

## CHAPTER 6

### SPECIAL MANAGEMENT AREAS

The Ohio Coastal Management Program is a long-range and comprehensive approach to the improved resolution of coastal problems. Yet there are many coastal areas with special conditions that warrant immediate attention. These areas are distinguished by either their unique coastal-related qualities or the intense competition for use of their resources. In many cases, these conditions occur simultaneously, often forcing the most fragile and desirable regions to contend with the fiercest developmental threats. As a result, inherent coastal values are placed in jeopardy, and the potential uses of such areas are diminished. General planning and policies cannot adequately address such critical situations; specific and direct action is needed. Establishment of Special Management Areas (SMAs) is intended to address this need for heightened attention.

SMA designation provides the basis for prioritizing local, state and federal government actions concerning the special needs of certain areas. In most cases, sufficient authorities and regulations are already in place; the problem is primarily that management may lack clarity and cohesion. Therefore, the solution is not to create additional agencies or regulations, but rather to focus and coalesce existing management efforts. The creation of SMAs will accomplish this by prioritizing the allocation of funds to promote interagency cooperation, provide technical assistance, and support research and local planning. This is particularly appropriate for those areas where the degree of state or local commitment has been minimal or vague. SMA status will thus serve as an important tool for those state agencies and local governments grappling with complex and pressing coastal issues.

The OCMP differentiates between two SMA categories. The first, Areas of Particular Concern (APC), are areas for which the OCMP provides for the establishment of use priorities for a broad range of similar, or generic, areas. (Specific sites may also be designated as APCs, but all initial OCMP designated APCs are generic.) The Area for Preservation and Restoration (APR) category is used for specific sites requiring aggressive management to preserve or restore their conservation, historical, recreational, ecological or aesthetic values. Federal funds available pursuant to the Coastal Zone Management Act (CZMA) may be used for construction, restoration or acquisition purposes for designated APRs.

#### Past Designation Process

The first stages of the SMA designation process actually began with the coastal program's inception in 1974 (see Chapter 2). Various agencies conducted analyses and inventories of areas with unique and significant natural, historical or cultural values; areas of high natural productivity or those providing critical fish and wildlife habitat; areas with great recreation potential; areas essential for coastal-dependent developments and facilities; areas with hydrological or geological attributes necessary for industry, commerce and dredge spoil disposal; urban areas with competitive shoreline and water uses; erosion and flood hazard areas; and areas needed to protect, maintain and replenish coastal resources. Several reports resulted from these studies.

The public was given the opportunity to officially nominate areas for SMA status in 1977. Nomination forms and accompanying explanations were disseminated through local newspapers and a newsletter. Returned forms showed that public concern revolved mainly around critical erosion areas, public access and recreational opportunities, islands, historic sites, and wetlands.

Since 1979, a plethora of studies conducted by various groups and agencies has provided the OCMP with additional information. The results of a survey conducted by the Lake Erie Shore Area Redevelopment Task Force in 1988 were particularly useful. Respondents nominated sites for special consideration and expressed their views that the most pressing issues were related to natural areas and recreational use.

### Generic APCs

Public input enabled OCMP staff to compile a list (Appendix M) of approximately 100 sites and areas for nomination. Such a large list, however, would have proven unwieldy for management purposes. Additionally, the intent was not to create and use a list of specific sites to which explicit standards could be applied, but rather to delineate broad groups of coastal areas facing similar problems for which general use priorities could be devised. Using this approach, all sites with similar attributes could be managed in a relatively equal and consistent fashion. Therefore, the list of specific sites has been condensed into eight "generic" Areas of Particular Concern (APCs). This method is advantageous because it channels management efforts toward areas of need, while still providing flexibility in the prioritization and allocation of funds for APCs. (Note that while these initial designations are of the generic type, federal regulations allow for site-specific APCs [15 C.F.R. § 923.21]. The OCMP may therefore designate specific sites in the future if such sites are not already included as generic APCs.)

The following designations include a brief description of the generic APCs' problems and guidelines for use priorities. Priority guidelines are especially important because they provide the basis for special management approaches, serve as a common reference point for resolving conflicts and define activities of lowest priority. For every APC, water-dependent uses are determined to have top priority. Among such uses, those that are most compatible with the needs and values of the particular APC will have highest priority. Lowest consideration is given to those activities that adversely affect the area.

Critical Fish Habitat - (See Policy 27.) Many portions of Lake Erie and its bays are considered Critical Fish Habitat used by various fish species for spawning, nurturing, feeding, migration and wintering, or refuge. ODNR's Division of Wildlife (DOW) has conducted research on the following parameters to determine that parts of Lake Erie are most critical for the survival of the fisheries population:

1. Biological - benthos, phytoplankton, zooplankton, fish populations;
2. Physio-chemical - water bathymetry and morphometry, water quality (temperature, dissolved oxygen, etc.), lake bottom conditions; and

### 3. Fishing Mortality - sport and commercial harvests.

Information was used to devise maps of the Critical Fisheries Habitat and to provide the background for proper management decision making. This habitat includes areas that are located both near and offshore; those of vegetated and nonvegetated conditions; and those with different bottom sediment types. Such habitat faces a wide array of threats, ranging from toxic chemicals to sedimentation and turbidity to physical alteration of the actual habitat area. Uses that maintain or improve the integrity of such habitat and support a sound fisheries population will receive top priority. Low priority will be given to activities that harm the natural integrity of this habitat.

Generic APC status is recommended for these critical fish habitat areas, and their preservation is of highest priority. Local, state and federal governments may assist in the OCMP's APC protection efforts through acquisition-protection measures or through the control of activities on contiguous land areas to minimize nonpoint source pollution.

The following authorities are used to protect the fish habitats of the Ohio portion of Lake Erie:

- The State has overall authority as proprietor in trust of Lake Erie resources for the people of the state. ODNR is responsible for the leasing of submerged lands (O.R.C. § 1506.02 and 1506.11).
- The ownership of and the title to all wild animals, including fish, is entrusted in the state of Ohio for the benefit of all its citizens (O.R.C. § 1531.02).
- The Director, Ohio EPA has the authority to issue or deny a Section 401 Water Quality Certification to any applicant for a federal permit or license for any activity that may result in any discharge into the waters of the state (O.R.C. § 6111.03(O) and 6111.03(P)).

ODNR staff reviews U.S. Army Corps of Engineers (COE) Section 10/404 permit applications and Ohio EPA uses the Section 401 Water Quality Certification process to prevent adverse impacts from dredging or filling in prime fish habitat areas. Ohio EPA also helps maintain high quality fish habitat by enforcing compliance with water quality standards set forth in O.A.C. Chapter 3745-1.

Ports and Harbors - (See policies in "Ports and Shore Area Development" section, Chapter 5.) Ohio's Lake Erie communities have flourished primarily because of their location at naturally protected river harbors along the Lake. Several of the ports that developed at these harbors have grown to possess immense commercial significance for Ohio's statewide economy. They continue to be one of the greatest factors in maintaining the economic well-being of the urban coastal areas. In addition, the smaller coastal river mouths have promoted the development of heavily used small boat harbors. Larger ports also support, to a varying extent, recreational boating facilities. Both small boat harbors and large-port complexes are increasingly subject to intense pressures for commercial-industrial uses and for public access.

Generic APC designation is recommended for Ohio's Lake Erie ports and harbors because of their vital importance to Ohio's economy and to the recreational enjoyment of its people. High priority will be given to those uses that improve the capabilities of Ohio's ports and harbors to accommodate water-dependent transportation, recreation and public access activities. Any uses that infringe upon a port or harbor's chief functions will be of low priority.

Proper planning is necessary to assure that port related needs and other coastal uses, such as recreation and public access, are considered. Port authorities have the responsibility to carry out such planning efforts. Local zoning regulations can be used to ensure compatible land uses in the harbor areas, especially to provide for necessary expansion of harbor-dependent development and storage.

The Ohio Department of Transportation (ODOT), helps promote the appropriate use and commercial development of ports and harbors (O.R.C. § 5501.04).

ODNR is responsible for the inventory, evaluation and promotion of public access to the Lake Erie shoreline (O.R.C. § 1506.05).

The removal of minerals, sand, gravel, stone or other substances is regulated by ODNR pursuant to O.R.C. § 1505.07. A lease or permit from ODNR is required before any improvements or developments may be made on the water or lands underlying the waters of Lake Erie (O.R.C. § 1506.11).

Dredging activities are managed by Ohio EPA, consistent with the state's water quality standards (O.R.C. § 6111.03(O) and 6111.03(P)). Before any dredge material disposal into waters of the state may be allowed, Ohio EPA must first issue a Section 401 Water Quality certification.

State Nature Preserves and Wildlife Areas - (See Policies 13 and 14 and policies under "Fish and Wildlife Management," Chapter 5.) Ohio's Lake Erie region possesses a diverse system of natural areas and wildlife habitats. The viability of numerous plant communities, wildlife populations and endangered species depends upon their proper management. Scientific research and public education is greatly enhanced through interpretive uses of these areas. Wildlife areas also provide the state's greatest recreational opportunities for fishing and hunting. However, the number of areas capable of fulfilling nature preserve and wildlife habitat functions diminishes each year, and those areas that do remain in a natural state are faced with numerous threats to their environmental integrity. Lowest priority uses will be determined in accordance with each area's management plan.

SMA designation for state nature preserves and wildlife areas places a high priority on maintaining the natural qualities of these refuges. Uses of high priority are those that promote, respectively, preservation or wildlife management, undeveloped recreation, restoration, scientific research and public education. Low priority activities are those that would adversely affect the primary values for which such areas were acquired and are dedicated.

ODNR's Division of Natural Areas and Preserves (DNAP) is authorized by O.R.C. Chapter 1517 to acquire and accept the dedication of public and privately owned lands as nature preserves. Also, under O.R.C. § 1501.01, the Director, ODNR may accept bequests of lands and acquire property by purchase or lease, with the authority to appropriate property. The Division has authority to manage and protect such lands for educational and scientific use, visitation and protection of natural features, including endangered species. DNAP is authorized to inventory, plan, study and regulate the use of such areas. Currently dedicated nature preserves in the coastal area are Mentor Marsh, Headlands Dunes, Sheldon Marsh, Dupont Marsh and Lakeside Daisy, as well as Old Woman Creek National Estuarine Research Reserve (OWC-NERR), which is managed by the ODNR Division of Wildlife. State nature preserves are identified as APRs on the coastal boundary maps (Appendix B).

ODNR's DOW is authorized to acquire land and water areas as wildlife areas and to manage them using sound wildlife management techniques (O.R.C. Chapter 1531).

ODNR also cooperates extensively with conservation and preservation groups such as The Nature Conservancy, The National Audubon Society and the Ohio Historical Society to acquire and manage such lands.

Coastal Erosion and Flood Hazard Areas - (See policies under "Coastal Erosion and Flooding" Chapter 5.) The serious damages that result from flooding and erosion dictate the need for joint efforts by state agencies and local communities regarding coastal erosion and flood hazard area management. Portions of Ohio's Lake Erie shore have been identified as coastal erosion areas (see Policy 1), while the entire shoreline is subject to wave attack and erosion forces. Flood prone areas have been identified along the entire shore, but potential flood damage is particularly severe at stream mouths and in low relief areas of the western basin.

Both flooding and erosion are the results of natural and sometimes unpredictable forces, and the resultant damages are often the result of unwise development practices. The promotion of passive land use in areas most subject to such forces is the most efficient method for reducing damages. Therefore, high priority uses are open space, natural area preservation and undeveloped recreation (on public land). Uses that do not conform with flood insurance program regulations or those not in accordance with rules governing development within coastal erosion areas are not permitted.

O.R.C. § 1506.04 requires that communities with coastal flood hazard areas either participate in the National Flood Insurance Program (NFIP) or enact regulations that meet or exceed the standards required for such participation. O.R.C. § 1506.06 authorizes the Director of ODNR to designate coastal erosion areas. Technical information for these coastal erosion areas has been compiled by the Division of Geological Survey under rules promulgated in June 1996, and maps defining coastal erosion areas have been prepared. The construction, erection or redevelopment of any permanent structures within a coastal erosion area requires a permit from either the director or the local government of a county or municipality that is enforcing a Lake Erie Coastal Erosion Area resolution or ordinance approved by the director (O.R.C. § 1506.07). No person shall build or construct a beach or erect groins or other shore protection structures to arrest erosion along the Ohio

shore of Lake Erie without first receiving a permit from ODNR's Division of Engineering (O.R.C. § 1507.04).

Specifically included in this generic APC designation would be all areas identified by ODNR as coastal erosion areas pursuant to O.R.C. § 1506.06, all coastal flood hazard areas designated under the Flood Disaster Protection Act of 1973 (P.L. 93-234) and all Ohio units of the federal Coastal Barrier Resources System.

Public Parks and Access Areas - (See Policies 21, 22 and 23.) Of all shore uses, recreational areas have the widest constituency of users. Providing adequate access is the only way to make the recreational opportunities of Lake Erie available to the public. Public lakeshore parks are, however, experiencing increasing problems. Budget constraints impede proper planning and maintenance of local parks. Additionally, many parks are developed to satisfy smaller local demands rather than those of the region as a whole. These factors lead to park deterioration or destruction due to overuse or lack of supervision.

The OCMP recognizes both the need for additional recreational opportunities and the mediation of user conflicts that may arise. Therefore, generic APC designation is proposed for all waterfront parks and public boating and fishing access sites within the coastal area. High-priority uses are those that provide public access and promote public recreation in such areas. Uses of low priority are those that inhibit the recreational potential of an area.

ODNR's Division of Parks and Recreation (DPR) is authorized to create, supervise, operate, protect and maintain a system of state parks and promote their use by the public (O.R.C. Chapter 1541).

Park districts (county, township and municipal) have been established for the purposes of acquiring, planning, developing, protecting and maintaining or improving lands for parks (O.R.C. § 1545.11).

The Division of Watercraft, whenever it deems it to be in the best interest of the state, may construct, maintain, and repair refuge harbors and other projects providing for marine recreational activities (O.R.C. § 1547.72).

The Chief of the Division of Wildlife, with the approval of the Director of ODNR, may acquire by gift, lease, purchase or otherwise, sites that provide fishing and hunting access (O.R.C. § 1531.06).

Pursuant to O.R.C. § 1506.05, the Director of ODNR has prepared an inventory and evaluation of public access facilities, and makes policy recommendations for enhancing public access to Lake Erie.

Wetlands - (See Policy 12.) Approximately 33,000 acres of wetlands along the Ohio shore form one of the most valuable portions of the entire Lake Erie ecosystem. This valuable state resource

provides extremely important habitat for fish, game and waterfowl. Tremendous economic benefits result from the hunting and fishing of this wildlife. Wetlands also lessen the damaging effects of flooding by holding back floodwaters, and along lakeshores by absorbing wave energy. Their water filtering and purification abilities improve overall water quality.

Ohio's coastal wetlands have been severely depleted due to extreme development pressures. The generic APC categorization of wetlands provides for the recognition that all wetlands are worthy of protection or mitigative measures prior to any change in their current use. High priority uses for wetlands are those that preserve and restore natural attributes and serve natural preservation, wildlife habitat, hunting, floodwater retention, groundwater recharge, scientific research and environmental education functions. Any other uses are of lower priority.

The state has authority to acquire and manage wetlands through the DNAP for state nature preserves (O.R.C. Chapter 1517) and through the DOW for state wildlife areas (O.R.C. § 1531.06). ODNR staff will actively seek additional matching funds for wetland protection efforts and will continue to inventory and survey wetland areas. Additionally, Ohio's Capital Improvements budget for fiscal years 1989 and 1990 created the Ohio Wetlands Fund and targeted \$400,000 specifically for the purchase of wetlands.

Ohio EPA protects the water quality of Lake Erie wetlands through the exercise of its Section 401 Water Quality Certification authority in accordance with O.A.C. Chapter 3745-32.

Ohio EPA and ODNR are working on several wetlands initiatives, cooperatively and independently. Ohio EPA, under a State Wetlands Program Development grant from U.S. EPA, coordinated the development of a State Comprehensive Wetlands Strategy in close coordination with ODNR, other state agencies, county, local, and regional governments, and with significant input from the private sector and agencies such as the U.S. Fish and Wildlife Service and U.S. Department of Agriculture. ODNR, DOW, has inventoried coastal wetlands, working in cooperation with the Division of Real Estate and Land Management and U.S. Soil Conservation Service. Wetland inventory maps will be available at county Soil and Water Conservation District offices.

Protection and restoration of wetlands important to waterfowl is being addressed under the North American Waterfowl Management Plan (NAWMP). Lake Erie coastal marshes are within a high-priority focus area of the plan. DOW is cooperating with the U.S. Fish and Wildlife Service, private landowners and independent organizations such as Ducks Unlimited to acquire, protect and restore critical wetland habitat.

Local units of government will be encouraged to use land-use controls to protect valuable wetlands. Local authorities may also preserve wetlands by acquisition and maintenance as natural areas and wildlife refuges. ODNR can provide technical assistance and management guidelines for such efforts through provision of the inventory maps and the critical areas program as well as financial assistance through the Land and Water Conservation Program.

Historic and Archaeological Sites - (See Policy 26.) Historic and archaeological sites are districts, sites, buildings, structures and objects significant to Lake Erie's cultural and historic heritage. Such areas provide Ohioans with a strong sense of their past and Lake Erie's importance in the development of the Great Lakes region. Historic and archaeological sites provide a valuable record for scientists in studying the history and culture of the region. They are also important tourist attractions.

The OCMP recognizes the great importance of these historic, cultural and archaeological resources to the coastal area. SMA designation is proposed to assure that coastal activities and developments occur without harm to such reminders of our heritage. High-priority uses are those that preserve, restore and protect the historical or archaeological nature of sites. Activities that destroy or inhibit restoration are of lowest priority.

The Ohio Historical Society (OHS) will update coastal historical archaeological site records and issue permits pursuant to O.R.C. § 149.54 to control archaeological survey or salvage work requiring compliance with the historic landmarks preservation notification procedures in O.R.C. § 149.55. OHS may also designate, acquire and manage sites that it feels are worthy of National Historic Register protection (O.R.C. § 149.30). Local governments may also acquire such sites or use zoning laws and landmark preservation ordinances to assure that development does not detract from a site's historic or cultural significance. Areas that are of state interest are purchased through appropriations from the General Assembly.

Areas of Concern - (See Policy 10.) The lower Cuyahoga, Maumee, Black and Ashtabula Rivers have been designated as Areas of Concern (AOC) by the Water Quality Board of the International Joint Commission (IJC); these AOCs lie partially within Ohio's coastal area. The IJC designation was based on the severe water quality problems and the degree of use impairment within each of the four areas. (AOC designation should not be confused with the APC category used by the OCMP).

To guide and assess cleanup efforts, the Great Lakes states and Ontario have committed to the development of Remedial Action Plans (RAPs) for each AOC under the oversight of the IJC. RAPs embody an ecosystem or multimedia approach and are systematic plans designed to improve degraded conditions and restore beneficial uses. Ohio EPA, as the state's lead agency for water quality issues, is responsible for the development and implementation of the RAPs. The public, industry and all levels of government must actually implement such plans. RAPs represent a marked departure from past trends in pollution control because they address more than just individual point sources of pollution. Rather, a RAP considers the full array of inputs, as well as the authorities responsible for such inputs. Furthermore, all pertinent stakeholders in the AOCs' future, including industry, government and the public, are included in the RAP planning process.

Information on the progress of RAPs for Ohio's four AOCs is included in Appendix N. Figure 5 shows the relative locations of the AOCs on Lake Erie and their corresponding watershed areas.

The critical nature of AOCs and the inherent difficulty in using such a comprehensive approach make it appropriate to establish a generic APC category for such areas. APC designation for those portions of these AOCs that lie within the OCMP coastal area may provide the additional support needed to achieve the desired goal of improved water quality for Ohio's AOCs. High priority uses are those that contribute to remedial actions and do not promote further degradation of the AOC. Low priority is given to uses that negatively affect water quality or compound the existing problems.

AOC remedial programs must be incorporated into Ohio's existing water management framework. Although the state lacks AOC specific authority, several of its agencies are responsible for programs that, directly or indirectly, affect Ohio's AOCs. Pertinent agency responsibilities are those related primarily to water quality, the degradation of which is the fundamental problem underlying every AOC.

### Specific APRs

Areas for Preservation and Restoration (APRs) are specific sites for which an additional level of protection, beyond that afforded through generic APC designation, has been deemed necessary. These are designated sites where the preservation and restoration of conservation, recreational, ecological, historical or aesthetic values are the dominant public policies. In APRs, any activities that are inconsistent with such policies shall be excluded. Further, water-dependent uses generally are higher priority than those that are not dependent upon water. Although funds may also be used to acquire sites that meet APR designation criteria, Ohio remains sensitive to the potential impacts on local economies that might result from public land acquisition. APRs are generally local, state or federally owned lands that receive maximum protection via the application of strict regulations governing their use.

Two fundamental conditions must be met for a site to receive APR designation. First, it must have current value, or potential value when restored, as either a recreational, natural or historic area. Secondly, the special values of such a site must be available, or potentially available, for public use, recognizing that restrictions on this use may be necessary to protect the site's character. Private lands without public access cannot be considered APRs.

The following list briefly describes the seven site-specific APRs located within Ohio's coastal area:

1. **DuPont Marsh State Nature Preserve** is a 113-acre example of the once-prevalent Lake Erie estuarine marsh community. It includes freshwater marsh, old field, and mixed emergent riverine vegetation types, and is home to rare plants such as the leafy blue flag iris and hairy-fruited sedge, and is visited by bald eagles. Additional acquisition is needed to more fully protect the site.
2. **Headland Dunes State Nature Preserve** is one of the best sand dune-vegetation communities of its kind in Ohio. This isolated 16 acre tract provides valuable habitat for a rare assemblage of plants and animals characteristic of the sand beach and dune communities that were once common along the shores of Lake Erie.
3. **Lorain Lighthouse** is listed in the National Historic Register. Constructed in 1917 at Lorain, Ohio, this lighthouse is preserved and managed by the Lorain Historical Society. It is in need of structural work to prevent further deterioration of the base.
4. **Mentor Marsh State Nature Preserve** is a 666-acre marsh that includes approximately 50 species of deciduous trees and extensive coverings of Phragmites. As one of the first National Natural Landmark areas designated by the U.S. Department of the Interior in 1966, it provides habitat for animal species such as red-headed woodpeckers, long-billed marsh wrens, mink, red fox, and weasel.
5. **Old Woman Creek State Nature Preserve and National Estuarine Research Reserve (OWC-NERR)** is one of Ohio's best remaining examples of a Great Lakes-type estuary. The 572-acre reserve encompasses a variety of habitats including freshwater marshes, swamp forests, a barrier sand beach, upland forests, estuarine waters and near-shore Lake Erie. As a natural transition zone between land and water, the OWC-NERR provides valuable habitat for a wide array of plant and animal life from microscopic algae, aquatic vascular plants, numerous fish, reptile and amphibian species; to hundreds of species of birds, including the American bald eagle. The wetlands ecosystem of the reserve performs valuable natural functions such as filtration of stream sediments, nutrients, and pollutants, and affords protection from coastal erosion and flooding.
6. **Sheldon Marsh State Nature Preserve** is a 463-acre preserve containing some of the last remaining undeveloped stretches of lakeshore in the Sandusky Bay region. Preserved are habitat relicts of the original lake-marsh-forest ecosystem such as old field, hardwood forest, woodland swamp, cattail marsh, barrier sand beach and open water. Nearly 300 bird species and many wildflowers, including the spectacular cardinal flower, are known to the area. Sheldon Marsh is well known for its valuable habitat for fledgling American bald eagles, migratory waterfowl, shore birds and wood warblers. Additional acquisition will be needed for increased site protection.

7. **Lakeside Daisy - Colleen "Casey" Taylor and Ruth E. Fiscus - State Nature Preserve** is a 19-acre preserve in Ottawa County that protects a portion of the population of *Hymenoxys herbacea* (E.L. Greene) Cusick, Lakeside Daisy, a federally protected threatened and state-protected endangered plant. Additional land acquisition is needed.

#### Future Designation Process

Despite the aforementioned generic APCs and specific APRs, Ohio realizes that SMA nomination and designation was not merely a one-time exercise. Changing conditions may dictate the need for additional APCs and APRs. SMA nominations for APCs (either generic or site-specific) or site-specific APRs may be submitted by any interested party. The proposal must include the following information:

1. General area description showing that the area is within the OCMP boundary.
2. Explanation of why current management of the area is inadequate and why the area's problems are not covered under existing OCMP policies or SMA categories.
3. Suggested management policies that will resolve the area's problems.
4. Agencies capable of implementing policy directives.

The nominations are to be submitted to ODNR, which solicits review comments from:

1. Appropriate federal, state and local agencies;
2. Coastal Resources Advisory Council; and
3. Members of the public with an expressed interest in coastal issues.

A new APC category or site or specific APR site will be authorized if ODNR determines both that the primary values of the area in question are being degraded and that the existing institutional frameworks are insufficient to remedy the situation. If creation of a new category is necessary, ODNR shall prepare a statement that justifies designation of the new SMA. The statement shall include an explanation of how improved management strategies will alleviate the principal concerns. The new SMA would then be submitted to the Office of Ocean and Coastal Resource Management (OCRM) for inclusion in the OCMP, then announced in OCMP materials, made part of the public record, and formally added to the list of Ohio SMAs, if approved by OCRM.

## Coastal Resources of National Significance

Section 306(d)(13) of the CZMA provides that a state coastal management program must provide for "(A) the inventory and designation of areas that contain one or more coastal resources of national significance; and (B) specific and enforceable standards to protect such resources."

As indicated in the bibliography below, the State of Ohio has inventoried and mapped the following coastal resources of national significance: coastal wetlands, reefs, beaches and dunes, barrier islands, and fish and wildlife habitat. Lake Erie's estuarine systems have been described in a NOAA publication, *Lake Erie Estuarine Systems: Issues, Resources, Status, and Management* (1989). Wetlands and critical fish habitat areas have been designated as generic APCs. State nature preserves and wildlife areas, several of which contain significant fish and wildlife habitat as well as barrier sand beaches and dunes, are designated as generic APCs. Six stretches of undeveloped coastal barriers have been designated units in the Coastal Barrier Resources System (CBRS), which prohibits federal flood insurance and financial assistance for development. Ohio has added five additional areas to the CBRS, including several low-lying seasonal dunes, (at Sheldon Marsh, Old Woman Creek, Kelleys Island North Pond, Mentor Marsh/Headland Dunes and Arcola Creek) for inclusion as otherwise-protected areas in the CBRS. These areas are owned and managed as nature preserves or state parks by the State of Ohio and The Nature Conservancy (Arcola Creek).

Enforceable standards regarding these resources are detailed in Policies 1, 2, 12, 13, 14, 16, 27 and 29. As described earlier in this chapter, the SMA nomination and designation process is an ongoing one intended to provide additional protection and special management as new areas and/or concerns regarding these resources become apparent.

### *Wetlands*

- National Wetlands Inventory. U.S. Department of the Interior.
- State of Ohio Wetlands Inventory. Ohio Department of Natural Resources, Division of Wildlife.

The wetlands inventory is conducted using satellite imagery. Additional information, such as topographic maps, soil surveys and field surveys are used to assist in the location, description and classification of wetlands. This is an ongoing inventory. Ohio has completed the inventory of probable wetland sites and is in the process of printing hard-copy maps for public distribution. Maps for the nine coastal area counties are available in final form.

### *Coastal Erosion and Flood Hazard Areas*

- Lake Erie Shore Erosion and Flooding, Reports of Investigation (Lucas, Lake, Erie and Sandusky counties). 1976, 1978 and 1980. Ohio Department of Natural Resources, Division of Geological Survey. These studies are a series of county-wide investigations that quantify historic erosion and recession.

### *Beaches and Dunes*

- Resources of the Lake Erie Island Region. 1977. Center for Lake Erie Area Research. (Included shore type, length and percent beach).
- Coastal Hazards: Recession, Erosion and Flooding. 1977. Ohio Department of Natural Resources, Coastal Zone Management Section.
- Beach Inventory. 1980. Ohio Department of Natural Resources, Division of Geological Survey. (Excluded islands and Sandusky Bay.)
- Coastal Hazard Management: Shore Erosion. 1982. Ohio Department of Natural Resources, Coastal Zone Management Section.
- Inventory of Shoretype, Subaqueous Nearshore Composition and Bluff Lithology. 1987. U.S. Army Corps of Engineers, Ohio Department of Natural Resources, Division of Geological Survey.
- Inventory of Critical Erosion Areas. 1987. Ohio Department of Natural Resources, Division of Geological Survey. Data incorporated into U.S. Army Corps of Engineers database.
- Beaches and Dunes of Ohio's Lake Erie Shore. 1993. Ohio Department of Natural Resources, Division of Geological Survey. Using aerial photos verified by field studies, the division has compiled file data and maps (unpublished) documenting the location and size of beaches and dunes along the entire Ohio Lake Erie shore.
- Lake Erie Shore Erosion and Flooding, Reports of Investigations (Lucas County 1978, Lake County 1976, Erie and Sandusky counties 1980, and Ashtabula County 1983). Ohio Department of Natural Resources, Division of Geological Survey. These studies are a series of county-wide investigations that quantify historic erosion and recession.

### *Barrier Islands*

Only one barrier island exists along Ohio's Lake Erie shore. That island, at Cedar Point, was previously the northwestern end of a long sand spit offshore, northeast of Sandusky. An island was created when a breach occurred near Point Retreat in the fall of 1972.

### *Fish and Wildlife Areas*

- The Fishing Potential, Special Management Areas, and their Interaction with Dredge Spoil Sites in Lake Erie. 1977. Ohio Department of Natural Resources, Center for Lake Erie Area Research. Includes inventories and maps of critical habitat and substrate types for Lake Erie fish species.
- Status and Trend Highlights: Ohio's Lake Erie Fish and Fisheries. Annual Reports. Ohio Department of Natural Resources, Division of Wildlife.
- Natural Heritage Database, Ohio Department of Natural Resources, Division of Natural Areas and Preserves. The database is an ongoing process involving constant update and refinement of information, locating the elements of the natural world which, if preserved, will preserve diversity. Habitats of vulnerable plant and animal species, representative examples of ecological communities and unique or outstanding natural features are located. The Heritage Data Base results in a more comprehensive identification of Ohio's biological resources than was possible with previous inventories. This is accomplished through its element-based approach that focuses first on the components of natural diversity.
- Ohio Breeding Bird Atlas. 1991. Ohio Department of Natural Resources, Division of Natural Areas and Preserves.
- Fish and wildlife resources of the Great Lakes coastal wetlands within the United States, Volume 1: Overview, Volume 3: Lake Erie. 1981. U.S. Fish and Wildlife Service, Washington, D.C., FWS/81/02-v1,v3.
- Nesting and migration areas of birds of the U.S. Great Lakes (30 April to 23 August, 1976). 1979. W.C. Scharf, et al.

### *Estuaries*

- Lake Erie Estuarine Systems: Issues, Resources, Status, and Management. 1989. U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

### *Reefs*

- Physical characteristics of the reef area of western Lake Erie. 1972. Ohio Department of Natural Resources, Division of Geological Survey Report of Investigation.