science education.	<b>ONGOING</b>

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- H-18 Define and inventory where acquisition/protection of wetlands and buffer areas and other enhanced management is needed to protect these resources. ODNR, OEPA**
- Create prioritized list for enhanced management.
  - Use conservation reserve program for restoration of upland wetlands (See H-2).

**ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management- ODNR**

Year	Agency	Action	Status
2003 - 2005	ODNR	The Office of Coastal Management is developing a Coastal and Estuarine Land Conservation Plan (CELCP) that includes an assessment of priority land conservation needs, including wetland and buffer areas. The plan must be approved by the National Oceanic and Atmospheric Administration in order for Ohio to be eligible for competitive CELCP funding. A draft plan has been developed, and final approval is expected in 2006.	To be completed in 2006
2001 - 2005	ODNR	The Office of Coastal Management administered a 2001 federal one-time appropriation for Great Lakes Coastal Restoration Grants. Ohio was awarded \$4.489 million which was divided between state and local projects. A significant State project was the acquisition of 10 acres of shoreline property adjacent to the Marblehead Lighthouse State Park. A second State project acquired a conservation easement on 342.5 acres of property that featured riparian corridor along the Grand State Wild and Scenic River. Twelve local projects were awarded for the fee or easement acquisition of wetlands and floodplain/corridor or for riparian restoration. More information can be found at <a href="http://www.ohiodnr.com/coastal/grants/">www.ohiodnr.com/coastal/grants/</a> .	<b>COMPLETED</b> as of June 30, 2006
2000 - 2005	ODNR USDA	The Ohio Lake Erie Conservation Reserve Enhancement Program (CREP) has enrolled a total of 1,875 acres under the wetland restoration practice with 485 acres in the nine counties that contain a portion of Ohio's Coastal Management Area.	<b>ONGOING</b>
2004 - 2005	ODNR	The Office of Coastal Management developed and distributed the first edition of the Ohio Coastal Atlas that contains an original vegetation map and maps showing ODNR and non-ODNR protected lands. A second edition of the Atlas will include the maps previously mentioned along with a map of just wetlands and forests developed by OEPA using University of Cincinnati data.	1 <sup>st</sup> Edition <b>COMPLETE</b> 2 <sup>nd</sup> Edition available fall 2006
2005	ODNR	The Office of Coastal Management's Habitat Initiative was begun with the facilitation of four meetings with ODNR, other state agencies, local governments, and non-governmental organizations to determine the current status of coastal habitat data, including wetlands and buffer areas, and to gauge interest in obtaining, sharing and using the data for better coastal management decision-making.	<b>ONGOING</b>

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<b>H-18 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2005	ODNR	ODNR is participating in a multi-agency effort to digitize and update the National Wetlands Inventory data for the Lake Erie Watershed.	<b>ONGOING</b>
2003	OWPC	Over 60 of 137 projects funded under Clean Ohio greenspace preservation program were to protect wetlands or flood plains.	<b>ONGOING</b>
2003	OEPA	WRRSP award of \$6,530,800 for Bass Lake Category 3 wetland and buffer acquisition.	<b>COMPLETE</b>
2002 - 2003	ODNR-DNAP	Identified priority parcels to protect and restore riparian forest buffer adjacent to the Grand State Wild and Scenic River. Protection is to be accomplished through the purchase of conservation easements and/or fee simple purchase from willing sellers. Riparian areas incorporating adjacent wetlands were given higher priority for acquisition.	<b>COMPLETE</b>
2002 - 2003	LEC	LEPF grant awarded Cuyahoga RAP to identify wetlands in the Cuyahoga watershed as potential areas of in watershed mitigation.	Maps <b>COMPLETE</b> .
2001 - 2002	ODNR, OEPA	OCMP Cumulative and Secondary Impacts working group (OEPA-Division of Surface Water, ODNR-Divisions of REALM, SWC, NAP, and Geological Survey, with the possible inclusion of additional members) addressed the issue of enhanced protection measures in proximity to Special Management Areas (generic APCs [wetlands] and specific APRs [State Nature Preserves] identified in the OCMP document. A Wetland Protection Plan was then developed.	<b>COMPLETE</b>
2001	ODNR-DNAP	Inventory of Unprotected Wetlands along the Lake Erie Coast (Coastal Plan) completed. A definitive survey at more detailed scale provided specific mapped outlines of the priority wetlands that should be acquired. This was distributed to ODNR divisions and OEPA Divisions of Surface Water and Environmental and Financial Assistance for use in meeting protection and restoration goals.	<b>COMPLETE</b>
2001	OEPA	WRRSP award of \$6 million for Edison Woods Preserve for Category 3 wetland acquisition and restoration of farmed buffer to wetland/native vegetation. Preservation and restoration of 1300 acres of wooded wetlands and headwater creeks.	<b>COMPLETE</b>
2001	OEPA	WRRSP award of \$725,000 for Steiner Woods Category 3 wetland and buffer acquisition.	<b>COMPLETE</b>

## BIOLOGICAL

<b>B-1</b>	<p>Fully implement Ohio's Aquatic Nuisance Species (ANS) Plan by 2003. <i>ODNR</i></p> <ul style="list-style-type: none"> <li>• Support efforts by the Great Lakes Commission and Great Lakes. Protection Fund to develop technology and regulations to eliminate ballast water introduction by marine commerce.</li> <li>• Develop and maintain monitoring programs in Lake Erie for early detection of new infestations.</li> <li>• Conduct effective information/education campaign on the prevention of ANS introductions.</li> <li>• Develop and implement abatement strategies to eradicate or reduce populations of targeted nuisance ANS in Lake Erie.</li> </ul> <p><b>ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife (DOW)- ODNR</b></p>		
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	LEC	Lake Erie Protection Fund grant (\$10K) awarded to Bowling Green State University to study mechanisms of round goby dispersal.	Ongoing research, final report pending.
2002	LEC	Lake Erie Protection Fund grant (\$100K) awarded to Cleveland State University to study use of genetic markers as monitoring tools for exotic goby and mussel populations.	Ongoing research, final report pending.
2001 - 2010	ODNR	ODNR will continue to administer and oversee implementation of the Ohio Aquatic Nuisance State Management Plan. Utilized the ANS grant to fund information and education projects (e.g. brochures, posters, signs, displays) and reduce infestations of aquatic/wetland invasive plants such as purple loosestrife, giant reed grass, reed canary grass, glossy buckthorn, and flowering rush in the Lake Erie watershed (e.g. wildlife areas, nature preserves, park districts).	<b>ONGOING</b>

  

<b>B-2</b>	<p>Complete the inventory initiative of the Biological Diversity Strategic and Implementation Plan by 2003 emphasizing: <i>ODNR</i></p> <ul style="list-style-type: none"> <li>• Comprehensive inventories of coastal biological resources within Lake Erie and its watershed.</li> <li>• Identification of rare and endangered species and their habitat areas.</li> <li>• Objective criteria for management, protection and acquisition of threatened habitat and biological resources.</li> <li>• Prioritization of sites to be used as a basis for acquisition and enhanced management.</li> </ul> <p><b>ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR</b></p>		
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	LEC	Lake Erie Protection Fund grant (\$66K) awarded to The Ohio State University Research Foundation to evaluate local habitat and landscape level characteristics related to use and quality of forest sites near Lake Erie by migrating land birds.	<b>ONGOING</b> , final report pending.

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<b>B-2 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003	OPWC	Ohio Public Works Commission awarded 137 grants totaling \$38 million through Clean Ohio Fund for greenspace preservation.	<b>ONGOING</b>
2001 - 2010	ODNR-Wildlife	Update wetland inventory to identify priority areas to focus wetland acquisition, restoration, and enhancement efforts.	<b>ONGOING</b>
2001 - 2010	ODNR-Wildlife	A statewide habitat evaluation project (GAP) which includes wetlands is underway in the Division of Wildlife in cooperation with USGS and The Ohio State University. Will complete comprehensive biological inventories for unique habitat communities for state wildlife areas, nature preserves, forests, and parks.	<b>ONGOING</b>
2001 - 2010	ODNR-Wildlife, DNAP	Maintain database of state-listed species' records.	<b>ONGOING</b>
2001	OEPA	WRRSP award of \$650,000 for Blanchard River riparian land acquisition.	<b>COMPLETE</b>
2001	OEPA	WRRSP award of \$1.5 million for riparian and bog buffer acquisition and wetland restoration and protection in the Upper Cuyahoga River.	<b>COMPLETE</b>
2001	OEPA	WRRSP award of \$1,150,000 for Sulphur Spring riparian land acquisition.	<b>COMPLETE</b>
2000	OEPA	WRRSP award of \$672,000 for Vermilion River riparian land acquisition.	<b>COMPLETE</b>

<b>B-3 Continue intensive bald eagle management program with goal of establishing 50 nesting pairs within the Lake Erie watershed by 2025. ODNR</b>			
<b>ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2010	ODNR-Wildlife	Monitor and protect eagle populations.	New record number of nests (147), April 2006.
2001 - 2010	ODNR-Wildlife	Protect, enhance and restore adequate wetland habitat to maintain viable populations of all wetland wildlife native to Ohio.	Several wetland restoration and enhancement projects completed (Magee Marsh, Little Portage, Toussaint, Willow Point, Grand River, Mosquito Creek.)

## Lake Erie Protection & Restoration Plan: Third Progress Report

- B-4** Maintain or restore viable populations of Lake Erie water snake, trumpeter swans, osprey and otter by 2025. *ODNR*
- Institute specific management programs for the above species.
  - Identify and protect essential habitat refuge.

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2002	LEC	Lake Erie Protection Fund grant (\$10K) awarded to ODNR Wildlife Management and Research Group to study water snake habitat characteristics, movement patterns, and population estimates.	<b>ONGOING</b>
2001 - 2010	ODNR-Wildlife	A statewide habitat evaluation project (GAP) which includes wetlands is underway in the Division of Wildlife in cooperation with USGS and The Ohio State University. Will complete comprehensive biological inventories for unique habitat communities for state wildlife areas, nature preserves, forests, and parks.	<b>ONGOING.</b> Interagency effort implemented using National Wetland Inventory methodology.
2001 - 2010	ODNR-Wildlife	Restore or enhance degraded, unique habitats where feasible.	<b>ONGOING</b> efforts to remove Ballville Dam, Sandusky River.
2001 - 2010	ODNR-Wildlife	Protect and conserve unique habitat communities through land acquisition, conservation easements, landowner incentive programs, and partnerships.	<b>ONGOING</b>

- B-5** Continue development, refinement, and measurement of OEPA's Index of Biotic Integrity by 2005 – adopt as metrics for the Lake Erie Quality Index. *OEPA, ODNR*
- Develop separate integrated index that incorporates plankton, benthic invertebrates and higher vertebrates as indicator species for:
    - Lake Erie tributary communities.
    - Lake Erie nearshore communities.
    - Lake Erie coastal wetland communities.
    - Lake Erie offshore communities.

**ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water- OEPA**

Year	Agency	Action	Status
2004	OEPA	Developed Qualitative Habitat Evaluation Index (QHEI) for Lake Erie shoreline and lacustuaries to provide standardized method to assess fish and habitat quality in the Lake Erie coastal areas. Draft manual completed and field tested in 2003.	Final manual and field scoring sheet <b>COMPLETED</b> in 2004.
2002	LEC	Lake Erie Protection Fund grant (\$10K) awarded to the Ohio State University Research Foundation to generate and compare benthic IBIs between stands of Phragmites and cattails in the Old Woman Creek coastal wetland.	<b>COMPLETE</b>
2001	LEC	Grants awarded through the Commission's Lake Erie Quality Index development work to design indices of biotic integrity for: <ul style="list-style-type: none"> <li>- offshore Lake Erie plankton (Dr. David Culver)</li> <li>- offshore Lake Erie fish (Dr. Mark Kershner)</li> <li>- Lake Erie coastal wetlands (Dr. David Johnson)</li> </ul>	Draft results received in 2003.

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<b>B-5 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2000 - 2004	OEPA	Indices for fish have been developed for the Lake Erie shoreline and lacustuaries. Fish biocriteria are used in evaluating shoreline and lacustuary (river mouth) areas but a rulemaking to incorporate these biocriteria into the Ohio Water Quality Standards is not yet scheduled.	<b>ONGOING</b>
2000 - 2004	OEPA	Indices for macrobenthic invertebrates have been developed for lacustuaries, but additional field work is needed to verify them and develop criteria for the nearshore.	<b>ONGOING</b>

<b>B-6</b>			
<p><b>Establish monitoring network and evaluate above indices every five years and publish in Lake Erie Quality Index. <i>Lake Erie Commission</i></b></p> <p><b>ACTION COORDINATOR: Edwin J. Hammett; Executive Director, Lake Erie Commission Office</b></p>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2004	LEC	Scheduled released of next <i>Ohio State of the Lake Report: Lake Erie Quality Index</i> .	Report released September 2004
1998	LEC	Released <i>Ohio State of the Lake Report: Lake Erie Quality Index</i> . Report included 34 different measurements of Lake Erie environmental, recreational and economic quality. The LEQI was the first published set of indicators for an ecosystem as large and complex as Lake Erie and its watershed. It is intended that an LEQI would be compiled and released every five years.	More than 5,000 copies distributed worldwide. <b>COMPLETE</b>

## COASTAL RECREATION

- CR-1** Make coastal parcels a high priority for state acquisition through direct purchases or purchases of conservation easements. *ODNR, Ohio General Assembly.*
- Create list of high priority parcels for purchase when available or other protection strategies by 2001.
  - Create special fund by 2002 for property purchases or purchase of easements on valuable coastal properties for recreation and habitat conservation.

**ACTION COORDINATOR:** John Watkins; Acting Chief, Office of Coastal Management- ODNR

Year	Agency	Action	Status
2003 - 2005	ODNR	The Office of Coastal Management is developing a Coastal and Estuarine Land Conservation Plan (CELCP) that includes an assessment of priority land conservation needs. The plan must be approved by the National Oceanic and Atmospheric Administration (NOAA) in order for Ohio to be eligible to compete for possible future funding under the CELCP Program. A draft plan, which included significant public input and review, has been developed and submitted to NOAA for comments. Final plan approval is expected in 2006.	To be completed in 2006
2001 - 2005	ODNR	The Office of Coastal Management administered a 2001 federal one-time appropriation for Great Lakes Coastal Restoration Grants. Ohio was awarded \$4.489 million which was divided between state and local projects. A significant State project was the acquisition of 10 acres of shoreline property adjacent to the Marblehead Lighthouse State Park. A second State project acquired a conservation easement on 342.5 acres of property that featured riparian corridor along the Grand State Wild and Scenic River. Twelve local projects were awarded for the fee or easement acquisition of wetlands and floodplain/corridor or for riparian restoration. More information can be found at <a href="http://www.ohiodnr.com/coastal/grants/">www.ohiodnr.com/coastal/grants/</a> .	<b>COMPLETED</b> as of June 30, 2006
2004	ODNR	ODNR acquired 589 acres on North Bass Island that included nearly 2.5 miles of undeveloped shoreline, 58 acres of natural coastal wetlands and unique geologic features.	<b>COMPLETED</b>

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- CR-2** Continue to work with local governments to assist with development and funding of bike and pedestrian facilities. *ODNR, ODOT, Lake Erie Commission*
- Create spurs and side trips to Ohio Lake Erie attractions.
  - Create adjoining bikeways/hikeways along Ohio's Lake Erie Circle Tour route.
  - Set goal of providing a biking/hiking route from Michigan to Pennsylvania linking cultural, natural, historical and recreational resources.

**ACTION COORDINATOR: Linda Bailliff; Administrator, Office of Local Projects- ODOT**

Year	Agency	Action	Status
2006	ODOT	City of Sandusky, Erie County. Provided federal funds for Phases I and II for Sandusky Bikeway. Phase I, along Sandusky Bay, is completed. Phase II is along the north side of shoreline Drive.	In Construction
2005	ODOT	Cleveland. Provided federal High Priority funds to construct Cleveland Towpath Trail, a 6-mile extension from Lake Erie towards downtown Cleveland.	Recently funded; milestones yet to be determined.
2005	ODOT	Ashtabula Metroparks. Provided federal High Priority funds for the planning and construction on bike paths and trails as part of Phase 3 – 6 on Ashtabula Metroparks Western Reserve Greenway for completion of the trail.	In design phase for award in 2007; Phase 2 <b>COMPLETE</b> .
2005	ODNR	Cuyahoga County. ODNR awarded Clean Ohio Funds for construction of 1.1-mile of towpath, between E. 49 <sup>th</sup> Street and Washington Park Blvd., Cleveland	<b>COMPLETE</b>
2003	ODOT	Cleveland Metroparks. Provided federal funds to construct the 1.1-mile Cleveland Eastside Towpath Trail Connector to the 296-acre Ohio & Erie Canal Reservation.	<b>COMPLETE</b>
2003	ODOT	Erie County, City of Sandusky. Provided federal funds to create the 1.14 mile-long Bayfront Bikeway.	<b>COMPLETE</b>
2002	ODOT	Cuyahoga County, City of Cleveland, western half of Lakefront Bikeway. Project provided federal funds to construct a tunnel under the Conrail main line tracks, and signs a route for bicyclists to travel between Edgewater Park to E. 9 <sup>th</sup> St. in downtown Cleveland. Distance is 6.42 miles, incorporating 1.9 miles of the Edgewater Park Bike Path and 4.5 miles of city streets and bridges.	<b>COMPLETE</b>
2003	ODOT	Lorain County, Black River Intermodal Center. Provided federal funds to construct a building that will allow people to transfer from one mode to another (bikes, cars, buses, water taxis, etc). Trains are also planned.	<b>COMPLETE</b>
2001	ODOT	Ashtabula County, Geneva-on-the-Lake. Provided federal funds to add shoulders to 0.87 mile section of SR 531 between the county park at Road and Geneva-on-the-Lake's east corporate line.	<b>WITHDRAWN</b> due to local opposition.

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**CR-3 Use federal and state authorities to designate underwater sanctuary reserves to protect valuable Lake Erie underwater habitat and archaeological sites by 2001. ODNR**

- Create beach embarkation points for shore accessible dive destinations.

**ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management- ODNR**

Year	Agency	Action	Status
2003 - 2005	ODNR	The Lake Erie Shipwreck Research Center at the Great Lakes Historical Society accomplished several actions funded by a grant through the Office of Coastal Management. This grant includes operating the Lake Erie Shipwreck Research Center as a facility open to the general public; data accumulation and digitization of information on Lake Erie shipwrecks; outreach to the general public about the existence and current state of Lake Erie shipwrecks; and outreach to the diving community by planning and implementing a series of workshops for divers culminating in an underwater survey of a Lake Erie shipwreck.	<b>ONGOING</b>
2005	ODNR	Lake Erie Protection Fund dollars were awarded to the Ohio Coastal Management Program to place mooring buoys on six shipwrecks in Lake Erie. The Ohio Coastal Management Program contracted with the Maritime Archaeological Survey Team (MAST) to deploy the buoys. The buoys enable recreational divers and researchers to more easily locate the shipwrecks and moor their vessels in a way that protects the shipwrecks from damage.	<b>COMPLETE</b>
2005	ODNR	The Office of Coastal Management conducted planning for a project to develop an underwater trailway for Ohio's portion of Lake Erie. This project will be accomplished through work with the Ohio Sea Grant College Program and will result in a Web site and written materials to distribute to the public.	<b>COMPLETE</b>
2004 - 2005	ODNR	The Office of Coastal Management developed and distributed the first edition of the Ohio Coastal Atlas, which contains a map of confirmed and unconfirmed shipwreck locations and accompanying text. A second edition of the Atlas will include the map and text previously mentioned along with a listing of coastal recreation access points such as parks, fishing piers, nature preserves, and scenic overlooks. In addition, 10 maps will be provided that identify boating access locations.	1 <sup>st</sup> Edition <b>COMPLETE</b>  2 <sup>nd</sup> Edition available Fall 2006

## BOATING

- BT-1** Establish an objective for Boat Dockage for inclusion in the 2004 Lake Erie Quality Index. Then, implement a program to achieve the LEQI objective by 2010. *ODNR, ODH*
- Provide public operated or partner with private marinas to provide full-service transient dockage at least every 15-25 miles along Ohio's lake Erie shoreline at market rates.
  - Give high priority for expanding transient dockage at the Lake Erie islands and Cleveland's Inner Harbor.

**ACTION COORDINATOR: Michael Quinn; Acting Chief, Division of Watercraft- ODNR**

Year	Agency	Action	Status
2005	ODNR	Established a small transient facility at Port Clinton in Ottawa County. This is the phase one development in a multi-phase transient marina development.	<b>COMPLETE</b>
2005	ODNR	Establish a transient facility in Toledo using BIG funding at the Glass City Marina project.	<b>ONGOING</b>
2003	ODOD, OEPA	Bayfront Paper in Sandusky is utilizing Clean Ohio Funds to establish public access to Lake Erie through transient boat dockage.	<b>ONGOING</b>
2002 - 2003	ODNR	"Boating On Ohio Waterways-A-Plan for Access and Use Management," completed in 2002, studied public boat dockage needs on Lake Erie. ODNR will have a completed regional analysis that will provide a basis for public boat dockage objectives.	<b>COMPLETE</b>
2001 - 2002	ODNR	Created and filled boating facility grant coordinator position in northern Ohio to specifically address boat transient docking facility needs in Lake Erie region and then assist facility management organization to address needs and successfully compete for financial assistance from the Waterways Safety Fund when desired. Position will also be able to provide support in applying for federal financial assistance for projects in that region.	<b>ONGOING</b>
2001	ODNR	ODNR made three applications to the USFWS for funding assistance through the Big Program (FY 2000, 2001, and 2002) to increase the amount of transient dockage suitable for boats over 26 ft.	<b>COMPLETE</b>
2001	ODNR	Analyzed condition and distribution of facilities from survey data to determine the need for new or improved publicly owned docks. The results from the survey will allow ONDR to identify areas of most need and target agencies to apply for grants. The database will be updated and maintained periodically.	<b>COMPLETE</b>

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<b>BT-1 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2000 - 2003	ODNR	ODNR purchased approximately 124 acres on Middle Bass Island formerly known as the Lonz Winery property. With this purchase, Ohio has established the 74th state park in Ohio which includes the old Lonz marina with 48 transient slips. Future development of the park will include the expansion of the marina, development of new day-use facilities, overnight facilities and other amenities to attract boaters.	<b>ONGOING</b>
2000	ODNR	Completed a survey of existing private and public facilities, including transient dock facilities on Lake Erie. Data on numbers, location and condition of existing dock facilities and are given in the publication, "Ohio's Public Boating Facilities."	<b>COMPLETE</b>

<b>BT-2</b>			
<p><b>Establish an objective for Launching Facilities for inclusion in the 2004 Lake Erie Quality Index. Then implement a program to achieve the LEQI objective by 2010. ODNR</b></p> <ul style="list-style-type: none"> <li><b>Consider boat launch access initiatives to Lake Erie tributaries and rivers as well as direct Lake access.</b></li> </ul> <p><b>ACTION COORDINATOR: Michael Quinn; Acting Chief, Division of Watercraft- ODNR</b></p>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2002	ODNR	Created and filled boating facility grant coordinator position to specifically address launch facility needs in the Lake Erie region and then assist land management agency to address needs and successfully compete for financial assistance from the Waterways Safety Fund when desired. Position will also be able to provide support in applying for federal financial assistance for projects in that region.	<b>ONGOING</b>
2001	ODNR	Cleveland Lakefront State Park, Edgewater ramp reconstruction completed by 2001 boating season.	<b>COMPLETE</b>
2001	ODNR	Analyzed condition and distribution of facilities from survey data to determine the need for new or improved publicly owned launch access facilities.	<b>COMPLETE</b>
2000	ODNR	Completed a survey of existing private and public facilities, including launching facilities on Lake Erie. The public facilities are in the publication, "Ohio's Public Boating Facilities."	<b>COMPLETE</b>

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**BT-3** Evaluate all state-operated launch facilities and make improvements when appropriate by 2010. *ODNR*

- Expand the number of lanes.
- Increase available parking.
- Improve lighting and security.
- Improve access roads and signage.
- Make grants/loans available for local ramp developers.

**ACTION COORDINATOR:** Michael Quinn; Acting Chief, Division of Watercraft- ODNR

Year	Agency	Action	Status
2005	ODNR	Renovate the launch facilities at the Gordon Area of Cleveland Lakefront State Park.	<b>ONGOING</b>
2001 - 2002	ODNR	Created and filled boating facility grant coordinator position to specifically address launch facility needs in the Lake Erie region and then assist land management agency to address needs and successfully compete for financial assistance from the Waterways Safety Fund when desired. Position will also be able to provide support in applying for federal financial assistance for projects in that region.	<b>ONGOING</b>
2001	ODNR	Cleveland Lakefront State Park, Edgewater ramp reconstruction completed for 2001 boating season.	<b>COMPLETE</b>
2001	ODNR	Analyzed condition and distribution of facilities from survey data to determine the need for new or improved publicly owned launch access facilities.	<b>COMPLETE</b>
2000	ODNR	Completed survey of existing private and public facilities, including launching facilities on Lake Erie.	Complete

**BT-4** Periodically evaluate the percentage of fuel purchased in Ohio that is used by recreational boats. Use this information to make adjustments to the funds appropriated to the Waterways Safety Fund. *ODNR, Ohio General Assembly*

**ACTION COORDINATOR:** Michael Quinn; Acting Chief, Division of Watercraft- ODNR

Year	Agency	Action	Status
2003 - 2005	ODOT ODNR	State Transportation Budget (HB87)	State motor fuel was increased by the General Assembly two cents per gallon each year starting in July 2003 for a total increase of six cents per gallon. Increase to WSF on an adjusted annual basis of \$1.2M.
2002 - 2003	ODNR	Updated survey motorboat fuel consumption completed.	Results provided to appropriate decision-makers.

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<b>BT-4 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001	ODNR	Budget requests were made to have an additional 1/8 of 1% go to the Waterways Safety Fund (WWSF) and 1/8 of 1% go to a new Boater Angler Fund that would be administered by the ODNR-Division of Wildlife.	<b>COMPLETE</b>
1998 - 1999	ODNR LSC	The Legislative Service Commission (LSC) provided an analysis of motorboat fuel consumption to the General Assembly. It stated that "An increase in the allocation to a full 1% or even 1.25% appears sustainable from the data gathered." Budget request by ODNR to increase the allocation for recreational boating to 1% of the motor fuel tax in FY 1998-99 biennium and again in FY 2000-01 biennium.	The portion of motor fuel tax distributed to the Waterways Safety Fund (WSF) rose from 0.5% to 0.75% beginning in FY 2000-01 biennium.

<b>BT-5 Make boater registration available online on the Internet by 2003. ODNR</b>			
<b>ACTION COORDINATOR: Michael Quinn; Acting Chief, Division of Watercraft- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2003	ODNR	E-agent system made available online.	Developing an RFP to bring consultant on board in 2006 to develop an internet-based registration system for our 200+ agents statewide.
2001	ODNR	Boat E-renewal registrations began January 2001.	<b>ONGOING.</b> Approaching 8,000 online renewals in 2006.

<b>BT-6 Increase the presence and activity of state and local law enforcement on Lake Erie and stiffen boating operation laws. ODNR, Ohio General Assembly</b>			
<ul style="list-style-type: none"> <li>• Increase the number of Ohio watercraft officers and explore opening one additional Lake Erie field office.</li> <li>• Double the number of annual checkpoints/boardings.</li> <li>• Provide support facilities (secure impoundment areas) for more stringent enforcement of all boating safety laws.</li> </ul>			
<b>ACTION COORDINATOR: Michael Quinn; Acting Chief, Division of Watercraft- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
Ongoing	ODNR	Coordinating with the U.S. Coast Guard and their six stations on Lake Erie, in Ohio, to provide additional patrols and support on the waters.	<b>ONGOING.</b> Increased presence and activity of total safety patrols on Lake Erie and increase in number of check-points/boardings.

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<b>BT-6 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2002	ODNR	Increase the number of officers during the boating season throughout Lake Erie.	<b>ONGOING.</b> Increased presence and activity of state and local law enforcement on Lake Erie. Patrol hours on Lake Erie have increased yearly since 2003.
2002	ODNR	Increased the size and number of boat impoundment areas (both indoor and outdoor secure storage) as Watercraft offices are built or remodeled.	Added impoundment area in Ashtabula in 2004. Safe, secure storage of trailerable vessels seized or impounded during enforcement actions.
2002	ODNR	Increased Marine Patrol equipment loan program to \$200,000 annually.	Implemented. Provides newer and safer patrol vessels to Lake Erie Marine Patrols to enhance law enforcement presence.
2002	ODNR	Encouraged establishment of local Marine Patrols in areas of need, i.e. Port Clinton, Erie County and Ashtabula County.	<b>ONGOING.</b> Created a marine law enforcement presence in areas presently served by Division of Watercraft only. Increased number of checkpoints and safety presence.
2002	ODNR	Increased funding to Marine Patrol grant program from \$500,000 in 2001 to \$562,000 in 2002 and \$576,153 in subsequent years. Also, increased the cap on the amount of assistance that a Marine Patrol can receive from \$30,000/year to \$35,000/year to adjust for future inflation.	Implemented in 2004. Additional funding available for existing Marine Patrols in the Lake Erie region.
2001	ODNR	Contract with local marinas in Lake Erie region to secure boat lift and vessel storage of impounded or seized vessels.	Watercraft Area Supervisors work closely with local marinas to establish secure facilities for impounded or seized vessels. No formal contracts in place at this time.
2000 - 2003	ODNR	In 2000, established Watercraft Officer presence in former USCG Ashtabula Station for law enforcement.	Ashtabula Watercraft Office established in 2004. Three Watercraft Officers patrol from this office.
2000 - 2001	ODNR	Hired additional state watercraft officers and cadets statewide. In Lake Erie region, officers also redistributed to locations that reduce travel time on the road to get to patrol sites.	<b>ONGOING.</b> Increased presence and activity of state watercraft officers on Lake Erie.

## FISHING

- F-1** Identify, designate and enforce special protection areas for offshore reefs, nearshore areas, and tributaries that are essential for the propagation of Lake Erie sportfish by 2010. *ODNR, Ohio General Assembly*
- Special Protection Areas will be protected from inappropriate development, waste disposal, overfishing and mineral extraction damages.
  - To extent feasible, hydrological connections should be maintained or reestablished.

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2010	ODNR	Identify, appraise, and inventory critical habitats for Lake Erie fishes and develop a prioritization scheme for habitat protection and restoration.	<b>ONGOING</b> integration with Office of Coastal Management, Lake Erie Lakewide Management Plan, and Great Lakes Fishery Commission Environmental Objectives for Lake Erie.
2001 - 2003	ODNR	Continued enforcement of commercial and sportfishing regulations in areas identified in Ohio Revised Code and the Ohio Administrative Code, including special projects such as undercover work on illegal perch sales by anglers.	Cited members of Ohio industry for significant under-reporting of yellow perch harvests.
2000 - 2001	ODNR	Funded research into Lake Erie smallmouth bass habitats.	Research completed

- F-2** Reestablish viable fisheries for Lake Sturgeon, Muskellunge and Northern Pike by 2025. *ODNR*
- Evaluate and establish catch rate goals for 2005 management plan.

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2003	ODNR	Continued support for funding research projects through the Great Lakes Fish Commission, the Great Lakes Protection Fund, and CARA.	<b>ONGOING</b>
2001	LEC	Lake Erie Protection Fund grant (\$10K) awarded to The Ohio State University Research Foundation to study the reproductive physiology, nutrition, and gamete viability of lake sturgeon.	<b>ONGOING</b>

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**F-3 Evaluate the impacts and effectiveness of offshore artificial reefs as a method for expanding fisheries in Lake Erie. ODNR, Lake Erie Commission, Ohio Sea Grant**

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2003	ODNR	Continued creel surveys to measure effort and catch at reef areas.	Lake, river and shoreline creel surveys are ongoing.
2001 - 2003	ODNR	Continued to identify reef locations by identification buoys and GPS coordinates.	Buoys placed annually on central basin artificial reefs, lat/long coordinates listed on ODNR-DOW Web site.

**F-4 Establish an objective for Shoreline Fishing for inclusion in the 2003 Lake Erie Quality Index. Then, implement a program to achieve the LEQI objective by 2010. ODNR**

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2002	LEC	Lake Erie Protection Fund grant (\$10K) awarded to Ohio Sea Grant to conduct a preliminary study of Ohio's Lake Erie tributary steelhead anglers. This study will document the impacts, needs, issues, and value of the stream steelhead fishery.	Final report completed 2003
2001	ODNR	Implemented Lake Erie tributary creel survey on the Maumee and Sandusky Rivers to resume effort and catch.	Surveys conducted annually on Maumee and Sandusky rivers.

**F-5 Evaluate all state fishing facilities and make necessary improvements by 2005. This effort will emphasize the following. ODNR**

- Installation of weather protection structures (roofs and wind blocks).
- Safety and handicap accessibility of approaches and fishing areas.
- Restroom facilities.
- Cleaning tables and refuse disposal.
- Aesthetics and natural landscaping of facilities and surroundings.

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2010	ODNR	Evaluate existing facilities and incorporate angler recruitment and retention goals in decision process.	Focus is on new central basin boat ramps.
2001 - 2003	ODNR	Continued operation and maintenance at ODNR facilities.	Fishing facilities maintained, including dredging and repairs were necessary.

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**F-6 Provide timely and consistent publication and dissemination of fish consumption advisory information by 2001 (See WQ-2). ODNR, ODH, OEPA**

**ACTION COORDINATOR: George Elmaraghy; Chief, Division of Surface Water- OEPA**

Year	Agency	Action	Status
2004 - 2006	OEPA	Continue to work with ODH and ODNR to revise annual fish consumption advisories.	<b>ONGOING</b> Annual updates
2004	OEC	Ohio Environmental Council's research project on outreach.	Final report <b>COMPLETED</b> January 2005
2001 - 2003	ODNR	Continued to provide OEPA fish tissue samples for contaminant analyses.	Samples collected annually by ODNR for various Lake Erie fish species.

**F-7 Develop portable program and equipment for a beginner fishing class that can be implemented through existing clubs and organizations by 2003. ODNR**

- Maintain and expand Hooked on Fishing Not on Drugs program and other programs to promote fishing.

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2010	ODNR	Increase ODNR's efforts towards recruitment and retention of anglers.	New marketing efforts were implemented through postcard surveys and Bass Pro advertisements.
2001 - 2010	ODNR	Develop curriculum and hold workshops for conservation organizations to work with their constituents.	<b>ONGOING</b>

**F-8 Produce and widely disseminate a guidebook on "smart" ice fishing that includes public access points, parking availability and associated services by 2001. ODNR**

**ACTION COORDINATOR: Steven Gray; Chief, Division of Wildlife- ODNR**

Year	Agency	Action	Status
2001 - 2003	ODNR	Formulate strategies to increase public awareness on the dangers involved with ice fishing on Lake Erie.	Stressed ice safety in fishing news releases. Guidebook is not yet underway.

## BEACHES

**BCH-1** Establish an objective for Beach Availability for inclusion in the 2004 Lake Erie Quality Index. Then, implement a program to achieve the LEQI objective by 2015. *ODNR*

- Inventory beaches to produce an accurate assessment of available public swimming beaches and public demand.
- Prioritize the acquisition of available tracts of Lake Erie beach properties and acquire them.
- Seek partnerships with local governments and organizations to provide public access to beaches.
- Reestablish or maintain new public beaches using beach nourishment technologies where feasible.

**ACTION COORDINATOR: John Watkins; Acting Chief, Office of Coastal Management- ODNR**

Year	Agency	Action	Status
2004 - 2005	ODNR	Two Coastal Management Assistance Grant projects were awarded that included planning for public access to beaches. The grants were for the Lake County Coastal Priority Projects Feasibility Study and the Sandusky Parks & Recreation Comprehensive Master Plan.	<b>COMPLETE</b>
2002 - 2003	ODNR	Coastal Management Assistance Grant projects were awarded to improve public access at Overlook Beach Park Stairway at Mentor-on-the-Lake and Miller Park Beach Access at Avon Lake.	<b>ONGOING</b>
2001 - 2003	ODNR	Use new and existing survey information (Statewide Comprehensive Outdoor Recreation Plan) to evaluate public demand for beach facilities and public satisfaction.	<b>ONGOING</b>

**BCH-2** Evaluate and make necessary improvements at all state-managed beaches by 2010 to include: *ODNR*

- Improved access.
- Parking.
- Concessions.
- Services.
- Safety and security.

**ACTION COORDINATOR: Dan West; Chief, Division of Parks & Recreation- ODNR**

Year	Agency	Action	Status
2002 - 2005	ODNR - Parks	Planning and development initiatives are underway for state park facilities on Middle Bass Island, a preliminary management plan has been drafted for park operations on North Bass Island, a public lodge partnership initiative at Geneva state Park is scheduled to open in Spring 2004, a hillside bluff stabilization construction project is underway at Cleveland Lakefront State Park, and beach area wastewater collection system improvements are slated for construction at East Harbor.	<b>ONGOING</b>

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<b>BCH-2 Continued</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2001 - 2003	ODNR	Surveyed all 50 states regarding wide variety of beach operation issues, both on coastal and inland beaches and identified other successful models of beach operations and concessions for adoption by Ohio State Parks.	<b>COMPLETE</b>
2001 - 2003	ODNR	Identified under-used existing facilities. Encourage use of these areas through advertising and promotional activities.	<b>ONGOING</b>
2001 - 2003	ODNR	Surveyed beach users for additional activities and amenities desired at beach areas.	<b>ONGOING</b>

<b>BCH-3 Organize local sponsorship and stewardship programs to maintain state managed beaches by 2005. ODNR</b>			
<b>ACTION COORDINATOR: Dan West; Chief, Division of Parks &amp; Recreation- ODNR</b>			
<b>Year</b>	<b>Agency</b>	<b>Action</b>	<b>Status</b>
2003 - 2006	LEC	Coordinate Ohio's annual Coastweeks Program consisting of beach cleanups along the shoreline.	<b>ONGOING</b>
2001 - 2003	ODNR	Beach cleanups conducted at Kelleys and South Bass Islands and Geneva, Headlands, Cleveland Lakefront and Crane Creek beaches.	<b>ONGOING</b>
2001 - 2003	ODNR	Ohio State Parks redirected the efforts of its volunteer program towards beach cleanup programs, completed two combined sanitary/storm water improvement projects, and funded a second beach cleaning unit that cleans all state park Lake Erie beaches at least two times each season.	Customer satisfaction has improved to over 85% via measured feedback. <b>COMPLETE</b>

# TOURISM

**T-1** Implement comprehensive program to promote cultural and eco-tourism as tools to expand Lake Erie tourism revenues and conserve natural and cultural resources by 2002.  
**ODOD, ODNR, Lake Erie Commission**

- Provide training to business owners, local officials and natural resource managers to better capture eco-tourism dollars.
- Provide grants for signage, trails, landscaping, security, access and parking at suitable natural areas and cultural landmarks.
- Increase state staffing of naturalists to provide better customer service to eco-tourists at state facilities.
- Partner with county tourism bureaus in developing and implementing a comprehensive strategic plan to promote cultural and eco-tourism.
- Review ways to improve signage to tourism attractions along the lake and tributaries.

**ODOT**

**ACTION COORDINATOR: Edwin J. Hammett; Executive Director,  
 Lake Erie Commission Office**

Year	Agency	Action	Status
2001 - 2003	LEC	Lake Erie Protection Fund grant (\$275K) awarded to Ottawa County Visitors Bureau for project "Lake Erie Heritage Area: Implementation Plan for Economic Development and preservation of the Lake's Historical and Natural Resources." Management Study and Resource Inventory completed in spring of 2002. Database of 275 historical natural sites constructed. Lake Erie Coastal Ohio incorporated in March of 2002. Web site created that links sites available at <a href="http://www.coastalohio.com">www.coastalohio.com</a> .	<b>COMPLETE</b>
2001 - 2003	OEPA	OEEF award (\$50,000) to Audubon Ohio to demonstrate economic benefits of habitat preservation and birding-related ecotourism, including workshops in Erie, Lorain and Ottawa Counties for the Lake Erie Wing Watch.	<b>COMPLETE</b>
2001	ODOD	Awarded grant to Lake Erie Circle Tour to undertake an inventory of all heritage tourism assets in the Lake Erie Heritage Area. Information generated from the inventory will be developed into a marketing strategic plan to market the North Coast as an international destination for heritage tourism. Inventory available at <a href="http://www.fermatainc.com/lake_erie/page_2.html">www.fermatainc.com/lake_erie/page_2.html</a> .	<b>COMPLETE</b>
2001	Lake Erie Circle Tour	Lake Erie Circle Tour team applied for and received designation for "Lake Erie Heritage Area." Effort is centered on developing and marketing the coastal natural, recreational, historic, and cultural tourism assets.	<b>ONGOING</b>

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- T-2** Support the reestablishment of the Great Lakes cruising industry.
- Work to attract cruise liners into the Great Lakes and include Ohio ports-of-call in their cruise itineraries

**ACTION COORDINATOR:** Edwin J. Hammett; Executive Director, Lake Erie Commission Office

Year	Agency	Action	Status
2001	LEC	Lake Erie Protection Fund grant (\$7.5K) awarded to Toledo-Lucas County Port Authority to support Ohio membership in Great Lakes Cruising Marketing effort. This organization markets internationally to cruise lines to entice cruise liners to include Great Lakes itineraries.	<b>INCOMPLETE</b>

- T-3** Enhance the Lake Erie Circle Tour by 2003. *ODOT, Lake Erie Commission, ODOD*
- Ensure route appears on state road maps.
  - Maintain and improve signage to ensure that the Lake Erie Circle Tour is recognized at major intersections.
  - Enhance appearance of Tour destinations through Kiosks, shelters, signage, etc.
  - Incorporate adjoining bikeways/hikeways, natural preserves and cultural landmarks with Lake Erie Circle Tour.

**ACTION COORDINATOR:** Linda Bailiff; Administrator, Office of Local Projects-ODOT

Year	Agency	Action	Status
2005	LECO	Developed recommendations for a Lake Erie Coastal Trail designated as an Ohio Scenic Byway.	<b>COMPLETE</b>
2005	ODOT	Ottawa County, South Bass Island. Provided federal funds to add shoulders to each side of Langram Road between the ferry dock and downtown Put-In-Bay, and mark them as bike lanes.	<b>COMPLETE</b>
2002	ODOT	Lucas County, City of Oregon. Provided federal funds to build 0.6 mile bike path from the Eagle Landing Golf Course and Residential Community north, connecting to the Bay Shore Road Bikeway.	<b>COMPLETE</b>
2002	ODOT	Ashtabula County. Provide federal funds to build eight miles of rail-trail on the former Conrail right-of-way.	<b>COMPLETE</b>
2000	ODOT	Provided funds to Lake County Metroparks to build a 5.8 mile rail-trail on former B&O Railroad right-of-way beginning in Painesville at Jackson Street and continuing south to Colburn Road.	<b>COMPLETE</b>

## SHIPPING

<b>S-1</b> Implement Ship Ohio Program by 2002. <i>ODOD, Ohio General Assembly</i> <ul style="list-style-type: none"> <li>• Supports the development and use of Ohio's ports.</li> <li>• Establish position of Ship Ohio coordinator within Ohio Department of Development.</li> </ul> <p><b>ACTION COORDINATOR: Eric Neff; Co-Chairman, Ohio Port Authority Council-ODOD</b></p>			
Year	Agency	Action	Status
2003	Cleveland Port Authority, NOACA	Feasibility study initiated in conjunction with Canadian government to evaluate supporting a Trans-Erie truck carrying ferry service.	<b>ONGOING</b>
2003	ODOD, ODOT, ORDC, USACE	Completed water transportation commodities freight study: <i>Nexis Ohio: Multimodal Opportunities for Economic Development</i> . Identified Ohio's water transportation system and opportunities.	<b>COMPLETE</b>
2001 - 2003	ORDC	Administered capital grants and loans program for rail-related projects at Ohio ports.	<b>ONGOING</b>

<b>S-2</b> Direct Great Lakes regional management forums to support interests of Great Lakes shipping community by 2002. <i>ODOD</i> <ul style="list-style-type: none"> <li>• Develop Ship Great Lakes initiative.</li> <li>• Encourage the completion of a 50-year St. Lawrence Seaway strategic plan.</li> </ul> <p><b>ACTION COORDINATOR: Eric Neff; Co-Chairman, Ohio Port Authority Council-ODOD</b></p>			
Year	Agency	Action	Status
2003	USDOT, USACE, Transport Canada	Initiated study of Great Lakes-St. Lawrence Seaway navigation system to evaluate actions and funding required to maintain the existing navigation system through the year 2060.	<b>ONGOING</b>
2001 - 2003	ODOD, ODOT	Worked with the Great Lakes Commission to actively support their efforts on the 50-year St. Lawrence Strategic Plan.	<b>ONGOING</b>

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**S-3 Include intermodal transportation access to seaports in strategic highway planning. ODOT**

**ACTION COORDINATOR: Jennifer Townley; Administrator,  
Office of Systems Planning and Program Management-ODOT**

Year	Agency	Action	Status
2002 - 2006	ODOT	ODOT continues to work with Ohio Port Authorities to identify and fund projects which can improve intermodal access to Ohio ports.	<b>ONGOING</b>
2002 - 2004	ODOT	ODOT funded and provided staff to support two transportation studies which evaluated freight transportation conditions and needs. These studies provided the basis for recommendations in <i>ACCESS OHIO</i> , the statewide long-range transportation plan. This plan was finalized in November 2004 and identifies future projects and strategies to support port development in Ohio.	<b>COMPLETE</b>
2001	ODOT	ODOT provided \$3.3 million to upgrade the SR2 interchange and ramps to improve truck access to the Port of Cleveland.	<b>COMPLETE</b>
2001	ODOT	ODOT provided \$320 million to construct the new Maumee River Crossing at 1-280 in that serves the Port of Toledo. The bridge and improved traffic access accommodate Michigan truck weights and eliminate the need for draw bridge traffic. The project should be completed in 2007.	<b>ONGOING</b>