

## CHAPTER 5 MANAGEMENT POLICIES

The OCMP is a long-range program for protection and management of our coastal resources. It is a prospective and progressive program. Full implementation of the OCMP begins with the adoption of the program document and evolves through state and local implementation of its enforceable policies and other management measures. As indicated in the previous chapter on program organization, the OCMP relies on action and oversight by local jurisdictions and state agencies for ensuring consistency with coastal management policies.

Coastal management policies promote the wise management of those land and water uses having direct and significant impacts upon the Lake Erie coastal area. Certain policies focus upon the protection of significant natural areas, such as wetlands, that embody the unique values of the Ohio coast. Other policies have been established in an effort to simplify governmental procedures and foster agency cooperation regarding coastal activities. These management policies are sufficiently specific, comprehensive and enforceable to enable Ohio to implement a program of rational development and resource protection for the Lake Erie coastal area. Ohio's management policies are essential to provide the specific guidance needed by the state and its local jurisdictions to undertake the OCMP cooperatively.

### Managed Coastal Activities

The OCMP does not affect all activities and projects in the coastal area. Only those activities considered to have a direct and significant impact on the coastal lands, waters and resources are identified as managed activities. "Direct and significant impact" is defined as the result of any action causing or likely to cause (1) changes in the manner in which land, water or other coastal resources are used, (2) changes in the environmental quality of coastal resources, or (3) limitations on the range of uses of coastal resources. The state will consider potential individual and cumulative impacts of such uses on coastal waters.

The management approach of the OCMP addresses the potential impacts of coastal activities on coastal resources rather than the general land uses, such as agriculture, water-dependent commercial development and port operation, with which certain coastal activities are associated. Land use planning and controls such as zoning are the responsibility of local governments. The OCMP encourages local governments to exercise their responsibilities and may also provide funding assistance for the development of port and waterfront master plans. When such plans are adopted as the basis for local land-use decisions and local regulatory controls, they facilitate decision making by the state of Ohio regarding, for instance, whether the state may lease areas of Lake Erie waters and submerged lands to local government or a private littoral property owner for particular uses or developments.

## Policy Development

As stated earlier, the State of Ohio has an effective existing regulatory framework for managing coastal area activities. This structure forms the basis of OCMP authorities and policies. To build upon that framework and determine the manner in which such policies would be prioritized, integrated and reinforced with nonenforceable policies, a coastal management policy development process was initiated. The first step in this process was the identification of issues and concerns that were compiled from many sources, including local governments, waterfront industries, ports, local planning agencies, interested citizens, the Coastal Resources Advisory Council, and state and federal agencies. Preceding ODNR's public hearings, meetings and solicitation of written comments on the OCMP document, there had been extensive organized participation by the general public, local jurisdictions and public and special interest groups in policy development. The state's early efforts to develop a coastal program are described in Chapter 2.

Many recommendations from these studies and ODNR's public participation efforts have become policy through subsequent amendments to Ohio's coastal law, ODNR rulemaking and policy development. Other recommendations continue to shape program implementation and enhancement. The OCMP adopts the assumptions of the Lake Erie Shore Area Redevelopment Task Force, and presents in this chapter policies for resource protection, management and development that are reflective of these assumptions. Those assumptions are:

- Benefits to be derived from Lake Erie and its shore are dependent upon the continued improvement of water quality in coastal area waters.
- The shoreline is a finite resource.
- Multiple use of the resource as a whole is inherently in the public interest.
- Competition for use of shoreline areas and coastal waters is increasing.
- Limitations on government revenues require more examination of user fees and public/private partnership initiatives.

With the above assumptions in mind, the State of Ohio's policies have been organized and prioritized with continued input from the general public, local jurisdictions, state, federal and regional agencies, independent organizations and public and special interest groups. As a result, ODNR has identified the following priority coastal management issues, not in order of priority:

- **Water resources and watersheds.**
- **Coastal land use and development.**
- **Coastal habitat, wetlands and natural areas.**

- **Coastal flooding and erosion.**
- **Recreational opportunities.**
- **Fisheries and wildlife resources.**

Activities at the state and local level directed toward accomplishing the above-stated ends will be of highest priority for funding under OCMP administration funding.

### Organization of this Chapter

This chapter presents the coastal management policies that address the above-listed priority issues and additional policies organized in the same way under major issue topics. Each topic is introduced by a brief summary of concerns regarding the issue. Specific policies for achieving the coastal management objectives related to the issue are described.

The framework for implementation and the authorities responsible for such implementation are outlined in the text that follows each list of policies under the heading: Authorities and Administration. All policies document existing statutory authority, current governmental programs or established state policy. Additional information regarding coastal area resources, the boundaries of the coastal area, policies, rules and other details of the coastal management program are found in Volume II, Appendices.

In the OCMP, policies are classified as enforceable and enhancement policies as follows:

1. An enforceable policy is regulatory and legally binding. It mandates that certain requirements be satisfied prior to the initiation of a specific activity in the coastal region. Such a policy has statutory authority based upon provisions of the Ohio Revised Code. Enforceable policies are binding for federal consistency purposes, pursuant to Section 307 of the CZMA. Enforceable policies are underlined in the text of this chapter and are followed by the appropriate Revised Code citation in parentheses.
2. An enhancement policy provides guidance or preferences regarding certain activities, but is not legally binding. It may be a formal state policy or recommendation, or statute with discretionary authority.

Taken together, these two types of policies offer a clear view of the content of the OCMP. They specifically show who will be affected by the OCMP, in what fashion and when. The policies provide a clear sense of direction and predictability for decision makers who must address coastal issues in their daily work.

## COASTAL EROSION AND FLOODING

### Uses Subject to Management

- Construction or redevelopment of permanent structures in Lake Erie coastal erosion areas.
- Construction of erosion control structures.
- Development in coastal and riverine flood hazard areas.
- Construction of dams, dikes and levees for flood control.

### Erosion

Erosion along the Ohio shore of Lake Erie is a serious problem, requiring increased attention and effective action by the state. Each year, nearly 1.6 million tons of material is eroded along Ohio's lakeshore, with significant and far-reaching implications for public safety, health and welfare. Record-high lake levels in the early 1970s and again in the mid 1980s caused extensive damage to residential, commercial, industrial and agricultural property. Beaches were inundated by high lake levels and eroded by waves, leaving structurally unprotected bluffs more vulnerable to wave erosion. Erosion of dikes and barrier beaches exacerbated wetland loss, negatively affecting coastal wildlife populations, overall water quality and the natural capacity of the environment to absorb flood waters.

Of the estimated 1.6 million tons of material eroded along the shore each year, only about 20 percent is sand-sized sediment that remains along the shoreline. The remainder is fine-grained sediment that disperses in the lake, increasing water turbidity and sedimentation rates. Increased turbidity reduces recreational opportunities and increases treatment costs for public water supplies. Increased sedimentation disrupts valuable aquatic habitats, hurting fishery resources and the commercial and recreational fishing industries they support.

The effects of erosion on the Ohio shore of Lake Erie have been documented by the Division of Geological Survey. Field studies examined the modern physical setting (e.g., shore stratigraphy, shore relief, shore orientation, beach width, nearshore slopes, nearshore sediment, wave climate) and cultural setting (e.g., land use, shore protection structures) that influence the rate of shore erosion and recession, both temporally and geographically. Historical charts and aerial photographs document temporal changes in the physical and cultural settings.

A century ago, sand beaches fronted most reaches of the Ohio shore of Lake Erie. Along the high-bluffed shore east of Cleveland, the beach was used as a roadway by settlers coming to Ohio. Today, many beaches have been eroded. Where beaches remain, they are narrow and segmented and provide little natural protection from erosion. In their place are numerous (approximately 4,000) erosion control structures built to protect urban development.

The shore of Lake Erie varies considerably in relief and composition. Eastward from Toledo to Huron, the shore consists of low-relief clay banks, sandy barrier beaches, or armor-stone dikes, except for the rock-bound shore in the Marblehead-Catawba Island area. From Huron to Conneaut, the shore consists of 20-to 65-foot-high bluffs of till and/or bedrock. Easily eroded materials (sand, clay and till) make up about 75 percent of the Ohio lakeshore.

The two principal erosion processes are wave erosion and mass wasting (Carter, Benson and Guy, 1981; Carter and Guy, 1988). Most wave erosion occurs during spring and fall storms, when the greatest amount of wave energy is expended along the shore. The amount of mass wasting of the upper bluff material is largely dependent upon the frequency and amount of wave erosion at the bluff toe. As the bluff toe erodes, the profile steepens, inducing mass wasting in the upper bluff.

Although much of the Ohio lakeshore is composed of materials easily eroded by waves, erosion rates vary over time and from place to place. Natural factors such as shore composition, beach distribution, nearshore depths, storm frequency, lake level and shoreline orientation contribute to these variations. Man-made erosion control structures and offshore disposal of sand dredged from harbors also contribute to these variations and often aggravate existing or create new erosion problems.

The OCMP recognizes that along some reaches, erosion control structures have slowed erosion with minimal apparent adverse impact, while along many other reaches, armoring the shore has been detrimental. Despite adverse impacts associated with some erosion control structures they are an integral part of the Ohio lakeshore. Without them, many of the buildings located near the bluff edge would now face an even greater threat from erosion. The OCMP promotes proper design of new erosion protection structures and recognizes the benefits of nonstructural erosion control measures and combinations of structural and nonstructural measures. Recognizing the merits of nonstructural erosion control measures, Ohio has selected five shoreline properties "otherwise protected" by public ownership as additions to the federal Coastal Barrier Resources System (CBRS), thereby protecting the existing natural barriers and the adjoining aquatic and upland habitats. This brings to 10 the number of units in the CBRS. The "otherwise protected" areas are Sheldon Marsh, Old Woman Creek, Kelleys Island North Pond, Mentor Marsh/Headland Dunes and Arcola Creek. These areas will help demonstrate the value of natural barriers and nonstructural shoreline stabilization measures designed to mimic, enhance or restore natural stabilization systems.

For many years, numerous agencies, organizations and experts have warned that continued exposure of public and private investments to the risk of natural hazards, including coastal erosion, has widespread deleterious impacts upon state, local and national economies. Despite erosion and flooding risks, more than 85 percent of Ohio's shorelands are developed, and development is expected to continue.

Erosion-related damages on the Great Lakes were estimated at \$290 million in 1985 and 1986 (DeCooke) and at \$9 million in 1985 in Lake County, Ohio. Losses cited by the Lake County Planning Commission include loss of real estate structures, real estate value, private protection

expenditures, public protection expenditures and loss of real estate tax revenues, all typical losses suffered by the public and by private individuals when development is exposed to erosion risks.

Without exception, those who warned of the consequences have repeatedly urged that the most effective and fiscally responsible means to ameliorate losses to public and private investment is to encourage the location of development out of harm's way. Guiding development outside risk areas reduces costs to the general public through higher insurance premiums, direct emergency reimbursements or low-cost loans for damages, and replacement of public infrastructure.

Under the OCMP, identification of Lake Erie coastal erosion areas and control of new permanent structures through state or local permits will improve decisions by shoreland property owners and developers (see Policy 1). The coastal erosion area program will reduce property damage through hazard avoidance. In addition, proposed erosion control measures will be reviewed to help ensure their effectiveness and to eliminate or minimize potential adverse impacts on coastal processes and the adjacent lakeshore (see criteria under Policies 1 and 2). And lastly, by designating units of the federal Coastal Barrier Resources System as Special Management Areas (see Chapter 6) the OCMP is promoting the protection of other natural features along the coast and promoting the use of nonstructural measures for erosion control where practicable.

Erosion is a natural process that never will be eliminated entirely. Despite the obvious hazards and the knowledge of potential for erosion, construction has continued within known high-risk erosion areas. Erosion control structures are not feasible or cost effective in some areas along the shoreline. Other management approaches involving building and zoning regulations must be considered. Basic coastal erosion area information must be provided to developers and potential shorefront owners. More importantly, they must use such information to make intelligent decisions. Increased efforts are needed to provide this information and to offer management assistance. Pursuant to Ohio's Coastal Management Act of 1988, preliminary maps identifying land anticipated to be lost to erosion over a 30-year period have been distributed to local jurisdictions for public inspection. Coastal erosion areas were identified according to uniform and well-established scientific protocol, in accordance with administrative rules adopted in 1991 and substantively amended in 1996. A permit for construction, erection or redevelopment of any permanent structure within a coastal erosion area will be required in accordance with the Coastal Management Act. Construction will be allowed within such areas with provision for effective erosion control measures. The expected outcome is to encourage wiser choices regarding development in coastal erosion areas, creating an incentive to develop further from the shore.

### Flooding

The destructive capacity of lake and riverine flooding in Ohio's Lake Erie coastal area has also been observed and documented. A 1977 ODNR report, *Coastal Hazards: Erosion, Recession and Flooding*, outlines the causes and effects of flooding and describes the critical nature of the area where lake and riverine flood waters meet. Previous studies have detailed the results and damages from particular occurrences on a localized basis. In addition, the U.S. Geological Survey in 1974 prepared a series of maps of flood prone areas for the entire Ohio Lake Erie basin at the request of

the 89th Congress as expressed in House Document 465. These maps are on file with the U.S. Geological Survey and ODNR's Division of Water. The U.S. Army Corps of Engineers prepared a *Report on Great Lakes Open-Coast Flood Levels* in 1977 and a *Revised Report on Great Lakes Open-Coast Flood Levels* in 1988. Both studies were prepared for the Federal Emergency Management Agency (FEMA), which, in administering the National Flood Insurance Program (NFIP), provides detailed flood hazard information to all designated and participating communities.

While the areas subject to flooding are reasonably well known, the timing and occurrence of such flooding along the lake is highly unpredictable, often resulting from sudden storms and short-term fluctuations in barometric pressure. More predictable flooding along rivers and streams takes place in the spring when rainfall and snowmelt occur, the ground is either saturated or frozen, and runoff is high. Ice jams also compound the flooding problem at these times.

In the late 1960s, direct flood damages in Ohio averaged \$20 - \$25 million annually. Today, annual damages have escalated to more than \$100 million and are expected to rise even further. Again, despite the availability of data that recommends the contrary, development has continued to occur on Lake Erie's flood hazard areas. One reason for this is that many people mistakenly believe that federal expenditures on flood control devices have eliminated the possibility of severe flood damages. Although such structures have prevented some damage, they cannot offer complete protection against all floods. Furthermore, the federal government will not finance projects that cost more to build than the value of properties they are designed to protect. Flood damages also increase when flood protection structures interfere with the free flow of water. Water backs up or is diverted onto properties that were previously flood free. Paved and built-over areas and the loss of natural protective systems like wetlands compound flooding by concentrating rainwater runoff that results in an increase in floodwaters.

The shortcomings of a flood protection policy based solely upon physical structures have become apparent. The current trend is to focus on nonstructural alternatives such as floodplain regulations, flood proofing, wetland preservation, stream management and public acquisition of floodplain lands. Although such strategies can reduce potential flood damages, they are often difficult to implement. This difficulty is primarily due to a confusing combination of building codes, zoning regulations and NFIP Standards that, at times, contradict one another and result in enforcement problems. Public administrators have lacked a unified management plan that coordinates the various activities of agencies with responsibilities pertaining to floodplain management.

## POLICY 1 – LAKE ERIE COASTAL EROSION AREA MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO MINIMIZE THREATS TO HUMAN SAFETY AND PROPERTY DUE TO LAKE ERIE-RELATED EROSION WHILE PROTECTING THE FUNCTIONS OF NATURAL SHORE FEATURES BY:**

- A. DELINEATING THE BOUNDARIES OF LAKE ERIE COASTAL EROSION AREAS (O.R.C. 1506.06 AND O.A.C. 1501:6-10 THROUGH 1501:6-13);**
- B. ADMINISTERING AND ENFORCING A PERMIT PROGRAM FOR CONSTRUCTION ACTIVITIES IN LAKE ERIE COASTAL EROSION AREAS (O.R.C. 1506.07, O.A.C. 1501:6-21 THROUGH 1501:6-28);**
- C. REQUIRING OWNERS OF PROPERTY IN LAKE ERIE COASTAL EROSION AREAS TO NOTIFY BUYERS OF THE LAND'S STATUS PRIOR TO ANY TRANSACTION (O.R.C. 1506.06(F)); AND**
- D. ENCOURAGE STRATEGIC RETREAT WHERE NATURAL FUNCTIONS OF BLUFFS, DUNES AND COASTAL BARRIERS CAN BE MAINTAINED EFFECTIVELY AND SELECTIVE FORTIFICATION TO PROTECT EXISTING DEVELOPMENT VULNERABLE TO LONG-TERM RAPID EROSION.**

### Authorities and Administration

Pursuant to O.R.C. 1506.06 and 1506.07, ODNR will administer a permit system for construction, erection and redevelopment of permanent structures within Lake Erie coastal erosion areas. The purpose of this management approach is to promote wise decision making with respect to the location of permanent structures and thereby reduce risk and loss to private property, public infrastructure and natural protective features. It is intended that property owners will increasingly choose to locate structures outside coastal erosion areas as a result of this action. In cases where construction does occur within the coastal erosion areas, protection measures consistent with OCMP policies and review criteria will be provided.

The management strategy entails two components authorized by the Ohio Coastal Management Law: (1) identification of Lake Erie coastal erosion areas (O.R.C. 1506.06) and (2) administration of the permit program within those areas (O.R.C. 1506.07). Policies 1.A. and 1.B. below set forth the authorities as they will exist during program implementation. ODNR made a final identification of coastal erosion areas in 1998. The Lake Erie shoreline will be reviewed again within 10 years to reassess and update the designated coastal erosion areas.

Based on the preliminary identification of Lake Erie coastal erosion areas released September 30, 1996, the extent of coastal erosion areas in each county is estimated to be as follows: Lucas - 7 miles, Ottawa - 24 miles, Sandusky - 4 miles, Erie - 17 miles, Lorain - 14 miles, Cuyahoga - 12 miles, Lake - 24 miles, Ashtabula - 21 miles. Approximately 55 percent of the Ohio mainland

coastline was preliminarily designated within preliminary Lake Erie coastal erosion areas. These numbers may change in response to objections filed by lakefront property owners.

- A. To minimize erosion damages, ODNR was directed to identify coastal erosion areas on Lake Erie (O.R.C. 1506.06). These areas represent the land likely to be lost to shore erosion within the next 30 years if no additional approved erosion control measures are implemented. The delineation of coastal erosion areas is based upon scientific analysis of shore recession conducted by ODNR's Division of Geological Survey. The methodology was developed based upon many years of experience dealing with coastal erosion along Lake Erie and consultation with the public, local authorities and the coastal programs of other Great Lakes states. An external working group assisted with revisions to the rules in 1995. The rules governing the identification of Lake Erie coastal erosion areas are contained in O.A.C. 1501:6-10 through 1501:6-13 (see Appendix G). The mapping and tabulation of data for the preliminary identification of coastal erosion areas were completed according to the procedures described in those administrative rules. Shoreland property owners and local governments were notified that property or territory may lie in a coastal erosion area, in accordance with the procedures discussed above.
  
- B. Construction, erection or redevelopment of any permanent structure within a coastal erosion area requires a permit from the Director of ODNR (O.R.C. 1506.07). A permanent structure is defined as any residential, commercial, industrial, institutional or agricultural building, any manufactured home as defined in O.R.C. 4501.01, or any addition to such a structure if it exceeds 500 square feet at ground level, and any septic system that receives sewage from a single-family, two-family, or three-family dwelling. Recreational vehicles as defined in O.R.C. 4501.01 are not included (O.A.C. 1501-6-21). Final rules for enforcing the permit system in Lake Erie coastal erosion areas are included in Appendix H. These rules were officially filed with the Joint Committee on Agency Rule Review (JCARR) in July, 1995 and refiled by ODNR in final form in June, 1996.

Permits will be issued only when the site is or will be protected by an effective erosion control measure – structural, nonstructural or a combination of the two – that is approved by the Director OR if the following criteria are met:

1. The permanent structure will be movable or will be situated as far landward as applicable zoning resolutions or ordinances permit; and
2. The applicant will suffer exceptional hardship if the authorization is not given.

As indicated above, a person may seek authorization to build or redevelop within a coastal erosion area by installing an effective erosion control measure to protect the proposed new permanent structure or by demonstrating that existing erosion control measures will be effective. ODNR will assess whether any proposed erosion control measures are effective in protecting the permanent structure without causing or contributing to unacceptable adverse

effects on the shore, littoral zone or coastal processes. Erosion control measures will be evaluated in terms of the following, as specified in O.A.C. 1501-6-24:

- Potential individual or cumulative impact, including any adverse effects on sand resources and coastal processes;
- Potential for accelerating erosion along the adjacent shoreline;
- Stability of the existing or proposed slope;
- The effectiveness of existing erosion control measures at the proposed site and along the adjacent shoreline;
- The integrity of the existing or proposed erosion control measure, its appurtenances and its component materials; and
- The effectiveness of proposed structural and/or nonstructural measures to protect the permanent structure.

Each permit application must be reviewed on its own merits. Potential applicants are encouraged to initiate preapplication consultation by contacting ODNR's Office of Coastal Management.

Erosion control measures typically require a permit from the State of Ohio under O.R.C. 1521.22, a permit from the U.S. Army Corps of Engineers (COE) pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act, and a Section 401 Water Quality Certification from Ohio EPA under O.R.C. 6111.03(O) and 6111.03(P). In addition, a submerged lands lease is required from the State of Ohio if any erosion control measure extends into the waters or onto the lands underlying the waters of Lake Erie (O.R.C. 1506.11 and O.A.C. 1501-6-1 through 1501-6-6). Therefore, a variety of factors, in addition to those noted above, are also considered during comprehensive and coordinated review by ODNR and Ohio EPA. These include, but are not limited to, impacts on water quality, fish and wildlife, and public uses such as navigation, water commerce and recreation. See Policy 12 Wetlands and Appendix K for a detailed description of the relevant criteria and coordinated review process with respect to Section 10/404 Permits and Section 401 Water Quality Certifications. See Policy 16 Public Trust Lands and Appendix L for details regarding protection of the public trust during review of proposed structures.

(NOTE: ODNR's comprehensive review of any proposed activity that is subject to a permit requirement as described in Policy 2 [O.R.C. 1521.22] will incorporate evaluation of the first five factors described above, whether or not the structure is proposed to protect a new permanent structure.)

Any construction activities within a Lake Erie coastal erosion area may be stopped by director's order if they are found to be in violation of O.R.C. 1506.07. Unauthorized construction activities are subject to a civil penalty (O.R.C. 1506.09) or a fine (O.R.C. 1506.99).

The law allows municipal corporations and counties to adopt coastal erosion area ordinances and resolutions. ODNR can provide model zoning regulations to assist local jurisdictions in the adoption of coastal erosion area ordinances or resolutions. Counties are authorized to enact coastal erosion areas standards as part of the local building code by O.R.C. 307.37. A permit from ODNR's director "is not required within the territory of any county or municipal corporation that has adopted and is enforcing a Lake Erie coastal erosion area resolution or ordinance within its zoning or building regulations if the resolution or ordinance has been reviewed by the Director . . . and meets or exceeds the standards established under division (B) of this section" (O.R.C. 1506.07(c)(1)).

If local controls are approved by the Director of ODNR as meeting or exceeding standards established by ODNR (O.A.C. 1501:6-21 through 28), then the county or municipality will be the permitting authority for construction projects in the coastal erosion areas. The Director of ODNR retains the authority to review the local implementation and enforcement of local standards every two years. If the director determines that the local standards are inadequately enforced, permitting authority reverts back to ODNR for the territory of the affected county or municipal corporation.

Even with local implementation of coastal erosion area regulations, a landowner will still be required to apply for a permit from the Corps of Engineers and ODNR for the construction of any erosion control structures on Lake Erie. The OCMP has developed a consolidated permit application form and procedure so that an applicant may submit one application package to ODNR to obtain ODNR approvals.

- C. No residential property owner who has been informed that his or her holdings are located in a coastal erosion area shall sell or transfer any interest in the property without providing written notice to the purchaser or grantee explaining that the land is included in a coastal erosion area (O.R.C. 1506.06(F)). Such notice is to be provided on the property disclosure form for transfer of residential real property, in accordance with O.R.C. 5302.30.
- D. Ohio's Lake Erie shore is highly developed, and the realities of significant preexisting economic investment must be recognized. In coastal erosion areas where the existing level of development is substantial, continued stabilization may be prudent to protect life and property. ODNR will focus its funding efforts (see Policy 5) upon appropriate comprehensive projects in such areas, if a demonstrated statewide or regional public benefit will result. Where practicable and advantageous, ODNR encourages the use of nonstructural techniques in conjunction with or instead of structural controls. Within areas where it would be more effective to maintain the natural functions of beaches, dunes, bluffs and littoral zones, or where construction would measurably increase erosion elsewhere, construction and related shore protection will be discouraged and relocation facilitated. In its administration of its authorities, and in the provision of financial and technical assistance for erosion control projects and coastal erosion management, ODNR will emphasize and encourage strategic retreat and selective fortification.

## POLICY 2 – SHORE EROSION CONTROL

**IT IS THE POLICY OF THE STATE OF OHIO TO PROMOTE SOUND DECISIONS REGARDING CONTROL OF SHORE EROSION BY:**

- A. ISSUING PERMITS FOR CONSTRUCTION OF SHORELINE EROSION CONTROL STRUCTURES (O.R.C. 1521.22);**
- B. PROVIDING TECHNICAL ASSISTANCE TO THE PUBLIC ON SHORELINE EROSION CONTROL STRUCTURES (O.R.C. 1521.29); AND**
- C. DEVELOPING A PLAN FOR THE CONTROL OF SHORE EROSION AND MAKING THE PLAN AVAILABLE TO THE PUBLIC (O.R.C. 1521.29).**

### Authorities and Administration

- A. Any person planning to construct a beach, groin or other structure that will arrest or control erosion, wave action or inundation along or near the Ohio shore of Lake Erie must first submit plans and specifications to ODNR for review in accordance with O.R.C. 1521.22. Plans and specifications for erosion control structures along or near the shore will be reviewed in accordance with coastal engineering standards specific to the proposed structure. A permit to construct the structure will be issued by ODNR if the proposed structure will comply with applicable laws and rules; is consistent with the policies of the Ohio Coastal Management Program, and is of sound coastal engineering design. Administrative rules for the administration, implementation and enforcement of this authority will be developed and adopted as needed by ODNR.

A submerged lands lease is required if the proposed shoreline erosion control structure will extend into the waters or onto the lands underlying the waters of Lake Erie (O.R.C. 1506.11 and O.A.C. 1501-6-1 through 1501-6-06). In addition, a U.S. Army Corps of Engineers Section 10/404 permit and Ohio EPA Section 401 Water Quality Certification normally are required. Because these authorizations are also required for construction in Lake Erie, factors in addition to sound coastal engineering design are considered during comprehensive and coordinated review by ODNR and Ohio EPA. These factors include, but are not limited to, impact on water quality, fish and wildlife, fish and wildlife habitat, and public uses such as navigation, water commerce and recreation. See Policy 12 Wetlands and Appendix K for a detailed description of the relevant criteria and coordinated review process with respect to Section 10/404 Permits and Section 401 Water Quality Certifications. See Policy 16 Public Trust Lands and Appendix L for details regarding protection of the public trust.

- B. ODNR encourages property owners to spend ample time and effort in the initial planning phase of a shoreline erosion control project. Consideration should be given to all potential means to control shore erosion, including nonstructural and structural measures and a combination of both. Design of a shoreline erosion control project must be based on the site-specific conditions, the desired level of erosion protection, and the effects of the project on the regional shore area. Consideration also should be given to the design and construction of coordinated

erosion control projects among adjacent property owners. Properly designed and coordinated shoreline erosion control projects have the potential to be more effective, less disruptive to natural processes and less costly than individual projects.

- C. The Chief of the Division of Water of ODNR, in cooperation with the Division of Geological Survey, is authorized by O.R.C. 1521.29 to prepare a shore erosion prevention plan and to develop a program to provide technical assistance to the public. The Division of Geological Survey publishes and updates reports on Lake Erie shore erosion and flooding. These reports contain technical data on physical setting, coastal processes and shore recession, and general recommendations on shore protection. The Chief of the Division of Water and the Division of Geological Survey shall work collectively to prepare a shore erosion prevention plan and develop a program to provide technical assistance to the public.

POLICY 3 – FLOODPLAIN MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO MINIMIZE FUTURE FLOOD DAMAGES AND PREVENT POTENTIAL LOSS TO EXISTING DEVELOPMENT IN COASTAL FLOODPLAINS BY:**

- A. REQUIRING ALL COUNTIES AND MUNICIPALITIES WITH COASTAL FLOOD HAZARD AREAS TO PARTICIPATE IN THE NATIONAL FLOOD INSURANCE PROGRAM OR TO ADOPT ORDINANCES MEETING OR EXCEEDING PROGRAM STANDARDS (O.R.C. 1506.04 AND O.A.C. 1501:22-1-01 THROUGH 1501:22-1-08);**
- B. REQUIRING THAT ANY STATE FUNDED OR FINANCED DEVELOPMENT LOCATED WITHIN THE 100-YEAR FLOODPLAIN COMPLY WITH THE FLOODPLAIN MANAGEMENT CRITERIA OF THE NATIONAL FLOOD INSURANCE PROGRAM. ANY STATE AGENCY HAVING REGULATORY JURISDICTION THAT PREEMPTS THE AUTHORITY OF POLITICAL SUBDIVISIONS TO REGULATE DEVELOPMENT IN FLOODPLAINS SHALL ENSURE THAT BEFORE GRANTING A LICENSE, PERMIT, OR OTHER AUTHORIZATION, THE DEVELOPMENT COMPLIES WITH THE NATIONAL FLOOD INSURANCE PROGRAM CRITERIA (O.R.C. 1521.14);**
- C. REQUIRING THAT NO STATE FINANCIAL ASSISTANCE IN CONNECTION WITH A FLOOD DISASTER SHALL BE DISBURSED TO OR WITHIN ANY COUNTY OR MUNICIPALITY THAT DOES NOT COMPLY WITH THE FLOODPLAIN MANAGEMENT CRITERIA OF THE NATIONAL FLOOD INSURANCE PROGRAM (O.R.C. 1521.14); AND**
- D. REQUIRING THAT ALL STATE AGENCY AND POLITICAL SUBDIVISIONS, PRIOR TO EXPENDITURE OF FUNDS FOR CONSTRUCTION OF BUILDINGS, STRUCTURES, ROADS, BRIDGES, OR OTHER FACILITIES IN LOCATIONS THAT MAY BE SUBJECT TO FLOODING OR FLOOD DAMAGE, NOTIFY AND CONSULT WITH THE DIVISION OF WATER AND SHALL FURNISH SUCH INFORMATION AS THE DIVISION MAY REASONABLY REQUIRE IN ORDER TO AVOID THE UNECONOMIC, HAZARDOUS OR UNNECESSARY USE OF FLOODPLAINS IN CONNECTION WITH SUCH FACILITIES (O.R.C. 1521.14).**

Authorities and Administration

- A. O.R.C. 1506.04 mandates that all communities with coastal flood hazard areas designated under the Flood Disaster Protection Act of 1973 (P.L. 93-234) must either participate in the NFIP or enact regulations that meet or exceed the standards required for such participation (O.R.C. 1506.04). These standards are set forth in O.A.C. 1501:22-1-01 through -08 (see Appendix I). The law further states that, if the Director of ODNR determines that a county or municipality is in violation of this requirement, the director may request that the Attorney General bring an action for appropriate relief against the noncompliant community. The director may also

request that an action be brought against any developer conducting a development activity in a designated flood hazard area within a county or municipal jurisdiction not in compliance with O.R.C. 1506.04. Table 1 lists all communities in the coastal area with such identified floodplain areas and indicates their participation in the NFIP. All Ohio coastal area communities with identified floodplain areas either participate in the NFIP, or have adopted floodplain management ordinances which comply with the standards of that program.

Nonparticipation in the NFIP results in restrictions on federal or federally related financing within the flood hazard areas. Most importantly, nonparticipating community residents will not be eligible to purchase flood insurance, no federal grants or loans for buildings within flood hazard areas will be made and most forms of federal disaster assistance will not be available following flood disasters. ODNR is the designated state agency responsible for coordinating floodplain management activities with federal, state and local governments (O.R.C. 1521.03(C) and (D)). Local communities will be given assistance in developing acceptable floodplain management regulations by the ODNR's Division of Water.

Local governments may grant variances to their floodplain regulations only when the strict enforcement of such regulations due to physical conditions of the land would cause undue hardship for landowners. Requests for relief from local floodplain regulations must be made to the locally designated variance body. Variances granted by local governmental units must conform to state law and the intent of federal laws and programs, including the NFIP where applicable.

- B. State agencies that undertake, fund or finance developments located in floodplain areas must ensure that such projects or activities are consistent with the NFIP standards (O.R.C. 1521.14). This requirement extends to activities permitted by state agencies where state law preempts local governments from setting flood damage prevention standards. O.R.C. 1521.14 further stipulates that the state develop flood damage reduction standards that shall be consistent with the floodplain management criteria of the NFIP. ODNR provides technical assistance and guidance to state agencies to ensure that such projects meet these criteria. The Director of ODNR may request the Attorney General to bring civil action for injunctive relief against any state agency that violates the statute (O.R.C. 1521.14).
- C. O.R.C. 1521.14 requires that state disaster funds in connection with a flood be withheld from a "noncompliant" community until the community takes action to establish or re-establish compliance. A community is considered "noncompliant" if it either does not participate in the NFIP or has not adopted local floodplain regulations that are consistent with that program. All Ohio coastal communities are listed as compliant by the State of Ohio.
- D. As provided in O.R.C. 1521.14, all departments and agencies of the state, and local governmental units, prior to expenditure of funds for, or construction of buildings, structures, roads, bridges or other facilities in locations that may flood, shall notify and consult with the Division of Water to avoid unwise floodplain use. Recommended Division of Water floodplain regulation criteria are based on a 100-year level of flood protection for most developments. However, certain critical developments, which if flooded would create an added dimension to a potential flood disaster, need to be protected to the 500-year flood.

## TABLE 1

Table 1 has been removed so that outdated information is not provided to readers of this Document. In order to view the most complete and accurate list of communities participating in the National Flood Insurance Program, please visit the ODNR Division of Water's website at [www.ohiodnr.com/water](http://www.ohiodnr.com/water).

## POLICY 4 – FLOOD PROTECTION AND MITIGATION

### **IT IS THE POLICY OF THE STATE OF OHIO TO PROMOTE EFFECTIVE FLOOD PROTECTION BY:**

- A. REGULATING THE DESIGN AND CONSTRUCTION OF DAMS, DIKES AND LEVEES, AND INSPECTING THEIR USE AND OPERATION (O.R.C. 1521.06 et seq.);**
- B. CONDUCTING DETAILED STUDIES AND INVESTIGATIONS OF ALL FACTORS RELATING TO FLOODS AND FLOOD PROTECTION;**
- C. ESTABLISHING CONSERVANCY DISTRICTS WHERE LOCALLY DESIRED; AND**
- D. PROMOTING THE PROTECTION AND RESTORATION OF WETLANDS FOR FLOODWATER STORAGE.**

#### Authorities and Administration

- A. The Chief of the Division of Water in ODNR requires construction permits for new dams, dikes and levees and makes periodic inspections of existing dams, dikes and levees pursuant to O.R.C. 1521.06 et seq. While the construction, permitting and inspection authorities include flood protection structures, the law applies to all types of dams, dikes and levees, regardless of purpose.

All dams, dikes and levees constructed in Ohio and not exempted by O.R.C. 1521.062 or the Chief of the Division of Water shall be inspected periodically to assure that continued operation and use of the dam, dike or levee does not constitute a hazard to life, health or property (O.R.C. 1521.062). The chief shall order the owner of the dam, dike or levee to perform repairs or other measures necessary to safeguard life, health or property. Owners of dams, dikes and levees subject to O.R.C. 1521.062 are required to secure approval of plans to repair, improve, alter or remove a dam, dike or levee.

- B. ODNR's Division of Water is authorized to conduct detailed studies and investigations of all factors relating to flood and flood protection in the state as funds are appropriated; and to cooperate with the U.S. government and with any political subdivision of the state in planning and constructing flood protection works (O.R.C. 1521.03).
- C. Conservancy districts can be established along the shoreline for the purpose of constructing flood protection measures. A conservancy district is a political subdivision formed in accordance with O.R.C. 6101.05 by local landowners to address a common water and/or erosion problem. Once formed, a conservancy district is a political subdivision of the state; however, affected lands remain under private ownership unless actually purchased by the district for project development or maintenance purposes.

- D. An important function of wetlands is the temporary storage of floodwater and a resulting reduction in peak flows. Therefore, protection and restoration of wetlands is a desirable nonstructural approach to lessening the dangers and damages of flooding. The State of Ohio is committed to protecting and enhancing existing wetlands, restoring degraded wetlands and developing new ones. The OCMP uses a variety of authorities and mechanisms to accomplish wetland preservation, as discussed in Policy 12.

POLICY 5 – SHORE EROSION AND FLOOD HAZARD MITIGATION ASSISTANCE

**IT IS THE POLICY OF THE STATE OF OHIO TO ASSIST LAKE ERIE COASTAL COMMUNITIES EXPERIENCING FLOODING AND SHORE EROSION PROBLEMS TO MINIMIZE FUTURE DAMAGES BY:**

- A. ADMINISTERING FUNDS FOR PROTECTION OF LAKE ERIE SHORES AND WATERS (O.R.C. 1521.23); AND**
- B. PROVIDING TECHNICAL INFORMATION AND ASSISTANCE FOR ADDRESSING EROSION AND FLOOD HAZARD CONCERNS (O.R.C. 1521.29 AND 1521.13).**

Authorities and Administration

- A. ODNR administers the state permit and lease fund that consists of monies derived from the granting of permits and leases under O.R.C. 1505.07 for the removal of sand, gravel, stone, gas, oil and other substances from and from under the bed of Lake Erie and from applications for construction permits submitted under O.R.C. 1521.22 (O.R.C. 1521.23). The department administers the fund for, among other purposes, protection of Lake Erie shores and waters, the investigation and prevention of erosion. Funds may be used to partially fund erosion protection projects. ODNR may enter into agreements with counties, municipal corporations, townships, park boards and conservancy districts or any other state departments or divisions for the purpose of protecting publicly owned littoral property by constructing and maintaining projects to prevent, correct and arrest erosion along the shore of Lake Erie and in any rivers that are connected with the lake, and any other watercourses that flow into the lake (O.R.C. 1521.24).

The state also may provide financial assistance for the construction of conservation works of improvement for flood and erosion projects. The Director of ODNR, upon recommendation by the Ohio Soil and Water Conservation Commission, is authorized to enter into agreements with boards of county commissioners to cost-share in improvements constructed by the county for a soil and water conservation district. The state share shall be paid from funds appropriated for such purposes and shall not exceed 50 percent of the nonfederal cost of the project (O.R.C. 1515.16).

ODNR coordinates the state role in the U.S. Natural Resources Conservation Service P.L. 83-566 Watershed Program (16 U.S.C. 1001 et seq.), which provides assistance to local communities, agencies and landowners in the planning and development of adequate flood control, storage and farm land drainage projects. The state may provide technical assistance to aid local agencies in meeting nonfederal obligations (O.R.C. 1521.03).

- B. Technical information and assistance is available from several sources. ODNR's Division of Water provides public information on flooding and flood mitigation; coordinates determinations of community eligibility for NFIP; and directs communities and homeowners to other available sources of assistance. ODNR administers a technical assistance program on shore erosion protection for local governments and property owners (O.R.C. 1521.29). The Office of Coastal

Management provides technical information on the design of shore erosion control structures. The Division of Geological Survey provides site-specific information on geologic setting, geologic processes, shore recession rates and shore protection measures.

The Ohio Emergency Management Agency (OEMA) is responsible for disaster preparedness, operations and recovery. The agency provides local governments with assistance in designing emergency management plans and training programs and coordinating response to disasters with the FEMA and other state agencies. OEMA is also the lead on mitigation grants and planning for support of mitigation project funding.

The Ohio Sea Grant Program arranges workshops on site conditions and available options for real estate professionals, appraisers, coastal property owners and local government officials. Fact sheets have been developed on Lake Erie erosion topics. Additional technical assistance is available on coastal erosion causes, erosion abatement alternatives and homeowner options. Site visits are coordinated with groups of property owners.

## WATER QUALITY

### Uses Subject to Management

- Activities involving public water supplies, to ensure that a sufficient and safe public water supply is available for the population along Lake Erie.
- Activities involving any process, system, or practice that may be a source of water quality degradation.
- Activities causing nonpoint or diffuse source of water pollution.
- Activities addressed by Remedial Action Plans (RAPs) for Ohio's four International Joint Commission-designated Areas of Concern (AOCs), the Maumee, Black, Cuyahoga and Ashtabula Rivers.
- Activities affecting ground water.

One of the most serious problems that adversely affects the Ohio coastline is the pollution of Lake Erie and its tributaries. Water pollution has greatly accelerated the Lake's natural eutrophication process. Even without human interference, however, Lake Erie would be considerably more eutrophic than other Great Lakes due to its shallowness, relative warmth, and the high fertility of the surrounding basin's soils. The two factors of human activities and local, natural conditions, have resulted in a Lake Erie characterized by excessive plant nutrients, over-abundant plankton and algae populations, extensive areas with low levels of dissolved oxygen, areas with high quantities of toxic chemicals and diminished fisheries.

By the 1960s and early 1970s, water quality had become so poor that nearly the entire hypolimnion (lowermost layer of colder water in a thermally-stratified lake) of the central basin was devoid of oxygen during summer months. Massive algal blooms were common in the western basin. However, in recent years, the water quality of Lake Erie has improved. Almost all beaches have reopened, and fish populations are rebounding. Evidence documents that nutrient enrichment of the lake and oxygen depletion in the central basin have decreased. Algal blooms once prevalent in the western basin have been nonexistent in recent years. Since 1970, open lake phytoplankton abundance has decreased and species composition has shifted more toward that of mesotrophic lakes.

Toxics, however, remain a serious concern. Tumors have been found on fish in several of Lake Erie's tributaries. Although most Lake Erie fish pose no health risk for the majority of people, Maumee Bay catfish should not be eaten, and limitations on consumption of other species are advised. There are 42 sites in the Great Lakes basin designated as AOCs by the International Joint Commission (IJC). AOCs are specific areas that suffer from severe environmental degradation that has negatively impacted water quality and has limited beneficial uses of the area. Four such areas have been designated in Ohio: the lower reaches of the Maumee River, the Black River, the Cuyahoga River and the Ashtabula River.

Nutrient enrichment, particularly from phosphorus, presented a water quality problem needing specific attention. More than 78 percent of this nutrient originates from nonpoint sources such as agriculture, livestock waste, urban runoff, on-site disposal systems and the atmosphere. Sewage treatment plants are the second major source of phosphorus, contributing approximately 20 percent. High nutrient levels have far-reaching consequences, including foul-tasting drinking water and reduced fish populations. Sewage treatment facilities are being improved with expenditures of more than \$1 billion in the Lake Erie basin. The goal of reducing the average phosphorus concentration of certain targeted municipal wastewater treatment facilities has nearly been achieved.

Many Lake Erie tributaries deliver heavy sediment loads to Lake Erie. ODNR estimates of sediment loads for Ohio's portion of Lake Erie indicate that roughly 2 million tons are derived annually from tributaries and 1.6 million tons from the shoreline. Fined-grained sediments from certain watersheds clog shipping channels, damage fish habitat, complicate water supply treatment, contribute to nutrient enrichment and adversely affect recreational use of the lake. In Ohio alone, the U. S. Army Corps of Engineers spends approximately \$10 million annually to dredge an estimated 2 million cubic yards of sediments from the shipping channels and harbors of Lake Erie.

In 1972, Congress amended the Federal Water Pollution Control Act (FWPCA P.L. 92-500, 33 U.S.C. 1251 et seq., renamed the Clean Water Act in 1977), establishing as its objective the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. This includes the national goals of eliminating the discharge of pollutants into navigable waters; wherever attainable, achieving safe water quality levels for fish, shellfish, wildlife and recreational users, and eliminating the discharge of toxic pollutants in toxic amounts. Further, the governments of the United States and Canada entered into the Great Lakes Water Quality Agreement (GLWQA) in the same year. The agreement provides for the restoration and enhancement of water quality in the Great Lakes system. Similar to the FWPCA, the GLWQA and its subsequent revisions called for the prohibition of toxic discharges in toxic amounts and for the virtual elimination of the discharge of all persistent toxic substances. Inherent in both the FWPCA and the GLWQA was the development of coordinated planning processes, the development of best management practices and the utilization of the best available technologies for controlling pollution.

As required by the Great Lakes Water Quality Agreement and the Great Lakes Critical Programs Act of 1990 amending the Clean Water Act, a lake-wide management plan (LaMP) is being developed for Lake Erie. The main purpose of the LaMP is to assess and reduce the impacts and loadings of toxics into the lake, but it will address other sources of stress to Lake Erie as well. Some of these other issues include the impacts of exotic species, loss of habitat and nutrient dynamics.

Under the leadership of U.S. EPA and Environment Canada, Ohio, as the lead state, has been working with a binational group of state, federal and provincial agencies to develop the Lake Erie LaMP. The geographic boundaries will include the lake proper, nearshore, bays and river mouths. The institutional structure of the LaMP consists of a Management Committee (senior managers), a technical work group, public forum and several subcommittees to address specific issues. The LaMP is currently working to complete a beneficial use impairment assessment, calculate loads and potential sources of the Lake Erie critical pollutants, develop ecosystem objectives and promote and solicit public review and participation.

A Status Report highlighting the progress of the LaMP thus far is available in hard copy or on the Lake Erie LaMP web site. Most of the background support documents are also available on the web site. There are many programs that already focus on improving and restoring Lake Erie. The LaMP will work with the existing programs and identify the additional actions needed to restore all beneficial uses to the lake.

A beneficial use impairment assessment is currently under way to assess which of the 14 beneficial uses listed in the Great Lakes Water Quality Agreement are impaired. An initial LaMP report is scheduled for completion in March, 1997.

POLICY 6 – WATER QUALITY

IT IS THE POLICY OF THE STATE OF OHIO TO MAINTAIN AND IMPROVE THE QUALITY OF THE STATE'S COASTAL WATERS FOR THE PURPOSE OF PROTECTING THE PUBLIC HEALTH AND WELFARE AND TO ENABLE THE USE OF SUCH WATERS FOR PUBLIC WATER SUPPLY, INDUSTRIAL AND AGRICULTURAL NEEDS, AND PROPAGATION OF FISH, AQUATIC LIFE AND WILDLIFE BY:

- I. ASSURING ATTAINMENT OF STATE WATER QUALITY STANDARDS AND OTHER WATER QUALITY RELATED REQUIREMENTS (O.A.C. 3745-1) THROUGH:
  - A. CONTROLLING DISCHARGES INTO WATERS OF THE STATE BY REQUIRING PERMITS TO CONSTRUCT FACILITIES AND BY ESTABLISHING AND ENFORCING EFFLUENT LIMITATIONS UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES, SECTION 402 CWA, O.R.C. 6111.03);
  - B. ADMINISTERING A PERMIT SYSTEM TO CONTROL INJECTION WELL DRILLING IN COMPLIANCE WITH THE "SAFE DRINKING WATER ACT" AND THE CWA (O.R.C. 6111.043 AND 6111.044);
  - C. REGULATING DISCHARGE OF DREDGE OR FILL MATERIAL INTO SURFACE WATERS INCLUDING WETLANDS IN ACCORDANCE WITH SECTION 401 OF THE CLEAN WATER ACT (O.R.C. 6111.03);
  - D. ESTABLISHING UNIFORM REGULATIONS REGARDING SOLID WASTE DISPOSAL SITES AND FACILITIES (O.R.C. 3734.02 AND 3734.05);
  - E. PROHIBITING THE SALE OR DISTRIBUTION FOR SALE OF PHOSPHORUS-CONTAINING HOUSEHOLD LAUNDRY DETERGENTS IN THE LAKE ERIE BASIN (O.R.C. 6111.10);
  - F. PREPARING A STATE WATER QUALITY MANAGEMENT PLAN TO ASSESS TECHNICAL NEEDS FOR POLLUTION CONTROL AND INSTITUTIONAL MECHANISMS TO ENFORCE CONTROLS (O.R.C. 6111.41 AND 6111.42); AND
  - G. ADMINISTERING A STATE REVOLVING LOAN FUND PROGRAM TO PROVIDE FINANCIAL ASSISTANCE FOR PUBLICLY OWNED WASTEWATER TREATMENT FACILITIES AND THE IMPLEMENTATION OF NONPOINT SOURCE POLLUTION MANAGEMENT PROGRAMS (O.R.C. 6111.03, 6111.036, 6111.037 AND 6121.03).

**II. COORDINATING, THROUGH THE LAKE ERIE COMMISSION, STATE AND LOCAL POLICIES AND PROGRAMS PERTAINING TO LAKE ERIE WATER QUALITY; REVIEWING, AND MAKING RECOMMENDATIONS CONCERNING, THE DEVELOPMENT AND IMPLEMENTATION OF POLICIES, PROGRAMS AND ISSUES FOR LONG-TERM, COMPREHENSIVE PROTECTION OF LAKE ERIE WATER RESOURCES AND WATER QUALITY THAT ARE CONSISTENT WITH THE GREAT LAKES WATER QUALITY AGREEMENT AND GREAT LAKES TOXIC SUBSTANCES CONTROL AGREEMENT (O.R.C. 1506.21).**

**III. USING THE LAKE ERIE PROTECTION FUND (LEPF) TO ESTABLISH A FIRM SCIENTIFIC BASE FOR IMPLEMENTING A BASINWIDE SYSTEM OF WATER QUALITY MANAGEMENT FOR LAKE ERIE AND ITS TRIBUTARIES; SUPPORTING RESEARCH TO IMPROVE THE SCIENTIFIC KNOWLEDGE ON WHICH LAKE ERIE AQUATIC RESOURCE PROTECTION POLICIES ARE BASED (O.R.C. 1506.23).**

#### Authorities and Administration

##### I. State Water Quality Standards

The State of Ohio is committed to maintaining and improving the quality of its coastal waters. Ohio EPA is the agency responsible for ensuring that state water quality standards are met. All water quality standards, enforcement procedures and authorities of Ohio EPA have been approved by the USEPA as being consistent with federal water quality goals established by the Clean Water Act (CWA). Ohio EPA adopted water quality standards and implementation procedures under the Great Lakes Initiative (GLI) on October 16, 1997. These rules became effective on October 31, 1997. USEPA determined that, with one exception, Ohio has adopted requirements consistent with the GLI. The one exception relates to procedures for determining reasonable potential and establishing water quality based effluent limitations for whole effluent toxicity (OAC 3745-33-07(B)). Effective September 5, 2000, the requirements of Paragraphs C.1 and D of Procedure 6 in Appendix F of the federal GLI regulation (40 CFR Part 132 shall apply to discharges within the Lake Erie drainage basin in Ohio.

Water quality standards set forth in O.A.C. Chapter 3745-1 establish minimum requirements for all surface waters of the state. Water quality standards consist of two parts: designated uses and numerical or narrative criteria designed to protect the uses. The water quality use designations are assigned to protect reproducing populations of fish, plants, and associated vertebrate and invertebrate organisms. Lake Erie itself is designated as Exceptional Warmwater Habitat, Superior High Quality Water, Public Water Supply, Agricultural and Industrial Water Supply, and Bathing Waters (O.A.C. 3745-1-31). Tributaries within the coastal area are designated for various uses as indicated in Table 2.

**TABLE 2 - TRIBUTARY DESIGNATIONS**

Stream Segment (in coastal area)	Use Designations												
	Aquatic Life Habitat						Water Supply			Recreation			
	S R W	W W H	E W H	M W H	S S H	C W H	L R W	P W S	A W S	I W S	B W	P C R	S C R
Maumee River - I-75 to confluence with Maumee Bay - Perrysburg Bridge to I-75 - remaining segment within coastal area	*	∇ * *							*	*		*	
Portage River		*						*	*		*		
Toussaint River		*						*	*		*		
Sandusky River - Fremont Sewage Treatment Plant to confluence with Muskellunge Creek - remaining segment within coastal area		∇ *						*	*		*		
Huron River - East Branch/West Branch confluence to Lake Erie - bordering Dupont Marsh	+	+			+			+	+		+		
Old Woman Creek - Estuary - within boundaries of Old Woman Creek NERR - remaining segment within coastal area	∇ ∇	* * *						*	*		*		
Vermilion River			*		∇			*	*		*		
Black River		+			+			+	+		+		
Rocky River	+	+			+			+	+		+		

+ = based on results of biological field assessment performed by Ohio EPA;

\* = based on 1978 Water Quality Standards;

o = based on justification other than the results of a biological field assessment performed by Ohio EPA;

Stream Segment (in coastal area)	Use Designations												
		Aquatic Life Habitat					Water Supply			Recreation			
	S R W	W W H	E W H	M W H	S S H	C W H	L R W	P W S	A W S	I W S	B W	P C R	S C R
Cuyahoga River - Entirety of ship channel (Newburgh and South Shore (N&SS) RR bridge (RM 5.6) to mouth, including the old river channel)* - remaining segment within coastal area		+							+	+		+	
Chagrin River	*	+			+			+	+		+		
Grand River		*			∇			*	*		*		
Ashtabula River		+			∇				+		+		
Conneaut Creek			+		+			+	+		+		

\*June-Jan -- Limited Resource Water; Feb-May -- Fish Passage

SRW = State Resource Water; WWH = Warmwater Habitat; EWH = Exceptional Warmwater Habitat; MWH = Modified Warmwater Habitat; SSH = Seasonal Salmonid Habitat; CWH = Coldwater Habitat; LRW = Limited Resource Water; PWS = Public Water Supply; AWS = Agricultural Water Supply; IWS = Industrial Water Supply; BW = Bathing Water; PCR = Primary Contact Recreation; SCR = Secondary Contact Recreation.

O.A.C. 3745-1-05 outlines the state's antidegradation policy. Existing water uses in Lake Erie and its tributaries shall be maintained and protected, and degradation that would interfere with such uses is prohibited. Antidegradation is applied in situations where there is a requested authorization to increase the discharge of pollutants to a surface water body or otherwise significantly impact the physical habitat of a surface water body. Federal law allows states to permit increased discharges of pollutants up to the safe environmental levels (i.e., up to the water quality based requirements) provided that: 1) Federal technology requirements are still met; 2) there is public involvement in the decision-making process; and 3) the increased discharge is needed to accommodate important social or economic development.

#### A. Permits to Install and NPDES Enforcement

1. The Ohio EPA is authorized by O.R.C. 6111.03 to issue permits for the discharge of conventional pollutants, toxic pollutants, and nutrients to waters of the state, and the disposal or utilization of sewage sludge pursuant to the National Pollutant Discharge Elimination System (NPDES, Section 402, CWA) consistent with the State Water Quality Management Plan (Section 208, CWA). Limits set for permit issuance are based on Technical Support Documents (TSDs) that compile all background material for the planning regions and Water Quality Based Effluent Limit (WQBEL) reports that use the TSDs, toxicity test results and Wasteload Allocations (WLAs).
2. The Ohio EPA monitors, through monthly operating reports submitted by permitted dischargers, the quality of effluent discharged, tracks compliance with NPDES permits, and takes enforcement action against entities when necessary (O.R.C. 6111.03).
3. "Permits-to-install" (PTI) are issued for construction of new or expanded wastewater treatment facilities, sewers, and for disposal of sludge from wastewater treatment facilities (O.A.C. 3745-42-02).
4. Ohio EPA administers and enforces the publicly owned treatment works pretreatment program in accordance with the CWA pursuant to O.R.C. 6111.03. This allows the agency to apply and enforce pretreatment standards contained in O.A.C. 3745-3; approve or deny requests for publicly-owned pretreatment programs and oversee or implement such programs; and set the terms and conditions of permits as necessary to achieve compliance with O.R.C. Chapter 6111.
5. Ohio EPA regulates the discharge of toxics into publicly owned treatment works or waters of the state through NPDES permits. It may take enforcement action when necessary and enforces National Municipal Policy to ensure compliance by permittees with water quality standards as mandated by the 1981 amendments to the CWA (O.R.C. Chapter 6111). Ohio EPA recommends, identifies and assesses the impact of controls for the discharge of toxic materials to protect the public health and the environment from effects due to toxic chemical exposures via surface waters of the state.

6. The director may "issue, modify, or revoke orders to prevent, control, or abate water pollution" by requiring the construction of new disposal systems or modifying existing ones pursuant to O.R.C. 6111.03(H)(2). This refers to all sewage system and waste treatment works including all pipes, conduits, etc. used to conduct or collect a waterborne sewage or other waste to a point of disposal or treatment. Further, the director may modify terms or conditions of a permit consistent with the CWA to require the maximum use of technology furthering the elimination of wastes into waters of the state (O.R.C. 6111.031).

#### B. Injection Well Drilling Regulation

Ohio EPA administers a program established under O.R.C. 6111.043 and 6111.044 to regulate the injection of wastes into waters of the state. Class 1, 4 and 5 injection wells are regulated by Ohio EPA. When the director reviews permits under the program, the director must find before issuing a permit that the activity will comply with the CWA, the "Safe Drinking Water Act" and the State Clean Water Act (O.R.C. 6111). Unless otherwise authorized by the director, "no person shall drill a new well or convert an existing well for the purpose of injecting sewage, industrial wastes, or other wastes, without having obtained an injection well drilling permit issued by the director of environmental protection" (O.R.C. 6111.043 and O.A.C. Chapter 3745-34).

#### C. Section 401 Water Quality Certification

Any activity that requires a federal permit pursuant to Section 404 of the CWA or Section 10 of the Rivers and Harbors Act of 1899, or any other federal permit or license for an activity that may result in any discharge into navigable waters, must be consistent with the state's water quality standards (O.R.C. 6111.03). Rules that, in part, set forth criteria for Section 401 Water Quality Certification are contained in O.A.C. Chapter 3745-32 (See Appendix K for the entire text.) Policy 12 further describes OCMP policy on regulation of activities affecting wetlands through the 401 process.

#### D. Regulation of Solid Waste Disposal Facilities

Ohio EPA has established uniform regulations throughout the state governing solid waste disposal sites and facilities and requires issuance of licenses from local boards of health for disposal sites (O.R.C. s 3734.02 and 3734.05). Detailed plans for such sites, facilities and methods of operation must be approved by the Director of Ohio EPA prior to issuance of any permit (O.R.C. 3734.02). See Policy 31 for further details.

#### E. Regulation of Phosphorus-containing Detergent

Within the State Water Quality Management Plan, Ohio EPA has developed the Ohio Phosphorus Reduction Strategy for Lake Erie to quantify phosphorus loadings into Lake Erie from Ohio, and to identify those mechanisms that, if properly implemented, would reduce such loadings. Pursuant to the strategy, Ohio prohibits the sale and distribution for

sale of household laundry detergents containing more than 0.5 percent by weight of phosphorus in all Ohio counties in the Lake Erie watershed (O.R.C. 6111.10).

#### F. State Water Quality Management Planning

Ohio EPA prepares a State Water Quality Management Plan under provisions of the CWA, Sections 205(j), 208, 303 and 604(b). The plan is used to assess technical needs for pollution control and to identify institutional mechanisms necessary to enforce controls. It is a compilation of various reports addressing a number of issues related to protecting and improving Ohio's water quality. The plan incorporates reports that are prepared by Areawide Planning Agencies established under Section 208 and that address water quality management needs in their areas. It also includes the Phosphorus Reduction Strategy, 305(b) Water Quality Inventory, the Nonpoint Source Assessment and Nonpoint Source Management Plan, and Remedial Action Plans (RAPs) and others.

#### G. Funding Publicly Owned Wastewater Treatment Systems and Nonpoint Source Pollution Controls (O.R.C. 6111.037).

As the designated lead agency, Ohio EPA is authorized to administer the Water Pollution Control Loan Fund (O.R.C. 6111.036, 6111.037), in conjunction with the Ohio Water Development Authority (OWDA). This fund was established pursuant to the CWA of 1987 to provide financial assistance for publicly owned wastewater treatment systems and nonpoint source pollution controls. Provisions require the state to match every five federal dollars with one dollar from its own funds. The Water Pollution Control Loan Fund statute authorizes state funding of the program (O.R.C. 6111.036). Financial assistance from the fund is limited to projects appearing on a priority list that is prepared by the Director of Ohio EPA and that ranks projects principally on the basis of relative water quality and public health benefits and financial need of the applicant.

OWDA is responsible for certain financial matters pertaining to the State Revolving Loan Fund Program. These duties include distributing funds to contractors and receiving loan payments from communities, issuing revenue bonds, and offering financial advice. The loan payback period may not exceed 20 years, and interest rates are set by Ohio EPA through a public participation process. The revolving fund may use bonds issued upon the incoming interest payments of the initial loans to provide additional funding for future wastewater treatment projects. OWDA is also authorized to make loans and issue bonds unrelated to the State Revolving Loan Fund Program to raise the necessary local share of financing for these projects (O.R.C. 6121.03 and 6121.04).

## II. Lake Erie Commission

The Lake Erie Commission plays a key role in ensuring coordination of state and local policies and programs pertaining to Lake Erie water quality. The commission makes recommendations concerning the development and implementation of policies and programs for long-term, comprehensive protection of Lake Erie water resources and water quality consistent with the Great Lakes Water Quality Agreement and Great Lakes Toxic Substances Control Agreement.

The commission, described in Chapter 4, operates under a work plan developed with public input and holds meetings quarterly. Meetings and records of the commission are open to the public. The broad-based representation on the commission and interaction with the public and interest groups facilitated by the agencies and the Ohio Lake Erie Office help to ensure the development of sound resource protection policies and the promotion of environmentally sustainable economic development.

### III. Lake Erie Protection Fund

The Lake Erie Protection Fund (LEPF) is supported by payments from the Great Lakes Protection Fund (GLPF), the Lake Erie license plate program, Erie . . . Our Great Lake credit card program, donations and bequests. The GLPF, a regional trust fund established by the Great Lakes states, divides one-third of its net earnings among member states in proportion to their respective contributions.

Ohio uses these funds in grants to advance the goals of the Toxic Substances Control Agreement, the OCMP and the Great Lakes Water Quality Agreement. The Lake Erie Commission prepares and publishes a Lake Erie protection agenda describing proposed uses and priorities of the protection fund for succeeding state fiscal years. The Commission also regularly publishes a State of the Lake Report that documents the state's progress, deficiencies and goals in managing its Lake Erie resources. The Commission solicits proposals for water quality and ecosystem change research, monitoring, aquatic habitat restoration, coastal management initiatives implementation and other activities consistent with these goals.

**(NOTE:** Nonpoint sources of pollution such as construction site, mine and agricultural runoff also degrade water quality. Such sources are addressed in Ohio's Nonpoint Source Management Program, as explained in Policy 8. Regulations enforced by Ohio EPA to prevent and reduce water pollution resulting from airborne pollutants as well as from solid, infectious and hazardous wastes are detailed in Policies 30 and 31, respectively.)

POLICY 7 – ENVIRONMENTAL CONTAMINANTS: PREVENTION  
AND EMERGENCY RESPONSE

**IT IS THE POLICY OF THE STATE OF OHIO TO PREVENT AND/OR MINIMIZE TO THE GREATEST EXTENT POSSIBLE, DAMAGES TO THE PUBLIC HEALTH, SAFETY AND WELFARE, AND TO THE ENVIRONMENT FROM CONTAMINANTS BY:**

- A. REQUIRING OWNERS OF FACILITIES SUBJECT TO O.R.C. CHAPTER 3750, EMERGENCY PLANNING, TO COMPLY WITH THE STATE'S RIGHT TO KNOW AND SPILL/RELEASE REPORTING LAWS; AND**
  
- B. PROVIDING FOR EMERGENCY RESPONSE TO ALL APPROPRIATE SPILLS WITH A COORDINATED AND PLANNED EFFORT MAXIMIZING RESOURCES AND MINIMIZING ENVIRONMENTAL DAMAGE (O.R.C. CHAPTERS 6111, 3734, 3704, 6109 AND 3750).**

Authorities and Administration

Ohio's State Emergency Response Commission (SERC) is authorized to coordinate emergency planning efforts (O.R.C. Chapter 3750). SERC accomplishes this through administration by Ohio EPA's Division of Air Pollution Control (DAPC). Pursuant to O.R.C. 3745.01, Ohio EPA administers "the laws pertaining to chemical emergency planning, community right-to-know, and toxic chemical release reporting." The director "shall adopt rules in accordance with Chapter 119 of O.R.C. that are consistent with and equivalent in scope, content, and coverage to, and no more stringent than the Emergency Planning and Community Right-to-Know Act of 1986" 42 U.S.C.A. 11001 (O.R.C. 3750.02) and 42 U.S.C.A. 11023 (O.R.C. 3751.02).

- A. The State of Ohio strives to prevent accidental releases of environmental contaminants and to minimize their effects when they do occur by enforcing O.R.C. Chapter 3750 Emergency Planning. The specific requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (also known as SARA Title III) and the corresponding Ohio Revised Code provisions include four basic reporting requirements, as follows:
  - 1. Owners of facilities with extremely hazardous substances (360 chemicals listed by U.S. EPA) must identify themselves and participate in emergency planning (O.R.C. 3750.05).
  - 2. Owners of facilities identified must report all spills or releases of substances covered by Comprehensive Environmental Response Compensation and Liability Act (CERCLA) or by SARA (O.R.C. 3750.06).
  - 3. Owners of identified facilities must provide to Ohio EPA (1) a Material Safety Data Sheet and (2) a list of chemicals stored and their human health hazard (O.R.C. 3750.07).
  - 4. Owners must complete a Facility Identification form, Chemical Inventory form and Facility map (O.R.C. 3750.08).

As provided in O.A.C. Chapters 3750-20, 3750-25 and 3750-30, a facility must comply with O.R.C. Chapter 3750 when all of the following conditions are met:

1. The facility is subject to the OSHA Hazard Communication Standard;
2. The facility stores a Hazardous Chemical and/or an "Extremely Hazardous Substance" (EHS): and
3. A quantity in storage of one of these Hazardous Chemicals or Extremely Hazardous Substances is in excess of the "Threshold Quantity" (TQ).

Oil releases are addressed under O.R.C. 3750.06 and the CWA, as amended 33 U.S.C. 1251 et seq. The federal Spill Prevention Control and Counter-measure program and related regulations for oil storage facilities provide directions to industries to plan their response to any possible spillage from their facilities (40 CFR 112). Preventive engineering, such as containment dikes, were also called for to prevent spills from reaching waterways.

- B. SARA Title III directs communities and industries to work together in developing response plans and procedures for hazardous spills. Local emergency planning committees (LEPCs) of each emergency planning district are required to "prepare and submit ... a chemical emergency response and preparedness plan for the district" to SERC (O.R.C. 3750.04). Within the coastal area, each of the nine counties is a separate emergency planning district. These local "Hazardous Materials Emergency Management Plans" include an identification of local hazardous facilities and routes used to transport hazardous materials, emergency response procedures, evacuation plans, and a list of response personnel and equipment.

The Ohio Emergency Management Agency (Ohio EMA) coordinates local plan development and makes recommendations to SERC, which is responsible for final approval or disapproval (O.R.C. 3750.02). Plans have been prepared for all nine coastal counties. As of June 1995, plans for Ashtabula, Lake, Cuyahoga, Lorain, Wood, Ottawa, Erie, Lucas and Sandusky counties have been reviewed, and the Commission has concurred with them.

Ohio EPA's Division of Emergency and Remedial Response (DERR) follows the National Contingency Plan (NCP) guidance for spill response and cleanup. To facilitate spill reporting, Ohio EPA operates a toll-free 24-hour telephone number. DERR investigates reported releases and provides local governments with telephone assistance in evaluating incidents and in directing the responsible party's cleanup efforts. DERR also coordinates efforts to assure compliance with cleanup levels and disposal methods.

## POLICY 8 – NONPOINT SOURCE POLLUTION

**IT IS THE POLICY OF THE STATE OF OHIO TO CONTROL NONPOINT SOURCE WATER POLLUTION IN ORDER TO REDUCE SEDIMENT, NUTRIENTS AND OTHER POLLUTANTS AND OTHERWISE IMPROVE THE WATER QUALITY OF LAKE ERIE AND ITS TRIBUTARIES, THUS REDUCING DAMAGE TO AQUATIC HABITATS AND LOWERING COSTS OF WATER TREATMENT AND CHANNEL DREDGING, BY USING A BROAD ARRAY OF STATE AND LOCAL AUTHORITIES TO REGULATE AND MANAGE THE CONTRIBUTING SOURCES AND ACTIVITIES.**

### Authorities and Administration

The State of Ohio manages and regulates activities that contribute to nonpoint source pollution through a complex but coordinated array of institutional mechanisms and authorities. A complete analysis of these mechanisms and authorities and how they operate to achieve stated goals and comply with federal regulations is contained in the Ohio Nonpoint Source Management Plan. Eight major sources of nonpoint source contaminants are addressed by this program, and the roles and responsibilities of all agencies and organizations involved with implementation are described therein.

The State of Ohio developed the Nonpoint Source Management Program document pursuant to Section 319 of the CWA. The program was developed in 1988 and updated in 1992 and 1999 by ODNR under an agreement with Ohio EPA. (The 1993 update was never approved by U.S. EPA.) A 1999 program upgrade was developed and approved by U.S. EPA to enable Ohio to receive supplemental 319 funding. The program specifies Best Management Practices for the eight major sources of nonpoint pollutants: agriculture, hydromodification/habitat modification, land disposal, mining, oil field wastes, silviculture, urban runoff and construction site erosion and a section addressing specific ground water issues. Section 319 funds are allocated based on the program's recommendations and policies. Funds have been used to initiate local watershed treatment and aquatic restoration and protection projects. Promoting public awareness about nonpoint pollution issues has been identified as critical to the future success of pollution control projects and programs and is therefore a major program goal. State funds have been appropriated to ODNR and Ohio State University Extension to help implement local nonpoint projects.

The State of Ohio developed the Coastal Nonpoint Pollution Control Program (CNPCP) Plan and submitted it in September 2000 to NOAA and U.S. EPA for their review. The CNPCP is based upon and expands the existing statewide Ohio Nonpoint Source Management Program and will be integrated as part of the existing Ohio Coastal Management Program. Section 6217 of CZARA directs states to develop Coastal Nonpoint Pollution Control Programs to be implemented through changes to the state coastal management plan and the state nonpoint source management plan. REALM held several initial meetings in 1993 to begin coordinating program development and implementation through cooperation with a Division of Surface Water (Ohio EPA) & Division of Soil and Water Conservation (ODNR) team. However, the OCMP has decided to focus its primary efforts on core program development. Changes to CZARA are anticipated to allow additional time for states now developing core coastal management programs to develop their coastal nonpoint

source pollution programs. Pending this change, the OCMP intends to initiate development of the coastal nonpoint program following federal approval of the OCMP core program. Key aspects of the program are the development of additional enforceable authorities, where needed, and provision for public involvement and education in all phases of the program. Details of this program and a narrative discussing Ohio's Nonpoint Source Management Program are provided in Appendix J.

Ohio has received conditional approval of the Ohio Coastal Nonpoint Pollution Control Program, administered by ODNR, Division of Soil and Water Conservation on June 04, 2002. This conditional approval included conditions that need to be met within one year and conditions that need to be met within 2 years. The one year conditions on enforceable policies and mechanisms of the Ohio Coastal Nonpoint Pollution Control Program Plan were met by submitting a Legal Opinion to the National Oceanic and Atmospheric Administration in letter form on June 04, 2003. The “two year” conditions require that Ohio have in place programs and policies that will result in implementation of specific coastal nonpoint program management measures.

POLICY 9 – POTABLE WATER SUPPLY

**IT IS THE POLICY OF THE STATE OF OHIO TO ENSURE THAT A SAFE SUPPLY OF WATER IS AVAILABLE FOR PRIVATE, COMMUNITY, INDUSTRIAL, AGRICULTURAL AND COMMERCIAL USES ALONG LAKE ERIE BY:**

- A. ADMINISTERING THE STATE SAFE DRINKING WATER ACT (O.R.C. CHAPTER 6109);**
- B. SUPERVISING THE DESIGN, CONSTRUCTION, AND OPERATION OF PUBLIC WATER SUPPLY TREATMENT AND DISTRIBUTION SYSTEMS (O.R.C. 6109.07); AND**
- C. REGULATING PRIVATE WATER SYSTEMS (O.R.C. 3701.344, O.A.C. 3701-28)**

Authorities and Administration

- A. The Ohio Environmental Protection Agency is the principal water quality regulatory agency over public water systems in Ohio and is the state administrator of P.L. 93-523, the Safe Drinking Water Act and its Amendments 42 U.S.C. 300(f) et seq. Ohio EPA's Division of Drinking and Ground Waters derives its authority from the State Safe Drinking Water Act, O.R.C. Chapter 6109. The statute does not apply to public water systems that meet all of the following criteria:
  - 1. Consist only of distribution and storage facilities and do not have any collection and treatment facilities;
  - 2. Obtain all of their water from, but are not owned or operated by, a public water system;
  - 3. Do not sell water to any person; and
  - 4. Are not carriers that convey passengers in interstate commerce.

The Division of Drinking and Ground Waters oversees compliance with and monitoring of maximum contaminant levels (MCLs) for public drinking water. Primary standards have been established for contaminants, including toxic chemicals, that have been shown to directly affect the health of consumers (O.A.C. 3745-81). Secondary standards have been established for contaminants that may cause economic or aesthetic impacts but that have not been shown to directly affect the health of consumers (O.A.C. 3745-82). Additional treatment is required if any contaminant exceeds a primary standard. All new public water systems, and existing systems making changes in their source of water, must provide treatment to meet the secondary standards for iron and manganese if they would otherwise exceed the secondary standards. Public water systems are encouraged to meet the other secondary standards. Appropriate enforcement actions are taken for failure to meet requirements of the Safe Drinking Water Act.

- B. The Ohio EPA Division of Drinking and Ground Waters reviews plans and issues plan approval for construction or substantial improvement of public water systems. Installation of or substantial changes to a water system requires the approval of Ohio EPA based on requirements of the State Safe Drinking Water Act and the rules adopted thereunder.

The division also has primary responsibility for on-site survey inspections of public water systems and maintains a laboratory certification program for commercial, private, state and industrial facilities conducting biological and/or chemical analysis on potable water.

- C. The Ohio Department of Health (ODH) and local health departments regulate private water supply systems in accordance with rules promulgated by the Public Health Council of the State of Ohio (O.R.C. 3701.344, O.A.C. 3701-28). Those water systems that regularly serve fewer than 15 service connections and do not regularly serve an average of at least 25 individuals daily at least 60 days out of the year are subject to regulation. A private water supply system includes any well, spring, cistern, pond or hauled water. In the event that the Director of ODH determines that a public health district is not properly enforcing the private water system rules, ODH will enforce the private water supply system program in that district. The ODH also investigates private water supply systems for potential contamination at the request of the local health department. Additionally, the ODH implements and enforces the registration of private water systems contractors (O.R.C. 3701.344, O.A.C. 3701-28).

## POLICY 10 – AREA OF CONCERN REMEDIAL ACTION PLANS

**IT IS THE POLICY OF THE STATE OF OHIO TO COORDINATE THE DEVELOPMENT AND IMPLEMENTATION OF REMEDIAL ACTION PLANS FOR OHIO'S FOUR LAKE ERIE BASIN AREAS OF CONCERN AS IDENTIFIED IN THE INTERNATIONAL JOINT COMMISSION'S (IJC) REPORTS ON GREAT LAKES WATER QUALITY.**

### Authorities and Administration

In 1974, the Water Quality Board of the International Joint Commission (IJC) began identifying problem areas along the Great Lakes in its reports on Great Lakes water quality. By 1981, many of the problems caused by conventional pollutants had been alleviated by improvements in effluent treatment by both municipal and industrial dischargers. However, persistent environmental quality problems remained in many areas. In 1985, to address the problems at these locations, the IJC requested that the jurisdictions (states and provinces) prepare Remedial Action Plans (RAPs) for each of their Areas of Concern (AOCs). This request became a requirement of the Great Lakes Water Quality Agreement in 1987 and a statutory requirement under the Great Lakes Critical Programs Act amendment 33 U.S.C. 1268 to the 1990 CWA.

The Ohio EPA is responsible for the preparation of RAPs for four AOCs identified as highly polluted sites along the Lake Erie shoreline. These areas are the lower Maumee, Black, Cuyahoga and Ashtabula Rivers and harbors. RAPs are the framework to provide a systematic and comprehensive ecosystem approach to restore these areas to beneficial use and to track the effectiveness of remedial activities as they are implemented.

RAPs are to be developed with significant local community involvement. Development/implementation teams include representatives from local, state and federal government agencies, elected officials, industry and business, special interest groups, academia and the general public. Ohio's four RAPs have established active community RAP teams. Stage 1 RAP reports, identifying the impaired uses and sources of pollution, have been completed for all four AOCs.

All of the RAP groups are beginning to develop Stage 2 RAP reports that will recommend remedial actions, identify responsible parties and search for sources of funding. The major task of the Stage 2 process is to accomplish implementation of the identified remedial actions. Where possible, identified remedial actions are already being implemented. More information on RAPs for AOCs is provided in Chapter 6, Special Management Areas.

## POLICY 11 – GROUND WATER

**IT IS THE POLICY OF THE STATE OF OHIO TO PROMOTE THE PROTECTION AND MANAGEMENT OF OHIO'S GROUND WATER RESOURCES BY:**

- A. REGULATING ACTIVITIES AND ENFORCING RULES REGARDING THE CONSTRUCTION AND OPERATION OF WATER SUPPLY AND WASTE-WATER DISPOSAL SYSTEMS (O.R.C. 3701.04, 3701.344, 3718.02, 6111.03, 6109.07, AND O.A.C. 3701-28, 3701-29, 3745-9);**
- B. REGULATING UNDERGROUND HAZARDOUS AND PETROLEUM MATERIALS STORAGE FACILITIES AND ABOVE-GROUND HAZARDOUS WASTE STORAGE (O.R.C. 3737.87, 3737.88, 3737.881, 3737.882 AND O.A.C. 1301:7-9 AND 3745-54);**
- C. REGULATING OIL, GAS, COAL AND MINERAL OPERATIONS (O.R.C. CHAPTER 1509, 1513 AND 1514, O.R.C. 1509.22);**
- D. REGULATING SUBSURFACE INJECTION OF BRINE AND OTHER WASTES ASSOCIATED WITH OIL AND GAS OPERATIONS (O.R.C. 1509.22);**
- E. PREPARING GROUND WATER POLLUTION POTENTIAL MAPS; AND**
- F. COORDINATING STATE ACTIVITIES REGARDING GROUND WATER ISSUES.**

### Authorities and Administration

A. & B.

The Ohio Department of Health (ODH), Ohio EPA, and the State Fire Marshal administer the state's ground water programs relating to water quality concerns. All three bodies implement permitting, monitoring and planning activities and provide technical assistance to local governments.

ODH is authorized to administer programs, monitor water quality, and enforce compliance with regulations pertaining to private water systems under the authority of the Public Health Council in O.R.C. 3701.344 and O.A.C. 3701-28. ODH regulates onsite household and small flow sewage treatment systems as required in O.R.C. 3718.02 and O.A.C. 3701-29.

Ohio EPA has general supervisory power over public water supplies pursuant to O.R.C. 6111.03 and O.A.C. 3745-81 through 3745-99. Construction or installation plans for a public water system must be approved by Ohio EPA in compliance with requirements of the Safe Drinking Water Act (O.R.C. 6109.07 and O.A.C. 3745-91). State standards for the location, construction, operation, and modification of wells are set forth in O.A.C. Chapter 3745-9. Ohio EPA also administers wastewater disposal programs and regulates hazardous and nonhazardous materials management and

disposal. Ohio EPA's Division of Drinking and Ground Waters implements the ground water protection requirements of the CWA (O.R.C. 6111.03); manages the state's Underground Injection Control program which regulates the types and amounts of waste that can be injected into underground geologic formations (O.A.C. 3745-34); monitors ground water quality, and manages and works to achieve voluntary participation in Ohio's Wellhead Protection Program (O.A.C. 3745-91).

Ohio EPA enforces the state's ground water protection standard (O.A.C. 3745-54-92) that provides that the owners and operators of facilities that treat, store or dispose of hazardous waste must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under O.A.C. 3754-54-93 detected in the ground water from a regulated unit do not exceed the concentration limits under O.A.C. 3745-54-94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under O.A.C. 3745-54-95 during the compliance period under O.A.C. 3745-54-06.

The State Fire Marshal (Ohio Department of Commerce) has responsibility for regulating underground storage tanks in Ohio, through its Bureau of Underground Storage Tank Regulation (BUSTR) (O.R.C. 3737.87 and O.A.C. 1301-7-9), in accordance with the Resource Conservation and Recovery Act (RCRA, 40 C.F.R. 280). O.A.C. 1301-7-9 establishes performance standards, design and construction standards, financial responsibility, a listing of regulated substances and operating requirements.

- C. ODNR regulates oil, gas, coal and industrial mineral extraction (see Policies 36 and 38).
- D. The Division of Mineral Resources Management, ODNR, administers a permit program for subsurface injection and other brine management activities that specifically prohibits contamination of surface and underground waters (O.R.C. 1509.22).
- E. ODNR's Division of Water has prepared 67 county ground water pollution potential maps that illustrate the relative vulnerability of ground water to contamination. Of the 67 maps, 28 are for counties located completely or partially within the Lake Erie watershed. The maps evaluate the major geologic and hydrogeological factors that affect ground water vulnerability. These factors are combined with hydrogeologic settings to produce color-coded maps with ground water pollution potential information. Each map is accompanied by a report that includes general geologic and hydrologic information. Planners, managers and local officials can use the maps and reports to evaluate potential for contamination from various pollution sources and thereby direct land- use activities to appropriate areas. Water quality protection, monitoring and cleanup efforts also can be facilitated through use of pollution potential maps.
- F. The State of Ohio has a comprehensive ground water policy, the Ohio Ground Water Protection & Management Strategy. State agencies with regulatory and programmatic jurisdiction over ground water, i.e., Ohio EPA, Ohio Department of Health (ODH), Ohio Department of Agriculture (ODA), Ohio Department of Transportation (ODOT) and ODNR, prepared the strategy with the assistance of federal agencies, regional planning agencies, citizen's groups, and business and professional associations working through a Ground Water Task Force. State agencies are responsible for implementing the initiatives of the strategy. The strategy directs

limited state resources to priority needs and emphasizes proper development and protection and management of the ground water resources.

The ground water strategy contains six principal initiatives, each of which includes program recommendations:

1. Controlling sources of ground water contamination;
2. Assessing Ohio's ground water;
3. Coordinating agency activities;
4. Targeting critical areas;
5. Regional and local ground water protection and management; and
6. Education, training, research and technology transfer.

The state agencies listed above, and the Department of Development, the Public Utilities Commission of Ohio (PUCO) and the Bureau of Underground Storage Tank Regulation in the Department of Commerce, formed the State Coordinating Committee on Ground Water (SCCGW) to promote exchange of agency information and coordination of programs and activities. The SCCGW meets on a regular basis and is developing a Comprehensive Ground Water Protection and Management Plan and a State Management Plan for Pesticides. Technical standards for well construction and sealing have been developed by the SCCGW.

## ECOLOGICALLY SENSITIVE RESOURCES

### Uses Subject to Management

- Activities involving the filling, dredging or alteration of wetlands and special aquatic sites.
- Activities affecting natural areas, nature preserves, wildlife habitat areas and areas of exceptional ecological significance.
- Activities threatening rare and endangered plant and animal species.
- Activities involving the introduction or propagation of exotic species.

### Wetlands

Wetlands are considered a critical natural resource in Ohio because they serve many beneficial natural functions and are greatly diminished throughout the state relative to the original extent of wetlands in Ohio. The U.S. Fish and Wildlife Service's *Report to Congress, Wetlands Losses in the United States 1780s to 1980s* (Dahl, T.E., 1990), estimated Ohio's loss at 90 percent of an original 5 million acres. In pre-settlement times, nearly 300,000 acres of marshes spread from the Great Black Swamp of northwest Ohio eastward along Lake Erie. Conversion of Lake Erie marshes and coastal wetlands to other uses has continued. A Division of Wildlife (DOW) inventory showed a 45 percent decline in acreage from 1954 to the mid-1970s. Since that time, however, losses have been partially offset as a result of increased state and federal regulatory authority (Sections 401 and 404, CWA) and more aggressive acquisition and restoration efforts of recent years. Today, an estimated 33,000 acres of wetlands remain within the coastal management area.

The Ohio Wetlands Priority Conservation Plan published by ODNR in 1988 identified the following threats to remaining wetlands:

**Agricultural drainage** – Losses attributable to drainage improvement projects involve both direct conversion and incidental results of stream and drainage system modification. Thousands of acres of low-lying coastal marshes have been diked and drained for farming, although some are flooded in fall for waterfowl. Such areas are not irreversibly converted to nonwetland uses. In fact, some of these areas have reverted to marsh by landowner design or by the encroachment of higher lake levels.

**Development** – Ohio's lacustrine and adjacent palustrine wetlands are threatened by the construction of marinas and waterfront developments such as condominiums and resort communities. This is particularly critical in the Lake Erie region, where unprecedented development and economic growth is occurring because of the area's attractiveness for outdoor recreation and tourism and its quality of life amenities. It is extremely difficult to quantify such losses, because many are piecemeal losses, partial habitat alterations and secondary and cumulative effects upon wetlands.

Mounting pressure exists to convert diked (and sometimes pumped) wetlands in cropland use to nonagricultural and nonwater dependent uses such as residential, recreational and resort development. This can represent an even greater threat to wetlands than agricultural use because such development is irreversible and is often adjacent, or in close proximity, to other marshland. Secondary and cumulative impacts of such development are serious concerns.

Nonpoint Source Pollution – The degradation of wetlands through nonpoint source pollution is more difficult to assess and manage. Ohio EPA and ODNR have developed the state's Nonpoint Source Assessment and Management Plan, which in 1988 identified hydrologic/habitat modification activities as the principal nonpoint source threat to wetlands in Ohio. Ohio's 1993 Statewide Comprehensive Outdoor Recreation Plan (SCORP) reaffirmed this.

Secondary impacts on off-site or "downstream" wetlands are a serious concern with respect to many large-scale earth disturbing developments and activities. Inadequate erosion control and stormwater runoff control measures can result in the downstream siltation of aquatic habitats including wetlands.

No comprehensive study has been conducted since 1989, and there is no concrete evidence to suggest that dramatic changes have occurred in either the nature or extent of these threats. One possible exception is that marina development has declined significantly since the late 1980s. However, as stated earlier, losses are being slowed by regulatory and other protective efforts, and a decline in the rate of loss is occurring. As of 1997, it is difficult to quantitatively assess this change in loss rate, but it is important to do so. The OCMP, through program administration funding, intends to improve tracking of individual and cumulative losses and restorations to assess and monitor the status and trends of coastal wetlands. The recently developed Ohio Wetlands Strategy includes a proposal for a biennial report to assess and summarize status and trends, including all enforcement actions.

The outlook for coastal wetlands reflects positive trends in statewide wetlands conservation. The Ohio EPA protects wetlands by including the term wetlands in the Ohio Water Quality Standards and Section 401 Regulations and Permit Procedures. The acquisition and protection of coastal area wetlands has been enhanced by increasing partnership projects for wetlands acquisition and restoration developed among public, private and independent agencies and organizations.

To aid wetlands regulation, monitoring and enforcement, acquisition and protection strategies, and other planning and management activities for wetlands conservation in Ohio, a statewide wetlands inventory has been developed. Managed by ODNR's Division of Wildlife (DOW), it is a remotely sensed inventory from satellite imagery. It has been designed to be used by resource managers, agricultural interests, local and regional agencies and other public and private interests for a wide variety of wetlands related purposes. The inventory has been completed for all nine coastal area counties and shows approximately 33,000 acres of wetlands within Ohio's coastal management area. About one-half of that acreage is either publicly owned and managed or is owned and managed by hunting clubs and nonprofit conservation organizations, as follows:

<u>Ownership</u>	<u>Wetland Acreage</u>	<u>Total Acreage Owned</u>
<u>ODNR</u>		
Parks and Recreation	1,400	5,653
DNAP	1,200	1,849
DOW                    4,500	6,762	
<u>USFWS (Ottawa NWR)</u>	5,350	8,316
<u>The Nature Conservancy</u>	133	770
<u>Hunting Clubs</u>	<u>4,300</u>	<u>8,000</u>
TOTAL	16,883	31,350

In 1993 and 1994, the DOW completed the Mallard Club and Pickerel Creek wetland restoration projects and broke ground on the Metzger Marsh restoration project. These projects will add nearly 2,400 acres of viable wetlands along the Lake Erie coast.

Several thousand acres of former wetlands in the coastal region exist in productive or marginally productive agricultural status. Some of these areas have high potential for restoration and management as habitat for migratory waterfowl, other wetland-dependent fish and wildlife, and rare species of plants and animals. Ohio is situated in the Lower Great Lakes-St. Lawrence River Joint Venture region of the North American Waterfowl Management Plan (NAWMP) developed by agreement between Canada and the United States in 1986. Lake Erie Marshes is a focus area of the NAWMP in which thousands of acres of coastal area wetlands are being protected, restored and enhanced through the cooperative efforts of the U.S. Fish and Wildlife Service, Division of Wildlife and other public, private and independent organizations. More than 650 acres of privately owned previously drained coastal area wetlands have been restored through DOW cost-sharing projects with farmers and other landowners. Restoration projects within NAWMP focus areas and joint venture boundaries receive the highest priority.

Diking of many coastal wetlands is essential for their survival, because it is usually the only means of protecting wetlands whose landward advance during periods of high lake levels is restricted by inland development. Maintenance and reconstruction of dikes is a continual, expensive and necessary task, especially during periods of high water. In addition to units of the Ottawa National Wildlife Refuge and several state wildlife areas, privately owned diked marshes are an important component of Ohio's coastal wetland resource base. Diked marshes require expensive maintenance and carefully planned water level management and other controls to maintain fish and wildlife habitat values and overall productivity. Many benefits important to the general public interest are realized by the active management of these wetlands.

## Natural Areas and Endangered Species

Early explorers of the Lake Erie region described vast areas of wetlands, upland hardwood forests and miles of sandy beaches. Development proceeded quickly until very little of the shore had escaped human impact. Efforts to protect the remnants started late and have met with only limited success in recent years due to high land costs, limited funds and conflicting ideas on appropriate land use. Presently, Ohio's coastal area has within its boundary six designated state nature preserves: Mentor Marsh, Headlands Dunes, DuPont Marsh, Lakeside Daisy and Sheldon Marsh, which are managed by ODNR's Division of Natural Areas and Preserves, as well as Old Woman Creek, managed by ODNR's Division of Wildlife. The Nature Conservancy and the Cleveland Museum of Natural History are also involved in acquisition and/or management of several natural areas in the coastal area.

In addition to protecting large, undisturbed sites, it is also important to consider the ecological diversity – the plants, animals and physical features that make up the coastal landscape. The loss of even a few species due to habitat alteration and other environmental disturbances can impair the ecosystem's function and harm recreation, water supply, commercial fish production and overall ecosystem stability. The loss of predator fish species in Lake Erie with subsequent overabundance of other species is a good example. ODNR's Division of Natural Areas and Preserves (DNAP), maintains the state's Natural Heritage Database, which is a repository of information on Ohio's rare plant and animal species and unique natural features.

Continued protection of remaining natural coastal areas and elements of diversity requires an increased understanding of intricate ecosystem relationships and the system's susceptibility to disturbance. More importantly, a firm public commitment and capital improvement funding are needed to preserve such areas in the coastal area.

## Exotic Species

The introduction of exotic species, or nonindigenous flora and fauna, to the coastal area environment has been documented since settlement of the region. Since the 1800s, 139 nonindigenous species, mostly plants, have become established in the Great Lakes. Thirteen have substantially affected the region's ecosystem, economically as well as ecologically. Three examples illustrate this problem in Lake Erie:

1. Zebra mussels (*Dreissena polymorpha*) were almost unheard of in the Lake Erie coastal area until 1989. But by the end of the year, zebra mussels had colonized nearly everywhere in Lake Erie. Zebra mussels are being reported from other sites in all of the Great Lakes and are spreading beyond the Great Lakes to other lakes and rivers. Zebra mussels originated from the Caspian region of western Russia and spread throughout Europe with the construction of canals and increased shipping. Their invasion into the Great Lakes appears to have occurred due to the discharge of freshwater ballast by one or more transoceanic ships. Zebra mussel infestation in water intake structures for power plants and municipal water treatment plants causes significant reductions in pumping capabilities. Recreation is affected due to extensive deposits of zebra mussel shells on Lake Erie

beaches. Cooling water inlets on boat engines can become clogged. Ecological and human health impacts are possible because the filter feeding zebra mussels can rapidly accumulate organic pollutants within their tissues. This may have implications for human consumption of fish and waterfowl. Clearer water resulting from the mussels' cleansing ability may cause rapid aquatic weed growth and declining zooplankton levels, thus further disrupting the food chain. Zebra mussel pollutant uptake and food chain relationships are currently being studied.

2. Purple loosestrife (*Lythrum salicaria*) has become a major pest in Lake Erie coastal area marshes. This is a significant problem for protecting and managing many wetland areas that provide important resting and feeding areas for migratory waterfowl and habitat for other marsh-dependent fish and wildlife species. This plant invades marshes and grows in profusion, creating a monoculture habitat to the detriment of wildlife and other plants and plant communities. Purple loosestrife is only one example of problems with nonindigenous flora. However, many habitats and plant associations suffer from the presence of weed species. Protecting the integrity of natural areas and nature preserves can require intensive management to maintain desired natural conditions.

3. The common carp (*Cyprinus carpio*) is another problem species. Carp were apparently introduced into Ohio waters in the Cincinnati area and around Fremont in the Lake Erie coastal area in the late 1800s. Carp are often present in great numbers and may contribute to turbidity problems, adversely affecting the germination and growth of aquatic plants and interfering with the spawning success of other species of fish.

Through the coastal management program, ODNR will be increasing the state's efforts, working with other Great Lakes states and public and private interests to develop, adopt and enforce policies that will help prevent the invasion and spread of exotic species.

POLICY 12 – WETLANDS

**IT IS THE POLICY OF THE STATE OF OHIO TO PROTECT, PRESERVE AND MANAGE WETLANDS WITH THE OVERALL GOAL TO RETAIN THE STATE'S REMAINING WETLANDS, AND, WHERE FEASIBLE, RESTORE AND CREATE WETLANDS TO INCREASE THE STATE'S WETLANDS RESOURCE BASE BY:**

- A. REGULATING ACTIVITIES IN WETLANDS THROUGH THE ENFORCEMENT OF OHIO WATER QUALITY STANDARDS FOR ANY ACTIVITY THAT MAY RESULT IN ANY DISCHARGE INTO WETLANDS AND OTHER WATERS OF THE STATE (O.R.C. 6111.03(O), O.R.C. 6111.03(P), O.A.C. 3745-1-05, 3745-1-50 TO 54 AND 3745-32);**
- B. REGULATING ACTIVITIES IN ISOLATED WETLANDS THROUGH THE ENFORCEMENT OF STATE ISOLATED WETLAND PERMITS (O.R.C. 6111.02, 6111.021, 6111.022, 6111.023, 6111.024, 6111.025, 6111.026, 6111.027, 6111.028, and 6111.029);**
- C. PROVIDING LEADERSHIP AND TAKING ACTION TO MINIMIZE ADVERSE EFFECTS TO WETLANDS IN CARRYING OUT ODNR RESPONSIBILITIES, AND, TO THE EXTENT ALLOWED BY LAW, AVOIDING UNDERTAKING CONSTRUCTION, PERMITTING ACTIVITIES, OR PROVIDING FINANCIAL ASSISTANCE FOR CONSTRUCTION THAT MAY DIRECTLY OR SECONDARILY DEGRADE OR DESTROY THE NATURAL AND BENEFICIAL FUNCTIONS OF WETLANDS (ODNR DIRECTIVE - WETLANDS);**
- D. ACQUIRING WETLANDS OR INTEREST IN WETLANDS AND THE BUFFER LANDS THAT MAY BE NEEDED FOR THEIR PROTECTION; RESTORING AND MANAGING PREVIOUSLY CONVERTED OR DEGRADED WETLANDS; AND PROVIDING ASSISTANCE TO PRIVATE OWNERS FOR WETLANDS RESTORATION AND MANAGEMENT;**
- E. COOPERATING WITH THE OLD WOMAN CREEK NATIONAL ESTUARINE RESEARCH RESERVE, THE OHIO SEA GRANT COLLEGE PROGRAM AND OTHER INSTITUTIONS IN EDUCATION AND RESEARCH. THE STATE WILL ENCOURAGE WETLANDS RESEARCH AND PRIORITIZE FUNDING ASSISTANCE FOR RESEARCH THAT ENHANCES COASTAL MANAGEMENT; AND**
- F. PROVIDING INFORMATION ON WETLANDS RESOURCES AND TECHNICAL ASSISTANCE TO ORGANIZATIONS AND INDIVIDUALS REQUESTING HELP IN WETLANDS CONSERVATION PROJECTS; AND**
- G. DEVELOPING A STATEWIDE WETLAND RESTORATION AND MITIGATION STRATEGY.**

## Authorities and Administration

- A. All coastal area wetlands fall within the jurisdiction of the U.S. Army Corps of Engineers (COE) in regulating activities under the Rivers and Harbors Act of 1899 (Section 10) and/or the CWA (Section 404). The scope of the state's authority under Section 401 of the CWA and Ohio water pollution control laws is coterminous with that of the COE and covers all surface waters within the coastal area, including wetlands. However, state water pollution control law extends the state's authority to require a state water quality certification for all applicants for any federal license or permit to conduct any activity that may result in any discharge into the waters of the state (O.R.C. 6111.03(P)). "Waters of the state" include wetlands (O.A.C. 3745-32-01(N)). "Wetlands" are defined in state regulations as "areas where the water table is at, near, or above the land surface long enough each year to support the growth of water dependent vegetation and to result in the formation of characteristic wet soil types. These include marshes, swamps, bogs and similar areas" (O.A.C. 3745-32-01(O)).

Ohio has developed wetland water quality standards (See Appendix K). This rule-making was a joint effort of Ohio EPA and the ODNR. The basic structure of the wetland standards is to assign one designated use to all jurisdictional wetlands. Under OAC 3745-1-53, all of these surface water bodies receive the "wetland" use designation. The OAC Rule 3745-1-51 also contains narrative criteria, composed of goal statements that support the wetland use designation. Numeric chemical criteria for the wetland use, in OAC Rule 3745-1-52, apply to point source discharges. Those discharges are held to the warmwater habitat aquatic life use chemical criteria. For wetland discharges this criteria needs to be met at the Aend of pipe≡.

The wetland antidegradation provisions found in OAC Rule 3745-1-54, have a tiered system of protection. A wetland under review is placed into one of three antidegradation categories. These categories are based on a wetland's relative functions and values, sensitivity to disturbance, rarity and the ability to adequately mitigate for its loss through wetland restoration or creation.

Category 1 wetlands are those which support minimal wetland functions. Wetlands assigned to Category 1 do not provide critical habitat for threatened or endangered species or contain rare, threatened or endangered species. Category 1 wetlands are likely to be hydrologically isolated, have low species diversity, be dominated by non-native species in the plant community and have no significant wildlife habitat or use. Category 1 wetlands would have limited potential for reestablishment of lost wetland functions. Typical Category 1 wetlands would include wetlands that are acidic ponds created on mined lands, those wetlands that have little or no plants, and wetlands that are hydrologically isolated and comprised primarily of invasive, opportunistic plant species such as purple loosestrife (*Lythrum salicaria*), reed canary grass (*Phalaris arundinacea*) and giant reed (*Phragmites australis*).

Category 2 wetlands are those which support moderate hydrological, habitat, recreational and other wetland functions. Wetlands assigned to Category 2 are likely to be dominated by native species but generally would not have habitat for rare, threatened or endangered species.

Category 2 wetlands could be wetlands that are degraded but still have a reasonable potential for reestablishing lost wetland functions.

Category 3 wetlands are those that support superior wetland functions. Wetlands assigned to Category 3 would typically have high levels of biodiversity, a high proportion of native species or other high functional values. Category 3 wetlands might include wetlands which contain or provide habitat for threatened or endangered species, high quality forested wetlands, including old growth forested wetlands, mature forested riparian wetlands, vernal pools and wetlands which are scarce regionally or statewide including bogs and fens.

OAC Rules, 3745-1-05 and 3745-1-54, establish criteria for determining when the Director of Ohio EPA can allow a lowering of water quality in wetlands and what is appropriate mitigation for those impacts. OAC Rule 3745-1-05 identifies Category 1 wetlands as Limited Resource Waters and Category 2 and Category 3 wetlands as General High Quality Waters.

In order for an applicant to impact a Category 1 wetland the applicant must show that alternatives to impacting the wetland have been considered. Unavoidable wetland impacts must be minimized by replacing the storm water and some water quality functions on-site. The impacted Category 1 wetlands must then be mitigated for at a ratio of one and a half acres of wetland mitigation for every acre of wetland destroyed (1.5:1). This mitigation can occur anywhere within the same U.S. Army Corps of Engineers District. Ohio is divided into four of these districts which are based on drainage areas.

Category 2 wetlands require that the applicant has considered all alternatives to their destruction. For unavoidable impacts the applicant must demonstrate that they have minimized the acreage of wetland impacts. The applicant must then demonstrate that the proposed lowering of water quality is necessary for important social and economic development. Applicants must demonstrate that they can successfully mitigate for their project by restoring or creating wetlands of equal or higher quality than those being impacted. Approved wetland impacts must be mitigated on-site (within a one mile radius) if there exists a high likelihood of success for such an endeavor. If the applicant can demonstrate that on-site mitigation is not practicable then mitigation can occur anywhere within the same watershed, of a grouping of thirty-seven watersheds comprising Ohio. Mitigation ratios for Category 2 wetland impacts range from 1.5:1 to 2.5:1, with higher ratios required for off-site mitigation and for replacement of forested wetlands.

Approved impacts to Category 3 wetlands must meet all of the demonstrations required for impacts to Category 2 wetlands. Additionally, for Category 3 wetland impacts to be approved, the applicant must show that there is a public need for their project. Again, approved impacts must be mitigated for by restoration or creation of wetlands of equal or higher quality than those being impacted. Mitigation ratios for Category 3 wetlands range from 2:1 to 3:1 with higher ratios for off-site mitigation and for impacts to forested systems.

OAC Rule 3745-1-54 also singles out a subset of Category 3 wetlands, those that are scarce either regionally or statewide, where only temporary disturbances of water quality can be

authorized. This subset includes such wetland ecosystems as bogs, fens and other wetland systems that are high quality and rare.

OAC Rule, 3745-1-05 allows the Director to designate surface waters with outstanding ecological or recreational values as Outstanding National Resource Waters. Amendments to OAC Rule 3745-1-05 address review requirements for some wetlands designated Outstanding National Resource Waters. Disturbances to the water quality of wetlands and other surface waters designated as Outstanding National Resource Waters can only be authorized if they are short-term.

As well as providing mitigation for impacted Category 2 and Category 3 wetlands, the applicant must always replace the storm water and some water quality functions on-site. Peak post-development rates of surface runoff cannot exceed peak pre-development surface runoff rates on the project site. Retention or detention structures built on-site to accommodate this requirement must also incorporate chemical water quality improvement measures to the maximum extent practicable.

All approved wetland mitigation projects must be protected in perpetuity and are subject to a five year monitoring program under OAC Rule 3745-1-54. The monitoring includes information on hydrology, plants, soils and chemical water quality. The monitoring includes submittal of an annual report by the applicant and a third year site visit by Ohio EPA staff. The applicant is responsible to undertake any recommendations made by Ohio EPA to improve the mitigation wetlands. At the end of the five year monitoring period, if they can show that the mitigation is successful, the applicant is released from any further monitoring requirements.

The discharge of dredged or fill material or the creation of any obstruction or alteration is prohibited in wetlands unless the Director, Ohio EPA, determines that the activity will (1) not interfere with the attainment or maintenance of water quality standards, and (2) not result in a violation of any applicable provision of the CWA, including: (a) effluent limitations described in Section 301; (b) water quality related effluent limitations as described in Section 302; (c) water quality standards and implementation plans as described in Section 303; (d) national standards of performance as described in Section 306; or (e) toxic and pretreatment effluent standards as described in Section 306. Notwithstanding an applicant's demonstration that these criteria are met, the director may deny an application for a Section 401 certification if the director finds that the discharge or obstructions or alterations will result in adverse long- or short-term impact on water quality (O.A.C. 3745-32-05).

There are water quality certification exemptions. No Section 401 water quality certification need be obtained if the discharge of dredged or fill material is part of the construction of a federal project specifically authorized by Congress, provided the effects of such discharge are included in an environmental impact statement submitted to Congress prior to the actual discharge (O.A.C. 3745-32-03).

The director may impose terms and conditions as a part of the Section 401 water quality certification that are necessary to ensure compliance with the applicable laws and to ensure adequate protection of water quality (O.A.C. 3745-32-05(C)). Also, prior to the issuance of a water quality certification or prior to, during or after the discharge of dredged or fill material, to ensure adequate protection of water quality, the director may require that the applicant perform various environmental quality tests (O.A.C. 3745-32-05(D)). The director may revoke a Section 401 water quality certification if the director concludes at any time that any applicable laws or regulations have been or are likely to be violated (O.A.C. 3745-32-06). Section 401 certifications are issued, modified, revoked or denied and may be challenged in accordance with the provisions of the rules of procedure of the Ohio EPA, Chapter 3745-47 of the Administrative Code (O.A.C. 3745-32-07). Procedural rules require public notice regarding such Ohio EPA actions; public notice is given when the agency begins consideration of issuance of Section 401 certification.

In reviewing applications for water quality certification, Ohio EPA solicits input from ODNR and the U.S. Fish and Wildlife Service. ODNR may provide comments or data regarding fish and wildlife impacts, biological and other natural resources, and potential effects upon resources or uses of concern to ODNR. Ohio EPA receives and incorporates in its administrative record comments and recommendations submitted by ODNR and the Fish and Wildlife Service to the Corps of Engineers (COE). Comments by ODNR are submitted in part to express the views of the state regarding the conservation of fish and wildlife resources in accordance with the Fish and Wildlife Coordination Act and other applicable laws and regulations.

State authority provides increased protection of wetlands beyond controls over activities under the COE's Section 10/404 permit authority. State law provides that the Director, Ohio EPA may certify or deny certification to any applicant for a federal license or permit to conduct any activity that may result in a discharge into the waters of the state (O.R.C. 6111.03(P)). Further, O.A.C. 3745-32-02 sets forth the specific requirements that a Section 401 water quality certification is required to obtain the following: (1) a permit from the COE pursuant to Section 10 of the Rivers and Harbors Act; (2) a permit from the COE pursuant to Section 404 of the Clean Water Act; (3) a permit from the COE under both Section 10 and 404; and (4) any other federal permit or license that may result in any discharge to waters of the state.

In addition, increased protection of wetlands beyond the scope of the COE's authority is realized through the state's water pollution law and regulations. As an illustration, in December, 1996, the COE published the final rule for the administration of its nationwide permit program regulations. The Corps' permits are not valid until the state certifies that the discharge does not violate the state's water quality standards. Ohio EPA denied water quality certification for nationwide permits 17 – discharges associated with hydropower projects and 21 – surface coal mining activities.

Also, state water quality certification has imposed general and specific conditions on many nationwide general permits. A list of Ohio EPA's water quality certification exceptions to Section 404 Nationwide Permits is provided in Appendix K.

The Environmental Review Appeals Commission (ERAC), an appellate review board, separate and distinct from the Ohio EPA (see Chapter 4, Section 1), has ruled that the director's action of issuing water quality certification to an applicant with the condition that a portion of a wetland not be filled is reasonable and lawful because wetlands are waters of "exceptional ecological significance" within the meaning of O.A.C. 3745-1-05 and are therefore subject to the antidegradation policy of Ohio's water quality standards (EBR 79-42, 8/30/79). This decision construing Ohio EPA regulations has been sustained on appeal to the Franklin County Court of Appeals and the Ohio Supreme Court.

- B. Ohio House Bill 231, effective July 17, 2001, mandates regulation of dredge and fill impacts to isolated wetlands and requires appropriate mitigation. Ohio EPA now regulates isolated wetlands deemed non-jurisdictional by the U.S Army Corps of Engineers as a result of SWANCC v. U.S. Army Corps of Engineers (O.R.C. Sections 6111.02, 6111.021, 6111.022, 6111.023, 6111.024, 6111.026, 6111.027, 6111.028, and 6111.029). The law also gave the Director of the Ohio Department of Natural Resources authority to establish a list of approved wetland mitigation banks and to establish and operate wetland mitigation banks under O.R.C. 6111.025. The state isolated wetland permit law and the approved wetland mitigation bank list (August 2001) are included in Appendix K.
- C. Above and beyond the state's water pollution control laws, Section 401 implementing regulations and review guidelines, ODNR's Directive on Wetlands (1999 revision to the 1989 Policy Statement) "establishes a framework for the Ohio Department of Natural Resources' (ODNR) planning, land management and development; all regulation and financial assistance; water resources development, nonpoint source management and other cooperative programs, technical assistance and consultation; and external communication of departmental directives, procedures and policies."

ODNR follows this published wetlands directive in providing input to Section 404 permitting by the Corps of Engineers and Section 401 certification actions by Ohio EPA. Implementing provisions of ODNR's wetlands policy includes the following: requiring wetlands conservation measures in the planning of water resources developments and capital improvements projects; prioritizing funding for wetlands acquisition and protection; requiring that ODNR's regulatory programs be administered in a manner that avoids unnecessary wetlands damages and losses; and directing land managing divisions to act affirmatively to preserve and enhance wetlands. (Appendix K contains the full text of ODNR's Directive on Wetlands.)

- D. It is the policy of the OCMP to seek increased dedicated public funding for wetlands restoration, enhancement and management. This includes financial assistance such as tax abatements and other incentives for private owners when long-term benefits to the general public interest will be realized. Coastal wetlands are protected by acquisition of land interests under various programs. ODNR has the authority to appropriate property for specific uses and purposes on behalf of any division in the department (O.R.C. 1501.01).

The Division of Natural Areas and Preserves (DNAP) administers the State Nature Preserve Program (O.R.C. 1517.05) to protect and manage outstanding examples of Ohio's natural heritage. Private owners may sell or donate qualifying wetland areas to the division. Alternatively, they may dedicate their wetland properties to the preserve system or maintain these wetlands as natural areas under the Ohio Natural Landmarks Program.

The Division of Wildlife (DOW) protects wetlands by acquiring and managing lands as wildlife areas. DOW has the authority to acquire and manage lands and waters or their surface rights for the specific purpose of fish and wildlife management, preservation, propagation, and protection, nongame recreational pursuits, public fishing and hunting grounds and preservation of the flora and fauna (O.R.C. 1531.06).

ODNR also protects wetlands by acquiring and operating lands as state parks. The Division of Parks and Recreation (DPR) acquires and manages these lands for public protection and use (O.R.C. 1541.02). Similarly, Ohio's park district agencies may acquire lands for the conservation of the natural resources of the state (O.R.C. 1545.11).

Many independent organizations and private interests acquire and protect wetlands. Their management and preservation efforts for various conservation and recreation purposes assure the continued protection of important wetland areas.

The National Wetlands Priority Conservation Plan provides a process for identifying wetlands that should receive priority attention for federal or state acquisition. The 1993 Statewide Comprehensive Outdoor Recreation Plan (SCORP) published by ODNR, REALM, consistent with the National Plan, highlights the importance of wetlands to outdoor recreation. Under this plan, ODNR is increasing funding from a variety of sources for the acquisition and restoration of wetlands. Lake Erie area wetlands are given a high priority in the Ohio Wetlands Priority Conservation Plan due to declining wetland types within the ecoregion, their high degree of public benefit and their vulnerability to development.

Many programs assist coastal wetlands acquisition by ODNR, the U.S. Fish and Wildlife Service, local governments and independent organizations. Coastal wetlands conservation grants (Coastal Wetlands Planning, Protection and Restoration Act, Title III, Public Law 101-646) are utilized by ODNR and DNAP for the acquisition of wetlands and buffer lands at high priority sites (e. g., aquatic habitats associated with coastal barrier land forms). Federal Land and Water Conservation Fund Act grants are used for both state and local wetlands conservation projects. ODNR's Ohio Wetlands Priority Conservation Plan, developed under the SCORP, assigns high priority to the acquisition-protection of coastal area wetlands. In the past ten years, ODNR's Division of Wildlife and its many partners have protected, restored and enhanced approximately 13,000 acres of Lake Erie wetlands under the North American Waterfowl Management Plan (NAWMP). ODNR's DNAP has expanded the Sheldon Marsh State Nature Preserve by 75 acres in the past three years and plans a 311-acre addition to the Mentor Marsh State Nature Preserve with a coastal wetlands conservation grant, supplemented by the state's income tax refund checkoff program.

Wetlands acquisition and restoration projects under the NAWMP are assisted through federal matching funds originating through the North American Wetlands Conservation Act (P.L. 101-233, as amended). The investment is multiplied through the agreements and partnerships entered into by DOW and a variety of conservation organizations, businesses and governmental agencies.

DNAP also cooperates in partnership projects with other agencies and independent organizations and private landowners to acquire, protect and restore wetlands that serve as outstanding examples of Ohio's natural heritage. Wetlands are also being inventoried, restored and enhanced on existing public lands in state parks and other areas.

Public/private partnerships are essential to accomplishing the state's wetlands conservation objectives. The first project in the NAWMP's Lake Erie Marshes focus area, in cooperation with the Winous Point Shooting Club, resulted in the designation of the 2,400-acre Muddy Creek Bay as a waterfowl refuge. This bay is the most concentrated staging area for black ducks on the continent. On a smaller scale, partnership projects for wetlands restoration on private lands are also important. DOW assists landowners with the restoration of small isolated wetlands that are vitally important to waterfowl and other migratory and wetland dependent wildlife. The Lake Erie Marshes focus area of the NAWMP is of the highest priority for restoration projects with private landowners. Through 1995, DOW had assisted in the restoration of more than 650 acres of previously drained privately owned wetlands.

The Division of Soil and Water Conservation works cooperatively with the U.S.D.A. Natural Resources Conservation Service to provide additional incentives for wetland protection on privately owned lands under the federal Wetlands Reserve Program (WRP). The WRP is focused chiefly on wetlands in agricultural production, providing cash payments to property owners for permanent conservation easements on wetland property and cost-sharing for restoration. The DSWC has provided piggy-back funding for the WRP targeted at riparian wetlands. This policy of assisting in paying down the costs of the permanent easement has allowed the state to receive enhanced federal funding for more set-asides. As a result, nearly 3,100 acres of wetlands were protected in the state during the first year of the WRP. Approximately 250 acres were in coastal counties, and the protection of more than 500 additional acres in riparian areas of the Maumee River watershed is expected to enhance water quality in the Lake Erie basin. The Division has set aside nearly \$600,000 in NatureWorks funds to expand the use of this program to help achieve the state's nonpoint source water quality goals.

The OCMP will promote increased financial, technical and cooperative assistance for private owners to promote long-term wetlands protection and management.

- E. In partnership with the Ohio Sea Grant College Program, the OCMP strives to increase the usefulness of wetlands research to state and local decision makers and improving coastal management. The Lake Erie Protection Fund program may provide assistance for research and

coastal wetlands restoration projects, with a particular emphasis on projects that may benefit wetlands restoration and management elsewhere in the coastal area and Great Lakes system. Public education and outreach are mutual objectives for which these programs strive to maximize existing resources.

One of the premier locations for wetlands research and education on Lake Erie and the entire Great Lakes is the Old Woman Creek State Nature Preserve and National Estuarine Research Reserve (OWC-NERR). A memorandum of agreement between the OWC-NERR and the OCMP formalizes an institutional linkage intended to maximize the benefits of the use of the OWC-NERR for long-term scientific research, monitoring and educational programs. Assessing the impact of nonpoint sources of pollution in the watershed of the NERR is a high priority for research and is intended to be useful to other geographic locations in the coastal area.

- F. A broad network of individuals and institutions provides information and technical assistance on wetland issues ranging from acquisition-protection projects and strategies to mitigation options, research, education, inventorying, and wetlands restoration and development. The OCMP endeavors to maintain effective linkages and networks to maximize the resources that may be devoted for coastal wetland conservation purposes. The Ohio Sea Grant College Program and member institutions provide information generated from wetlands research. Information on wetlands protection through state and federal regulatory authority is readily available from Ohio EPA, Division of Surface Water. ODNR's DOW manages the statewide wetlands inventory and provides a wide range of technical assistance for planning and management purposes. The Lake Erie Geology Group of the Division of Geological Survey also provides technical assistance on the hydrology and geology of coastal wetlands. The OWC-NERR cooperates with the OCMP by interacting to disseminate information on wetlands and related coastal management issues and acting as a clearinghouse for information and policy on coastal management issues. DNAP's Natural Heritage Database inventory may contain information on high-quality wetland communities. This information is available to the public and local government for planning purposes. DNAP may also provide technical assistance on the protection of these areas and on the restoration of natural wetland communities.
  
- G. ODNR & Ohio EPA have secured a U.S. EPA grant to develop a statewide wetland restoration and mitigation strategy. This effort will include identification of high quality wetlands to be designated Outstanding National Resource Waters and to receive the corresponding high level of protection. Undoubtedly, one element of this plan will be an emphasis to restore and protect valuable Lake Erie coastal wetland systems.

## POLICY 13 – NATURAL AREAS AND FEATURES

**IT IS THE POLICY OF THE STATE OF OHIO TO PRESERVE SIGNIFICANT NATURAL AREAS AND OTHER OUTSTANDING FEATURES OF OHIO'S NATURAL HERITAGE BY:**

- A. ACQUIRING, DEDICATING AND MANAGING STATE NATURE PRESERVES (O.R.C. 1517.05, 1517.06);**
- B. MANAGING THE STATE'S NATIONAL ESTUARINE RESEARCH RESERVE PROGRAM;**
- C. CREATING AND MAINTAINING WILD, SCENIC AND RECREATIONAL RIVERS (O.R.C. 1517.14 THROUGH 1517.18);**
- D. MAINTAINING AN UP-TO-DATE INVENTORY OF NATURAL AREAS AND OTHER NATURAL FEATURES AND ENCOURAGING THEIR PRESERVATION THROUGH PRIVATE ORGANIZATION PROTECTION EFFORTS AND LOCAL GOVERNMENT REGULATION; AND**
- E. RECOGNIZING AS NATURAL LANDMARKS PRIVATELY OWNED NATURAL AREAS NOT SCHEDULED FOR ACQUISITION.**

### Authorities and Administration

- A. ODNR, Division of Natural Areas and Preserves (DNAP) administers and operates a system of state nature preserves pursuant to O.R.C. 1517.05. The intent of the system is to preserve through acquisition and dedication natural areas of state or national significance. "Natural area" means an area of land or water which either retains to some degree or has re-established its natural character, although it need not be completely undisturbed, or has unusual flora, fauna, geological, archaeological, scenic, or similar features of scientific or educational interest" (O.R.C. 1501.01). These areas include, but are not limited to, sites characteristic of Ohio's presettlement landscape types, natural vegetation and geological history.

Dedicated nature preserves are held in trust for the uses and purposes set forth in O.R.C. 1517.05 for the benefit of the people of the state, of present and future generations. They are managed and protected in the manner approved by, and subject to rules established by, the Chief of the DNAP. These preserves shall not be taken for any other use except another public use – after a finding by ODNR of the existence of an imperative and unavoidable public necessity for such other public use and with the approval of the governor (O.R.C. 1517.06).

Potential sites are evaluated for designation by DNAP based on the following internal criteria:

1. Whether the area complements the state's existing preserve program.
2. Whether it is a good representative of the community type that once existed in the region.
3. Whether it contains state or federal endangered flora or fauna.
4. Whether there is evidence of significant human disturbance of the area.

The division cooperates closely with local and national conservation organizations, nonprofit organizations, natural history museums, and universities in locating and identifying areas worthy of preservation. Through the Natural Areas State Income Tax Checkoff Program, the public is able to assist in acquisition and preservation of these natural areas, scenic rivers and endangered species by contributing a portion of its tax refund to the DNAP.

Nature preserves are classified as scientific, interpretive or scenic, with scientific areas being the most restrictive in use and scenic areas being the least restrictive. Preserves are managed for the following uses and purposes:

1. For conducting scientific research;
2. For teaching biology, ecology, natural history, geology, coastal processes and other related subjects;
3. To provide habitats for plant and animal communities;
4. As reservoirs of natural materials;
5. To serve as places of natural interest and beauty;
6. For fostering public visitation and observation of the natural world;
7. To promote understanding and appreciation of the aesthetic, cultural and scientific values of these areas; and
8. To preserve and protect such natural areas from any uses that would destroy their natural or aesthetic conditions. Active recreation, camping and organized sports are prohibited.

- B. Ohio's only designated National Estuarine Research Reserve is at Old Woman Creek. The National Estuarine Reserve Research System (NERRS) was established by Section 315 of the Coastal Zone Management Act of 1972, 16 U.S.C. 1461, to provide financial assistance awards on a 50-50 matching basis to coastal states (including Great Lakes) for acquisition, development and operations of estuarine areas as natural field laboratories. These areas are

used primarily for long-term scientific and educational programs that provide information essential to local, regional and national coastal decision making. The Reserve's administrative offices -- designated as the Ohio Center for Coastal Wetland Studies -- are located on-site at Old Woman Creek.

To guarantee long-term protection of Old Woman Creek estuary, and to ensure fulfillment of the goals and objectives of the NERRS Program, the Reserve is managed by the Division of Wildlife as a nature preserve. Budget and policy decisions are made by the chief of Wildlife in coordination with the on-site NERRS Program Administrator and the Chief of the Sanctuaries and Reserves Division (SRD)/National Oceanic and Atmospheric Administration (NOAA)/U.S. Department of Commerce.

- C. The Director of ODNR or the director's representative is authorized to create, supervise, operate, protect and maintain wild, scenic and recreational river areas (O.R.C. 1517.14). Areas that possess water conservation, scenic, fish, wildlife, historic or outdoor recreation values may be preserved, and adjacent lands of sufficient width necessary to protect those values may be included. ODNR is responsible for preparing and maintaining plans for the establishment, development, use and administration of these areas as part of comprehensive state plans for water management and outdoor recreation. The department also cooperates with federal wild, scenic and recreational river programs.

ODNR does not, as a result of such designation, restrict land use of property owners within the designated area. However, the Chief of DNAP does participate in watershed-wide planning with federal, state and local agencies to protect the wild, scenic and recreational values of these areas. DNAP administers federal financial assistance for such areas and may expend funds appropriated by the Ohio general assembly for acquisition, protection and maintenance of property (O.R.C. 1517.17). Channel modifications, construction and road building by state agencies and political subdivisions are prohibited within wild, scenic and recreational rivers outside municipal limits without plan approval by the Director of ODNR (O.R.C. 1517.16).

Wild river areas are free of impoundments, inaccessible except by trail, with essentially primitive shorelines and watersheds and unpolluted waters. Scenic river areas are free of impoundments, accessible in places by roads, with largely undeveloped watersheds and primitive shorelines. Recreational river areas are accessible by roads or railroads, have some development along their shorelines, and may have undergone some impoundment or diversion in the past (O.R.C. 1517.16).

Segments of five Lake Erie tributaries have been designated as Scenic Rivers. All designated segments of these rivers (the Chagrin, Grand, Cuyahoga, Sandusky and Maumee) lie outside the proposed Coastal Management boundary. Nevertheless, wise watershed management through implementation of stormwater management techniques and nonpoint source pollution control in these areas has a highly beneficial impact on coastal area water quality. The Scenic Rivers Program cooperates with the Ohio EPA and ODNR's Division of Soil and Water Conservation to encourage watershed protection on designated streams within the basin. (See Appendix J for

additional detail regarding the Scenic Rivers Program's role in nonpoint source pollution control.)

- D. DNAP systematically identifies ecologically significant natural areas, communities, species and features to analyze and establish land protection priorities. This information is also provided to planners and government officials for local protection programs and regulations, and to developers to direct development away from sensitive areas.
- E. The Ohio Natural Landmark Program is designed to make landowners aware of significant natural features, encourage them to protect these features and provide technical assistance as needed. This is a nonbinding notification and recognition program for owners of natural areas that are not presently scheduled for acquisition. Such areas are then recognized as a part of the registry of natural areas, and technical assistance through DNAP is available to manage them.

POLICY 14 – RARE AND ENDANGERED SPECIES

**IT IS THE POLICY OF THE STATE OF OHIO TO PRESERVE AND PROTECT RARE, THREATENED AND ENDANGERED PLANT AND ANIMAL SPECIES TO PREVENT THEIR POSSIBLE EXTINCTION BY:**

- A. RESTRICTING THE TAKING OR POSSESSION OF NATIVE ANIMAL SPECIES, OR THEIR EGGS OR OFFSPRING, THAT ARE THREATENED WITH STATEWIDE EXTINCTION (O.R.C. 1531.25 AND O.R.C. 1531.99);**
- B. REGULATING THE TAKING, POSSESSION, REMOVAL, TRANSPORTATION OR SALE OF NATIVE PLANT SPECIES LISTED AS ENDANGERED OR THREATENED WITH EXTIRPATION (O.R.C. 1518.03); AND**
- C. PROTECTING THE WATERS THAT PROVIDE A HABITAT FOR RARE AND ENDANGERED SPECIES (O.R.C. 6111.03(O), O.R.C. 6111.03(R), O.A.C. 3745-1-05(C)).**

Authorities and Administration

- A. ODNR, Division of Wildlife (DOW) protects fish and wildlife species threatened with statewide extinction under O.R.C. 1531.25. The division, with approval from the Wildlife Council, restricts the taking or possession of native species of wild animals, their eggs, or offspring threatened with statewide extinction. This restriction includes all species on the United States list of endangered fish and wildlife native to Ohio or that migrate within the state. The taking of species threatened with statewide extinction for zoological, educational, scientific or propagation purposes requires a written permit from the Chief of the Division of Wildlife (O.R.C. 1531.25 and O.A.C. 1501:31-23 and 1501:31-25). Any violation of this Section is considered a first degree misdemeanor pursuant to O.R.C. 1531.99.

Through the Wildlife Diversity Income Tax Checkoff Program, funds are made available to the DOW for protection and management of rare and endangered animals, including habitat purchase and protection and research.

- B. ODNR, Division of Natural Areas and Preserves (DNAP), has identified, designated, and listed plants that are native to Ohio that are in danger of extirpation or threatened with becoming endangered (O.R.C. 1518.01 and O.A.C. 1501:18-1). This list includes all species native to Ohio that are listed on the United States list of endangered and threatened plants. The removal or injuring of endangered and threatened plant species without permission from the private property owner or the removal from public property is prohibited (O.R.C. 1518.02). The taking of endangered and threatened plants for botanical, educational, scientific, or for propagation in captivity to preserve the species requires a written permit from the Chief of the DNAP pursuant to O.R.C. 1518.03.

Through the Natural Areas Income Tax Checkoff Program, funds are made available to DNAP for the protection and management of rare and endangered plants, including habitat purchase and protection and research.

- C. The Ohio EPA, through the state water quality standards (O.A.C. 3745-1), provides additional protection to aquatic species identified as threatened or endangered. The Antidegradation Policy (O.A.C. 3745-1-05(C)) protects waters of exceptional ecological significance (e.g., waters that provide a habitat for state and federally identified threatened or endangered species). Present ambient water quality in such waters will not be degraded for all substances determined to be toxic or to interfere with any designated use as determined by the Director of Ohio EPA. This authority is used through various permitting actions such as National Pollution Discharge Elimination System (NPDES) permits and Section 401 water quality certifications.

## POLICY 15 – EXOTIC SPECIES

**IT IS THE POLICY OF THE STATE OF OHIO TO PREVENT INTRODUCTION OF AND CONTROL EXOTIC SPECIES TO PRESERVE THE BALANCE AND DIVERSITY OF NATURAL ECOSYSTEMS OF OHIO'S LAKE ERIE REGION BY:**

- A. REGULATING THE SALE AND PROPAGATION OF PURPLE LOOSESTRIFE (O.R.C. 927.682);**
  - B. REGULATING THE IMPORTATION, SALE AND POSSESSION FOR PURPOSES OF INTRODUCTION INTO WATERWAYS OF EXOTIC SPECIES OF FISH OR HYBRIDS THEREOF (O.A.C. 1501:31-19-01);**
  - C. ESTABLISHING AND IMPLEMENTING CONTROL MEASURES FOR NON-NATIVE FLORA AS PART OF MANAGEMENT PLANS FOR ODNR-MANAGED PRESERVES AND WILDLIFE AREAS;**
  - D. INFORMING THE PUBLIC REGARDING PROPER PROCEDURES TO PREVENT FURTHER SPREAD OF ZEBRA MUSSELS;**
  - E. CONDUCTING AND SUPPORTING SCIENTIFIC RESEARCH TO ASSIST IN UNDERSTANDING THE EFFECTS OF ZEBRA MUSSELS AND CARP UPON THE LAKE'S ECOLOGY AND TO ASSESS A VARIETY OF MEANS TO CONTROL THE SPECIES; AND**
  - F. PARTICIPATING ON THE GREAT LAKES PANEL ON AQUATIC NUISANCE SPECIES AND CONDUCTING OTHER ACTIVITIES TO SUPPORT AND MAINTAIN CONSISTENCY WITH THE PURPOSES OF THE NONINDIGENOUS AQUATIC NUISANCE SPECIES PREVENTION AND CONTROL ACT OF 1990.**
- 
- A. The Director of the Department of Agriculture (DOA) prohibits the sale and propagation of purple loosestrife pursuant to O.R.C. § 927.682. No person or governmental entity may sell, offer for sale or plant *Lythrum salicaria* without a permit issued by the director. The director may issue a permit only for controlled experiments and may exempt from the permit requirement any variety demonstrated not to be a threat to the environment (O.R.C. 927.682).
  - B. The State of Ohio's fishing regulations provide that exotic species of fish or hybrids thereof may not be imported, sold or possessed for the purposes of introduction into any body of water that is connected to or drains into a flowing stream or other body of water that would allow egress of fish into public waters in the state. In addition, the possession and importation of grass carp capable of reproducing is prohibited. Importers and sellers of grass carp are required to certify that all grass carp handled are of the sterile triploid variety and must have prior written

authorization from the Chief of the Division of Wildlife (DOW) to import and sell this variety (O.A.C. 1501:31-19-01).

- C. Each preserve and wildlife area managed by ODNR, DOW and DNAP, is governed by a management plan specific to that area. Each plan incorporates a statement of policy regarding treatment of nonnative plant species identified as problems within the preserve or wildlife area. In the coastal area, plants identified include purple loosestrife, garlic mustard, European buckthorn, bush honeysuckle and Hungarian brome. Although Phragmites is a native species, there is the belief in the scientific community that a more aggressive European form exists. This European form of Phragmites is considered to be very invasive, and its ability to out-compete less-invasive native wetland species in recent years has caused this plant to be a problem species for coastal resource managers. Generally speaking, guidelines call for manual removal, burning and treatment with herbicides. Management plans include provision for monitoring and assessment to determine the extent of growth and nature of the disturbance, if any. Management plans are tailored to the specific preserve or wildlife area and prescribe the treatment appropriate for each species depending upon the habitat type, extent of invasion and management goals for the area.
- D. Spread of the zebra mussel cannot be prevented entirely, but it can be slowed. Because anglers and recreational boaters inadvertently contribute to transport and spread of the mussel, ODNR informs them of proper procedures for inspecting, draining, washing and drying equipment. Information regarding storage techniques and the use of antifoulants and coatings is also provided.
- E. ODNR, DOW is conducting and supporting numerous scientific studies of zebra mussels and carp and their effects on water clarity, pollutant uptake, predator/prey relationships, and other interactions of organisms at various trophic levels. Several methods of control are being investigated, including artificially inducing spawning at inappropriate times. Monitoring for the presence of ruffe and adult and larval sea lamprey has been conducted and will continue. Ruffe has not yet been found in Lake Erie, and sea lamprey have been controlled in the past and are confined to upper reaches of two coldwater streams in the eastern Ohio coastal area. Carp are controlled on DOW-managed areas by drawing down in early summer and placing screens on pump inlets and culverts in diked marshes. Rotenone is used in deep channels to eliminate remaining carp.
- F. ODNR, through DOW, participates on the Great Lakes Panel on Aquatic Nuisance Species, which was established to identify Great Lakes priorities and make recommendations to the Aquatic Nuisance Species Task Force. The Task Force was established as a result of the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA) of 1990. The goals of that act are to prevent unintentional introductions; coordinate research; disseminate information; develop and implement environmentally sound control methods; minimize economic and ecological impacts; and establish a research and technology program to benefit state governments. The Great Lakes Panel has been instrumental in establishment of new Coast Guard regulations to stop imports and is assisting in development of research protocol,

educational strategies, and management and research priorities. The State of Ohio also is represented on the panel by the Ohio Sea Grant Program.

Ohio has developed a State Aquatic Nuisance Species Management Plan as called for by NANPCA. The plan is patterned after the Model Comprehensive State Management Plan for the Prevention and Control of Nonindigenous Aquatic Nuisance Species developed through a May 1995 Great Lakes regional workshop funded under Section 308 of the CZMA. The steering committee that developed the plan includes ODNR staff from the Divisions of Wildlife and Natural Areas and Preserves, OCMP staff from REALM and staff from Ohio EPA, Sea Grant, the Lake Erie Office and The Ohio State University. The management plan and first annual work plan were submitted to the National Aquatic Nuisance Species Task Force in late 1996.

## PORTS AND SHORE AREA DEVELOPMENT

### Uses Subject to Management

- Activities involving the development of submerged lands of Lake Erie.
- Activities involving the dredging and disposal of dredged materials.
- Activities affecting the development of the shore and nearshore waters.
- Activities involving port development, maintenance and expansion.

### Dredging

Large vessels traveling the Great Lakes require harbor depths of 28 feet below low water datum. Keeping Ohio's commercial and recreational harbors open to these vessels requires annual dredging by the U.S. Army Corps of Engineers. Dredging involves large quantities of materials that are very costly to remove and may pose environmental problems. Polluted materials must be disposed at approved upland sites or in confined disposal facilities. These facilities are expensive and occupy valuable nearshore habitat. Improved dredging techniques and new methodology for the disposal of dredge materials is vital to the shipping industry.

### Residential Development

Lakeshore access, expansive views and other aesthetic considerations make the shore area a desirable place to live. Residential development, primarily single family housing, occupies nearly 45 percent of the 262 miles of Lake Erie shore in Ohio. In some areas near Cleveland, high-rise apartment buildings have been built on the bluffs overlooking the Lake. Neighboring communities face pressure from developers to rezone their lakeshores to allow for more condominiums and high-rise apartments. High-density housing drastically changes the shore's character, limits the options for its future use, and may create unforeseen environmental problems. Local decisions to redevelop the shore to provide high density housing must be considered carefully. Proper plans should be developed and implemented by local governments to reduce the effects of continued residential development on the Lake Erie shore.

### Industrial and Commercial Development

A sound, viable and progressive economy is an essential element of the Lake Erie region. The commercial and industrial advantages provided by the lake's economic resources are important to the region and the state. A lakeshore location satisfies two basic industrial location criteria: economic shipping distance for major raw materials including iron ore, coal and limestone; and availability of a large-volume water supply for processing needs.

Approximately 10 percent of the shore is developed by industrial or commercial interests. Many of the lake's tributaries are also heavily developed. However, their harbors, which in the past have been almost exclusively areas of commercial and industrial development, are now undergoing urban waterfront development.

Some developments along the lakeshore are lake-dependent and require actual lakefront access to operate. These include commercial fishing, port facilities, certain mineral extraction industries, large boatworks, shipyards, and marinas. Other developments along Lake Erie require water, but not necessarily lakefront land, as an integral part of their operation. Electrical generating facilities and steel plants are examples of this second group of developments.

### Ports

The availability of an inexpensive water-based transportation system has greatly influenced development of cities and industry along the Lake. Commercial ports along Ohio's Lake Erie shore provide a vital link in the state's transportation system and are vital to the local, regional and state economy. The major commercial ports are Ashtabula, Cleveland, Conneaut, Fairport Harbor, Huron, Lorain, Sandusky and Toledo. Major commodities are coal, iron ore, grain, fertilizers, limestone, sand, gravel, salt and stone. A declining industrial base has hurt the ports, yet they have kept pace by diversifying their cargos and seeking new business. Innovative thinking and continued port development should maintain the flow of goods in the coastal area.

## POLICY 16 – PUBLIC TRUST LANDS

**IT IS THE POLICY OF THE STATE OF OHIO TO PROTECT THE PUBLIC TRUST HELD WATERS AND LANDS UNDERLYING THE WATERS OF LAKE ERIE, PROTECT PUBLIC USES OF LAKE ERIE AND MINIMIZE THE OCCUPATION OF PUBLIC TRUST LANDS FOR PRIVATE BENEFIT BY:**

- A. REGULATING OFFSHORE DEVELOPMENT AND IMPROVEMENT PROJECTS BY REQUIRING A LEASE FOR THE USE OF SUBMERGED LANDS (O.R.C. 1506.10 AND 1506.11 AND O.A.C. 1501-6-01 THROUGH 1501-6-06);**
- B. REGULATING RECOVERY OF SUBMERGED ABANDONED PROPERTY THROUGH PERMITS (O.R.C. 1506.32); AND**
- C. ESTABLISHING AND ENFORCING LAKE ERIE SUBMERGED LANDS PRESERVES (O.R.C. 1506.31).**

### Authorities and Administration

The waters of Lake Erie and lands underlying them belong to the state as proprietor in trust for the people of the state for the public uses to which they may be adapted, subject to the powers of the United States government, to the public rights of navigation, water commerce and fishery, and to the property rights of littoral owners, including the right to make reasonable use of the waters in front of or flowing past their lands (O.R.C. 1506.10). Ohio's "public trust doctrine" was originally established in 1803 when Section 14, Article III, of the "Northwest Ordinance" gave the new state authority to regulate activities occurring in navigable waters within state boundaries.

The U.S. Supreme Court ruled in Illinois Central Railroad Company v. Illinois 146 US 387 (1892) that the state may not abdicate its control of public trust properties and leave them under private control. Subsequent court decisions have looked with disfavor upon governmental actions that reallocated public uses to those of a select, private party. Several Ohio cases have clarified that the "public use" is to be construed broadly and extended beyond the traditional concepts of commerce, navigation and fishery. Specifically, State ex rel Brown v. Newport Concrete Co. (1975) 44 Ohio App. 2d 121 clarified that public use includes recreation, while State ex rel Squire v. Cleveland (1948) 150 OS 303 asserted that law regarding public use should provide a broad construction of "navigation" and be flexible enough to allow for future, as yet unanticipated, beneficial uses.

- A. A lease from the State of Ohio, acting through the Director of ODNR, is required before any improvements may be made on the waters and the land underlying the waters of Lake Erie (O.R.C. 1506.11, O.A.C. 1501-6-01 through 1501-6-06). Although the current shoreline serves as the general baseline for determining which areas require a lease for development, state law also requires a lease of Lake Erie submerged land for filled land that was originally occupied by

the lake's waters. Landowners with such improvements made prior to October 13, 1955 are automatically granted a lease if the developments do not constitute an unlawful encroachment on navigation and water commerce interests. Any additions or improvements upon the existing fill or structures may require a new lease.

ODNR, REALM reviews proposed projects in accordance with the following criteria, established in O.A.C. 1501-06-03, to determine the potential impacts upon Lake Erie and the public's use of Lake Erie:

1. Water Dependency – Generally, an application will not be approved for a nonwater-dependent development or activity.
2. Protection of Environmental Quality – The Director of ODNR may require an Environmental Impact Assessment to determine probable impacts of the activity upon the natural and human environment.
3. Public Recreation – Potential impacts upon the public right of recreation, including present or prospective recreational uses, will be evaluated. Provision for public access may be required as a lease or permit condition depending upon historic use patterns and suitability of the lease site for existing or prospective recreational uses.
4. Relationship to port development, commercial navigation and waterfront development plans – Consideration will be given to compatibility with such plans, sensitivity to preservation and restoration of other coastal features, and importance to the local and regional economy, interstate commerce and other national, state or regional interests.

In addition, as provided in O.A.C. 1501-6-03, consideration will be given to the following:

1. Whether the proposed project will prejudice the littoral rights of any owner of land fronting on Lake Erie.
2. Whether the proposed project conforms to the permitted uses as regulated by the local government, where applicable.
3. Whether any of the public uses (navigation, water commerce and fishery) of the original area would be destroyed or greatly impaired.
4. Whether the diminution of the area of original use would be small compared to the use of the entire area.
5. Whether the area has a history of use including, but not limited to, services rendered to the general public.

In reviewing an application in terms of a project's potential impairment of public rights, ODNR solicits comments and uses, to the maximum extent practicable, the findings of the COE Section 10/404 permit process, and the Section 401 Water Quality Certification by Ohio EPA. This policy allows other state agencies to comment on potential environmental impacts before ODNR issues a submerged lands lease. (Erosion control measures also require a permit pursuant to O.R.C. 1521.22 [see Policy 2]. If proposed in conjunction with erection, construction or redevelopment of a permanent structure within the Lake Erie coastal erosion area, O.R.C. 1506.07 will apply as well.)

All lease agreements contain a reservation to the State of Ohio of all mineral rights and a provision that the removal of any mineral shall be conducted in a manner that does not damage any improvements placed by the littoral owner, lessee or permit holder on the lands. Also, no lease or permit expresses or implies any control of fisheries or wildlife.

Rental payments received from leases entered into on or after March 15, 1989, accrue to the Lake Erie Submerged Lands Fund (O.R.C. 1506.11). From the fund, 50 percent of each rental is paid to ODNR for administration of submerged lands and for the Coastal Management Assistance Grant Program. The other 50 percent of the rental is paid to the municipal corporation, county or port authority with jurisdiction over the area for which the lease was executed. For leases existing prior to March 15, 1989, the total lease rentals are paid directly to the local government until the renewal clauses becomes effective.

Rules for leasing of Lake Erie submerged lands are included in Appendix L.

- B. The State of Ohio holds ownership and title to submerged abandoned property in Lake Erie and ODNR administers a permit system for recovery of such property (O.R.C. 1506.33 and 1506.32). See Policy 26 for additional details.
- C. In order to provide special protection for significant abandoned property and features in Lake Erie, the Director of ODNR with approval of the Director of OHS may adopt rules to establish Lake Erie submerged lands preserves (O.R.C. 1506.31). See Policy 26 for additional details.

POLICY 17 – DREDGING AND DREDGED MATERIAL DISPOSAL

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE FOR THE DREDGING OF HARBORS, RIVER CHANNELS AND OTHER WATERWAYS AND TO PROTECT THE WATER QUALITY, PUBLIC RIGHT TO NAVIGATION, RECREATION AND NATURAL RESOURCES ASSOCIATED WITH THESE WATERS IN THE DISPOSAL OF THE DREDGED MATERIAL BY:**

- A. REGULATING, THROUGH THE OHIO ENVIRONMENTAL PROTECTION AGENCY WATER QUALITY CERTIFICATION, THE DISCHARGE OR DISPOSAL OF DREDGED MATERIAL (O.R.C. 6111.03(P) AND O.A.C. 3745-1);**
- B. REQUIRING A LEASE FOR STATE-ADMINISTERED SUBMERGED LANDS THROUGH THE DEPARTMENT OF NATURAL RESOURCES BEFORE INITIATING THE CONFINED DISPOSAL OF DREDGED MATERIAL IN THE WATERS OR ON LANDS UNDERLYING THE WATERS OF LAKE ERIE (O.R.C. 1506.11);**
- C. REGULATING COMMERCIAL DREDGING OF MINERAL RESOURCES (O.R.C. 1505.07 AND 1505.99, AND CHAPTERS 1561, 1563, 1565 AND 1567; AND**
- D. COORDINATING INTERDISCIPLINARY REVIEWS OF DREDGING PROJECTS AT OHIO'S LAKE ERIE PORTS, PROVIDING TECHNICAL AND FUNDING ASSISTANCE TO IMPLEMENT ENVIRONMENTALLY SOUND DREDGING AND DREDGED SEDIMENT MANAGEMENT PRACTICES.**

Authorities and Administration

- A. The Ohio EPA regulates discharges of dredged materials into Ohio waters through the authority of the Director, Ohio EPA, to certify or deny certification to an applicant for a federal license or permit that the discharge will comply with the CWA (O.R.C. 6111.03(P)). Before any agency or individual disposes of dredged material into Ohio waters, a state water quality certification must be obtained. Water quality certifications are issued, denied or conditioned pursuant to Ohio EPA's review of a COE Section 10/404 permit application or application made directly to Ohio EPA. (See Policy 12 for a more complete description of the 401 water quality certification authority.)
- B. Before any improvements are undertaken to develop an in-water confined disposal facility (CDF), the project sponsor must obtain a lease from the ODNR for use of the waters and underlying submerged lands of Lake Erie (O.R.C. 1506.11). The application process and lease/permit criteria are explained in Policy 16.

- C. The Director, ODNR, with the approval of the Director, Ohio EPA, the Attorney General, and the Governor, requires a permit or lease for removal of sand and gravel and other mineral resources from the bed of Lake Erie. Permits are issued for terms of not less than one year nor more than 10 years or until the economic extraction of the mineral has been completed. Dredging of sand and gravel must be within certain fixed boundaries that do not conflict with the rights of littoral owners. Pursuant to O.R.C. § 1505.07, no person shall remove sand, gravel, stone or other minerals from or from under the bed of Lake Erie without first having obtained a permit or lease therefor from the Director, ODNR. Whoever violates this law shall be fined not less than \$100 and not more than \$500 (O.R.C. 1505.99).
  
- D. ODNR cooperates with Ohio EPA, U.S. EPA, the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers (COE), and the local agency or individual in determining the appropriate method and location for disposal of dredged materials. ODNR uses an interdisciplinary resource management approach to the evaluation of dredging and disposal projects. The uniqueness of dredge disposal projects and the variability of environmental conditions in Lake Erie and the coastal area necessitate this approach. The OCMP encourages the development of long-term sediment management plans for harbors and navigation channels where continuing dredging will be necessary to maintain navigation and beneficial and economic uses of these coastal areas.

The U.S. EPA has developed Section 404(b)(1) guidelines for determining the suitability of in-water disposal of dredged or fill material. In developing management mechanisms in the Ohio Nonpoint Source Management Program, ODNR and Ohio EPA recognized that determining the presence and relative concentration of contaminants in dredged material is only one important factor. Predicting the fate of those contaminants in each disposal option and assessing the environmental impacts of each dredged material disposal alternative is even more important. Decisionmaking regarding the management of dredged sediments from harbor areas and navigation channels where major tributaries deliver large quantities of sediments must be made on the basis of which alternatives provide reasonable protection for water quality and aquatic life uses and meet Ohio's objectives for sustaining beneficial human uses of the coastal area.

Management must be flexible. Lake Erie has tremendous variability in substrate conditions, currents, ambient water quality and natural sediment resuspension from location to location. Also, as the levels of pollutants in sediments decline with increased controls of point sources and nonpoint sources, open lake disposal options and methods need to be carefully examined to ensure that natural resources and beneficial uses of Lake Erie are adequately protected. The OCMP will use integrated management to fully explore upland and in-lake sediment reuse options. Traditional in-water confined disposal facilities (CDFs) for dredged sediments eliminate large areas of open water and submerged lands and underwater resources. This results in a major commitment of natural resources and habitat for fish and wildlife to a sediment disposal use.

The OCMP has developed general priorities for the location of dredge disposal sites. Evaluation of all projects depends upon the specific characteristics of the situation and the site.

Areas for the disposal of dredged materials determined not suitable for open-lake disposal, in order of their relative priority are: (1) upland sites and (2) nearshore confined sites.

Except for sand and gravel, the OCMP does not advocate an order of preference among site alternatives for the disposal or use of materials determined suitable for open-lake disposal. Site selection must be examined on a case-by-case basis considering ambient environmental conditions, dredged sediment characteristics and the characteristics of alternative open-lake sites.

The sand- and gravel-sized sediments should be returned to the littoral system downdrift of the point of dredging. Returning to the littoral system all sand and gravel dredged during construction or maintenance of navigation channels, harbors, or marinas located in nearshore areas or in stream mouths will help mitigate more than 150 years of damage to the littoral system caused by ill-conceived practices for disposal of sandy sediments dredged from these channels, basins, and marinas. The historical practice of open-lake disposal, upland disposal, or commercial sale of sandy sediment dredged from channels, harbors, and marinas has contributed to long-term degradation of Ohio's beaches, loss of natural shore protection, and increased erosion. Increased erosion has increased turbidity and sedimentation in nearshore aquatic habitats.

To facilitate return of sandy sediments to the littoral system, ODNR advocates adoption of innovative dredging technologies to bypass sandy sediment to the littoral system downdrift of the harbor, channel, or marina. In addition, ODNR advocates modification of existing harbor structures to capture sand before it enters channels, harbors, or marinas. Capturing sandy littoral sediment before it enters harbors, channels, or marinas would prevent it from becoming unsuitable for nearshore disposal due to mixing with polluted and/or fine-grained sediment.

## POLICY 18 – LOCAL LAKESHORE DEVELOPMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO ENCOURAGE LOCAL GOVERNMENTS TO PLAN FOR AND CONTROL SHORE DEVELOPMENT TO PROVIDE FOR THE WISE USE OF THE SHORE AND COASTAL RESOURCES BY:**

- A. PROVIDING PLANNING AND MANAGEMENT ASSISTANCE FOR THE DEVELOPMENT AND IMPLEMENTATION OF COMPREHENSIVE SHORE MASTER PLANS;**
- B. COLLECTING, ANALYZING AND PUBLISHING RESOURCE DATA THROUGH THE OHIO DEPARTMENT OF NATURAL RESOURCES, OHIO CAPABILITY ANALYSIS PROGRAM, FOR USE BY LOCAL GOVERNMENTS IN THEIR PLANNING AND DECISION-MAKING PROCESSES; AND**
- C. ASSISTING LOCAL GOVERNMENTS TO PREPARE ORDINANCES AND RESOLUTIONS NECESSARY TO EFFECTIVELY ADMINISTER THESE PLANS.**

### Authorities and Administration

- A. In Ohio, local governments have been constitutionally (Article XVIII, Section 3 of the Ohio Constitution) or legislatively (O.R.C. Chapters 303 and 519) granted the authority and responsibility to plan for and control the development of specific land uses within their respective jurisdictions. The state encourages local governments to exercise this responsibility and authority in the development and implementation of comprehensive lakeshore master plans to provide for the wise use of these important land and water resources. Ideally, local lakeshore plans should:
  - 1. Give high priority to public access, port and other coastal dependent uses over other types of development.
  - 2. Discourage unprotected development and redevelopment in coastal erosion and flood prone areas.
  - 3. Promote improved air and water quality.
  - 4. Guide new development in or adjacent to areas of similar or compatible use.
  - 5. Preserve fish and wildlife habitat and other significant natural areas or features.
  - 6. Maintain prime and specialty agricultural (nursery and viticulture) areas.

7. Preserve historic and archaeological sites and other areas of cultural significance.
  8. Use land capability analyses in the planning process.
  9. Minimize filling of Lake Erie, especially for nonwater-dependent uses.
- B. ODNR conducts investigations and collects data on the natural resources of the coastal area to assure their wise use and development. These efforts include information about soils, ground water, geology, forests, wetlands, floodplains, sediments and other resources and coastal processes. Much of this information is available through the Ohio Capability Analysis Program (OCAP), managed in the Division of Real Estate and Land Management. OCAP is a computer information system containing natural and physical data needed to analyze and present information on the land's ability to support or sustain various land uses. Additional information on coastal erosion and sedimentation, including Coastal Erosion Area maps, is available from the Lake Erie Geology Group of the Division of Geological Survey and the department's Lake Erie Geographic Information System. These data and analyses, available for all lakeshore communities, are valuable tools for local decisions on land use and development.
- C. ODNR has developed guidelines for local land-use management, and model ordinances have been developed for different types of critical resources and hazard areas, including flood hazards, geological hazards, mineral resources, river corridors and natural areas. In addition, model ordinances for Lake Erie coastal erosion area permitting will be made available to communities. (See Policy 1.) The ODNR Division of Water provides assistance in the development and review of flood hazard area regulations. (See Policy 3.)

Owners of agricultural land meeting the requirements of O.R.C. 929.02 may apply for designation by the county auditor of their land as an agricultural district. Agricultural districts are exempt from certain special assessments and have limited protection from land condemnation (O.R.C. 929.03, 929.04, 929.05). The benefits provided by designation of agricultural districts may help keep some land as agricultural land that otherwise may be converted to some other use.

## POLICY 19 – LAKE ERIE PORTS

**IT IS THE POLICY OF THE STATE OF OHIO TO PROMOTE AND PROVIDE FOR MARITIME COMMERCE AND RELATED ECONOMIC DEVELOPMENT ALONG THE LAKE ERIE SHORE BY:**

- A. PROVIDING ASSISTANCE TO, AND ASSISTING IN THE PROCUREMENT OF FEDERAL FUNDS FOR PORT DEVELOPMENT ACTIVITIES FOR, LOCAL GOVERNMENTS AND PORT AUTHORITIES THAT HAVE THE POWERS TO PLAN, IMPROVE, ACQUIRE, ENLARGE, OPERATE, MAINTAIN AND FINANCE PORT ACTIVITIES AND PROJECTS; AND**
- B. ENCOURAGING THE DEVELOPMENT OF COMPREHENSIVE PORT FACILITY AND EXPANSION MASTER PLANS AND IMPROVEMENT PROJECTS THROUGH FINANCIAL ASSISTANCE FROM THE OHIO DEPARTMENT OF TRANSPORTATION.**

### Authorities and Administration

In Ohio, any municipality, township, county or combination of such, may create a port authority (O.R.C. 4582.22). A municipality shall act by ordinance; a township shall act by resolution of the township trustees, and a county shall act by resolution of the county commission in authorizing the creation of a port authority. Port authorities shall be governed by a board of directors (O.R.C. 4582.27). The jurisdiction of a port authority shall include all of the territory of the political subdivision or subdivisions creating it, provided that the same area is not included in more than one port authority.

- A. The State of Ohio has developed a port assistance program for Ohio's Lake Erie ports. Grants are available through the Ohio Department of Transportation (ODOT), Division of Transportation Assistance, to assist port authorities in port planning, feasibility studies and improvement projects. These planning and feasibility studies should be coordinated with the affected local communities and should reflect local comprehensive planning and zoning regulations, where applicable. ODOT also provides technical assistance to port authorities in obtaining financial assistance for port development and expansion from other state and federal agencies.
- B. Ports are encouraged to undertake planning studies that provide public access points or recreation areas within the harbors as well as studies on the compatibility of recreational development and commercial facilities and traffic. This consideration increases public awareness and support for the ports and the important role they play in the local, regional and state economy.

## POLICY 20 – TRANSPORTATION FACILITIES

**IT IS THE POLICY OF THE STATE OF OHIO TO INCORPORATE COASTAL CONCERNS AND RESOURCE PROTECTION INTO COASTAL TRANSPORTATION PLANNING THROUGH COORDINATION WITH THE OHIO DEPARTMENT OF TRANSPORTATION, REGIONAL TRANSPORTATION AGENCIES AND LOCAL MUNICIPALITIES.**

### Authorities and Administration

The state reviews federally financed projects through the state intergovernmental review process. The following internal guidelines are used in reviewing transportation projects and related facilities:

1. The development of new commercial water transportation facilities should be encouraged to locate in areas in or adjacent to already developed commercial and industrial areas in existing ports and harbors.
2. The development and maintenance of land transportation and improvement of highway and railroad access to Lake Erie ports and other major Lake Erie facilities is encouraged. However, development of new, major land transportation that impedes physical access to the Lake and the immediate shore; damages or destroys wetlands, wildlife habitat or other natural areas; or is in Lake Erie or its bays, is discouraged.
3. The development and maintenance of new air transportation facilities, including airports that serve Lake Erie ports, islands or other major Lake Erie facilities is encouraged. However, development of new air transportation facilities, including airports, that impede access to the lake and the immediate shore; damage wetlands without mitigation; cause unacceptable damage to wildlife habitat and other natural areas; interfere with shore erosion protection, or commercial or recreational boating and fishing; or create unacceptable noise or safety hazards to the abutting or surrounding area, is discouraged.
4. The use of lakeshore property for parking lots is discouraged, except for those parking facilities that provide public access or serve lake-dependent facilities.

Projects may require water quality certification or other permits or approval from the Ohio EPA or the COE (see Policy 12).

## RECREATION AND CULTURAL RESOURCES

### Uses Subject to Management

- Activities associated with the development of public park and recreation areas including marinas and boat-launching facilities.
- Activities associated with the development of public hunting and fishing areas.
- Activities affecting archaeological or historic sites.

### Recreational Facilities

Over 3,200 square miles of Lake Erie are held in trust as a state resource for the people of Ohio. The Lake offers an almost endless variety of recreational opportunities on a year-round basis. However, user conflicts arise because the coastal area must provide for the recreational needs of Ohioans, while also maintaining nonrecreational and nonwater-dependent opportunities. Some existing recreational facilities are overburdened, and new facilities and expansion of existing facilities are needed in some areas.

Despite a wide variety of state, local and federally managed recreational areas, there remains a shortage of access and facilities necessary to promote the full recreational enjoyment of Lake Erie, according to the 1993 Ohio Statewide Comprehensive Outdoor Recreation Plan (SCORP). The demand for current facilities is increasing more rapidly than new ones can be provided. The high cost of land and the loss of potential recreational areas to other uses make it increasingly difficult to offer new services. The lakeshore is one of the more intensively developed areas of the state, and decreasing acreage has been available for recreational development, especially parcels both large and suitable enough for extensive recreation.

Many local officials indicate that the high cost of maintenance is a significant deterrent to new recreational development. Communities have limited resources and rely increasingly on federal funding for general municipal operations. As other costs of city government increase, park maintenance is often given a lower priority. In some cases, parks were built without provision for continuing park maintenance. Many local governments previously neglected the maintenance of shore area parks because poor water quality, high lake levels and erosion have lessened their value as public recreational areas. Improved environmental quality and increased awareness of Lake Erie's opportunities have created a growing demand for lake-based recreation that must be matched by government commitment to providing appropriate facilities.

## Beaches

Swimming and other beach activities have always been popular along the Lake Erie lakeshore. During the 1970s, poor water quality significantly reduced the use of Lake Erie beaches. Today, only a few beaches near larger cities and municipal/industrial facilities experience beach advisories for swimming during the summer months because of water pollution. Eventually, all beaches must be cleaned up for recreational use.

Erosion also has damaged beaches. Recent high lake levels have increased erosion, significantly reducing beach areas in many locations and completely eliminating others. In some areas, damage has extended to beach houses and shelters. Erosion is costly, not only in terms of the loss of valuable beach resource, but also in terms of construction and maintenance costs for erosion control structures.

## Boating

Lake Erie is the primary area of use of a substantial number of Ohio's recreational boaters. The high degree of demand creates several pressures on the Lake's resources.

Harbors of refuge are an important need of recreational boaters. Recreational boats are typically small and are often threatened by storm waves that develop quickly due to Lake Erie's shallow depth. Harbors of refuge provide safety when storm conditions develop. Most of the accessible and geographically suitable natural locations for harbors of refuge have been developed, although the capacity and accessibility of these existing harbors varies.

Construction, maintenance and improvement of boating facilities can conflict with environmental concerns. Marinas and small boat harbors often have been located at the mouths of streams or in wetland areas. The development of marina facilities and the review of such projects must consider the environmental impacts and the public interest.

## Fishing and Hunting

Lake Erie provides a greater variety of fish species than any of the other Great Lakes. While fish populations fluctuate on an annual basis, the Lake supports a thriving sport fishing economy. The one-half million anglers who fish there spend an estimated \$100 million annually in pursuit of their sport. Principal species are walleye, yellow perch, white bass and smallmouth bass.

Mallards, black ducks, wood ducks and blue-winged teal comprise approximately 70 percent of Ohio's annual harvest of more than 100,000 ducks. Mallards and black ducks are late migrants into Ohio and make up over half of the waterfowl reported on the hunter bag checks in the Lake Erie marsh region. Trapping for sport and harvest is particularly important in the Lake Erie marshes. Ohio's consistent second place rating in muskrat production is due principally to trapping along Lake Erie.

## Cultural Resources

Cultural resources include the historic, architectural and archaeological resources important in the history and pre-history of the State of Ohio. The State of Ohio has acknowledged the importance of historic sites for over a century. In 1885, the state granted a charter to the Ohio Historical Society (OHS), a private, nonprofit organization, to serve as curator for the material remains of Ohio's past. Federal-level consideration for the protection of cultural resources is provided under the National Historic Preservation Act of 1966. In accordance with the provisions of the act, Ohio has designated the Chief Operating Officer and Deputy Executive Director of OHS to serve as the State Historic Preservation Officer.

POLICY 21 – LAKESHORE RECREATION AND ACCESS

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE LAKESHORE RECREATIONAL OPPORTUNITIES AND PUBLIC ACCESS AND ENCOURAGE TOURISM ALONG LAKE ERIE BY:**

- A. PROVIDING FOR PUBLIC ACCESS TO COASTAL AREAS WITHIN THE STATE NATURE PRESERVE SYSTEM THROUGH ARTICLES OF DEDICATION WHEREVER POSSIBLE AND CONSISTENT WITH PRESERVATION AND PROTECTION OF THE LAND (O.R.C. 1517.05);**
- B. PROTECTING PUBLIC ACCESS RIGHTS TO LAKE ERIE WATERS AND SHORELINE AREAS WHERE COMPATIBLE WITH EXISTING AND PLANNED USES OF WATERFRONT AREAS THROUGH THE LAKE ERIE SUBMERGED LANDS LEASING PROGRAM (O.R.C. 1506.11 AND O.A.C. 1506-6-01 THROUGH 1501-6-06);**
- C. DEVELOPING AND MAINTAINING SHOREFRONT STATE PARKS (O.R.C. CHAPTER 1541);**
- D. PROVIDING FOR COMPREHENSIVE ASSESSMENT OF RECREATIONAL NEEDS AND PLANNING FOR FACILITIES TO MEET THOSE NEEDS THROUGH THE STATEWIDE COMPREHENSIVE OUTDOOR RECREATION PLAN (SCORP) AND LAKE ERIE ACCESS PROGRAM (LEAP);**
- E. ASSISTING LOCAL GOVERNMENTS TO DEVELOP LAKESHORE AND URBAN WATERFRONT RECREATIONAL AREAS BY PROVIDING FINANCIAL AND TECHNICAL ASSISTANCE;**
- F. PROVIDING FOR RECREATIONAL OPPORTUNITIES SUCH AS HIKING, BIRD WATCHING AND INTERPRETIVE SERVICES AT STATE PARKS, WILDLIFE AREAS AND NATURE PRESERVES AND ENCOURAGING LOCAL GOVERNMENTS AND OTHER AGENCIES TO PROVIDE GREATER ACCESS TO THE SHORE OF LAKE ERIE; AND**
- G. ENCOURAGING THE INCORPORATION OF PUBLIC ACCESS AND APPLICABLE RECREATIONAL OPPORTUNITIES INTO THE PLANNING OF PRIVATE DEVELOPMENTS AND PUBLIC INSTITUTIONS LOCATING ALONG THE SHORE OR RIVERS IN THE COASTAL AREA.**

## Authorities and Administration

- A. ODNR is charged with the responsibility of acquiring a system of nature preserves for scientific research, teaching of natural history, ecology, conservation and similar fields, as habitats for plant and animal species and communities, as reservoirs of natural materials, as places of natural interest and beauty, and other purposes and uses. Articles of dedication shall be executed by the owner of the land in the same manner and with the same effect as a conveyance of an interest in land and shall be irrevocable (except as provided in O.R.C. 1517.05). The nature preserve law expresses the intent of the Ohio General Assembly and ODNR "wherever possible and consistent with such preservation and protection of the land, the articles shall provide for public access in order that the maximum benefit be obtained for the uses and purposes stated . . ." (O.R.C. 1517.05).
- B. ODNR's authority to control Lake Erie's submerged lands through the lease application process has been effective in retaining public access where it has been a traditional and beneficial use of the waterfront. Rules that guide the lease process provide that "public access may be required as a condition of a lease or permit depending upon historic use patterns and suitability of the lease site for existing or prospective recreational uses" (O.A.C. 1501-06-03(1)(3)). Where no public access had existed previously, ODNR and the lessee have often identified opportunities for provision of various forms of public access (shoreline fishing, pedestrian access to shorelands, transient boat dockage and other uses and improvements). Often, developers have taken the initiative to provide for access, in light of potential benefits to their coastal-dependent enterprises. (See Policy 16 for additional detail on the lease program. Submerged lands leasing rules are contained in Appendix L.)
- C. ODNR's Division of Parks and Recreation (DPR) is charged with the development, operation and maintenance of a system of state parks in Ohio for the recreational use of the citizens of Ohio (O.R.C. Chapter 1541). State park development is financed primarily through ODNR's capital improvement budget. The Land and Water Conservation Fund (LWCF) and the NatureWorks program are supplemental sources of funding for state parks, and ODNR continues to develop new facilities and expand existing facilities along Lake Erie.
- D. The Statewide Comprehensive Outdoor Recreation Plan (SCORP), updated approximately every five years, is the State of Ohio's official policy document for outdoor recreation. The SCORP identifies statewide issues and problems impeding the provision of recreation opportunities and also identifies recreation resources, participation and activity trends, and social indicators that will influence the provision of these opportunities in the future. ODNR, REALM is the lead agency responsible for developing the SCORP. The SCORP also serves as a guide for allocations from the LWCF.

In 1998, ODNR completed a two-year planning process that culminated in the publication of a strategic plan for recreation opportunities. Commonly referred to as the Recreation Opportunities Priority (ROP), the strategic plan contains a number of issues and actions that

have relevance to the Ohio Coastal Management Program. Specifically, strategies for enhancing recreation resource protection, improving access to water-based recreation opportunities, and becoming more actively involved in the recreational corridors/greenways movement are consistent with the Ohio Coastal Management Program.

Ohio SCORPs have recognized the importance of Lake Erie in providing outdoor recreation opportunities for Ohio and its visitors. The need to provide additional access to Lake Erie was recognized in the 1980-85 Ohio SCORP that recommended the implementation of a comprehensive study of the access needs for boating and fishing. The Lake Erie Access Study was initiated in 1983 and included a comprehensive inventory of existing and potential access sites along the 262-mile shoreline. User surveys of boaters and anglers were also conducted to develop a data base for assessing access needs. The Lake Erie Access Study identified regional boating and fishing access needs to assist decision makers in developing rational acquisition and development strategies for providing access to Ohio's single most important water resource.

Upon completion of the Lake Erie Access Study, a public assistance program, the Lake Erie Access Program (LEAP), was established and has been administered by ODNR's Division of Watercraft. The program is authorized to provide up to 75 percent matching funds to local governmental agencies along the Lake Erie coast for boating and fishing improvements.

Assistance provided by the LEAP and continued demand for recreational access has necessitated a need to update the Lake Erie Access Study. Scheduled periodic updating will help decision makers in prioritizing sites for acquisition and recreational development.

The LWCF program provides up to 50 percent reimbursement grants to the state and its political subdivisions for acquisition and/or development of public outdoor recreation areas, consistent with SCORP. Other federal funding programs may, in certain instances, be matched with the LWCF money. However, ODNR requires that a minimum of 20 percent of the project costs be local funds to assure a local commitment to the proper operation and maintenance of the project. In allocating LWCF monies, a high priority has been placed on local projects.

The NatureWorks program was established in 1994 with permanent funding through \$200 million in state bonds. The NatureWorks grant program provides up to 75% reimbursement assistance for local government subdivisions (townships, villages, cities, counties, park districts, joint recreation districts, and conservancy districts) to for the acquisition, development, and rehabilitation of recreational areas. Since NatureWorks' inception, over 1,300 applications totaling over \$63 million have been funded.

The General Assembly specified that NatureWorks funds are to be available on a modified county per capita basis. Government agencies within each county are to apply to ODNR and compete for funds available to the county. Approximately one-fourth of the total county allocation will be available each funding year. The local grants program is an up-to 75 percent

reimbursement program, so the project sponsor must have the 25 percent matching funds as well as cash flow capability to complete the project. "In-kind" costs are eligible as match.

- E. ODNR encourages local governments to develop lakeshore recreational areas through technical and financial assistance for the acquisition and development of community park and recreation areas. The goals of ODNR's assistance are to: (1) qualify the state to receive federal funds from both the LWCF and the Recreational Trails Program (RTP) component of the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU), (2) administer the NatureWorks and LWCF programs and the NRTF component of SAFETEA-LU in Ohio so that political subdivisions receive the maximum benefits, and (3) provide other essential assistance to communities to provide quality recreation throughout the state.

Technical assistance is provided to communities by REALM. Typical assistance includes identification of funding sources; site inspection and evaluation; plan reviews and recommendations; inventory information; and guidance in application preparation, federal regulation compliance and project procedures.

ODNR encourages local communities to revitalize valuable urban water resources by providing technical and financial assistance to fully use the recreational potential of urban waterfronts. Technical assistance through REALM is primarily oriented toward providing information and expertise to local governments in such areas as plan review, applicable state and local programs, and sources of financial aid. Projects have been funded primarily through the LWCF program and the Waterways Safety Fund.

Projects that propose to provide new or improved boating, fishing or recreational opportunities to Lake Erie for the general use of the public are eligible to receive assistance through the LEAP. The lake access to be developed must be in the form of launching lanes or ramps, and/or shore-based fishing facilities such as piers, platforms, walls or breakwaters. In addition to actual access facilities, support accommodations such as parking, rest rooms, lighting, landscaping and lakefront park development may be eligible for financial assistance. In 1994, funding from the NatureWorks program in the amount of \$1.75 million for the 1996/97 biennium was made available specifically for LEAP.

- F. ODNR provides recreational opportunities at its state parks, nature preserves and wildlife areas in the coastal area. Interpretive facilities and programs continue to be developed at ODNR-managed properties on the Lake. Financial assistance through NatureWorks and the RTP can be provided to local and regional governmental agencies to develop recreational opportunities, including trails. Technical assistance is available from ODNR for interest groups, local communities and park districts interested in developing trails in Ohio. ODNR, (REALM) is the designated state agency responsible for the administration of the RTP. The RTP was established with the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 (PL 102-240) and was reauthorized by SAFETEA-LU through 2009. RTP funds can be

used to assist governmental agencies and non-profit trail groups in the rehabilitation, development, maintenance and acquisition of recreational trails and related facilities. RTP funds also can be used by states for environmental protection and safety education programs. Trails funded with NRTF monies may be motorized, nonmotorized or multiple-use trails.

- G. ODNR, through Section 10 and 404 permits and technical assistance, encourages the incorporation of public access and recreational opportunities into the planning of major developments and public institutions that locate at the shoreline or along rivers in the coastal area. Project developers and planners are encouraged to recognize multiple-use advantages of providing access areas in their plans where feasible.

POLICY 22 – LAKE ERIE BEACHES AND PUBLIC BATHING

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE PUBLIC BEACH ACCESS AND SAFE PUBLIC BATHING AREAS ALONG LAKE ERIE BY:**

- A. DEVELOPING AND MAINTAINING BEACHES AND BATHING AREAS ON STATE-OWNED LAND;**
- B. PARTICIPATING JOINTLY WITH THE U.S. ARMY CORPS OF ENGINEERS, SHORELINE PROPERTY OWNERS AND LOCAL LAKESHORE GOVERNMENTS IN BEACH AND LITTORAL NOURISHMENT PROJECTS;**
- C. PROVIDING FOR CONTINUING STUDY OF BATHING BEACH WATER QUALITY ALONG THE LAKE ERIE SHORE AND ADVISING APPROPRIATE AUTHORITIES OF WATER TEST RESULTS WITHIN THEIR RESPECTIVE JURISDICTIONS; AND**
- D. ENCOURAGING LOCAL AUTHORITIES TO ESTABLISH BEACH SAMPLING AND SANITATION PROGRAMS.**

Authorities and Administration

- A. ODNR, through the Division of Parks and Recreation (DPR), develops and maintains Lake Erie public beach access areas. DPR is charged with the development, operation and maintenance of new and existing bathing facilities within the state park system. DPR also has the authority to govern all state beaches and swimming activities on lands and waters that are part of the state park system (O.R.C. 1541.03).
- B. ODNR strongly urges the COE and requires other public and private entities to provide littoral/beach nourishment by returning dredged material composed primarily of sands or gravels derived from Lake Erie beach or nearshore zones to the shallow (less than 10 feet deep) nearshore waters or on the beach downdrift of the worksite. This is consistent with ODNR's position that all sand and gravel of littoral origin be returned to the downdrift littoral zone when dredged from marinas and channels by private interests and/or public agencies. ODNR works with the COE and other intrastate agencies on littoral/beach nourishment projects.

The COE, through several federal laws, including Section 145 of the Water Resources Development of 1986, Section 111 of the 1968 Rivers and Harbors Act and Section 103 of the 1962 Rivers and Harbors Act, is authorized to coordinate with the state on littoral/beach nourishment projects. The state also comments through the Section 404, Environmental Assessment and Evaluation, Public Notice, and Finding of No Significant Impact (FONSI) review process, to achieve an environmentally acceptable alternative for the disposal of dredged material.

- C. The Ohio Department of Health (ODH) samples and analyzes water from (1) selected beaches to determine the need for water quality improvements and pollution abatement, (2) all state park beaches along the lake to determine water quality and to monitor changes in the various state park watersheds, and (3) various community and privately owned beaches within local health districts to provide water quality data and assist in developing local bathing beach sampling and sanitation programs. All ODH samples along the Lake Erie shore are taken routinely throughout the bathing beach season. Additional samples are taken in response to unusual conditions or to evaluate water quality problems when identified.

If E.coli bacteria counts exceed standards, ODH recommends to DPR or the beach operator that a swimming advisory be posted. Such a posting does not prohibit swimming; it merely informs the public that for a particular time period, high-risk groups may increase their chances of becoming ill as a result of increased E.coli levels. Subsequent testings determine whether or not the beach advisory remains posted.

- D. ODH encourages local health districts to establish permitting systems for operation of public bathing beaches and to develop regulations regarding water quality and other health and safety concerns. ODH provides local health districts with guidelines for developing regulations and strongly recommends adoption of regulations through their program surveys and reviews of local procedures. Cuyahoga, Erie, and Lake counties administer their own permitting and regulatory programs.

POLICY 23 – RECREATIONAL BOATING

**IT IS THE POLICY OF THE STATE OF OHIO TO SATISFY AND SERVE THE PUBLIC INTEREST FOR RECREATIONAL BOATING OPPORTUNITIES AND WATERCRAFT SAFETY IN THE COASTAL AREA BY:**

- A. REGULATING SAFETY OF WATERCRAFT BY ENFORCING WATERCRAFT LAWS (O.R.C. CHAPTER 1547);**
- B. CONDUCTING A WATERCRAFT SAFETY AND EDUCATION PROGRAM (O.R.C. 1547.52 AND 1547.521);**
- C. DEVELOPING AND OPERATING BOAT FACILITIES AT STATE-OWNED AREAS ALONG LAKE ERIE;**
- D. ASSISTING IN THE PLANNING AND DEVELOPMENT OF LOCAL GOVERNMENT OPERATED MARINAS AND BOAT LAUNCHING AREAS UNDER OHIO DEPARTMENT OF NATURAL RESOURCES' COMMUNITY WATERCRAFT ASSISTANCE PROGRAM AND THE LAKE ERIE ACCESS PROGRAM; AND**
- E. PARTICIPATING JOINTLY WITH THE U.S. ARMY CORPS OF ENGINEERS AND LOCAL COASTAL AREA GOVERNMENTS IN COMPLETING THE OHIO LAKE ERIE REFUGE HARBOR SYSTEM (O.R.C. 1547.71).**

Authorities and Administration

- A. The Division of Watercraft in ODNR is responsible for the enforcement of the state watercraft laws and pursuant regulations (O.R.C. Chapter 1547). Watercraft laws and regulations pertain to vessel registration and operation, safety equipment and procedures, littering and abandonment of vessels. The division has four area offices along Lake Erie for patrol and education purposes. Enforcement and patrol activities are coordinated with municipal marine patrol officers and the U.S. Coast Guard.
- B. State watercraft officers conduct safety classes, both in the classroom and on the water, for interested groups along Lake Erie as part of the division's Watercraft Safety and Education Program (O.R.C. 1547.52 and 1547.521). Completion of a Boating Education Course is mandatory for all watercraft operators born in 1982 or later operating a vessel with a horsepower rating of 10 or more (O.R.C. 1547.05). Also, Educational Grants are available to non-profit corporations and political subdivisions to conduct Ohio Boater Education Courses (O.R.C. 1547.68).

- C. ODNR, through the Divisions of Watercraft, Parks and Recreation, and Wildlife, develops and operates boating facilities on state properties along Lake Erie. The Division of Watercraft can assist financially in the development of such facilities at state parks. As a part of the Fish Ohio Program, the Division of Wildlife acquires properties for fishing access to Lake Erie and develops boat launching facilities on these properties and other public shoreline areas. Land and Water Conservation Fund grants can also be used for public recreation boating facilities (see Policy 21).
  
- D. ODNR provides financial assistance to local communities for the planning and development of boating facilities. The Division of Watercraft provides assistance to local communities for launching and marina facilities from the Waterways Safety Fund (O.R.C. 1547.72) with the consent and approval of the Director of ODNR. The Waterways Safety Fund is financed from boat registration and title fees and 7/8 of 1 percent of the motor fuel tax. The Division of Watercraft allocates funds statewide as determined by need, the number of boats to be benefited, the cost of the projects in relation to the amount of funds available, priority relative to other projects and the willingness of public agencies and political subdivisions to participate in a cooperative project. Only political subdivisions, park districts, conservancy districts and agencies of state government are eligible for assistance from the Waterways Safety Fund in developing recreational boating facilities. Projects that receive major attention are those that provide for the construction of ramps or hoists, parking areas and better access, essential sanitary facilities, or the expansion of existing facilities.

Projects that propose to provide new or improved boating or fishing opportunities to Lake Erie for the general use of the public are coordinated through the Lake Erie Access Program (LEAP). The LEAP encourages increased boating and fishing access to the lake. These projects are eligible for cooperative funding by ODNR to local park districts and political subdivisions through the above-mentioned funding sources and various other sources.

- E. Pursuant to O.R.C. 1547.71, the Division of Watercraft acts as the refuge and small boat harbor agency for Ohio for the purpose of cooperating with ODNR and the Corps of Engineers in acquiring, constructing, and maintaining refuge and small boat harbors. The refuge harbor program in Ohio is carried out jointly with the Corps of Engineers under Congressional authorization for federal financial and technical assistance. Participation by the Division of Watercraft in a refuge harbor project is determined by the need, the number of boaters to be benefited, the cost of the project in relation to the amount of funds available, priority relative to other projects and the willingness of public agencies to participate in such cooperative projects. Recreational harbors are low priority for the federal government.

POLICY 24 – FISHING AND HUNTING

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE EXPANDED SPORT FISHING AND SAFE HUNTING OPPORTUNITIES IN THE COASTAL AREA BY:**

- A. REQUIRING LICENSURE FOR HUNTING, TRAPPING AND FISHING (O.R.C. 1533.10, 1533.111 AND 1533.32);**
- B. REQUIRING COMPLETION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES HUNTER SAFETY AND TRAPPER EDUCATION COURSES FOR FIRST-TIME LICENSE BUYERS BEFORE ISSUING A HUNTING LICENSE OR TRAPPING PERMIT (O.R.C. 1533.10 AND 1533.111);**
- C. ACQUIRING AND DEVELOPING AND ASSISTING LOCAL GOVERNMENTS IN DEVELOPING FISHING ACCESS AREAS;**
- D. ESTABLISHING AND MAINTAINING WILDLIFE AREAS AND WETLANDS, AND EXPANDING THE USE OF OTHER STATE-OWNED LANDS FOR THE REGULATED TAKING OF WILDLIFE; AND**
- E. ENCOURAGING PRIVATE LANDOWNERS TO ALLOW FISHING AND HUNTING ON THEIR LAND UNDER THE OHIO WILDLIFE COOPERATIVE FISHING AND HUNTING PROGRAM.**

Authorities and Administration

- A. See Policies 27 and 29.
- B. All first-time hunting license buyers in the State of Ohio are required to complete a hunter safety and conservation course and pass an examination as prescribed by the Chief of the Division of Wildlife (DOW) before a hunting license can be issued (O.R.C. 1533.10). The course consists of subjects including, but not limited to, hunter safety and health, use of hunting implements, hunting tradition and ethics, the role of hunting in conservation, and hunting rules and regulations.
- C. DOW has the authority to acquire and develop areas for fishing access along Lake Erie, (O.R.C. 1531.06). This activity is part of the Division's Fish Ohio Program to increase fishing opportunities in Ohio through cleaner waters, stocking and fishing access to Ohio's waters. The division has developed a prioritization system for fishing access projects of the LEAP, which considers fishing access needs, shoreline analysis for potential sites and number of existing accesses and cooperation of landowners.

ODNR provides financial and technical assistance for fishing access to local governments along the Lake Erie shoreline. Development of shoreline fishing access has resulted from shoreline recreational projects funded through the Land and Water Conservation Fund (LWCF). Technical assistance is available from the above divisions and programs for fishing access.

D. See Policies 27 and 29.

E. Through the Ohio Wildlife Cooperative Hunting and Fishing Program, additional hunting and fishing opportunities are created for Ohio hunters and anglers by encouraging private landowners to permit public hunting, fishing and trapping. Effective control of public use is available to participating landowners. Under the hunting phase of the program, the landowner permits hunting on a first-arrival basis. Permits outlining certain conditions to be followed while hunting on the premises must be signed by each hunter and the landowner. The landowner still retains the authority to regulate the number of hunters on his or her land at any one time and to refuse hunting privileges to any intoxicated, disrespectful or abusive individuals. A landowner must control a single farm unit of 50 acres or more. In return, the DOW agrees to furnish certain materials to landowners that will help them control hunters on their property. Hunting with permission, parking and safety zone signs are provided by the DOW as well as the permit forms. To increase game on the property, participants in the program may obtain food and cover planting stock from the DOW. State wildlife officers patrol these areas during the hunting season as a routine part of their duties. Through the hunting permit, the landowner is released from liability in case the sportsperson is injured or suffers personal property damage while on the landowner's property (O.R.C. 1533.18 and 1533.181).

## POLICY 25 – SURPLUS PUBLIC PROPERTY

**IT IS THE POLICY OF THE STATE OF OHIO TO, WHEREVER APPROPRIATE, RETAIN SURPLUS STATE LAKESHORE PROPERTY IN PUBLIC OWNERSHIP AND TO OBTAIN FEDERAL LAKESHORE PROPERTY TO USE OR REDEVELOP SUCH AREAS FOR OTHER PUBLIC SHORELINE ACCESS AND PUBLIC PURPOSES.**

### Authorities and Administration

All departments within the State of Ohio provide notice to other agencies regarding availability of surplus property within the state. The Ohio Department of Administrative Services reviews notices of federal and state surplus properties in the state and coordinates with other agencies to evaluate the suitability of such property for state management. In the case of the Ohio Department of Transportation (ODOT), the agency notifies ODNR directly. The OCMP will review such notices for properties within the coastal area and for properties where activities may significantly affect the coastal area. OCMP will assess and actively pursue opportunities for retention by the current agency or transfer to ODNR for provision of public access and use.

## POLICY 26 – PRESERVATION OF CULTURAL RESOURCES

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE FOR THE PRESERVATION OF CULTURAL RESOURCES TO ENSURE THAT THE KNOWLEDGE OF OHIO'S HISTORY AND PRE-HISTORY IS MADE AVAILABLE TO THE PUBLIC AND IS NOT WILLFULLY OR UNNECESSARILY DESTROYED OR LOST, BY:**

- A. PROTECTION OF CULTURAL RESOURCES ON OR ELIGIBLE FOR STATE AND NATIONAL REGISTERS OF HISTORIC PLACES (O.R.C. 149.51 THROUGH 149.55);**
- B. REGULATING RECOVERY OF SUBMERGED ABANDONED PROPERTY THROUGH PERMITS (O.R.C. 1506.32); AND**
- C. ESTABLISHING AND ENFORCING LAKE ERIE SUBMERGED LANDS PRESERVES (O.R.C. 1506.31).**

### Authorities and Administration

- A. The State of Ohio, to protect its cultural resources, identifies, evaluates, designates and preserves significant resources and provides for consideration of cultural resources endangered by public and private development. The state accomplishes these goals through the following activities.

National Register of Historic Places – In accordance with the provisions of the National Historic Preservation Act of 1966, the Ohio Historic Preservation Office (OHPO) within the Ohio Historical Society (OHS) reviews nominations for placement of properties on the National Register. The 17-member Ohio Historic Site Preservation Advisory Board (OHSPAB) advises the OHPO as to whether National Register criteria are met. If the nominated site meets the criteria, the nomination is forwarded to the National Register, where the final decision is made.

State Registries of Archaeological and Historic Landmarks – The OHS has the authority to develop and maintain a State Registry of Archaeological Landmarks pursuant to O.R.C. 149.51 and a Registry of Historic Landmarks pursuant to O.R.C. 149.55. OHS places land on these registries only after obtaining a written agreement with the landowner that subjects the property to the provisions of the Revised Code. Within any land placed on either registry, no person or governmental entity may alter or disturb the cultural resources located there without first notifying the Director of OHS, allowing inspection by his or her representatives and providing information on findings of archaeological or historical significance. In addition, sale and possession of objects removed from such sites without privilege to do so is prohibited (O.R.C. 149.51 and 149.55). The owner may not engage in or authorize any archaeological

survey or salvage work within lands registered as Archaeological Landmarks without a permit issued under O.R.C. 149.54.

Archaeological Preserves – OHS may accept articles dedicating as preserves real property upon which significant archaeological sites are located, if funds and services are available for their preservation and protection. Whenever possible and consistent with such purposes, the articles are to provide for public access (O.R.C. 149.52).

State Memorials – OHS is authorized to create, supervise, operate, protect, maintain and promote for public use a system of state memorials in Ohio (O.R.C. 149.30(A)).

Agency Coordination – All departments, agencies and political subdivisions of the State of Ohio must cooperate with the OHS and OHSPAB in the preservation of historic sites and in the recovery of the scientific information from such sites (O.R.C. 149.53). Section 106 of the National Historic Preservation Act of 1966, requires federal agencies to consider the effects of "undertakings" they fund or license in Ohio. "Undertakings" include a broad range of federal activities, including construction, rehabilitation and repair projects, demolition, licenses, permits, loans, loan guarantees, grants, federal property transfers and many other types of federal involvement. The OHPO reviews more than 6,000 federally assisted undertakings each year to see that alternatives are considered in any action that would damage or destroy properties listed on, or eligible for, the National Register. If after consultation with the state, there is no reasonable alternative, the state and the federal Advisory Council on Historic Preservation may agree to the loss of a significant property if steps adequate to mitigate the impact of its loss are taken.

The following are nonenforceable enhancement activities that contribute to carrying out the above-mentioned enforceable protections.

Certified Local Governments – Communities can participate more actively in the state historic preservation program by becoming Certified Local Governments, as provided for by the National Historic Preservation Amendments Act of 1980 (16 U.S.C. 470). To become certified, a unit of local government must have an approved program for recognizing and protecting its historic, architectural and archaeological resources. The OHPO helps local governments establish certifiable preservation programs, offering advice on identifying historic, architectural and archaeological resources; developing a preservation plan; nominating eligible properties to the National Register of Historic Places; and protecting local resources. Certified Local Governments can apply for matching grants awarded by the OHPO to help fund projects like these and others.

Ohio Historic Inventory and Ohio Archaeological Inventory – The Ohio Historic Inventory (OHI) records places of historic or architectural merit. The Ohio Archaeological Inventory (OAI) records prehistoric and historic archaeological sites. Records describing more than

130,000 properties in all parts of the state are kept at the Ohio Historic Preservation Office in Columbus.

Rehabilitation Investment Tax Credits – Owners who rehabilitate income-producing properties listed on the National Register of Historic Places are eligible to apply for federal investment tax credits on qualified expenses. Work must be certified as conforming to the Secretary of the Interior's "Standards for Rehabilitation." OHPO counsels owners about how to apply for certification and conducts preliminary meetings, site visits and project assessments as needed to help them qualify for the tax credit.

Ohio Historic Preservation Plan – OHPO has, with public input, prepared a comprehensive statewide historic preservation plan. The plan organized existing information about the state's historic, architectural and archaeological resources so that it can be used to set future priorities for the identification, evaluation and protection of Ohio's historic resources. The goal of the plan is to identify and publicize the critical, pressing issues that face preservation of Ohio's historic architectural and archaeological properties. The plan is composed of broad-based goals and objectives that will provide guidance and direction for state and local organizations to take in preserving Ohio's historic properties over the next five years.

Technical Advice and Educational Programs – Technical advice is available from OHPO staff, and periodic workshops and other educational programs help inform Ohioans about historic preservation. Services include a preservation research library, Building Doctor clinics, preservation conferences, an awards program and publications.

Grants – When federal funds are available, the OHPO can make direct matching grants-in-aid to individuals, organizations and agencies for projects that help OHPO carry out the survey and planning responsibilities as defined by the National Historic Preservation Act of 1966, 26 U.S.C. 470 et seq. The OHPO also administers historic preservation matching development grants, also when available, for properties listed in the National Register of Historic Places. Matching grants of up to 50 percent of the cost of stabilization, preservation, restoration and rehabilitation of properties listed in the National Register of Historic Places are available to both owners and tenants of National Register-listed properties through OHPO. (Such funds are not available currently).

- B. The State of Ohio has ownership and title to submerged abandoned property in Lake Erie in trust for the benefit of the people of the state. Any person who wishes to recover, alter, salvage or destroy any abandoned property located on, in or in the immediate vicinity of and associated with a submerged watercraft or aircraft in Lake Erie must obtain a permit from the Director of ODNR (O.R.C. 1506.32). Permits are issued only with the approval of the Director of OHS. If the Director of OHS determines that the property has historical significance, the permit may be conditioned or denied (O.R.C. 1506.32(D)). If the Director of ODNR determines that the property has substantial recreational, ecological, environmental, scenic or scientific value, the director may deny or condition the permit (O.R.C. 1506.32(E)). No permit shall be approved

within any submerged land preserve unless the operation is for historical or scientific purposes or will not adversely affect the historical, cultural, recreational or ecological integrity of the preserve as a whole (O.R.C. 1506.32(I)). O.R.C. Chapter 1506 is contained in Appendix C.

- C. To provide special protection for abandoned property and features and formations in Lake Erie having historical, archaeological, recreational, ecological, geological, environmental, educational, scenic or scientific value, the Director of ODNR with approval of the Director of OHS may adopt rules to establish Lake Erie submerged lands preserves (O.R.C. 1506.31).

A preserve may be established for any area of submerged lands that contains a single watercraft or aircraft of historical value, two or more watercraft or aircraft constituting abandoned property, or other features of archaeological, historical, recreational, ecological, environmental, educational, scenic, scientific, or geological value other than sand, gravel, stone, and other minerals and substances authorized to be taken and removed in accordance with O.R.C. § 1505.07. Each preserve established shall include the designated area and extend upward to include the water surface. When establishing preserves, the directors must consider:

1. Whether it is necessary to protect either abandoned property or significant underwater features possessing historical, archaeological, recreational, geological, ecological, environmental, educational, scenic or scientific value;
2. The extent of local public and private support for creation of the preserve;
3. If the purpose of the preserve is to be recreational, the extent to which preserve support facilities have been developed in or are planned for the coastal area nearest the proposed preserve;
4. Whether creating the preserve will conflict with existing or potential authorized removals of sand, gravel, stone or other minerals or substances.

The directors may establish rules regarding access to and use of such preserves. Access shall be limited or prohibited if the site is biologically or ecologically sensitive or is hazardous, or if historically valuable property is fragile or suffering extensive deterioration due to unregulated access (O.R.C. 1506.31(C)). O.R.C. Chapter 1506 is contained in Appendix C.

## FISH AND WILDLIFE MANAGEMENT

### Uses Subject to Management

- Activities involving the taking of fish and wildlife.
- Activities affecting the fish and wildlife habitat areas.
- Activities that affect the management of fish and wildlife.

### Fish and Habitat Management

The history of Lake Erie fisheries has included human-induced changes in both the extent and variety of lake habitats. Generally, the populations and diversity of sport and commercial fish species have declined in conjunction with loss of habitat loss and degradation. Those habitats most greatly reduced in size include deep, oxygenated cold water areas, vegetated areas, clean bottom sand and gravel areas, estuaries, and wetlands used for spawning, feeding, migration, and refuge.

Increased sedimentation from past and present land use, higher nutrient levels in Lake Erie from point and nonpoint pollution sources, dredging and filling activities, and chemical and thermal pollution all have had their impacts.

Lake Erie's varied aquatic ecosystems, including nearshore waters, bays and estuaries, offshore shoal areas, and deep water, all provide important fish habitat. Specifically, there are five habitat areas of critical concern: Maumee Bay, the Toussaint-Locust Point reef complex, the Islands area, the Ruggles reef complex, and Sandusky Bay (including Muddy Creek Bay). Protection of these habitat areas is an important objective of the OCMP. A few remaining coastal coldwater streams east of Cleveland offer important seasonal habitat for salmonids because they are the closest suitable habitat near summer feeding areas of Lake Erie. These species are adapted to the colder water temperatures provided by such streams, and thus it is important that such habitat is not degraded or warmed.

International committees and work groups of the Great Lakes Fisheries Commission, the Lake Erie Committee, the Walleye Task Group, the Yellow Perch Task Group, the Forage Task Group and the Standing Technical Committee have reached a consensus regarding necessary scientific needs and a management approach for Lake Erie. Funds available through the Federal Aid in Sport Fish Restoration Program 16 U.S.C. 777 have been used primarily for research, development of access sites, fish hatchery renovations and land acquisition. Through the Council of Great Lakes Governors, the four Lake Erie states and Ontario are continuing efforts to develop a coordinated fish advisory for Lake Erie. Such improved coordination and unified management practices will continue to improve these valuable fisheries.

## Wildlife and Habitat Management

Human activities in the Lake Erie basin have dramatically reduced wildlife habitat in the coastal area. This habitat loss is the major reason for an overall reduction in Ohio's coastal wildlife population. Most of the original Lake Erie wetlands and swamp forests have been drained, filled, cut or paved over for various purposes. High water and erosion have caused an additional loss of shoreline wetlands.

Wildlife habitat areas that remain relatively undisturbed still face an array of threats including air and water pollution, soil erosion and siltation. Poor water quality is a particularly serious problem that helps explain why aquatic animals make up a large portion of Ohio's endangered species. Loss of habitat and degraded environmental quality has harmed migratory waterfowl, for which the Great Lakes serve as an important link between Canada and southern destinations. In particular, marshes of the western Lake Erie basin are known as significant migration resting areas as well as sites of excellent waterfowl hunting. These marshlands extend from Sandusky to Toledo and contain approximately 22,700 acres of waterfowl habitat, a large portion of which is actual wetlands. Most of this habitat is owned by the state or federal government and private hunting clubs. The Ottawa National Wildlife Refuge alone encompasses roughly 8,300 acres of waterfowl habitat. ODNR, Division of Wildlife, maintains approximately 4,500 acres of western basin wetlands located within seven western Lake Erie wildlife areas. Private hunting clubs manage an additional 8,000 acres of habitat.

## POLICY 27 – FISHERIES MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO ASSURE THE CONTINUAL ENJOYMENT OF THE BENEFITS RECEIVED FROM THE FISHERIES OF LAKE ERIE AND TO MAINTAIN AND IMPROVE THESE FISHERIES BY:**

- A. REGULATING THE TAKING OF FISH (O.R.C. 1531.08 AND O.A.C. 1501:31);**
- B. PROSECUTING PERSONS RESPONSIBLE FOR STREAM LITTER AND FOR WATER POLLUTION RESULTING IN FISH KILLS (O.R.C. 1531.29 AND 1531.02);**
- C. PROTECTING FISH HABITAT THROUGH OHIO EPA'S SECTION 401 WATER QUALITY CERTIFICATION AUTHORITY (O.R.C. 6111.03(O) AND 6111.03(P) AND O.A.C. 3745-1 AND 3745-32);**
- D. CONSIDERING THE PROTECTION OF FISH HABITAT THROUGH THE REVIEW OF STATE AND FEDERAL PERMIT APPLICATIONS;**
- E. ESTABLISHING STATE WILDLIFE AREAS FOR FISH AND WILDLIFE HABITAT (O.R.C. 1531.06);**
- F. SURVEYING FISH POPULATIONS AND TRENDS AND CONDUCTING OTHER FISHERY RESEARCH STUDIES;**
- G. PROVIDING ACCESS TO THE FISHERY; AND**
- H. PROVIDING TECHNICAL AND GENERAL INFORMATION ABOUT THE LAKE ERIE FISHERIES.**

### Authorities and Administration

- A. The state holds title to and is mandated to protect all the fish in Ohio for the benefit of the public (O.R.C. 1531.02). The Chief of the Division of Wildlife (DOW), ODNR, has authority and control in all matters pertaining to the protection, preservation, propagation, possession and management of the state's fisheries. Pursuant to O.R.C. 1531.08, the chief may regulate the taking, possession, transportation, buying, selling, offering for sale and exposing for sale fish or any part thereof.

All orders of the DOW relating to establishment of seasons, limits, size, species, method of taking and possession shall be adopted only upon approval of the Wildlife Council (O.R.C. 1531.03). The Wildlife Council is an eight-member appointed body whose functions are to advise on policies and programs of the division. O.R.C. Chapter 1533 specifies the laws

concerning the taking of fish from Lake Erie. O.A.C. 1501:31 specifies the rules promulgated by the Chief of DOW regarding the taking of fish.

Any persons 16 years of age or older, including nonresidents, taking or catching fish by angling in any waters in the state are required to have a fishing license from DOW (O.R.C. 1533.32). All money derived from fishing license fees is appropriated exclusively for the use of ODNR, DOW (O.R.C. 1533.33) and is used primarily for public fishing waters acquisition, stock fish management, education, research and waterbody improvements.

- B. DOW investigates incidents of stream pollution that result in the killing of fish and other wildlife. Under O.R.C. 1531.02 and 1531.201, persons responsible for the pollution that causes the death of fish or other wildlife are civilly and criminally liable for the taking of the fish or wildlife (O.R.C. 1531.99).

Persons dumping trash in or along Ohio waters and industries discharging or spilling oily wastes into Ohio waters without a valid National Pollutant Discharge Elimination System (NPDES) permit issued by the Ohio EPA may be charged by the DOW with a violation of the Stream Litter Act (O.R.C. 1531.29); enforcement of other water quality laws rests with Ohio EPA (see Policy 6). Individual violators may be fined up to \$500 or sentenced to 60 days in jail, or both, for a first offense. Corporations may be fined up to \$3,000 for the first offense and \$5,000 for subsequent offenses (O.R.C. 2929.31). No kills of fish need to be involved in a case of stream litter. The Stream Litter Act applies to the banks and bluffs along Lake Erie as well as other waterways in the state.

- C. The State of Ohio helps protect habitat for fish and aquatic life through Ohio EPA's authority to issue or deny Section 401 water quality certifications for activities that discharge dredged or fill material to waters of the state or create any obstruction or attraction in waters of the state. (See Policy 12 for details on this authority.) Biological criteria are considered in water quality standards, and the antidegradation policy is used to protect state resource waters from degradation. Therefore, a Section 401 certification may be denied for sufficient grounds to protect important aquatic life uses of Lake Erie and coastal area waters. Special conditions of Section 401 certifications may be imposed on activities (O.A.C. 3745-32-05(C)). Such terms and conditions may affect the design of a project to protect or enhance fish habitat; may provide for increased water circulation or other factors important to maintaining quality habitat; or may restrict when dredging might occur in order to avoid adverse impacts to spawning areas.
- D. ODNR protects fish habitat through several means. ODNR reviews Section 10 and Section 404 permits through the COE, using prime fish habitat as an aspect of the review criteria. Preservation of fish habitat is considered in mineral extraction and energy facility-siting decisions (see section on "Energy and Mineral Resources"); in approving permits for offshore development, dredging and dredged material disposal (see "Ports and Shore Area Development"); in the water quality regulations and nonpoint pollution policies (see "Water Quality"); in the protection and acquisition of wetlands and natural areas (see "Ecologically Sensitive

Resources"); and through the submerged lands leasing program (see "Ports and Shore Area Development").

- E. The Chief of DOW, with the approval of the Director of ODNR, may acquire or lease lands or surface rights upon lands and water for wild animals, fish and wildlife management, preservation, propagation, and protection, outdoor and nature activities, public hunting and hunting grounds, and flora and fauna preservation. The lease or purchase of all such lands and waters may be paid from hunting and fishing license fees (O.R.C. 1531.06).
- F. DOW conducts continuing surveys with trawls and gill nets to provide an index of population numbers through monitoring of incoming year class strengths, relative numbers of adult age groups, seasonal abundance, growth rates, and maturity for sport and commercial species. Age, sex and size composition of these same species captured commercially are also monitored. Correlations between seasonal sport catches and reports from charter boat operators are used for future estimates of total sport fishing harvest.
- G. DOW provides fishing facilities (parking, boat launching, piers, shoreline access, etc.) to improve access to the fishery resource (see Policy 21).
- H. DOW provides technical and general information to sport and commercial fishermen. Information leaflets and reports cover a wide range of subjects including sport and commercial fishing laws, fish identification, bait fish, Lake Erie fishing services and facilities, when and where to fish, and the life history of many species in Lake Erie.

## POLICY 28 – FISHERIES RESEARCH AND INTERSTATE COOPERATION

### **IT IS THE POLICY OF THE STATE OF OHIO TO COOPERATE IN GREAT LAKES BASINWIDE FISHERIES MANAGEMENT EFFORTS AND TO CONTINUALLY RESEARCH BETTER FISHERIES USE AND MANAGEMENT.**

#### Authorities and Administration

ODNR, Division of Wildlife, coordinates closely with Canada, Michigan, Pennsylvania and New York by working in conjunction with the Great Lakes Fishery Commission, the IJC, the Great Lakes Commission, U.S. Fish and Wildlife Service and other groups concerned with Lake Erie fishery management and rehabilitation. The commissions coordinate their efforts for the better development of fishery rehabilitation programs and management practices, including a process for consolidating and resolving issues.

The division also conducts extensive research on Lake Erie fisheries. Annual indices of fish population trends and sport and commercial fisheries harvests are developed by the division and are used to develop recommendations to allow a desirable fish community to reach its potential within existing environmental conditions. Such indices are prerequisites for determining the present status and future outlook of certain fish stocks. This comprehensive stock assessment program assists in determining research priorities and provides a means of evaluating the success of management strategies. The application of findings from these assessment surveys provides biologically sound harvest regulations for the sport and commercial fisheries.

The Great Lakes Toxic Substances Control Agreement calls for the issuance of uniform lakewide fish consumption advisories. This initiative has improved cooperation among state agencies involved with the issues of toxic pollutants in the environment and public health. The Directors of ODNR, Ohio EPA, Ohio Department of Health (ODH) and Ohio Department of Agriculture (ODA) agreed to identify additional surveillance, laboratory and related programs needed to effectively address these issues. An ad hoc committee from those departments was formed to recommend the types of fish tissue contaminant monitoring programs that are needed.

## POLICY 29 – WILDLIFE MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE FOR THE MANAGEMENT OF WILDLIFE IN THE COASTAL AREA TO ASSURE THE CONTINUED ENJOYMENT OF BENEFITS RECEIVED FROM WILDLIFE BY:**

- A. PROTECTING ALL WILDLIFE INCLUDING NONGAME AND ENDANGERED SPECIES (O.R.C. 1531.02, 1531.08 AND 1531.25);**
- B. REGULATING THE TAKING OF WILDLIFE (O.R.C. CHAPTER 1533 AND O.A.C. 1501:31);**
- C. ESTABLISHING STATE WILDLIFE AREAS AND PROVIDING RECREATION OPPORTUNITIES;**
- D. PROVIDING FOOD, COVER AND HABITAT FOR WILDLIFE, AND**
- E. PROVIDING NONGAME WILDLIFE RESEARCH AND EDUCATION FUNDING.**

### Authorities and Administration

- A. The state holds title to all wild animals in Ohio for the public (O.R.C. 1531.02). The Chief of the Division of Wildlife, ODNR, has authority and control in all matters pertaining to the protection preservation, propagation and management of wild animals (O.R.C. 1531.08). The chief may regulate the taking, possession, transportation, buying, selling, offering for sale or exposing for sale any wild animal or part thereof. DOW also protects fish and wildlife species threatened with statewide extinction (O.R.C. 1531.25). See Policy 14.
- B. O.R.C. Chapter 1533 specifies the laws concerning the taking of wild animals. O.A.C. 1501:31 specifies the rules promulgated by the chief on taking wild animals. All orders of the DOW relating to establishment of seasons, limits, size, species, method of taking and possession shall be adopted only upon approval of the Wildlife Council (O.R.C. 1531.03).

Persons hunting any wild bird or wild quadruped are required to have a hunting license or a trapping permit if trapping furbearers (O.R.C. 1533.10 and 1533.111). Special permits are required for deer and turkey hunting (O.R.C. 1533.11). A property owner may hunt on his or her own property without a hunting license. First-time hunters are required to complete a hunter safety and conservation course before a license will be issued. First-time trappers must complete a trapper education course. Persons owning or controlling land or water within a 10-mile radius of a state or federal waterfowl management area shall annually obtain a permit from the Chief of DOW prior to allowing the hunting or taking of waterfowl on said land or water (O.R.C. 1533.81). This permit is designated as a "waterfowl hunting area permit." Fees from

the sale of hunting and trapping licenses are to be used by the DOW for the following purposes (O.R.C. 1533.15):

1. Education of hunters and trappers;
  2. Purchase, management, preservation, propagation, protection, and stocking of wild birds and wild quadrupeds; and
  3. Establishing and purchasing or otherwise acquiring title to lands for wildlife preservation, propagation, and protection, and for public hunting.
- C. The Chief of DOW, with the approval of the Director of ODNR, may acquire or lease lands or surface rights upon lands and water for wild animals, fish and wildlife management, preservation, propagation, and protection, outdoor and nature activities, public fishing and hunting grounds, and flora and fauna preservation. The lease or purchase of all such lands and waters may be paid for from hunting and fishing license fees (O.R.C. 1531.06). Under this effort, four state wildlife areas have been established in the coastal area. These areas are managed by wildlife biologists and devoted primarily to the management of migratory birds, fish habitat, and marsh-dependent wildlife. The areas are generally open to the public except during hunting season, when their use may be restricted.
- D. The DOW offers a variety of programs and services to rural landowners who wish to make their property more attractive to wildlife or to control excessive hunting pressure. A qualified biologist from the DOW will review a landowner's current wildlife habitat and evaluate the potential for developing additional habitat. A complete wildlife management plan will be designed for the current and future pattern of crop and land use on the property.
- E. An Endangered Species and Diversity Program has been established in the Division of Wildlife, with responsibilities encompassing more than 1,000 species of wild animals. In less than 200 years, 10 of these species have become extinct and 78 have been extirpated from the state. One hundred-sixteen species are protected as endangered, and more are being reviewed for endangered status. O.R.C. 1531.25 provides for the adoption of rules by the chief restricting the taking or possession of native wildlife, or any eggs or offspring thereof, that the chief finds to be threatened with statewide extinction. Current program objectives are to provide population status reports, develop habitat management guidelines and procedures, develop species-specific management programs for endangered animals and develop restoration programs for selected nongame wildlife species extirpated from Ohio.

The State of Ohio administers the Nongame and Endangered Wildlife Tax Checkoff Program to help fund nongame management. Money from this source has contributed to activities such as the restoration of Ohio's Bald Eagle population; a wildlife education program called "Project Wild;" a bluebird restoration project; and the reintroduction of the River Otter into four watersheds in the eastern portion of the state, including the Grand River watershed in the coastal region.

## ENVIRONMENTAL QUALITY

### Uses Subject to Management

- Activities involving any process, system or practice that may be a source of air pollution.
- Activities involving the storage, handling, disposal, and transportation of toxic substances and hazardous wastes.
- Activities involving the cleanup of unregulated hazardous waste disposal sites.
- Activities involving the handling and disposal of marine sanitary wastes.
- Activities affecting the visual and aesthetic quality of the shoreline, including unsanitary dumping and unsightly littering in Lake Erie and its tributaries or along its banks, and in embayments, tributaries, and back waters.

### Air

Ohio's lakeshore counties contain many of the state's largest industrial complexes, including coal-fired electric generating facilities with 17 percent of the statewide coal-fired generating capacity. In the past 10 years, emissions from the numerous air pollution facilities have decreased substantially. However, unacceptable air quality conditions remain in the industrialized regions of Lucas, Lake, Lorain, and Cuyahoga Counties, and to a lesser degree, in Ashtabula County (see Table 3 below).

Because of poor air quality nationwide, Congress passed the Clean Air Act (CAA) in 1967, strengthening it considerably in 1970, 1977 and 1990. These amendments broadened the federal role in setting standards for air quality, directing state efforts to meet the standards and providing for enforcement of plans when a state fails to do so.

The U.S. EPA has established primary National Ambient Air Quality Standards (NAAQS) sufficient to protect public health and secondary NAAQS to protect against damages to property, vegetation, crops and animals. The CAA required states to develop State Implementation Plans (SIPs) that would result in attainment of the standards for six primary air pollutants. Current SIPs focus primarily upon the pollutant standards with which certain areas in Ohio have not achieved compliance. Additional work is also necessary in Cuyahoga County to address the 1987 revision to the particulate standard to emphasize particulate matter of 10 microns or less (PM<sub>10</sub>); the Cuyahoga County particulate SIP is being revised accordingly. Table 3 indicates the nonattainment status for the pollutants for which several coastal counties in Ohio have not achieved compliance.

TABLE 3

Ohio Counties of the Lake Erie Coastal Area  
Designated Nonattainment  
for the National Ambient Air Quality Standards

	PM <sup>10</sup>	OZONE	SULFUR DIOXIDE primary
LUCAS			X
WOOD*			
OTTAWA*			
SANDUSKY*			
ERIE*			
LORAIN*			
CUYAHOGA			X
LAKE*			
ASHTABULA*			

NOTE: Although this table reflects the entire county as designated nonattainment, the actual nonattainment designations refer to specific areas within each county. Actual boundaries can be found in the Code of Federal Regulations (40 C.F.R. § 81.336).

\* Attainment for all criteria pollutants.

These matters are of concern to Ohio's Coastal Management Program primarily because they have major impacts upon the health and property of coastal residents. Also, directly and indirectly, air pollutants adversely affect water quality and the aquatic biota and wildlife of the region. Atmospheric deposition of toxics is currently being studied to determine the extent to which it poses a threat to the environmental well-being of the Great Lakes region.

### Solid, Hazardous and Infectious Waste

Ohioans generate approximately 1 ton of solid waste per person, per year. Much of that solid waste includes substances that can be harmful if improperly released into the environment. The majority of these household solid wastes are disposed of in the nearly 90 sanitary landfills operating in Ohio.

Of the more than 1240 large-quantity generators of hazardous waste in Ohio, 397 are located in the coastal counties, according to Ohio EPA records based on Generator Annual Reports filed for 1998. There are more than 11,000 small quantity generators in Ohio. There are approximately 50 hazardous waste storage, treatment and disposal facilities operating within Ohio, 15 in coastal counties. Three coastal counties rank in the top ten generators of hazardous waste: Cuyahoga (2), Lucas (8) and Ashtabula (10).

Of the top 10 counties for hazardous waste shipments listed in Annual Reports, three are coastal counties. These counties and their statewide rank are: Cuyahoga (1), Lucas (4) and Ashtabula (5). The coastal counties with significant treatment, storage or disposal activity are Ashtabula, Sandusky, Cuyahoga and Lucas.

Improper management of hazardous waste in the past has created many environmental and public health problems in Ohio. There are approximately 30 abandoned waste sites in Ohio today that are on the National Priority List for action under the federal Comprehensive Environmental Response Compensation Liability Act "Superfund" (CERCLA) program. In the coastal area, five Superfund sites are in Ashtabula County and one is in Lorain County. There are nearly 900 additional sites that, although not of sufficient importance or hazard to be placed on the National Priority List, do pose environmental threats.

As the nation's landfills have begun to fill up and more stringent waste-disposal laws have been enacted, hospitals, labs and clinics are looking more carefully at how they dispose of the infectious wastes they produce. Many choose to incinerate a portion of these materials at the site where they are produced. Others decide to transport their infectious wastes to commercial incinerators. Therefore, the need has arisen to address infectious waste as a separate category of waste and to regulate its transport and treatment.

## Marina Facilities

Water quality improvements and the Lake Erie fishery caused a dramatic upswing in the use of Lake Erie by recreational boaters during the 1980s. The number of marinas in the Lake Erie basin has increased by 30 percent since 1986. Recreational boaters, the general public and the environment must be protected from unsafe drinking water, pollution hazards from improperly disposed wastes, accident hazards and other unsanitary conditions that potentially can result from marina construction and use.

## POLICY 30 – AIR QUALITY

**IT IS THE POLICY OF THE STATE OF OHIO TO ATTAIN AND MAINTAIN AIR QUALITY LEVELS THAT PROTECT PUBLIC HEALTH AND PREVENT INJURY TO PLANT AND ANIMAL LIFE AND PROPERTY BY SURVEYING AND MONITORING AIR QUALITY; ENFORCING NATIONAL AMBIENT AIR QUALITY STANDARDS THROUGH PERMITS AND VARIANCES; AND RESTRICTING OPEN BURNING. (O.R.C. CHAPTERS 3745, 3706 AND 5709).**

### Authorities and Administration

The Ohio EPA, Division of Air Pollution Control, operates several programs that have far-reaching effects on the air quality of the state and Lake Erie. Such programs range from those developed and implemented since the inception of the agency, to new initiatives that limit the exposure of the population to air toxics.

Ohio's State Implementation Plan (SIP), approved by U.S. EPA, is developed, revised, implemented, and enforced by the Ohio EPA, local air pollution control agencies, and areawide planning agencies designated by the Governor. The principal provisions of the SIP are state emission limitations designed to meet federal primary and secondary ambient air quality standards (O.A.C. 3745-17, 3745-18, 3745-21, 3745-23 and 3745-71). Implementation and enforcement of these regulations are achieved through the issuance of air permits by the Director, Ohio EPA (O.A.C. 3745-31 and 3745-35).

SIPs are in effect statewide, with specific provisions for sources in nonattainment areas. Pursuant to the 1990 Clean Air Act (CAA) amendments, Cuyahoga, Lake, Lorain, Lucas and Wood counties underwent SIP revisions to reduce point and mobile sources which contributed to the moderate ozone nonattainment. Automobile inspection and maintenance are required in these areas, with the exception of Lucas and Wood counties.

Ohio's SIP also incorporates the following:

1. Emergency episode standards requiring the reduction of air contaminants during air pollution alerts, air pollution warnings and air pollution emergencies (O.A.C. 3745-25);
2. Restrictions on certain types of open burning within the boundaries of municipal corporations and buffer areas, and total prohibition of open burning of garbage (O.A.C. 3745-19);
3. Transportation control plans prepared by NOACA and TMACOG in the coastal area and geared toward encouraging and providing facilities for alternative means of transportation such as buses, rapid transit, bicycling and car pooling, as mandated by Section 174 of the CAA and enforced by Ohio EPA pursuant to its directive to adopt and maintain a program for the prevention, control and abatement of air pollution that is consistent with the federal CAA (O.R.C. 3704.02(2));

4. Extensive procedural means for citizen and industry involvement in agency actions; and
5. Provisions for daily Pollutant Standards Index readings in each major metropolitan area.

Operators of new sources of air contaminants must obtain a Permit to Install (O.A.C. 3745-31) and must meet criteria for the Prevention of Significant Deterioration (PSD) in attainment areas or emission offset regulations in nonattainment areas. New Source Performance Standards (NSPS), National Emission Standards for Hazardous Pollutants (NESHAPs), Best Available Technology (BAT) criteria, and source impact determinations must all be met before issuance of a Permit to Install. Risk assessment modeling studies may be conducted.

Additionally, permits to operate are issued to pollution sources that are in full compliance with regulations. Sources unable to attain compliance can be issued variances that include a schedule outlining the control program that the source will follow to achieve full compliance (O.A.C. 3745-35). Once full compliance is attained, a Permit to Operate may be granted.

Ohio EPA conducts field surveillance and source inspection to ensure that sources remain in compliance and that noncompliant sources make timely progress toward compliance. The Director of Ohio EPA may revoke or suspend any Permit to Operate upon finding that any conditions, standards or regulations have been or will be violated.

The Division of Air Pollution Control conducts an enforcement program. Compliance is monitored in the field, and noncomplying sources are referred to the Central Office, where enforcement cases are developed. Industry can be issued findings and orders to comply, or the case may be referred to the Ohio Attorney General for prosecution.

The Ohio General Assembly enacted legislation and subsequently revised O.R.C. 5709.20 to 5709.27 in 1963 and in 1973 to provide incentives for the purchase, installation and use of air pollutant emission control equipment. The incentives were in the form of exemptions from Ohio's real and personal property, franchise use and sales taxes. The legislature empowered the Tax Commissioner of Ohio to issue Air Pollution Control Certificates granting such exemptions after a determination that the equipment qualifies for such tax benefits.

The Division of Air Pollution Control assists with the development of a procedure for risk assessment, management, and communication, and will participate in cooperative efforts with other Ohio EPA divisions and Great Lakes states concerning multiple pathway pollution sources. These pathways of contamination to the Great Lakes should be monitored and controlled. New initiatives will begin to assess the impacts of toxics.

The air permit program (O.A.C. 3745-31) provides a means to control emission of criteria pollutants such as sulfur dioxide, oxides of nitrogen and particulate matter from stationary sources through the application of best available technology for new sources. Mobile sources of pollution are being addressed in major urban areas such as Cleveland, where an automobile inspection and maintenance program is being implemented to control ozone precursors.

POLICY 31 – HAZARDOUS, SOLID AND INFECTIOUS WASTE MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO ENSURE THAT THE GENERATION OF SOLID, INFECTIOUS AND HAZARDOUS WASTES IS REDUCED AS MUCH AS POSSIBLE BY:**

- A. ADMINISTERING A PERMIT PROGRAM FOR THE SITING OF NEW FACILITIES AND THE MODIFICATION, REVISION AND OPERATION OF EXISTING FACILITIES (O.R.C. CHAPTER 3734);**
- B. COMPLIANCE MONITORING AND ENFORCEMENT OF REQUIREMENTS OF O.R.C. CHAPTER 3734, DEVELOPED PURSUANT TO AND IN ACCORDANCE WITH PROVISIONS OF THE FEDERAL RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) AND THE FEDERAL COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) (O.A.C. 3745-50 THROUGH 59; 3745-65 THROUGH 69; 3745-273; AND 3745-279);**
- C. ESTABLISHING LONG-RANGE SOLID AND HAZARDOUS WASTE MANAGEMENT PLANS (O.R.C. 3734); AND**
- D. ENCOURAGING THE ADOPTION OF POLLUTION PREVENTION PRACTICES THAT EMPHASIZE A PREFERENCE FOR SOURCE REDUCTION AND ENVIRONMENTALLY SOUND RECYCLING OVER TREATMENT AND DISPOSAL.**

Authorities And Administration

A. through C.

*Hazardous Waste Management*

"Hazardous waste" means any waste or combination of wastes in solid, liquid, semisolid or contained gaseous form that in the determination of the Director, Ohio EPA, because of its quantity, concentration or physical or chemical characteristics, may:

- (1) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or
- (2) Pose a substantial present or potential hazard to human health or safety or to the environment when improperly stored, treated, transported, disposed of or otherwise managed.

"Hazardous waste" includes any substance identified by regulation as hazardous waste under the Resource Conservation and Recovery Act of 1976 (RCRA) 42 U.S.C.A. 6921 as amended, and does

not include any substance that is subject to the Atomic Energy Act of 1954, 42 U.S.C.A. 2011 (O.R.C. 3734.01(J)).

Ohio EPA regulates the management, transportation, treatment, storage and disposal of hazardous waste under authority of O.R.C. Chapter 3734, in part as a means of enforcing RCRA. Specific criteria for management of hazardous waste are specified in O.A.C. 3745-50 through 3745-59, 3745-65 through 3745-69, 3745-273, and 3745-279. These rules are implemented and enforced by Ohio EPA's Division of Hazardous Waste Management with headquarters personnel in Columbus and field staff located in five district offices.

Generators of hazardous waste must provide for the proper management, transportation, treatment and disposal of the wastes. "Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in O.A.C. 3745-51 or whose act first causes a hazardous waste to become subject to the hazardous waste rules (O.A.C. 3745-50-10). The "cradle-to-grave" tracking of the movement and disposition of hazardous wastes is documented by a paperwork system that requires a manifest to accompany each waste load leaving a generator facility and requires entries at each point in the process leading up to final disposal of the waste. Generators are required to maintain these manifests, and the regulatory agencies can cross-reference manifest records to verify proper handling of the wastes (O.R.C. 3734.12 et seq.). Generator standards for the management of hazardous wastes are contained in O.A.C. 3745-52.

Each hazardous waste storage, treatment and disposal facility must operate in conformance with regulations that include specifications for day-to-day operations, financial responsibility, and the eventual closure of the facility and post-closure care. Storage, treatment or disposal of hazardous waste at nonpermitted facilities is prohibited. Decisions on siting for new hazardous waste treatment, storage and disposal facilities and certain modifications to such facilities are made by the Ohio Hazardous Waste Facility Board (HWFB). Other modifications may be approved by the Director of Ohio EPA. The terms "storage," "treatment," "disposal" and "facility" are defined in O.R.C. 3734.01 and O.A.C. 3745-50-10. Rules governing the operation of permitted hazardous waste facilities are specified in O.A.C. 3745-54-01 through O.A.C. 3745-59-50.

#### *Remedial Response to Previously Improperly Disposed Hazardous Wastes*

Ohio EPA has completed preliminary assessments at each abandoned hazardous waste site and is in the process of establishing priorities for corrective action. Corrective action at these sites involves a thorough study to characterize the nature of the problem and to evaluate alternatives for remedial action. After a remedial action plan is selected, Ohio EPA works with responsible parties to ensure that a proper cleanup is completed and that continuing environmental monitoring and maintenance of the site is secure. Requirements governing the investigation, cleanup and acquisition of abandoned hazardous waste sites are specified in O.R.C. 3734.19 through 3734.24; funding mechanisms are provided by O.R.C. 3734.25 through 3734.28. These provisions are implemented by Ohio EPA's Division of Emergency and Remedial Response (DERR).

#### *Solid and Infectious Waste Management*

"Solid wastes" means such unwanted residual solid or semisolid material as results from industrial, commercial, agricultural, and community operations, excluding earth or material from construction, mining, or demolition operations, or other waste materials of the type that would normally be included in demolition debris, nontoxic fly ash, spent nontoxic foundry sand, and slag and other substances that are not harmful or inimical to public health, and includes, but is not limited to, garbage, tires, combustible and noncombustible material, street dirt, and debris. "Solid wastes" does not include any material that is an infectious waste or a hazardous waste (O.R.C. 3734.01(E)). (Construction and demolition wastes are defined and regulated separately under O.A.C. 3714.)

"Infectious wastes" includes cultures and stocks of infectious agents and associated biologicals; laboratory wastes that have or may have been in contact with such agents; pathological wastes; waste materials from rooms of humans or enclosures of animals that have been isolated due to communicable disease; blood specimens and products; contaminated carcasses, body parts, and bedding of animals intentionally exposed to infectious agents; sharp wastes used in treatment, diagnosis, or inoculation of humans or animals exposed to infectious agents (O.R.C. 3734.01(R)).

Existing solid waste landfills must operate in accordance with established rules that include requirements for daily cover of materials, minimization of nuisance conditions and other requirements to ensure that the facility does not cause an environmental problem (O.A.C. 3745-27). In addition, residual solid waste landfills must operate in accordance with O.A.C. 3745-30.

Ohio EPA's Division of Solid and Infectious Waste Management (DSIWM) regulates the disposal of solid waste and transport and treatment of infectious waste through permitting, registrations, licensing, monitoring, oversight of construction operations and closure and post-closure care pursuant to regulations specified in O.A.C. 3745-27, 3745-31 and 3745-37. Licensing systems for solid and infectious waste disposal facilities may be administered by the Board of Health of the health district in which the facility is located if Ohio EPA has determined that the board substantially complies with O.R.C. Chapter 3734. Decisions regarding siting of new solid and infectious waste facilities are the responsibility of Ohio EPA's Division of Solid and Infectious Waste Management with support from the Division of Drinking and Ground Waters.

### *Long-Range and Pollution Prevention Planning*

Ohio EPA has adopted a State Solid Waste Management Plan in conjunction with the Solid Waste Advisory Council (O.R.C. 3734.50). The primary goals of this plan, completed in 1989, are to reduce the state's reliance upon landfills and to establish objectives for solid waste reuse, reduction, recycling and minimization. Boards of County Commissioners must establish single or joint county solid waste management districts (O.R.C. 3734.52). District committees must prepare, adopt and submit a solid waste management plan to Ohio EPA in compliance with agency standards (O.R.C. 3734.54 and 3734.55).

Hazardous waste generators and permitted facilities are required to certify that waste minimization programs and reports are in process (O.A.C. 3745-52-41, 3745-54-73 and 3745-54-

75). Annual waste minimization reports are required, and waste minimization requirements are included in hazardous waste permit terms and conditions (O.R.C. Chapter 3734).

Underground injection facilities' owners and operators are required to prepare waste minimization plans for industrial wastes disposed at their facilities. Each owner or operator of a class I injection well facility, as defined in O.A.C. 3745-34-04, must prepare and adopt a waste minimization and treatment plan to identify specific technically and economically feasible measures that will be taken to prevent or reduce releases into the environment of the industrial waste and other wastes generated at the facility. For an injection well facility located on the premises of the industrial facility generating the wastes disposed of at the injection facility, the plan must also address the industrial waste and other wastes generated at that industrial facility. The plan must cover a three-year planning period (O.R.C. Chapter 6111.045).

D. Ohio EPA incorporates pollution prevention requirements into enforcement cases to achieve environmental improvements rather than solely imposing penalties. Settlement offers may include reduced monetary penalties in exchange for development of waste minimization or pollution prevention plans or the installation of source reduction processes.

Ohio EPA has received federal funding to develop projects to identify pollution prevention opportunities for Ohio businesses in the Lake Erie Basin. These efforts focus on providing technical assistance to help minimize the amount of waste generated and measuring the results of these activities. Site visits are provided to help companies implement pollution prevention programs, and presentations and training events are provided to educate Ohio businesses and organizations about pollution prevention. An Internet site has been developed that provides practical pollution prevention information that companies can use to reduce waste and improve operations. Low interest capital improvement loans are provided through the Pollution Prevention Loan Program, jointly administered through Ohio EPA and the Ohio Department of Development.

Ohio EPA is also working to integrate pollution prevention into the agency's standard operations. These changes will enable each part of the agency to more effectively encourage and educate companies on the economic and environmental benefits of pollution prevention in their inspection, enforcement and permitting processes. The focus of this effort is to modify existing programs to encourage pollution prevention rather than pollution control.

## POLICY 32 – MARINA FACILITIES

**IT IS THE POLICY OF THE STATE OF OHIO TO REGULATE MARINA CONSTRUCTION THROUGH THE OHIO DEPARTMENT OF HEALTH AND LOCAL HEALTH DEPARTMENTS IN ORDER TO ASSURE THAT MARINAS WILL PROVIDE ADEQUATE SANITARY FACILITIES FOR THE WATERCRAFT USING THE MARINA, AND THAT SUCH MARINAS WILL BE CONSTRUCTED, LOCATED, MAINTAINED, AND OPERATED IN A SANITARY MANNER SO AS NOT TO CREATE A NUISANCE OR CAUSE A HEALTH HAZARD (O.R.C. 3733.21 THROUGH 3733.30 AND O.A.C. 3701-35).**

### Authorities and Administration

The Public Health Council has adopted statewide regulations, pursuant to O.R.C. 3733.22, governing marinas and the inspection and issuance of licenses for all marinas (O.A.C. 3701-35). The intent of the marina law is to ensure that Ohioans using recreational watercraft, as well as surrounding areas, will be protected from unsafe drinking water and pollution hazards from improperly disposed wastes, accident hazards, and other unsanitary conditions. This is accomplished by establishing uniform, minimum health and safety requirements for marinas throughout the state. Such marinas will provide adequate sanitary facilities for the watercraft using them, and will be constructed, located, maintained, and operated in a sanitary manner so as not to create a nuisance or cause a health hazard.

No person shall construct a marina, alter the sanitary facilities of a marina, or substantially increase the size or number of watercraft using the marina, unless the Director of ODH has approved plans for the construction, alteration or increase. Plans must be submitted for review to and approved by the Director of ODH at least 60 days before any construction, alteration or increase begins. During the month of March, a license to operate an existing marina for that year must be obtained from the Board of Health of the health district in which the marina is located (O.R.C. 3733.24). If a new marina is to be constructed, application must be made for a license from the Board of Health district in which the marina is to be located at the same time as submission of the plans to the Director of ODH. Before a license is initially issued, and annually thereafter, the Board of Health inspects each marina, compiles a record of each inspection, and requires each marina to satisfactorily comply with O.R.C. 3733.21 et seq. and the regulations adopted thereunder. The following are the criteria for licensing: approved plan, minimum sanitary facilities, waste disposal facilities, minimum safety equipment, vector control and nuisance prevention (O.A.C. 3701-35-01 to 3701-35-09). Marinas that provide dockage for watercraft with installed sewage holding tanks must provide sewage pump-out facilities (O.A.C. 3701-35-05).

Additionally, the Ohio Clean Marinas Program, implemented in 2003, is a proactive partnership to encourage marinas and boaters to use simple, innovative solutions to keep Ohio's coastal and inland waterway resources clean. Information can be found at [www.sg.ohio-state.edu/cleanmarina/](http://www.sg.ohio-state.edu/cleanmarina/).

## POLICY 33 – VISUAL AND AESTHETIC QUALITY

**IT IS THE POLICY OF THE STATE OF OHIO TO PROTECT THE VISUAL AND AESTHETIC AMENITIES OF LAKE ERIE AND ITS SHORELINE TO ENHANCE THE RECREATIONAL, ECONOMIC, CULTURAL AND ENVIRONMENTAL VALUES INHERENTLY ASSOCIATED WITH THE COASTAL AREA BY:**

- A. PROHIBITING THE DUMPING OF LITTER AND REFUSE INTO OR ALONG THE WATERS OF LAKE ERIE AND ITS TRIBUTARIES, AND MAINTAINING LAW ENFORCEMENT ACTIVITIES TO APPREHEND VIOLATORS (O.R.C. 1531.29 AND 3767.32);**
- B. ENFORCING STATE WATER QUALITY STANDARDS (O.R.C. CHAPTER 6111, O.A.C. 3745-1-04); AND**
- C. PRESERVING AESTHETIC RESOURCE AREAS OF STATEWIDE SIGNIFICANCE THROUGH THE NATURE PRESERVE, WILDLIFE AREA, PARK DEVELOPMENT AND HISTORIC PRESERVATION PROGRAMS.**

### Authorities and Administration

- A. Pursuant to O.R.C. 3767.32, no person shall deposit litter or cause litter to be deposited on any public property, on private property not owned by that individual, or in or on waters of the state. "Litter" means garbage, trash, waste, rubbish, ashes, cans, bottles, wire, paper, cartons, boxes, automobile parts, furniture, glass, or anything else of an unsightly or unsanitary nature.

In addition, O.R.C. 1531.29 prohibits the disposal of any litter into watercourses of the state or onto banks thereof, or where it is liable to be washed into the water either by ordinary flow or floods.

O.R.C. Chapter 1502 also has created a grant assistance program administered by the Division of Recycling and Litter Prevention within ODNR. Financial assistance is available to state agencies and local governments for implementing a variety of litter prevention and recycling activities, including collection, education, and litter law enforcement.

- B. Visual and aesthetic qualities of the state's waters are further protected under the state's Water Quality Standards (O.A.C. 3745-1-04). These narrative standards, commonly called the "five free froms," provide the Director of Ohio EPA with authority to regulate pollution sources that create floating debris, oil, scum, color, odor or other annoyances. Violations of these standards are subject to criminal and civil penalties (O.R.C. 6111.07).
- C. The State of Ohio plays a direct role in protecting the visual quality of the coastal area and providing visual access to shoreline resources through acquisition and development of public access

areas, state parks, state nature preserves, wildlife areas and historic areas. Municipalities, townships and counties are encouraged to protect visual qualities of and to provide visual access to the Lake Erie shoreline through their planning processes and local actions. These concerns can be addressed through site plan review, architectural boards of review, special protection districts, development standards (such as requiring landscaping, screening, and setback and height limitations), and additional subdivision requirements.

## ENERGY AND MINERAL RESOURCES

### Uses Subject to Management

- Activities involving the siting of major energy facilities and transmission lines.
- Activities involving the storage and transshipment of energy resources.
- Activities involving the onshore or offshore drilling of oil and gas resources.
- Activities involving the mining and extraction of onshore and offshore mineral resources.

### Energy

The shore of Lake Erie is one of Ohio's major energy facility siting areas. Several major coal-fired and two nuclear-generating facilities are located in the coastal area.

Three principal factors for the siting of those facilities in the coastal area are proximity to large coastal urban areas, competitive shipping advantages of Lake Erie and the abundant supply of water for cooling. Some of these facilities are inherently lake-dependent, in that their successful functioning requires that they be sited on the coast. For others, inland locations may be possible but may entail increased costs to industry and consumers.

The siting of energy production facilities and related energy problems are concerns addressed by the OCMP. Coastal energy facility siting is useful for maintaining the economy and standard of living in the coastal and inland region. However, it raises many questions regarding effects on fish and wildlife, loss of valuable shorefront access and potential dangers.

Growth in energy demand is a dominant factor in determining the number of facilities to be constructed. Energy conservation may reduce the need to construct additional facilities. Methods by which energy can be conserved and used more efficiently include the establishment of lighting and heating standards, use of energy-conserving building and insulating materials, establishment of energy-sensitive building codes, implementation of rate structures that encourage energy conservation, and the promotion of statewide energy conservation measures.

In developing its energy policies, the OCMP has recognized that siting of energy facilities is of state and sometimes national concern. OCMP policies have been designed to maintain adequate electrical service to Ohio customers. In summation, Ohio recognizes the need for a rational allocation of coastal land for the accommodation of energy needs in a manner that minimizes impacts on the environment and is economically feasible.

## Mineral Resources

Commercially available mineral resources of Ohio's coastal area provide numerous benefits to Ohio's citizens. These mineral resources are sand and gravel, limestone, dolomite, gypsum, sandstone, salt, shale and land reserves of oil and gas.

Mineral deposits are nonrenewable resources. Keen competition for land containing these reserves threatens their future availability. Unwise extraction of these minerals can impair use of the area's other resources. Proper planning and management are necessary to ensure adequate future supply and to avoid irreversible loss or damage to other valuable coastal resources. The OCMP therefore supports actions directed toward preservation of lands for future mineral recovery, environmentally sound exploitation, stricter enforcement of permits and monitoring, and ultimate rehabilitation of the land for future appropriate uses.

POLICY 34 – ENERGY FACILITY SITING

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE FOR ENVIRONMENTALLY SOUND SITING OF MAJOR ELECTRIC ENERGY GENERATING AND TRANSMISSION FACILITIES IN THE COASTAL AREA, AND TO REGULATE THE SITING OF THESE FACILITIES TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF OHIO'S CITIZENS AND THE NATURAL RESOURCES OF THE STATE BY:**

- A. REQUIRING CERTIFICATION OF ANY MAJOR UTILITY FACILITY THROUGH THE OHIO POWER SITING BOARD IN A PROCESS WHICH ENSURES PUBLIC PARTICIPATION (O.R.C. CHAPTER 4906 AND O.A.C. 4906) AND**
- B. REQUIRING 10-YEAR DEMAND, RESOURCE AND SITE INVENTORY FORECASTS FOR ALL ENERGY GENERATION AND TRANSMISSION ACTIVITY IN THE STATE (O.R.C. 4935.04).**

Authorities and Administration

- A. O.R.C. Chapter 4906 establishes the Ohio Power Siting Board (PSB), within the Public Utilities Commission (PUCO), as the lead agency to implement a "one-stop" process for all permits involving the construction, operation and maintenance of a major utility facility. The PSB is composed of the Directors of Ohio Department of Health (ODH), ODNR, the Department of Development, Ohio EPA, Department of Agriculture (ODA) and PUCO; a public member; and four legislators (nonvoting) (O.R.C. 4906.02). PSB decisions and actions relate to any "major utility facility" including:
1. An electric generating plant and associated facilities designed for, or capable of, operation at a capacity of 50 megawatts or more;
  2. An electric transmission line and associated facilities of a design capacity of 125 kilowatts or more; and
  3. A gas or natural gas transmission line and associated facilities designed for, or capable of, transporting gas or natural gas at pressures in excess of 125 pounds per square inch.

The PSB shall not issue a certificate unless it finds and determines that "the facility represents the minimum adverse environmental impact, considering the state of available technology and the nature and economics of the various alternatives, and other pertinent considerations" (O.R.C. 4906.10(A)(3)). Under this authority, the PSB conditions all permits upon compliance with all applicable state and federal permits.

Other coastal-related concerns considered by the PSB include degree of coastal dependency, impact on environmentally sensitive areas and Special Management Areas (SMAs), compatibility with adjacent uses and activities, coastal access, visual impact upon adjacent areas (mainly in regard to alignment of transmission lines), and degree of erosion and flood hazard involved (O.A.C. 4906).

- B. All owners and operators of major utility facilities within the state are required to annually provide PUCO with a long-term forecast report pursuant to O.R.C. 4935.04. These annual reports, which must provide a 10-year year-by-year forecast, are reviewed by PUCO and made available to the public. Criteria for evaluating these long-term forecasts are contained in O.A.C. 4901:5-1, 5-3, 5-5, and 5-7. Complete details regarding Ohio's energy facility planning process are provided in Chapter 10.

POLICY 35 – ENERGY RESOURCE STORAGE AND TRANSSHIPMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO REGULATE THE STORAGE OF ENERGY RELATED RESOURCES (COAL, OIL AND GAS) IN THE COASTAL AREA THROUGH PLANNING ASSISTANCE AND PERMIT REVIEW TO ASSURE THE SAFE AND EFFICIENT USE OF THESE RESOURCES; AND TO ENSURE THAT AIR, WATER AND OTHER ENVIRONMENTAL STANDARDS ARE MET (O.R.C. 4906.06 AND O.A.C. 4906-13-02).**

Authorities and Administration

The location and layout of all storage areas for proposed major utility facilities (O.R.C. 4906.01(B)) is reviewed by the Ohio Power Siting Board (PSB) as a part of the certification process described in Policy 34. O.R.C. 4906.06 and O.A.C. 4906-13 require a description of the location of the storage facility and the major utility facility to be built thereon, as well as a summary of any studies made regarding potential environmental impacts of the facility. O.A.C. 4906-13-02 requires an applicant for a PSB certificate to supply a map of the generating plant site showing the fuel storage facilities, fuel processing facilities, and other pertinent installations of the proposed and existing facilities and their associated facilities. O.A.C. 4906-13-04 requires an applicant to provide detailed and specific environmental data for all phases of the activity, i.e., preconstruction, construction and operation to be used by the PSB to assess environmental effects of the proposed facility. O.A.C. 4906-13-05 requires submission of costs and benefits of direct and indirect effects of alternative siting decisions to allow for assessment of potential social and ecological impacts of the proposed facility.

Authorities related to the storage and transshipment of coal, oil and gas in locations unrelated to major utility facilities are discussed in Chapter 10.

In addition to other guidelines used in the project review process, projects that locate storage and transshipment facilities adjacent to major energy facilities, in port areas already used for industrial purposes, or removed from the immediate shoreline, will be encouraged.

Complete details regarding Ohio's energy facility planning process are provided in Chapter 10.

POLICY 36 – OIL AND NATURAL GAS DRILLING

**IT IS THE POLICY OF THE STATE OF OHIO TO PROTECT PUBLIC SAFETY AND WELFARE AND THE ENVIRONMENT AND TO ASSURE WISE MANAGEMENT BY:**

- A. REGULATING OIL AND GAS DRILLING ONSHORE BY REQUIRING A PERMIT TO DRILL FROM ODNR (O.R.C. 1509.05); AND**
- B. DISCOURAGING OFFSHORE OIL AND NATURAL GAS DRILLING IN OHIO WATERS OF LAKE ERIE.**

Authorities and Administration

- A. ODNR, Division of Mineral Resources Management (DMRM), requires a permit for any person planning to drill a new well, drill an existing well deeper, reopen a well, convert a well to any use other than its original purpose, plug a well to a source of supply different from the existing pool, or plug and abandon a well (O.R.C. 1509.05 and 1509.13). When any well is to be abandoned, it shall be plugged in accordance with a method of plugging adopted by rule by the Chief of DMRM. The Chief also administers a permit program for subsurface injection solution (salt) mining and brine disposal activities pursuant to O.R.C. 1509.22.

Drilling and operation rules cover the criteria for permit issuance, disposal of brine and other oil field wastes, secondary recovery operations, solution mining of minerals, safety practices for drilling and operations of wells, pipeline installation, and plugging of wells (O.A.C. 1501:9-1, 1501:9-3, 1501:9-5, 1501:9-7, 1501:9-9, 1501:9-10, and 1501:9-11). Permit regulations provide criteria for a surety bond, spacing of wells, location of wells with reference to inhabited dwellings and public rights of way, and prevention of contamination and pollution.

- B. The Governor of Ohio and the other Great Lakes states governors agreed to "A Statement of Principle Against Oil Drilling in the Great Lakes" that opposed drilling for oil in the waters of the Great Lakes and the connecting channels. The statement declares the states' shared stewardship of and intent to protect Great Lakes water quality and its dependent fishery, wildlife resources, drinking water, and recreational, transportation, business, and agricultural uses.

The drilling permit (O.R.C. 1509.05), the mineral lease (O.R.C. 1505.07) and the submerged lands lease (O.R.C. 1506.11) are existing tools to implement this policy. By opposing drilling "in the waters of the Great Lakes," the statement would not affect directional drilling; no such drilling currently is occurring in Ohio's portion of the Lake Erie basin. Ohio's statutes and rules governing these permits and leases do not, however, specifically contain conditions or criteria in this regard and therefore would allow such drilling.

## POLICY 37 – OFFSHORE MINERAL EXTRACTION

**IT IS THE POLICY OF THE STATE OF OHIO TO PROVIDE FOR AND REGULATE THE EXTRACTION OF MINERALS AND OTHER SUBSTANCES FROM AND FROM UNDER THE BED OF LAKE ERIE, THROUGH THE ISSUANCE OF OHIO DEPARTMENT OF NATURAL RESOURCES MINERAL LEASES AND PERMITS, TO PROTECT THE PUBLIC SAFETY AND WELFARE, AND TO MINIMIZE ADVERSE ENVIRONMENTAL IMPACTS, INCLUDING ADVERSE IMPACTS ON LITTORAL OWNERS' RIGHTS (O.R.C. 1505.07).**

### Authorities and Administration

Pursuant to O.R.C. 1505.07, no person shall remove sand, gravel, stone or other minerals or other substances from or from under the bed of Lake Erie without obtaining a lease or permit from the Director of ODNR. Issuance of any lease by the Director of ODNR requires the additional approval of the Director of Ohio EPA, the Attorney General and the Governor. The issuance of an offshore extraction lease is granted on either a rental or royalty basis, whichever is deemed best for the state. All monies derived from the granting of these leases are deposited into a special revenue account administered by ODNR for the protection of Lake Erie shores and waters; investigation and prevention of erosion; the planning, development, and construction of facilities for recreational use of Lake Erie; preparation of the state shore erosion plan under O.R.C. 1507.10; and state administration of Lake Erie coastal erosion areas under O.R.C. 1506.06 and 1506.07 (O.R.C. 1507.05). All data pertaining to the origin, distribution, extent, use and valuation of offshore minerals, and other offshore substances or resources are collected, analyzed, and interpreted by the Division of Geological Survey (O.R.C. 1505.01). The director may, in accordance with O.R.C. Chapter 119, promulgate rules for the implementation of the aforementioned lease activities (O.R.C. 1505.07).

O.R.C. 1505.07 requires that any taking or removal must be within “fixed boundaries that do not conflict with the rights of littoral owners.”

Offshore sand and gravel extraction is currently limited to three designated areas: Vermilion-Lorain Inner, Vermilion-Lorain Outer, and Fairport. Extraction areas are designated based upon sufficient distance from the shoreline to avert erosion damage. ODNR continues explorations for sand and gravel areas that may be economically viable now and in the future. Dredge operators must comply with all state and federal water quality regulations during the extraction process.

The extraction of oil and natural gas from under Lake Erie is also included under this lease requirement. See Policy 36 for discussion of this extraction activity.

The construction or maintenance of channels, jetties, docks, boating facilities, or other projects along Lake Erie and its bays often requires removal of sand and gravel resources from the littoral zone. It is ODNR's policy that sand and gravel be returned to the littoral zone downdrift of a project to reduce erosion by nourishing and restoring beaches downdrift of the project site. This requirement is applied to both public and private projects and is enforced through special conditions developed in submerged lands leases (O.R.C. 1506.11) and through the Section 401 Water Quality Certification process.

## POLICY 38 – SURFACE MINING

**IT IS THE POLICY OF THE STATE OF OHIO TO REGULATE SURFACE MINING ACTIVITIES TO MINIMIZE ADVERSE ENVIRONMENTAL IMPACTS, PREVENT DAMAGE TO ADJOINING PROPERTY, ENSURE RECLAMATION OF ALL AFFECTED AREAS THROUGH THE ISSUANCE OF OHIO DEPARTMENT OF NATURAL RESOURCES PERMITS AND SEE TO THE HEALTH AND SAFETY OF ALL PERSONS WITHIN THE MINING FACILITY (O.R.C. 1514.02, 1514.021, 1561, 1563, 1565 AND 1567).**

### Authorities and Administration

ODNR, Division of Mineral Resources Management (DMRM), requires a permit prior to the initiation of any surface mining activity (O.R.C. 1514.02(A)). When applying for a permit, the applicant must include, among other submissions, a mining and reclamation plan. The Chief of DMRM shall issue an order granting or denying an operating permit or amendment to an operating permit within 90 days after the filing of an application (O.R.C. 1514.02(F)).

An application for a surface mining permit (for materials other than coal) shall contain the information set forth in O.R.C. 1514.02 and shall be submitted to the Chief of DMRM. The chief has promulgated rules and regulations for surface mining in O.A.C. 1501:14-1 through 1501:14-4. These rules cover the general permit provisions and mining and reclamation performance standards.

The Chief of DMRM shall issue an order granting a permit upon his approval of an application as required and filing of a performance bond and filing fee. Such funds are to be used by the chief if the applicant fails to perform reclamation of the area according to O.R.C. Chapter 1514. If the applicant performs the required reclamation, the performance bond shall be released to the applicant by the Chief.

In addition, the Chief of DMRM shall enforce and supervise the execution of all laws enacted for the health and safety of persons and the protection and conservation of property within, about, or in connection with mines, mining and quarries, and for such purpose shall adopt, publish, and enforce necessary rules not inconsistent with the mining laws of the state.

## WATER QUANTITY

### Uses Subject to Management

- Activities involving the diversion of waters out of or into the Lake Erie Basin.
- Activities related to Lake Erie water levels.
- Activities involving water supply planning.

Lake Erie is an interstate and international resource that Ohio shares with Michigan, Pennsylvania, New York and the Canadian Province of Ontario. Lake Erie water supports an array of activities, including commercial navigation, power generation, recreation, and industrial and public water supply. It also provides extensive wildlife and aquatic habitat. Changes in Lake Erie levels can affect these various activities, especially those that rely on in-lake water uses. Fluctuating lake levels and the potential for large-scale transfers of water by out-of-basin interests make it judicious for water managers in the Lake Erie Basin to develop and maintain a comprehensive water use and management plan.

### Diversions

New and increased water diversion out of the Great Lakes basin has been advocated by some as a means to address high lake levels and replenish water supplies in the arid Great Plains and Southwestern states. The Council of Great Lakes Governors, concerned about the economic and environmental consequences of large-scale diversions of Great Lakes water, adopted a 1983 resolution on such diversions. This resolution encouraged the Great Lakes States and provinces to implement actions to regulate and mitigate potential impacts from large-scale diversions out of the Great Lakes basin. In 1985, the eight governors and two premiers of the region signed the Great Lakes Charter, establishing guidelines and principles for the management of Great Lakes water resources. The states agreed to give prior notice and consultation on future diversions and consumptive uses, and to develop a common data and information exchange system to document management of the Great Lakes water resources. In 1986, Congress passed the Water Resources Development Act, which prohibits the diversion of water out of the Great Lakes Basin without the approval of the governors of all the Great Lakes states.

### Fluctuating Lake Levels

The Great Lakes are a vast natural freshwater system over which man exerts little control. Lake Erie water levels vary naturally over time in cyclical fluctuations, ranging from the record historical average monthly low of 568.08 feet (IGLD 1985) in February 1936 to the record high of 574.31 feet in June 1986. Long-term average level of Lake Erie is 571.16 (IGLD 1985) feet. Lake level is controlled naturally through precipitation and evaporation in the basin, inflow from the upper Great Lakes via the Detroit River and outflow into the Niagara River. Although four man-made diversions and two regulatory structures have some effect on Great Lakes water levels in general, no water

level control structures exist specifically on Lake Erie. Outflow is naturally constricted at the Niagara River, limiting the rate at which water leaves the lake. Relatively small amounts of water are diverted through the Welland Canal, New York State Barge Canal and Black Rock Lock in the Niagara River.

### Water Supply

Lake Erie water is an abundant resource for public water systems and is routinely transported inland to serve ground water-poor areas in the basin. Approximately 75 percent of the water used in the basin comes from Lake Erie. Because of the lake's shallowness and nearshore water quality problems, water supply withdrawers are required to locate intake structures at least 1,500 feet into the lake.

Industry and public utilities, found primarily around larger cities in the harbor areas, are major users of Lake Erie water. About 89 percent of Lake Erie withdrawals are used for industrial processing and electrical generation. Electrical generation alone accounts for 74 percent of the withdrawals. Along the Ohio Lake Erie shoreline, there are eight coal-fired plants and two nuclear power plants (Davis Besse in Ottawa County and Perry in Lake County).

## POLICY 39 – WATER DIVERSION

**IT IS THE POLICY OF THE STATE OF OHIO TO MANAGE DIVERSION OF LAKE ERIE AND TRIBUTARY WATERS BY:**

- A. REGULATING WATER DIVERSIONS OF LAKE ERIE BASIN WATERS THROUGH THE OHIO DEPARTMENT OF NATURAL RESOURCES PERMIT PROCESS (O.R.C. 1501.30 THROUGH 1501.32);**
- B. OBTAINING THE PERMISSION OF THE GREAT LAKES STATES' GOVERNORS PRIOR TO APPROVING PERMITS FOR DIVERSIONS OF LAKE ERIE WATERS (O.R.C. 1501.32); AND**
- C. REVIEWING ALL NEW PROPOSALS FOR DIVERSIONS OUT OF THE GREAT LAKES BASIN AS WELL AS ALL NEW PROPOSALS FOR FEDERAL STUDIES THAT WOULD INVOLVE DIVERSIONS OUT OF THE GREAT LAKES BASIN, AND GRANTING OR DENYING PERMISSION FOR SUCH DIVERSIONS OR STUDIES (42 U.S.C. 1962D-20).**

### Authorities and Administration

- A. ODNR regulates diversions in excess of 100,000 gallons per day out of and into the Lake Erie Basin (O.R.C. 1501.32 and O.A.C. 1501-2-01 through 1501-2-12). A diversion is any withdrawal of water from either the Lake Erie or Ohio River drainage basin and transfer to another basin without return. Diversion does not include evaporative loss within the basin of withdrawal. Any proposed diversion in excess of 100,000 gallons per day must receive a permit issued by the Director of ODNR. A permit will not be issued if it is determined that: (1) some or all of the water to be diverted will be needed for use within the basin, (2) the public health, safety, or welfare would be endangered, (3) the applicant has not demonstrated that the proposed diversion is for a reasonable and beneficial use and is necessary to serve the applicant's needs, (4) reasonable efforts to develop and conserve water resources in the importing basin have not been made, (5) the proposed diversion, alone or in combination with other diversions and water losses, will have a significant adverse impact on in-stream uses or on economic or ecological aspects of water levels, or (6) the proposed diversion is inconsistent with regional or state water resources plans (O.R.C. 1501.32(B)). Any person who receives notice of a denial of a permit application or modification of an existing permit under O.R.C. 1501.32 is entitled to a hearing under O.R.C. Chapter 119 upon written request (O.R.C. 1501.32(E)(2)).

The director shall revoke any permit issued under O.R.C. 1501.32 without a prior hearing if it is determined that the quantity of water being diverted exceeds the amount allowed by the permit.

A permit may be suspended if the director determines that continued diversions will endanger public health, safety or welfare. Within five days after the suspension, the director shall

provide the permittee an opportunity to be heard and to present evidence that the continued diversion of water will not endanger the public health, safety or welfare (O.R.C. 1501.32(F)).

- B. Through the Council of Great Lakes Governors, Ohio signed the Great Lakes Charter, in which it agreed to seek to implement a strategy to protect the waters of the Great Lakes. The Great Lakes Charter calls on the states to regulate and manage diversions out of the Great Lakes basin of more than 2 million gallons per day. Subsequent to the signing of the Great Lakes Charter, the federal Water Resources Development Act of 1986 (WRDA-1986) was passed. Section 1109 of WRDA-1986 (42 U.S.C. 1962d-20) prohibits the diversion of water from the U.S. portion of the Great Lakes and Great Lakes Basin without the approval of all the governors of the Great Lakes states. It also prohibits federal agencies from studying the feasibility of such diversions without the approval of the Great Lakes states' governors.

When applications are received for diversion of water from the Ohio portion of the Lake Erie basin in quantities greater than 100,000 gallons per day, the Director of ODNR shall consult and seek consensus with the governors and premiers of the Great Lakes states and provinces as called for in the Great Lakes Charter (O.R.C. 1501.32). The director shall not grant a permit for a diversion that is subject to the jurisdiction of Section 1109 of WRDA-1986 until all the governors of the Great Lakes states have approved the diversion (O.R.C. 1501.32). Further, pursuant to Section 1109 of WRDA-1986, the Governor of the State of Ohio must approve proposals for diversion of water out of the Great Lakes Basin in the other Great Lakes states before they can be implemented.

- C. The Council of Great Lakes Governors developed a process, pursuant to the Great Lakes Charter, for prior notice and consultation on proposed projects (*Managing the Waters of the Great Lakes Basin*, February 1987). It is the responsibility of the state or province in which the project is proposed to notify the other states and provinces and seek consensus. States and provinces have 45 days from notification to provide comments or request a consultation meeting. The Great Lakes states have used a modified form of the Great Lakes Charter process to consider diversion proposals under Section 1109 of WRDA-1986. Instead of seeking consensus, as under the Charter, states seek the approval of the governors.

## POLICY 40 – LAKE ERIE WATER LEVELS

**IT IS THE POLICY OF THE STATE OF OHIO TO PROMOTE THE DEVELOPMENT AND IMPLEMENTATION OF A LAKE LEVELS MANAGEMENT PLAN AGREEABLE TO THE UNITED STATES AND CANADA CONCERNING THE WATER LEVELS OF LAKE ERIE AND THE GREAT LAKES.**

### Authorities and Administration

ODNR is the lead state agency in coordinating with the International Joint Commission (IJC) on lake level issues. ODNR will work with the IJC to mitigate high lake levels and implement measures that reduce shore damage from high waters without accelerating shore erosion or harming biological resources, recreational and residential interests, commercial navigation, and hydroelectric power facilities. ODNR will also advocate that IJC recommendations address the issues of low, high and fluctuating lake levels in a balanced perspective.

## POLICY 41 – WATER MANAGEMENT

**IT IS THE POLICY OF THE STATE OF OHIO TO COLLECT AND ANALYZE WATER RESOURCES INFORMATION TO PROMOTE WATER RESOURCES PLANNING AND MANAGEMENT BY:**

- A. REQUIRING LARGE WATER WITHDRAWAL FACILITIES TO REGISTER THEIR CAPACITY AND SUBMIT ANNUAL WITHDRAWAL REPORTS (O.R.C. 1521.16);**
- B. REQUIRING THE FILING OF WELL LOGS AND WELL-SEALING REPORTS (O.R.C. 1521.05);**
- C. PREPARING WATER SUPPLY PLANS;**
- D. PREPARING A LONG-TERM WATER RESOURCES PLAN FOR THE LAKE ERIE DRAINAGE BASIN;**
- E. PREPARING TECHNICAL STUDIES AND MAPPING, DESIGNATING GROUND WATER STRESS AREAS, AND ASSISTING IN CONFLICT RESOLUTION (O.R.C. 1521.03(E) AND 1521.16(B)); AND**
- F. PARTICIPATING WITH THE OTHER GREAT LAKES STATES AND PROVINCES IN COOPERATIVE PROGRAMS AND MANAGEMENT OF GREAT LAKES BASIN WATER RESOURCES.**

### Authorities and Administration

- A. ODNR's Division of Water administers a water withdrawal facility registration program for water withdrawal facilities with a capacity of more than 100,000 gallons per day, O.R.C. 1521.16. Facilities must be registered within three months of completion and shall file an annual report with the Division of Water listing the amount of water withdrawn and other data. The registration and reporting of these water uses allows the state to identify the sources of water withdrawal, the types of uses, and the distribution of withdrawals and uses statewide. This information is critical for the proper development and management of water supplies and to assist in the investigation and resolution of water use conflicts.
- B. Any person who constructs or seals a well as defined in O.R.C. 1521.01(B) is required to keep a careful and accurate log of the construction or sealing and to file a well log or well-sealing report with the Division of Water, ODNR, for each well (O.R.C.1521.05).
- C. ODNR's Division of Water, under authority of O.R.C. 1521.03(B), collects and analyzes data and develops water supply plans for communities, upon request. The division, in cooperation with Ohio EPA's Division of Drinking and Ground Waters, assesses the state's water supply

situation on a regional or site-specific basis and formulates immediate and long-term recommendations for community water supply source development. In formulating these recommendations, the use of Lake Erie water is considered an alternative to the development of inland sources and is recommended when it is the least-cost solution for users within the Lake Erie drainage basin.

- D. ODNR's Division of Water is required to develop a long-term water resources plan for the Lake Erie drainage basin (O.R.C. 1521.15). The plan is to include an inventory of surface and groundwater resources; an assessment of existing uses and future demand for withdrawals, diversions and consumptive uses; guidelines to minimize consumptive use; and guidelines and procedures to coordinate, conserve, develop, protect, use and manage the water resources of the Lake Erie drainage basin. The plan will serve, in part, as the basis for decisions on permit applications for water diversions.
- E. Using the information on the well logs, the division produces county ground water resource maps that generally describe the expected ground water yields throughout the county. The division has the authority to assist in resolving ground water conflicts by conducting investigations, issuing a report of findings and recommendations, and holding public meetings or hearings (O.R.C. 1521.03(E)). The division responds to requests for ground water information and provides technical assistance to the public and to local, state, and federal agencies. The chief of the division also has the authority to designate a Ground Water Stress Area (O.R.C. 1521.16(B)), which will provide more detailed information on uses of ground water.
- F. As a part of the Great Lakes Charter, the Great Lakes states and provinces made a commitment to develop a basin water resource management program to "guide future development, management and conservation of the water resources of the Great Lakes basin." The framework for this basin water resource management program is similar to that of the long-term water resources plan in O.R.C. 1521.15. ODNR's Division of Water, in conjunction with its work on the Lake Erie basin plan, will coordinate with the Great Lakes states and provinces on the basin water resources management program. As with Ohio's Lake Erie basin plan, the basin water resource management plan is to serve as the basis for decisions on applications for water diversions.

The Great Lakes states and provinces have developed the Great Lakes Regional Water Use Data Base. The Great Lakes Commission is the repository for the data. Each year states and provinces are to submit data on prescribed forms. A technical committee has been established to maintain and refine the protocol for reporting and compiling data.