Coastal Zone
Information
Center

UNITED STATES

DEPARTMENT OF COMMERCE

# DRAFT

# ENVIRONMENTAL IMPACT

# STATEMENT

PROPOSED

ESTUARINE SANCTUARY GRANT AWARD

FOR

OLD WOMAN CREEK, ERIE COUNTY, OHIO

C.Z.M.

ATTENTION
Proposed boundaries for this sanctuary have been changed. See amendment at end.

QH
541.5
.E8
P7
1975
c.2

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

Summary

(X) Draft ( ) Final Environmental Impact Statement
Department of Commerce, National Oceanic and Atmospheric Administration, Office of Coastal Zone Management. For additional information about this proposed action or this statement, please contact:

Edward T. LaRoe
or
Deborah K. Curl
Office of Coastal Zone Management
National Oceanic and Atmospheric Administration
Washington, D. C. 20235 PHONE: 202-634-4241

1. Proposed Estuarine Sanctuary grant award, Old Woman Creek, Erie County, Ohio

   (X) Administration ( ) Legislative

2. It is proposed that a grant be awarded to the State of Ohio to acquire, develop, and operate an estuarine sanctuary in Erie County, Ohio, pursuant to P.L. 92-583. About 980 acres of land and water in Old Woman Creek and surrounding lands would be acquired and protected. If implemented, this proposed grant would be awarded in June, 1975.

3. The acquisition and operation of the estuarine sanctuary may restrict land and water uses and prohibit mineral exploitation within the sanctuary boundaries. Agriculture within the proposed sanctuary, if allowed, would be limited in extent and strictly controlled.

4. Alternatives considered:

   A. Alternative estuarine sites within the Great Lakes region as potential candidates.

   B. Alternative boundaries for the Old Woman Creek proposal.

   C. Alternative management policies for the proposed sanctuary.

   D. Alternative methods of protection for the proposed sanctuary.

   E. Alternative courses of action for the Office of Coastal Zone Management:

      1) Award grant in modified form.
      2) Delay awarding the grant.
      3) No action.

Property of CSC Library

5. List of all Federal, state, and local agencies and other parties from which comments have been requested:

U.S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
2234 SOUTH HOBSON AVENUE
CHARLESTON, SC 29405-2413

Federal Agencies

Department of Agriculture
Forest Service
Soil Conservation Service

QH541.5.E8 P7 1975 c.2
5908961

Department of Defense
  Army Corps of Engineers

Department of the Interior
  Bureau of Land Management
  Bureau of Outdoor Recreation
  Bureau of Sport Fisheries and Wildlife
  Geological Survey
  National Park Service
  Office of Land Use and Water Planning

Department of Transportation
  Coast Guard

Environmental Protection Agency
  Regional Administrator, Region V

U.S. Water Resources Council

Department of Housing & Urban Development

State

Department of Natural Resources
Environmental Protection Agency
Department of Transportation
Ohio State Clearinghouse
Department of Agriculture
Ohio Cooperative Fishery Unit, USDI
Ohio Cooperative Wildlife Research Unit, USDI
Toledo Metropolitan Area Wide Council of Governments

Local

Erie Regional Planning Commission
Oberlin Beach Association

Other Parties

State Clearinghouses
  Wisconsin
  Michigan
  Minnesota
  Illinois
  Indiana
  New York
  Pennsylvania
The Nature Conservancy
National Audubon Society
National Wildlife Federation
Sierra Club

Natural Resources Defense Council, Inc.
Environmental Defense Fund
Izaak Walton League of America
Conservation Foundation
The Nature Conservancy, Ohio Chapter
Firelands Audubon Society
Ohio Division Izaak Walton League of America, Inc.
League of Ohio Sportsmen
The Ohio Conservation and Outdoor Education Association
The Ohio Academy of Science
Ohio Conservation Congress
Ohio Federation of Soil and Water Conservation Districts
Ohio Forestry Association, Inc.
Ohio Parks and Recreation Association
Ohio Biological Survey
Center for Lake Erie Area Research
Lake Erie Advisory Committee
Honorable Robert Taft, Jr.
Honorable John Glenn
Honorable Tennyson Guyer
Honorable Charles A. Mosher
Evelyn Johns
Donald H. Davis
Debby Sutter
Eula D. Klenk
J. H. McBride
Havey C. Lisle
Henry B. Heiser
Mr. Charles B. Hartley
Mrs. Marilyn Hooper
Mr. Richard G. Micka
Mrs. J. Rainger
Mrs. Lawrence Becker
Mrs. Howard Rubin
Mrs. Richard Chase
Mr. William F. Kaiser
Lee A. Kamps
Mr. and Mrs. R. L. Winters
Mr. Rich Block
Mr. Thomas C. Syrdyk

6. Draft Statement transmitted to the Council on Environmental Quality on April 4, 1975, and made available to the public on April 11, 1975. A public hearing will be held on this proposal on May 15, 1975 at 7:30 pm in the auditorium of the Firelands Campus of Bowling Green State University in Huron, Ohio.

TABLE OF CONTENTS


| | | Page |
|---|---|---|
| I. | INTRODUCTION | 1 |
| II. | DESCRIPTION OF THE PROPOSED ACTION | 2 |
| III. | DESCRIPTION OF THE ENVIRONMENT AFFECTED | 12 |
| IV. | RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AREA | 16 |
| V. | PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT | 17 |
| VI. | ALTERNATIVES | 20 |
| | A. Alternatives to the site selected | 20 |
| | B. Alternative boundaries for this sanctuary | 21 |
| | C. Alternative management programs | 21 |
| | D. Alternative methods of Acquisition and Protection for the Proposed Sanctuary | 23 |
| | E. Alternative courses of action for the Office of Coastal Zone Management | 24 |
| VII. | PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED | 25 |
| VIII. | RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY | 26 |
| IX. | IRREVOCABLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED | 27 |
| X. | CONSULTATION AND COORDINATION | 27 |
| XL. | PUBLIC HEARING | 27 |
| | REFERENCES | 28 |
| | APPENDICES | |
| | 1. Coastal Zone Management Act of 1972 (P. L. 92-583) | |
| | 2. Final Rules for Estuarine Sanctuary Grants (15 CFR 921, published June 4, 1974, Federal Register 39 (108):19922-19927 | |

# I. INTRODUCTION

In response to the intense pressures upon and conflicts within the coastal zone of the United States, the Congress in 1972 passed the Coastal Zone Management Act (P.L. 92-583) (Appendix I). This Act authorized a new Federal program to be administered by the National Oceanic and Atmospheric Administration (NOAA), in the Department of Commerce, to assist and encourage states to develop and implement rational programs for managing their coastal resources. The Act affirms a national interest in the effective management, beneficial use, protection and development of the coastal zone and provides three grant programs to the coastal states and territories toward that end.

Two of these grant provisions are concerned with assistance to the states to develop land and water use management programs (Section 305) and to implement and administer those programs after review and approval by the Secretary of Commerce (Section 306). The first program development grants were awarded in March, 1974, and the first program implementation applications have been received from four states early in 1975.

The third part of the Coastal Zone Management Act establishes an estuarine sanctuary program (Section 312) which will provide grants to states on a matching basis to acquire, develop and operate estuarine areas to be set aside as natural field laboratories. These estuarine sanctuaries will be used primarily for long-term scientific and educational purposes, especially to provide some of the information essential to coastal zone management decision-making. Examples of such objectives might include:

- To gain a thorough understanding of the ecological relationships within the estuarine environment.
- To make baseline ecological measurements.
- To serve as a natural control in order to monitor changes and assess the impacts of man's stresses on the ecosystem.
- To provide a vehicle for increasing public knowledge and awareness of the complex nature of estuarine systems, their values and benefits to man and nature, and the problems which confront them.

In order to ensure that the sanctuary program adequately represents regional and ecological differences, the guidelines for the estuarine sanctuary program establish a biogeographic classification scheme which reflects geographic, hydrographic, and biologic characteristics. Eleven different biogeographic categories are established and defined in the guidelines; subcategories of this basic system will be utilized as appropriate to distinguish major sub-classes of the system.

By revised budget appropriation in November, 1973, $4,000,000 was provided to begin implementation of the estuarine sanctuary program. The first estuarine sanctuary grant, for $823,965, was awarded to the State of Oregon in June, 1974, to establish a sanctuary in the South Slough portion of

Coos Bay. Although no new funds were appropriated for Fiscal Year 1975, the original funds remain available until expended. Carry-over funds thus total $3,176,035.

In January of 1975, the State of Ohio submitted to the Office of Coastal Zone Management, NOAA, an application for an estuarine sanctuary to be located in the mouth of Old Woman Creek and a portion of the surrounding lands in Erie County, Ohio. In keeping with the spirit of the National Environmental Policy Act (NEPA) and the guidelines promulgated by the Council on Environmental Quality (CEQ) (40 CFR Chapter V, Part 1500), which require that Federal agencies assess in detail the potential environmental impact of the actions beginning at the earliest possible point and in all cases, prior to agency decision, the Department of Commerce, Office of Coastal Zone Management (OCZM) has prepared this Draft Environmental Impact Statement for review and comment by all interested public, private, state, and Federal individuals and agencies.

## II. DESCRIPTION OF THE PROPOSED ACTION

The Ohio application requests a grant in the amount of $898,925 from the Office of Coastal Zone Management, to be matched by equivalent State of Ohio funds, for the acquisition and establishment of an estuarine sanctuary at the mouth of Old Woman Creek (See Figures 1,2). The proposed sanctuary includes approximately 980 acres of submerged lands, marsh, woods, plains, and barrier beach, all of which are privately owned. The lands will be acquired by the Ohio Department of Natural Resources (ODNR) using Lake Erie Acquisition Fund monies for state match. They will use any or all of the following methods of acquisition: easements, fee simple, fee simple plus life estate, and eminent domain. ODNR will declare the area a natural preserve under the state Natural Areas Act, thus providing additional protection for the estuary and its surrounding lands.

The purpose of the Ohio sanctuary will be to ensure the long-term protection of a relatively undisturbed freshwater estuary for the study of natural relationships within the ecosystem and for the assessment human impact on this type of estuary. The primary uses of this estuary would be for direct ecological investigations and as a long-term control for the assessment of man-introduced stresses in other, similar estuarine areas. Application of this information to coastal zone management decision-making would be a primary objective.

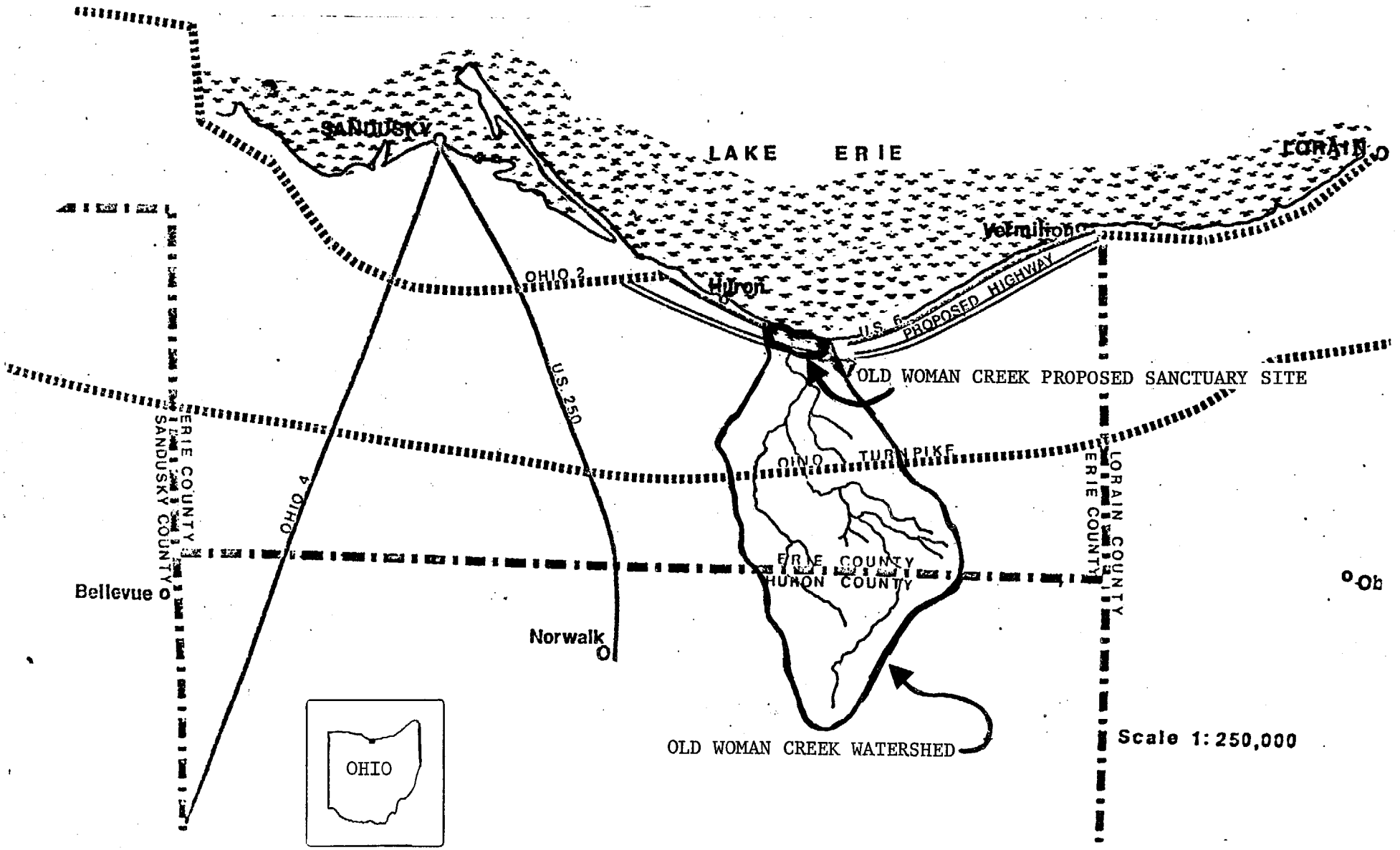



Figure 1. Location of Old Woman Creek
and
Old Woman Creek Watershed

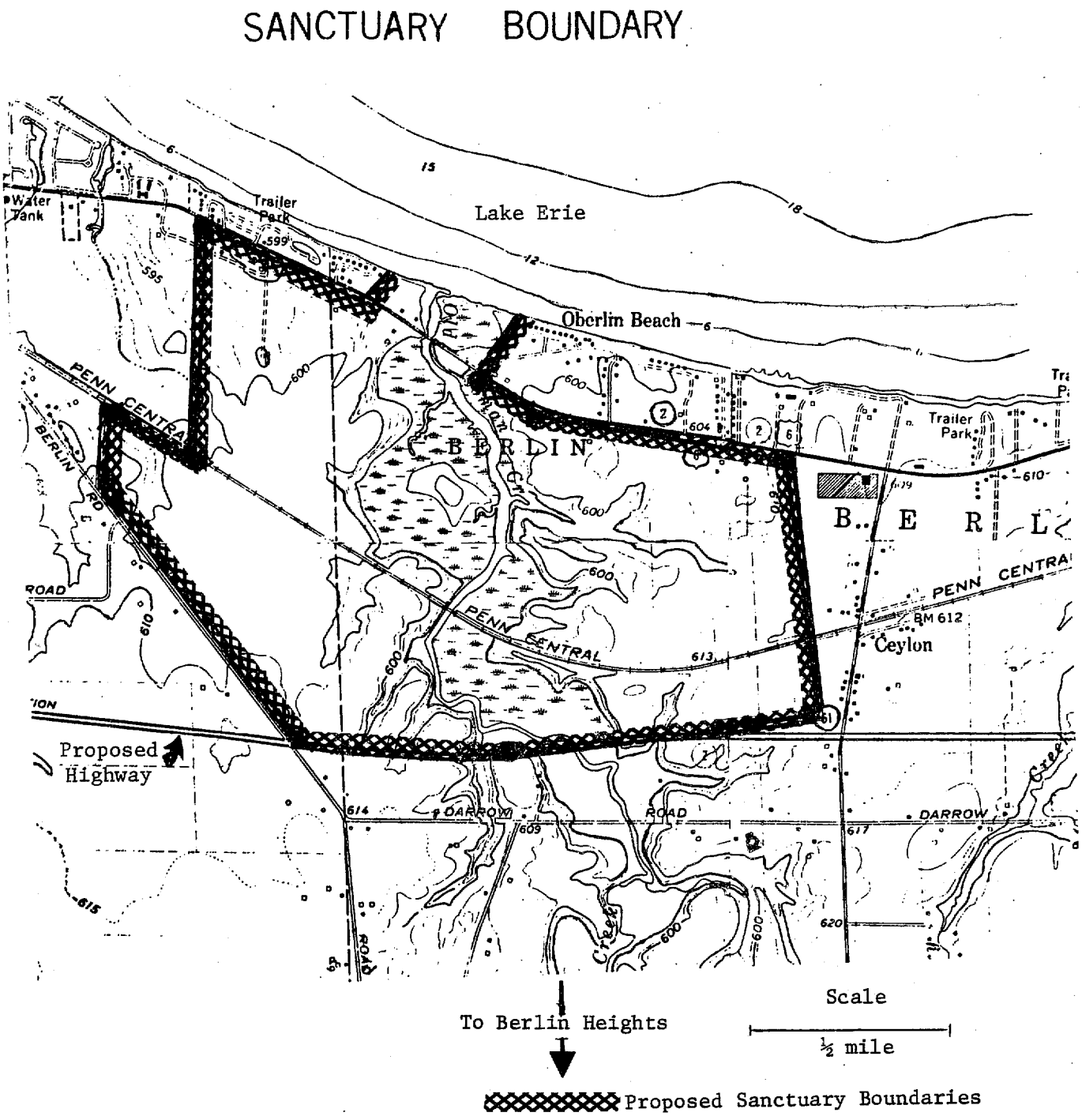



Figure 2. Sanctuary Boundaries

The application proposes a management program for the sanctuary designed to maintain the area in its present state and to protect the natural functions and values of Old Woman Creek estuary. The management policies would be designed to protect the sanctuary from both internal and external sources of stress which may alter or affect the nature of the ecosystem, and would preserve the area for long-term scientific and educational uses. Under this management program, a master plan would be developed to ensure uses of the proposed lands consistent with both estuarine sanctuary guidelines and nature preserve guidelines.

The authority to acquire, protect, and administer these lands as a sanctuary would be vested in the ODNR, which administers the Ohio Natural Areas Act. The Shoreland Management Section of the ODNR, which is responsible for administering Ohio's coastal zone, would have the final decision in all matters relating to the management of the sanctuary. A seven-member advisory council, the Old Woman Creek Advisory Council, would be appointed by the director of ODNR to advise and guide in the preparation and implementation of plans concerning this sanctuary. The Council would be composed of one member each from a local government agency, the Natural Areas Council, a local or statewide public interest group, a local resident, two members from Ohio educational institutions, and one member from a Great Lakes research institution.

A full-time sanctuary manager and assistant would be employed to oversee all activities within the sanctuary. They would be responsible to, and on the administrative staff of, the Division of Forestry, ODNR. The manager's responsibilities would be to:

1) Conduct the environmental monitoring program, including the collection and analysis of all samples, preparation of reports (including the annual OCZM report), and other associated activities;

2) Administer the public education program, including scheduling all educational activities, developing and conducting the interpretive lecture series, maintaining the information center, etc.; and

3) Schedule and monitor all research activities conducted in the sanctuary.

The assistant would have the following responsibilities:

1) Maintenance of all facilities including minor repairs, debris collection, and similar activities;

2) Enforcement of all regulations pertaining to public use and visitation: and

3) Provide assistance, as required, to the manager.

As a nature preserve, some special state rules and regulations would apply to the proposed estuarine sanctuary. In accordance with the classification system established by the Natural Areas Council, the sanctuary would be divided into two zones (Figure 3). Zone I, which would encompass the

# ZONES I and II

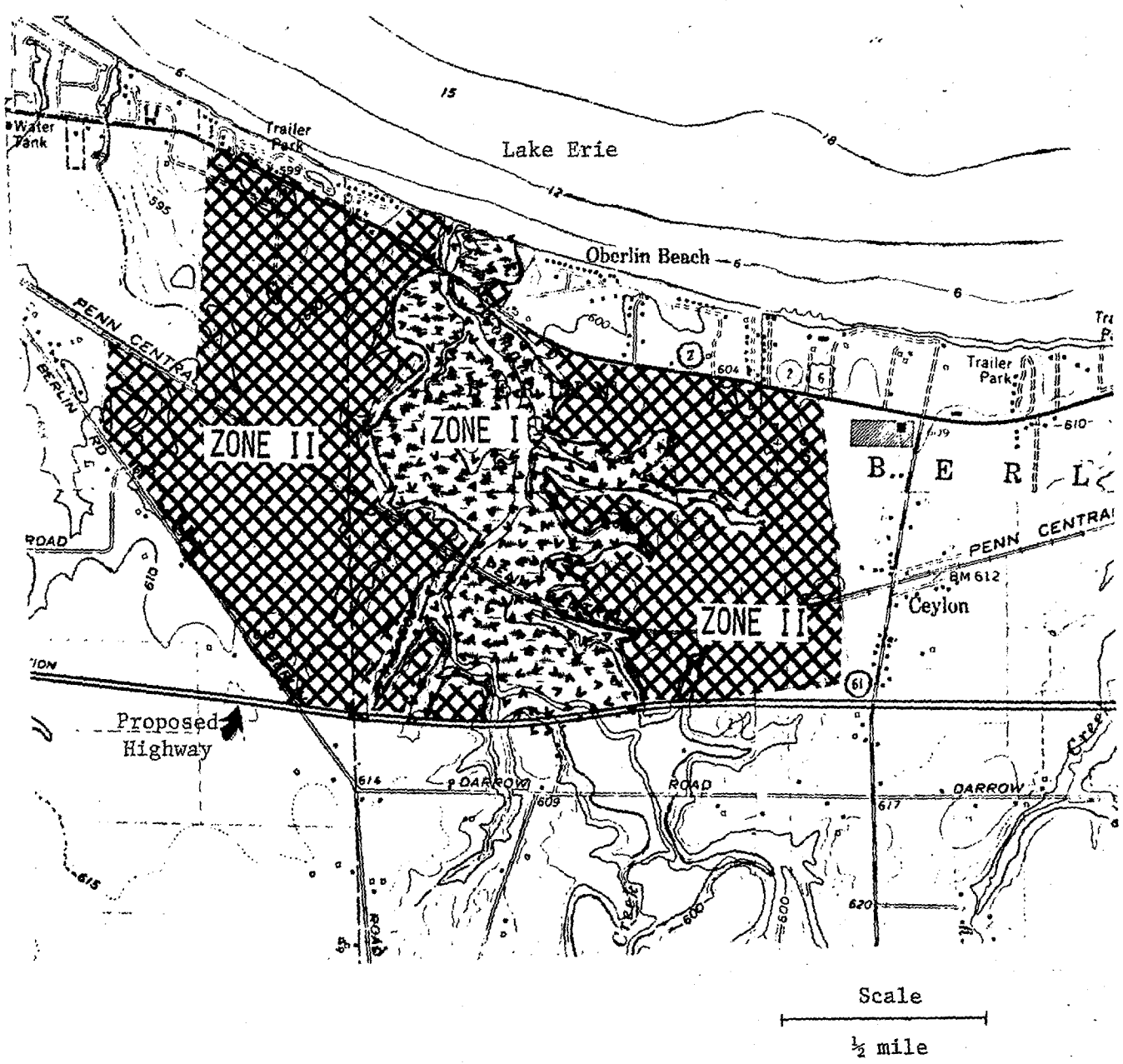



Figure 3. Approximate Boundaries of Zones I and II

submerged lands, marsh, and uplands to the 183-meter (600-foot) contour[1] (including portions of the woods), would be declared a scientific preserve. Zone II would encompass the remaining lands within the proposed sanctuary boundaries and would be declared an interpretive preserve. Under guidelines provided by the Natural Areas Council, a scientific preserve would restrict use of Zone I for research and very limited public access; improvements would not be allowed except for the preservation of the area and for limited construction of facilities required for scientific research. The interpretive zone (Zone II) would allow construction of more extensive interpretive trails, observation platforms, and interpretive devices for educational purposes. Public access would be greater than in Zone I, but still controlled.

No housing structures would be construced as existing structures (on the Murray property) could be used to house the interpretive center, research center, and accommodate any maintenance equipment. Use of the sanctuary by the public would occur only to the extent that the use does not detract from, or otherwise alter, the natural environment or affect research use of the sanctuary.

In some cases, life estates may be granted to a few of the present owners so long as their use of the lands would be compatible with the sanctuary program. All uses would be examined on a case by case basis but would in all cases be less intensive than existing uses. Farming might be allowed under the following conditions:

1) The land in question is on the outer fringe of the proposed sanctuary boundary and does not border on Zone I; and,

2) The use of fertilizers, pesticides, etc., if allowed, would be under strict control of the ODNR and only by written agreement between the individual, ODNR, and OCZM.

No farming would be allowed on lands other than those involved in life estates. The state would attempt to reestablish natural vegetation on abandoned farmlands within the sanctuary boundary.

Motorized vehicles would be used only as required for maintenance and research and their use would otherwise be prohibited within the sanctuary. Exceptions might occur for farming purposes under life estate agreements. Existing roads within the area are sufficient for these pruposes and it is not anticipated that additional roads would be required. Motorized vessels in the estuary itself would be allowed for research purposes only.

The prinary purpose of research carried out within the sanctuary would be to provide information in support of shore zone management programs. It is anticipated that the study of a relatively undisturbed Great Lakes freshwater estuary would provide additional knowledge of the type and extent of man's impact on this type of estuary to Ohio as well as other states attempting to make management decisions about similar estuarine ecosystems. With this use

---

[1]The elevation of the creek mouth is 174 meters (572 feet).

# OLD WOMAN CREEK WATERSHED ZONE III

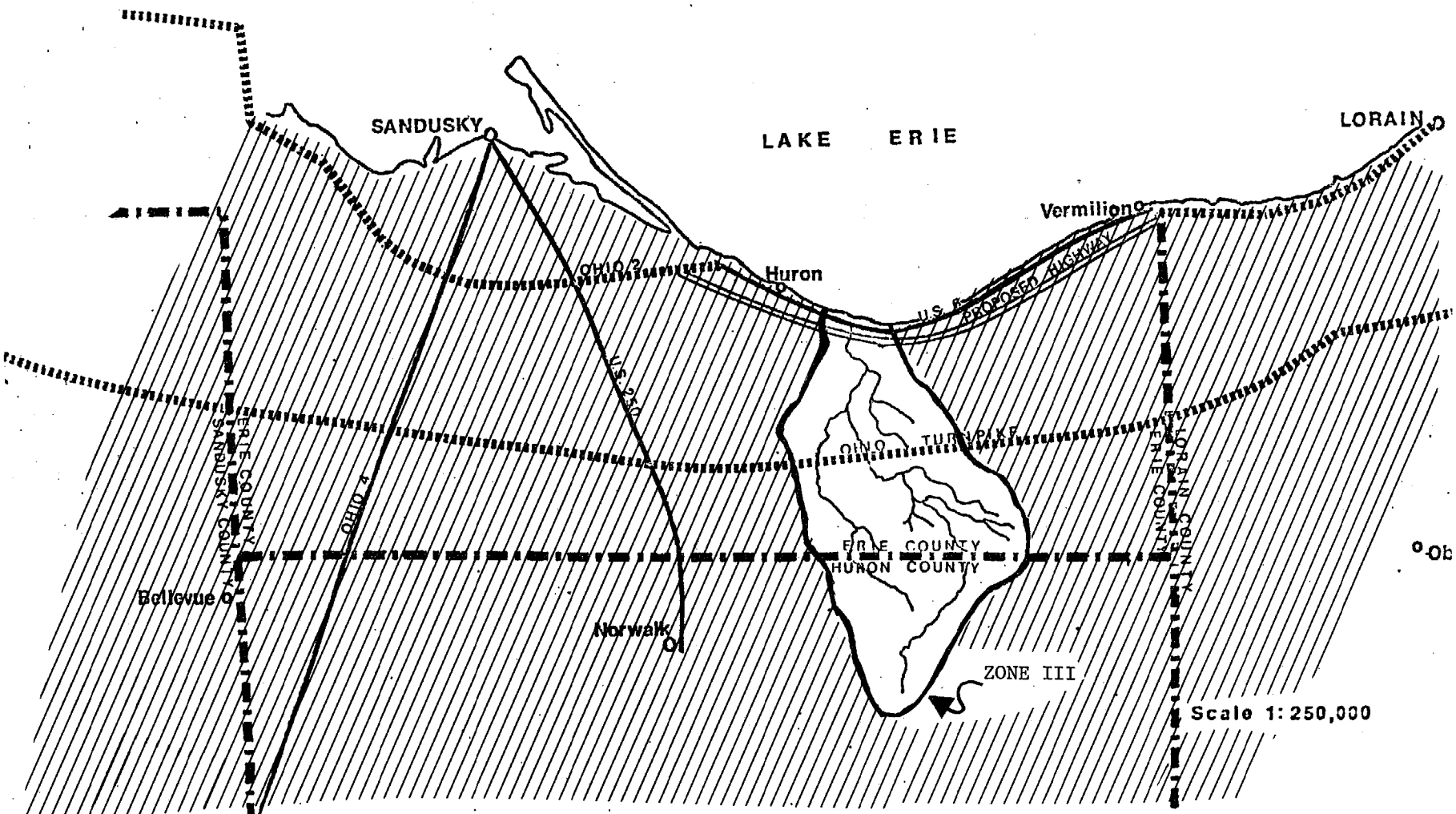



Figure 4. Extent of Zone III, the watershed of Old Woman Creek

in mind, the program has been designed to meet the following objectives:

1) Analyze the ecological relationships within a freshwater estuarine environment. Studies within the estuary and its associated uplands would include productivity studies, distribution and life history studies, energy flow dynamics, as well as physical, chemical, and geological sutdies;

2) Document existing conditions within the sanctuary and subsequently monitor later changes;

3) Compare an unmanipulated natural system to similar areas which have been affected by man; and

4) Provide an educational focus to increase public understanding of the Great Lakes coastal resources.

The research program would be under the general administration of the Division of Research and Shoreland Management Section of ODNR with guidance from the Old Woman Creek Advisory Council. It is anticipated that very strong relationships would be developed with the Great Lakes Sea Grant participants, primarily through Ohio State University's Center for Lake Erie Area Research (CLEAR), which is presently developing a Sea Grant program.

Public education is recognized by the Ohio Natural Areas Act as an essential component in the preservation of Ohio's remaining natural areas. As discussed earlier, interpretive trails and an information center would be developed with minimum alteration of the present area. Lecture series and small group workshops would also be offered. The development and implementation of this program would be subject to the rules and regulations of the state's nature preserve program. Although the responsibility for this program lies with the Shoreland Management Section, ODNR, advice and guidance will be sought from the Environmental Education Section, Natural Areas Planning Section and the Old Woman Creek Advisory Council, all residing in ODNR.

All uses of the sanctuary would be closely monitored and coordinated by the sanctuary manager. Based on this monitoring and the results of any other research and information, the potential or actual effect of each use in the sanctuary will continually be reassessed, and the management program altered as necessary to maintain the long-term health of the estuarine ecosystem.

Ultimate responsibility for all portions of the sanctuary program lies with the Shoreland Management Section of the ODNR. Table I explains the responsibilities of the various agencies charged with developing and implementing the programs relating to the sanctuary.

In addition to the above guidelines concerning Zones I and II, an additional Zone, Zone III, would be established encompassing the remainder of Old Woman Creek watershed (Figure 4). This zone would be managed under the Buffer Management Program outlined in Table II. The proposed management program would prevent development on Old Woman Creek watershed which would be incompatible with the existence of an estuarine sanctuary/nature preserve at the

TABLE I

Operational Management Program Administration

| PROGRAM ELEMENT | PRIMARY RESPONSIBILITY | SECONDARY RESPONSIBILITY |
|---|---|---|
| 1. Master Plan | | |
| a. facility requirements | Natural Areas Section | Division of Research<br>Shoreland Management<br>Old Woman Creek Advisory Council |
| b. facility location | Natural Areas Section | Division of Research<br>Shoreland Management<br>Old Woman Creek Advisory Council |
| c. development & maintenance | Engineering Division | Natural Areas Section<br>Division of Research<br>Shoreland Management<br>Old Woman Creek Advisory Council |
| d. Reforestation and Planting | Natural Areas Section | Division of Research<br>Shoreland Management<br>Old Woman Creek Advisory Council |
| 2. Facility Development and Maintenance | Engineering Division<br>Division of Forestry | Natural Areas Section<br>Division of Research<br>Shoreland Management<br>Old Woman Creek Advisory Council |
| 3. Monitoring and Protection | Division of Forestry | Natural Areas Section<br>Division of Research<br>Old Woman Creek Advisory Council |

Primary - responsible for implementing the program element.

Secondary - authorized and responsible for providing direction and advice in the implementation of the program element.

TABLE II

Buffer Management Program Administration

| PROGRAM ELEMENT | PRIMARY RESPONSIBILITY | SECONDARY RESPONSIBILITY |
|---|---|---|
| 1. Zone III Adjacent to the Sanctuary | | |
| a. local zoning | Erie Regional Planning Commission | Shoreland Management<br>Old Woman Creek Advisory Council |
| b. one-mile sanitary district | Ohio Environmental Protection Agency | Shoreland Management<br>Old Woman Creek Advisory Council<br>Erie Regional Planning Commission |
| c. Lake Erie Shore Zone Management Program | Shoreland Management | Old Woman Creek Advisory Council<br>Erie Regional Planning Commission |
| 2. Upland Reaches of Zone III | | |
| a. local development controls | Erie Regional Planning Commission | Shoreland Management<br>Old Woman Creek Advisory Council |
| b. Agricultural Sediment Pollution Abatement | Ohio Environmental Protection Agency<br>Division of Soils and Water Districts | Shoreland Management<br>Old Woman Creek Advisory Council<br>Erie Regional Planning Commission |
| c. Urban Sediment Pollution Abatement | Ohio Environmental Protection Agency<br>Division of Soil and Water Districts | Shoreland Management<br>Old Woman Creek Advisory Council<br>Erie Regional Planning Commission |

Primary - responsible for implementing the program element.

Secondary - provide advise and assistance in the implementation of the program element.

mouth of the creek. The most critical areas of Zone III are those lands adjacent to the proposed sanctuary boundary and the lands bordering the upstream portions of Old Woman Creek.

Designation of the area as a nature preserve automatically establishes all lands to one mile beyond the nature preserve boundary as a special sanitary district. This would be under direct control of the Ohio Environmental Protection Agency (OEPA). The OEPA has statutory authority to determine the location, construction and repair of cesspools, septic tanks, etc., and can control other offensive substances or liquids which may accumulate within such sanitary districts. Furthermore, protection of the critical areas surrounding the proposed sanctuary might, if necessary, be accomplished through changes in the zoning affecting these lands.

Use of the upland areas of the watershed would be under the joint jurisdiction of the OEPA and the Division of Soil and Water Districts (DSWD). The DSWD is responsible for preparing standards and regulations to control air and water pollution resulting from sediment associated with agricultural and urban sources, while OEPA is responsible for adoption and enforcement of these regulations. Their combined authority in this matter derives from enforcement of the Agricultural Pollution Abatement Act and the Urban Sediment Pollution Abatement Act.

## III. DESCRIPTION OF THE ENVIRONMENT AFFECTED

Old Woman Creek is located on the south central shore of Lake Erie, approximately 2 miles east of Huron, Ohio. The 10-mile creek, draining an area of 30.4 square miles, is submerged at the mouth and degrading upstream. The hilly topography of the area is primarily a result of glacial till and moraines left by receding glaciers. Historically, more than 30 meters of glacial material was deposited on bedrock consisting of shale (near the mouth) and sandstone (further upstream). Subsequently, several lakes covered this area, depositing interlaminating beds of silt, clay, and sandy loam. The sandstone bedrock is exposed near Berlin Heights, approximately five miles south of Lake Erie, where a 20 to 25 meter canyon has been carved by Old Woman Creek. The shale/glacial/lake deposits are exposed on several bluffs at Oberlin Beach and along Old Woman Creek at its mouth. Sandstone is currently being mined on a small scale one mile west of Berlin Heights, about four miles upstream. The only known operational gravel pit is located near the stream's source in Huron County.

The climate of this area is characterized by large fluctuations of temperature and precipitation. Extremes of temperature rarely occur either in summer or winter as the proximity of Lake Erie moderates the weather considerably. The summers are moderately warm and humid while the winters are cloudy and cold. In only three out of five winters would subzero (Fahrenheit) temperatures be expected to occur, although the mouth of the creek freezes during the winter. The area experiences rapid weather changes as fronts pass through the area every few days. Precipitation, though highly variable, falls year-round with autumn generally being the driest season.

At present, a shifting barrier beach blocks the mouth of the creek during periods of low water. Recent high Lake Erie waters has caused the smaller eastern portion of the barrier beach to migrate landward several meters per year. In the last two years, the high water has also forced the narrow, western part of the barrier beach to migrate landward more than 30 meters.

The estuarine area, defined by the upstream extent of Lake Erie water, is considered to extend approximately a mile upstream and consists of marshes, the stream bed, and a 15 acre island within the marsh (see Figure 2). Much of the marshland has, however, been submerged by the high Lake Erie waters of the past two years. The shore on both sides has steep slopes, backed by 8 meter bluffs. The vegetation associated with the sand bars, barrier beach, and marsh are typical of Lake Erie shorelands. Great variety and numbers of species are present, including sedges, cottonwood, cattails, water lilies, and swamp rose. Pink weed (*Polygonum pensylvanicum* var. *eglandulosum*), which is classed as a rare and endangered plant species, also occurs in the area.

This estuary is one of the few remaining estuaries in this part of Ohio that is believed to support spawning populations of a variety of Lake Erie fish. These include northern pike, bluntnose minnows, and bowfin. This area is also utilized by both migrating and local populations of a variety of waterfowl. Although ducks are the primary species, herons, egrets, and swans are also seen.

Within the sanctuary boundaries,the only remaining wooded areas are immediately adjacent to the estuary and all have been logged at some time. The wet wooded areas and flood plains associated with the estuary are characterized by sycamores and red maples. On the bluffs, the predominant species are white oak and hickory, although the understory associated with them varies. The more recent logging of the southern sections of the woods is believed to be the cause of different types of understory found here. These woods support a wide variety of wildflowers, songbirds, and such mammals as woodchucks, fox, and raccoon.

Within a few of the fields no longer cultivated in the proposed sanctuary are relic populations of the big bluestem, Indian plaintain, whorled rosinweed, and prairie rose. An attempt would be made, if designated a natural preserve, to reestablish typical prairie species such as those on some of the agricultural lands within Zone II.

Present recreational uses, such as fishing, hunting, canoeing, and ice skating are limited principally to the private property owners on either side of the creek. Since the creek is considered a navigable waterway, the public has access to the area only from Lake Erie by canoe or small boat. In general, public use of the area has been on a small scale.

Although still possessing many features of a relatively unaltered estuary, man has changed the surrounding lands both inside the proposed sanctuary boundaries and within Old Woman Creek Watershed. Agriculture has been the most significant alteration of these lands; indeed, more than half of the proposed sanctuary lands are presently under cultivation (518 of the 980 proposed acres). The soils within the general area of the proposed sanctuary are considered some of the highest yielding soils in Erie County. In addition, the moderating effects of Lake Erie increase the growing season from an average 165 days at the Erie-Huron county line (7 miles south of the Lake) to an average 198 days on the lands within the proposed sanctuary boundaries. Corn, wheat, and soybeans are the principal crops in the proposed acquisition area (and in the watershed of the creek), however, oats, sugar beets, and hay are also grown. Although the number of acres planted to a given crop and the crop yield varies from year to year, the following data give an estimate of the potential yields of these soils under present management conditions. The values were determined by averaging the production yields of all soil types found within the proposed sanctuary boundary.

| | Corn | Wheat | Soybeans | Oats | Sugar Beets | Hay |
|---|---|---|---|---|---|---|
| Yield (bu/acre/year) | 92 | 32 | 31 | 57 | 16 | 3.2 |

As in similar areas of cultivation, the silt, nutrient (primarily nitrate and phosphate from fertilizers), and pesticide loads have been increased within the creek. Sediment from agricultural practices creates some turbidity throughout most of the year. Nitrates measured in December, 1974, at 18 mg/liter approached OEPA standards for nitrate of 20 mg/liter. Although not strictly comparable, samples taken from Lake Erie in October of 1973, which have total nitrogen values of about 1 mg/liter, would indicate that nitrogen values in Old Woman Creek are considerably higher than in the Lake. Other nutrients have not been measured. The only pesticide measured has been DDT and metabolites. Samples taken in February of 1975 indicate sediment concentrations of about 10 ppb on a wet weight basis (22 ppb on a dry weight basis).

So far, development in the Old Woman Creek region has been limited. Berlin Heights, about four miles upstream from the mouth, is the only incorporated town within the watershed. Limited strip development has occurred in four places bordering on the proposed sanctuary boundaries: on Ohio Route 2/U.S. Route 6 to the east and west of the stream; along Ohio Route 61 on the eastern proposed sanctuary boundary; and on Berlin Road on the western portion of the proposed sanctuary boundary. At present, the lakeside developments are utilized primarily on a seasonal basis and then not at full capacity.

These areas of human habitation are also sources of sewage. Occasional overflows of septic tanks in Berlin Heights do enter the creek several miles upstream from the sanctuary. Because of the distance, this probably does not affect the proposed sanctuary area. Oberlin Beach, a development on the east shore of the mouth of the creek, discharges trickle filtered sewage directly into the estuary. The sewage facility (secondary treatment) on Anderson Acres empties into the estuary as well. It is believed their effect on the estuary is minimal, although the situation has not been fully investigated.

The proposed sanctuary is influenced by activities associated with existing roads. At present, the most detectable influence is associated with salting the roads during the winter months. The salts used for de-icing are a combination of sodium and calcium chloride plus nitrate or phosphate to prevent clumping of the salt. Chlorides measured within the proposed boundaries of Old Woman Creek Sanctuary during December, 1974, reached values exceeding 400 mg/liter, more than one-and-a-half times OEPA chloride standards (250 mg/liter chloride). Sodium promotes the growth of blue-green algae, a unicellular plant typical of polluted lakes and streams, including some areas of the Great Lakes. The nitrate and phosphate associated with de-icing procedures will increase the quantity of available nutrients already present, and may have been at least partly responsible for the high nitrate levels measured at the same time.

It is anticipated at this time that the southern boundary of the sanctuary at the creek would be the proposed Alternate Ohio Route 2/ U.S. Route 6. Construction of this highway may bring about several changes to the environment surrounding the proposed sanctuary. The planned interchanges at Berlin Road and Route 61 will make the area more accessible and desirable for development. Noise levels will increase as will the potential for air pollution. The two critical effects which will result from construction of this highway are pollutant runoff and alteration of the Old Woman Creek streambed south of the proposed highway. Immediate adverse effects could be created during construction as a result of silt, debris, etc., associated with building the road. Runoff of oil, grease, asbestos, and salt (during the winter months) associated with highway use after construction could have a long-term adverse effect on the estuary. Settling ponds may be employed to mitigate the impacts from runoff.

The most serious difficulty presented by the proposed highway construction concerns channelizing the stream. The construction plans call for straightening the creek south of the highway (upstream of the proposed sanctuary boundaries). Riprap would be added to protect the exposed banks from the increase in stream flow velocity expected from the channel changes. These actions would alter flow characteristics and sediment loads and would otherwise modify the estuary. If channelization occurred, designation as a sanctuary would be jeopardized because it may not be possible to provide adequate protection for the sanctuary against higher velocity stream flow and silt. Negotiations have been initiated in an effort to avoid channelization.

Efforts are being made to ensure that construction of the highway will take place with minimal disturbance to the marshes and creek. Regulations set forth in Item 207 (Temporary Water Pollution, Soil Erosion, and Siltation Control) of the DOT's "Construction and Material Specification Manual" are expected to minimize the hazards from silt and erosion during construction procedures. The construction design of the highway will be consistent with Ohio's State Implementation Plan for attainment and maintenance of air quality standards in accordance with Federal air quality standards.

## IV. RELATIONSHIP OF THE PROPOSED ACTION TO LAND USE PLANS, POLICIES AND CONTROLS FOR THE AREA

The proposed action is consistent with the Erie Regional Planning Commission's designation of the area as a conservation area. Without acquisition, their designation lacks standing; funds to acquire this land are not available to the Commission

At the present time, the proposed sanctuary lands and the watershed lands are zoned for commercial and residential use. Much of the land is presently in agriculture; however, without protection, the area is likely to be developed within the next few years. The city of Huron is expanding towards Old Woman Creek and the proposed highway will make the area more accessible and desirable for development. Strip development has already occurred east and west of the mouth of the creek, and there are plans for another development on the east bank of the creek.

The State of Ohio has placed its coastal zone management program under the Shoreland Management Section of ODNR. Studies programmed to take place on this estuary are expected to provide information to aid the Shoreland Management Section and management programs throughout the Great Lakes region in making decisions on utilization of coastal zone resources. The sanctuary will be utilitzed for assessing man's effect on freshwater environments by comparison of this relatively natural system to similar areas of uncontrolled manipulation. Since the sanctuary would be the responsibility of the same section, Shoreland Management Section, as the Ohio coastal zone management program, long term protection of the sanctuary would be assured.

The estuarine sanctuary proposal also reflects the thoughtful input of local citizens and government agencies. Considerable interest has been expressed in retaining this land as a sanctuary to protect one of the last reamining, relatively unspoiled estuaries on the Ohio coastline from the increasing pressures of development in this area.

## V. PROBABLE IMPACT OF THE PROPOSED ACTION ON THE ENVIRONMENT

If awarded, a grant from the OCZM would enable the State of Ohio to acquire and protect a portion of Old Woman Creek and its surrounding lands for use as an estuarine sanctuary. The creation of this sanctuary would have a number of both beneficial and adverse impacts. The most direct environmental impact of this action would be the long-term assured use of the area and its resources for scientific, educational, and other compatible purposes.

By providing a base for education and research, the sanctuary would enrich our understanding of estuarine ecosystems and resources. This is of essential but incalculable importance to the development of a rational coastal zone management program at the local, state, and regional levels. A sound scientific basis and controlled long-term monitoring will improve the capability of such management programs to cope with the issues and conflicts which occur in the nation's coastal zone. The proposed sanctuary, which has been carefully chosen as a representative estuary for the Great Lakes region, would provide a control area to use as a basis for measuring the success of coastal land and water management efforts not only in Old Woman Creek, but in other Great Lake estuaries as well. Furthermore, this sanctuary would provide basic knowledge necessary for more complete understanding of estuarine biological and physical dynamics.

In addition to the scientific benefits, the proposed educational program would provide a vehicle for increasing public knowledge and awareness of the complex nature of estuarine systems and the problems which confront them. It would also contribute toward increased public understanding and acceptance of coastal zone management activities.

Designation as a sanctuary would protect one of the few remaining relatively undisturbed estuaries in the southern part of Lake Erie. It would provide a refuge for stocks of fish, wildlife, and migrating and indigenous waterfowl which have been severely stressed in this region by loss of habitat and degraded water quality. Protection of the marshes and wetlands will also serve to protect and maintain water quality. The proposed plans for reestablishing indigenous prairie species would also provide a unique opportunity to reestablish the character of the land as the early settlers saw it. Establishment of the sanctuary would also permit long-term maintenance of the aesthetic values the area now provides. These values would be destroyed by development of the area.

In addition to the environmental impact, the creation of a sanctuary on Old Woman Creek would have both positive and negative socio-economic impacts. Positive effects might include increased funding for field research grants, funding for management of an estuarine sanctuary, and increased educational use of the area. Property values of adjacent lands may increase. Potential negative effects might include reduction of tax base, loss of mineral extraction potential, loss of single family and multi-family housing potential, and loss of agricultural productivity.

The purchase of sanctuary lands by the state would remove these properties from the tax rolls. Currently this tax loss would amount to about $26,000 or 0.23% of the County's tax base. Eighty percent of these tax revenues ($21,000) are used to support the County school system. However, the important measure of the impact on County revenues is the net tax loss or gain. The extent of tax revenue loss or gain would depend on the relationship of tax revenues to expenditures for services in the sanctuary and in the area where families relocate. For example, the loss of tax revenues would be partially or wholly offset by a decrease in County expenditures for services provided to the sanctuary properties. The loss would be more than offset, bringing a net revenue gain, if current revenues do not cover the cost of services provided to the area. If the families in the sanctuary were to move out of the County or to an area in the County with comparable or higher tax requirements but with lower per capita costs for providing services, there would be a net gain in tax revenues for the County. In conclusion, removing the sanctuary lands from the tax rolls would not automatically result in a net loss in tax revenues for the taxing districts involved. If any loss did occur it would be such a small percentage of the total tax revenues as to be insignificant.

If tax revenue loss is assessed in terms of future potential, it is likely that a decrease in public expenditures will offset losses in tax revenues. If the sanctuary is not established, the area under consideration will most likely be developed as residential which would significantly expand the community's tax base. However, an increased tax base would not bring a pure revenue gain, as increased tax revenues would be needed to meet the increased demand for public facilities and services which accompany sprawl development. These expenditures would not be required if the area were a sanctuary.

Designation as a sanctuary would eliminate development pressures on an environmentally sensitive and valuable area. By preventing residential and commercial development in the proposed area, population and commercial densities would be channeled into other areas. This would reduce urban sprawl with its concommitant problems.

Designation of the sanctuary would have both positive and negative effects on property values. It would decrease the potential resale value of some property zoned commercial. Tracts zoned commercial might not sell for as much as they would have in conjunction with the proposed residential development.

The sanctuary may increase adjacent residential property values. Removing land from development would reduce the supply of developable lands, increasing their value. As the amenities of the estuary are preserved, adjacent properties would become more desirable for residential and recreational uses. The higher value of these lands would result in a positive effect on the tax base.

The sanctuary would have an impact on potential employment patterns only to the extent to which it prevents commercial employers from locating in the area. Since the area would develop mainly as a residential community, the sanctuary would not cause the relocation of any large employers and thus would not have an impact on employment.

Protection of the area as a sanctuary would mean that the mineral reserves in the area and the watershed would not be fully utilized. There are no plans currently to mine shale deposits that are within the sanctuary boundaries. Existing and future mining in the area is subject to review under state guidelines, and would be more stringently controlled if it affects the sanctuary.

The sanctuary would have minimal impact on recreation and fishing as those activities currently are at a very low level. There is no commercial fishing in the area and recreational activities are minimal because of the private control of the lands surrounding the creek. However, designation of the sanctuary may increase recreational demands in the area surrounding the sanctuary (i.e. second homes, parks, camps, etc.)

Designation of the sanctuary would mean the loss of some agricultural lands. As indicated earlier, about 518 acres within the proposed sanctuary boundaries are presently farmed, primarily for corn, wheat, and soybeans. Specific crop production and values are lacking, but might be estimated as producing about $146,000 gross revenue annually (a range of perhaps $47,000 to $250,000). The loss of agricultural lands is already occurring in the area, as it is developed for residential use. The new proposed highway will probably hasten this trend. Thus the loss of agricultural lands cannot be a negative impact attributable to the sanctuary as agricultural lands will be eliminated anyway by growth and development.

The proposed sanctuary may have a limited effect on agriculture within the remainder of Old Woman Creek watershed (Zone III), especially in land adjacent to the creek. No new restrictions are expected to be imposed on this area as a direct result of the establishment of the sanctuary. Protection of the downstream estuary from agricultural or urban practices within the watershed would result from enforcement of existing Ohio State legislation, the Agricultural Sediment Pollution Abatement Act and The Urban Sediment Pollution Abatement Act. The probable impact would result from more careful monitoring of practices regulated by these acts and more strict enforcement of the regulation than might otherwise occur. Creating the sanctuary would provide the opportunity to more closely examine the effects of traditional farming practices on water quality and the estuarine ecosystem.

Designation as a sanctuary would mean that five to nine families would have to move from the area. Under existing Federal law, these families will be compensated for relocation costs. An undetermined number of these families may be allowed to remain on their properties under life estate agreements.

In summary, a significant long term impact may be the redirection of population growth and distribution which would be created by the establishment of the sanctuary. Acquisition for an estuarine sanctuary would remove the increasing pressures for large-scale residential development and prevent the total destruction of the Old Woman Creek estuary. By dampening the pressures for urban sprawl, the sanctuary could provide the focus for a more thoughtful and consciously directed growth.

The net environmental impact of an estuarine sanctuary in Old Woman Creek would be to encourage a productive and harmonious relationship between man and his environment. Protection of the estuary for long-term educational and scientific use would stimulate a more thorough examination and understanding of the relationships between man's activities and the environment and would improve the capability of man to wisely shape the environment.

## VI. ALTERNATIVES

At all stages in the development of this estuarine sanctuary proposal - including at the county government, state resource and planning, and Federal review stages - a rigorous examination has been made of alternatives to the proposed action. These have included consideration of:

A. Alternatives to the site selected,
B. Alternative boundaries for this sanctuary,
C. Alternative management programs,
D. Alternative methods for protection, and
E. Alternative courses of action for OCZM, including the "no action" option.

### A. Alternative Sites

During the development of this proposal, a number of sites were examined by the State of Ohio as potential candidates for an estuarine sanctuary. Inputs were requested from research institutes and universities throughout the state. As a result of this input, three potential sites were investigated as possible estuarine sanctuaries: Maumee Bay, Green Creek in Sandusky Bay, and Old Woman Creek. Before action could be taken, the Maumee Bay site was purchased by the state using Bureau of Outdoor Recreation funds and developed as a state park. Green Creek in Sandusky Bay was rejected because the area has been altered by waterfowl management practices; the marshes have been diked and are managed by a duck hunting organization for waterfowl production. Other potential marsh sites within Sandusky Bay are also diked and managed for waterfowl production, thus making them unsuitable for an estuarine sanctuary.

Old Woman Creek is the least altered site available and also provides an opportunity to acquire the creek, some woodlands and some fields to be returned to original prairie grasses or woodlands, thus better representing a natural unit of the Great Lakes estuarine system.

The OCZM also considered the possibility of a Great Lakes class sanctuary in other states bordering the lakes. Applications for a sanctuary have been received from Wisconsin (Bark Bay), Michigan (Wigwam Bay), and New York (Grindstone Island). However, these other proposed sites are either not as suitable as Old Woman Creek for this program, or are in preliminary stages of preparation and have not yet been processed. In addition, the OCZM has decided that at least two subcategories of the Great Lakes biogeographic class will be required because of the differences among the lakes. The two subdivisions will divide the lakes into the three upper lakes (Huron, Michigan, and Superior), and the two lower lakes (Ontario and Erie). Designation of a sanctuary on Old Woman Creek would not preclude designation of another sanctuary elsewhere in the Great Lakes if the two sites are distinct enough enough to be classified as subcategories.

B. Alternative Boundaries

Several alternative boundary schemes were considered. Inclusion of the entire watershed (over 30 square miles) within the sanctuary was discounted as too expensive. It was also felt that adequate control over development in the watershed could be obtained through the Zone III Buffer Management Program, thus making outright acquisition unnecessary.

Since the primary interest is in the estuary itself, and its contiguous lands, it would seem reasonable to extend the southern boundary to include the southern reach of the estuary. The estuary is considered to extend 850' south of Darrow Road; however, the proposed route of Ohio Route 2 was felt to be a physical barrier to operational sanctuary management. The proposed changes in the stream bed of the highway would also preclude inclusion of any lands south of the highway into the estuarine sanctuary. For these reasons, the proposed Ohio Route 2 was decided upon as the southern limit.

Another alternative considered would be to expand the boundaries, especially at the mouth of the Creek, to the west and east. This boundary would include Oberlin Beach and the trailer parks in the proposed sanctuary. These lands are presently developed; relocation costs associated with their acquisition were considered too expensive. It is believed further development in these areas can be controlled through use of the Zone III Buffer Management Program.

Also considered was the possibility of excluding those lands in Zone II presently under agricultural use from the sanctuary boundary. This would reduce the cost of the sanctuary and allow the continued aggricultural use of the land. However, it was felt that these contiguous lands were an essential part of the estuarine ecosystem and were also essential to the protection of the estuary itself. Not only would continued agricultural use of the lands threaten the sanctuary (by nutrient-rich runoff, pesticides, and siltation), but these lands would be subject to development, thus creating additional problems: possible pollution from development and residential or commercial use of the land, inability to establish upland flora and fauna to act as a natural buffer for the estuary, difficulty of controlling access to sensitive marsh areas, and loss of aesthetic background for the natural setting.

The actual boundaries,based on the above considerations, were drawn along existing property lines to avoid splitting land ownerships. This was done in an effort to avoid leaving owners with nonmarketable parcels of land.

C. Alternative Management

The determination of the management policy, especially the selection of compatible uses, the types of research, the prohibition of conflicting uses, and the choice of management agency is another issue involving many alternatives.

The program could have been administered under any of several different agencies. Designation as a nature preserve, under the administration of the ODNR, offers the best potential for protecting and administering both the proposed sanctuary and the Zone III buffer. The various agencies under the ODNR involved in planning, implementing, and administering the sanctuary, plus advice from the Old Woman Creek Advisory Council, will ensure a wide range of resource and research expertise. They will also provide the long-term perspective and continuity for

managing this program with respect to its objectives and to its relationships with other similar programs.

The lands could be used for intense recreational purposes as well as educational and scientific uses. Indeed, the state formally considered making the area a state park for day and overnight use. Due in part to public response, and in part to the research needs, the state concluded that the area could best serve as an estuarine sanctuary. Intense recreational use would be inconsistent with the functions and objectives of an estuarine sanctuary/nature preserve. However, public access to the land will be assured through the Natural Areas Program, and some low-level recreation (primarily canoeing) may occur on the creek.

An alternative research program could have included manipulative types of research, i.e. experiments conducted to determine the reaction of the estuary to stresses such as artificially administered pollutants. Manipulative research is not consistent with the estuarine sanctuary provisions of the Coastal Zone Management Act. The long term objective of ensuring protection as a natural field laboratory, and the desire to have a natural control area to measure man's impact on other estuaries, precludes any manipulative or destructive research. The major research benefits will derive from long-term studies of ecological relationships within a freshwater estuary.

Much consideration has been given to the future of agricultural practices within the proposed sanctuary and within the larger watershed. As indicated earlier, agriculture is presently the main use of these lands, with more than half of the land area in the proposed sanctuary itself presently cultivated. The question has been raised whether and to what extent agriculture might be allowed within the proposed sanctuary boundaries. It would be desirable to prohibit all farming within the proposed sanctuary boundaries, thus providing the greatest protection for the stream and its associated wetlands. However, after careful consideration, it has been decided that some low intensity controlled agriculture might be allowed in special cases removed from the waterway (see Section II, Description of Proposed Action). No specific examples have as yet been identified. The continuation of all farming or unregulated farming within the proposed sanctuary boundaries cannot be allowed as such cultivation would not provide the necessary long-term protection for the sanctuary.

Within the remainder of the watershed (Zone III), management alternatives include: no cultivation, cultivation with special restrictions or no control over cultivation practices. Prohibiting cultivation or the use of fertilizers and pesticides in the watershed might be desirable for complete protection of the proposed sanctuary, but this is not feasible economically or politically. The land is presently in private ownership and there are no existing state controls which could prohibit cultivation or the use of pesticides and fertilizers. To acquire the land outright is not financially possible. Since no control over agricultural practices within Zone III could prove damaging to the estuarine sanctuary, it is important to maintain some kind of control over these activities. It is expected that adequate control over agricultural practices will be assured through enforcement of existing Ohio

state legislation, primarily the Agriculture Sediment Pollution Abatement Act and the Urban Sediment Pollution Abatement Act. These acts are administered jointly by the Division of Soil and Water Districts (ODNR) and OEPA, which, in accordance with state standards, determine the type and extent of chemical aids used within the watershed.

D. Alternative Methods of Acquisition and Protection for the Proposed Sanctuary

In the course of developing its application for an estuarine sanctuary, Ohio has examined a variety of possible funding sources and alternative methods of protection. At one time or another, these have included:

a) Federal Acquisition

1) Pittman-Roberts Fund

2) Dingell-Johnson Act

3) Migratory Bird Conservation Fund

4) Endangered Species Act

5) Land and Water Conservation Fund

6) Estuarine Sanctuary Program

b) State Acquisition

1) Lake Erie Acquisition Funds

2) Natural Areas Acquisition Program

Ohio receives several million dollars annually from the Pittman-Roberts Fund and the Dingell-Johnson Act, to be used for wildlife habitat restoration and fish habitat restoration respectively. Although monies exist in these funds, they have already been allocated for other projects and thus are not available to assist in acquiring the proposed estuarine sanctuary. Further, these funds, although designated for game habitat restoration, are generally used in a manipulative management program which would not be entirely compatible with sanctuary objectives. A similar consideration applies to the Migratory Bird Conservation Fund. This nationally distributed fund for the purchase of Federal migratory bird sanctuaries also has objectives which differ in purpose from the proposed sanctuary. The Endangered Species Act differs in purpose and as there are no endangered species within the proposed sanctuary, funds from this source would not be appropriate.

Funds available through the Land and Water Conservation Fund have been appropriated for other projects and are not available to the state to match OCZM funding. Further, the emphasis of the Land and Water Conservation Act is on providing recreational uses of the land, thus are not considered appropriate for acquiring sanctuary lands.

In contrast, consideration of the funding status and the objectives of the Estuarine Sanctuary Program of the Coastal Zone Management Act indicated that it would be an appropriate source for this proposal. The Marine Sanctuary Program administered by the OCZM has similar objectives to those of the Estuarine Sanctuary Program. However, in view of the intense pressures from land use, this program, which would not enable acquisition, would not be able to provide adequate protection to this area.

Matching state funds will come from the Lake Erie Acquisition Funds. Of the nearly four million dollars appropriated, slightly over a million remain. This money is to be used for acquisition of land only, for such purposes as beaches, recreational areas, and, in this case, an estuarine sanctuary. Although there are nearly sufficient funds for the state to acquire this land outright, this procedure would not provide the protection and management programs which would be available under the Estuarine Sanctuary Program. Since the money can be used only for acquisition, there would be no mechanism to provide funds or guidance for implementation of management, public education, or research programs.

The area cannot at this time be designated a natural preserve using funds of the National Areas Acquisition Program as all of these available funds are allocated, and there are more areas suitable for funding than can be accommodated by existing funds. As the program appropriates money for specific projects on a biennial basis through bond issues, it would be FY 1977 before additional funds might become available. The intent of the Ohio Natural Areas Program is to acquire and protect small areas of natural Ohio habitats; the monies would not, in general, be used on a single, large purchase. However, even if the state decided to acquire such a large holding under the program, delay for at least two years to appropriate the necessary funds would endanger the usefulness of the site by allowing additional development of the private land.

E. Alternative Courses of Action for the Office of Coastal Zone Management

Because the estuarine sanctuary program is basically one of Federal response to state initiatives, the alternatives for Federal action are limited. The Office of Coastal Zone Management can accept the application as presented or after modification, awarding a grant in either case; or refuse to accept the application and decline the grant. OCZM has worked with the State of Ohio since it first indicated interest in the estuarine sanctuary program, and that Office's input has caused some modification of the proposal. The options remain, however, to award, delay, or refuse the grant.

Delay of the grant would permit other states within the Great Lakes classification to develop estuarine sanctuary proposals for submission to NOAA. However, the states are not in direct competition for designation of a single sanctuary, and the award of a grant does not preclude other grants in the same region if an appropriate subcategory is identified. Delay of the grant would also permit the potential for further destruction of the estuarine area. Residential strip developments have already occurred in this area and there is increasing pressure for other similar types of developments.

Unless the application lacked merit, the outright refusal to award a grant would serve no purpose. Indeed, in view of the widely acknowledged need for such a program (see, for example, the National Estuary Study, 1970 and Ketchum, 1972), such action would be contrary to the public interest. After careful consideration, OCZM determined that the proposed sanctuary is an appropriate representative of the Great Lakes class of estuaries, and that the management and research policies reflect the intention of the estuarine sanctuary program.

The State of Ohio has received a CZM program development grant (Section 305) and is moving to develop its management program. The state is expecting to begin implementation of its management program within 24-36 months. Because of this, Ohio is in a position to utilize fully an estuarine sanctuary; the research and education results it may produce would contribute greatly to the timely completion of the state's task.

## VII. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

There are three potentially adverse environmental impacts within the sanctuary boundaries which may not be avoidable. These are: the loss of resource use, restrictions on land and water use, and loss of tax revenues.

Agriculture is the economic resource within the sanctuary boundary which will be most affected by the proposed action. Slightly more than half of the land is presently under cultivation and some small parcels may continue under low level cultivation under the life estates. For all practical purposes, however, this land will be removed as an agricultural resource. Landowners would, of course, be compensated for their property loss.

It is anticipated that some restrictions will be placed on land and water use within the estuary. These will provide protection to the marsh areas, allow research to occur, and will provide some limited public access. Moreover, the sanctuary would open up areas in the adjacent lands for interpretive trails. However, existing mineral deposits, principally shale, within the proposed sanctuary boundaries would not be mined, thus such resources would be lost to consumptive use.

As previously discussed, public acquisition will remove 980 acres from existing tax rolls. This represents a loss of approximately $26,000, or about 0.23% of the tax revenues for Erie County.

## VIII. RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

While designation of the proposed estuarine sanctuary would restrict local short-term uses of the environment, it will also provide long-term assurance that the natural resources and benefits of the area will be available for future use and enjoyment. Without sanctuary designation, intense short-term uses and gain, such as provided by intense residential development, might be realized. However, such uses would most likely result in long-term restrictions on use and benefit because of degradation of environmental factors. Without some additional control, the traditional conflicts between estuarine users - residential, commercial, industrial, and wildlife - could be expected to occur.

Over the long-term, the research derived from the estuarine sanctuary will assist in the coastal zone management decision-making process, and will provide a basis for the wise use of the estuarine resources. These results, which will apply to areas other than Old Woman Creek, will help avoid conflicts and mitigate adverse impacts caused by man's activities in the coastal zone.

The proposed sanctuary would protect this natural estuarine system, thus directly contributing to the long-term maintenance of this environment. In addition, the estuary would serve as a refuge for the living resources of the Great Lakes requiring this type of habitat for survival.

## IX. IRREVOCABLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

Within the proposed sanctuary, there are no resources which would be irretrievably lost since the resources will be protected, not destroyed or removed. However,as the intent of this action is to provide the permanent protection of the estuary and adjacent lands, in practice the agricultural resources will be removed from direct exploitation. In addition, the potential for mining shale will be removed.

## X. CONSULTATION AND COORDINATION WITH OTHERS

During the preparation of this draft environmental impact statement, information and comments were solicited or received from state and local agencies and individuals familiar with the area or the proposal. These include individuals from the Ohio Department of Natural Resources, Ohio State University, and the Nature Conservancy.

The State of Ohio held four public meetings on the proposal:

1) Erie Regional Planning Commission, August 6, 1974, Sandusky, Ohio.

2) League of Women Voters, November 20, 1974, Huron, Ohio.

3) Oberlin Beach Association representatives, December 4 and 12, 1974, Columbus, Ohio.

A great deal of public inpur pro and con in the form of letters and calls has been received both by OCZM and the Ohio ODNR on the proposal. Under an agreement with the Department of Interior, OCZM has coordinated this proposal with the Fish and Wildlife Service (Migratory Bird Conservation Commission), which has concurred with the appropriateness of the proposed action.

## XI. PUBLIC HEARING

A public hearing will be held on this proposal on May 15, 1975 at 7:30 pm in the Auditorium of the Firelands Campus of Bowling Green State University in Huron, Ohio.

REFERENCES

Ketchum, Bostwick H., editor, 1972. The Water's Edge: Critical Problems of the Coastal Zone. MIT Press. Cambridge, Mass. 393 pages.

Ohio, State of, Division of Research, Department of Natural Resources, 1975. Aquatic Vascular Plants and Their Distribution in the Old Woman Creek Estuary, Erie County, Ohio. Department of Natural Resources, 53 pages.

Ohio, State of, Division of Planning, Department of Natural Resources, 1975. A Proposal to Establish a National Estuarine Sanctuary in the State of Ohio. Department of Natural Resources, 78 pages and appendices.

United States Department of the Interior, Bureau of Sport Fisheries and Wildlife, 1970. National Estuary Study. U.S. Government Printing Office,Washington, D.C. 7 volumes.

# APPENDIX 1

# PUBLIC LAW 92-583

# COASTAL ZONE MANAGEMENT

# ACT OF 1972

Public Law 92-583
92nd Congress, S. 3507
October 27, 1972

# An Act

86 STAT. 1280

To establish a national policy and develop a national program for the management, beneficial use, protection, and development of the land and water resources of the Nation's coastal zones, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Act entitled "An Act to provide for a comprehensive, long-range, and coordinated national program in marine science, to establish a National Council on Marine Resources and Engineering Development, and a Commission on Marine Science, Engineering and Resources, and for other purposes", approved June 17, 1966 (80 Stat. 203), as amended (33 U.S.C. 1101-1124), is further amended by adding at the end thereof the following new title:

Marine Resources and Engineering Development Act of 1966, amendment.

80 Stat. 998; 84 Stat. 865.

## TITLE III—MANAGEMENT OF THE COASTAL ZONE

### SHORT TITLE

SEC. 301. This title may be cited as the "Coastal Zone Management Act of 1972".

### CONGRESSIONAL FINDINGS

SEC. 302. The Congress finds that—

(a) There is a national interest in the effective management, beneficial use, protection, and development of the coastal zone;

(b) The coastal zone is rich in a variety of natural, commercial, recreational, industrial, and esthetic resources of immediate and potential value to the present and future well-being of the Nation;

(c) The increasing and competing demands upon the lands and waters of our coastal zone occasioned by population growth and economic development, including requirements for industry, commerce, residential development, recreation, extraction of mineral resources and fossil fuels, transportation and navigation, waste disposal, and harvesting of fish, shellfish, and other living marine resources, have resulted in the loss of living marine resources, wildlife, nutrient-rich areas, permanent and adverse changes to ecological systems, decreasing open space for public use, and shoreline erosion;

(d) The coastal zone, and the fish, shellfish, other living marine resources, and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alterations;

(e) Important ecological, cultural, historic, and esthetic values in the coastal zone which are essential to the well-being of all citizens are being irretrievably damaged or lost;

(f) Special natural and scenic characteristics are being damaged by ill-planned development that threatens these values;

(g) In light of competing demands and the urgent need to protect and to give high priority to natural systems in the coastal zone, present state and local institutional arrangements for planning and regulating land and water uses in such areas are inadequate; and

(h) The key to more effective protection and use of the land and water resources of the coastal zone is to encourage the states to exercise their full authority over the lands and waters in the coastal zone by assisting the states, in cooperation with Federal and local governments and other vitally affected interests, in developing land and water use programs for the coastal zone, including unified policies, criteria, standards, methods, and processes for dealing with land and water use decisions of more than local significance.

83-081 O

DECLARATION OF POLICY

SEC. 303. The Congress finds and declares that it is the national policy (a) to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations, (b) to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of management programs to achieve wise use of the land and water resources of the coastal zone giving full consideration to ecological, cultural, historic, and esthetic values as well as to needs for economic development, (c) for all Federal agencies engaged in programs affecting the coastal zone to cooperate and participate with state and local governments and regional agencies in effectuating the purposes of this title, and (d) to encourage the participation of the public, of Federal, state, and local governments and of regional agencies in the development of coastal zone management programs. With respect to implementation of such managament programs, it is the national policy to encourage cooperation among the various state and regional agencies including establishment of interstate and regional agreements, cooperative procedures, and joint action particularly regarding environmental problems.

DEFINITIONS

SEC. 304. For the purposes of this title—

(a) "Coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends, in Great Lakes waters, to the international boundary between the United States and Canada and, in other areas, seaward to the outer limit of the United States territorial sea. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters. Excluded from the coastal zone are lands the use of which is by law subject solely to the discretion of or which is held in trust by the Federal Government, its officers or agents.

(b) "Coastal waters" means (1) in the Great Lakes area, the waters within the territorial jurisdiction of the United States consisting of the Great Lakes, their connecting waters, harbors, roadsteads, and estuary-type areas such as bays, shallows, and marshes and (2) in other areas, those waters, adjacent to the shorelines, which contain a measurable quantity or percentage of sea water, including, but not limited to, sounds, bays, lagoons, bayous, ponds, and estuaries.

(c) "Coastal state" means a state of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. For the purposes of this title, the term also includes Puerto Rico, the Virgin Islands, Guam, and American Samoa.

(d) "Estuary" means that part of a river or stream or other body of water having unimpaired connection with the open sea, where the sea water is measurably diluted with fresh water derived from land drainage. The term includes estuary-type areas of the Great Lakes.

(e) "Estuarine sanctuary" means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set

aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(f) "Secretary" means the Secretary of Commerce.

(g) "Management program" includes, but is not limited to, a comprehensive statement in words, maps, illustrations, or other media of communication, prepared and adopted by the state in accordance with the provisions of this title, setting forth objectives, policies, and standards to guide public and private uses of lands and waters in the coastal zone.

(h) "Water use" means activities which are conducted in or on the water; but does not mean or include the establishment of any water quality standard or criteria or the regulation of the discharge or runoff of water pollutants except the standards, criteria, or regulations which are incorporated in any program as required by the provisions of section 307(f).

(i) "Land use" means activities which are conducted in or on the shorelands within the coastal zone, subject to the requirements outlined in section 307(g).

MANAGEMENT PROGRAM DEVELOPMENT GRANTS

SEC. 305. (a) The Secretary is authorized to make annual grants to any coastal state for the purpose of assisting in the development of a management program for the land and water resources of its coastal zone.

(b) Such management program shall include:

(1) an identification of the boundaries of the coastal zone subject to the management program;

(2) a definition of what shall constitute permissible land and water uses within the coastal zone which have a direct and significant impact on the coastal waters;

(3) an inventory and designation of areas of particular concern within the coastal zone;

(4) an identification of the means by which the state proposes to exert control over the land and water uses referred to in paragraph (2) of this subsection, including a listing of relevant constitutional provisions, legislative enactments, regulations, and judicial decisions;

(5) broad guidelines on priority of uses in particular areas, including specifically those uses of lowest priority;

(6) a description of the organizational structure proposed to implement the management program, including the responsibilities and interrelationships of local, areawide, state, regional, and interstate agencies in the management process.

(c) The grants shall not exceed 66⅔ per centum of the costs of the program in any one year and no state shall be eligible to receive more than three annual grants pursuant to this section. Federal funds received from other sources shall not be used to match such grants. In order to qualify for grants under this section, the state must reasonably demonstrate to the satisfaction of the Secretary that such grants will be used to develop a management program consistent with the requirements set forth in section 306 of this title. After making the initial grant to a coastal state, no subsequent grant shall be made under this section unless the Secretary finds that the state is satisfactorily developing such management program. Limitation.

(d) Upon completion of the development of the state's management program, the state shall submit such program to the Secretary for

review and approval pursuant to the provisions of section 306 of this title, or such other action as he deems necessary. On final approval of such program by the Secretary, the state's eligibility for further grants under this section shall terminate, and the state shall be eligible for grants under section 306 of this title.

Grants, allocation.

(e) Grants under this section shall be allocated to the states based on rules and regulations promulgated by the Secretary: *Provided, however*, That no management program development grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

(f) Grants or portions thereof not obligated by a state during the fiscal year for which they were first authorized to be obligated by the state, or during the fiscal year immediately following, shall revert to the Secretary, and shall be added by him to the funds available for grants under this section.

(g) With the approval of the Secretary, the state may allocate to a local government, to an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, to a regional agency, or to an interstate agency, a portion of the grant under this section, for the purpose of carrying out the provisions of this section.

80 Stat. 1262; 82 Stat. 208. 42 USC 3334.

Expiration date.

(h) The authority to make grants under this section shall expire on June 30, 1977.

ADMINISTRATIVE GRANTS

Limitation.

SEC. 306. (a) The Secretary is authorized to make annual grants to any coastal state for not more than 66⅔ per centum of the costs of administering the state's management program, if he approves such program in accordance with subsection (c) hereof. Federal funds received from other sources shall not be used to pay the state's share of costs.

Allocation.

(b) Such grants shall be allocated to the states with approved programs based on rules and regulations promulgated by the Secretary which shall take into account the extent and nature of the shoreline and area covered by the plan, population of the area, and other relevant factors: *Provided, however*, That no annual administrative grant under this section shall be made in excess of 10 per centum nor less than 1 per centum of the total amount appropriated to carry out the purposes of this section.

Program requirements.

(c) Prior to granting approval of a management program submitted by a coastal state, the Secretary shall find that:

(1) The state has developed and adopted a management program for its coastal zone in accordance with rules and regulations promulgated by the Secretary, after notice, and with the opportunity of full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, public and private, which is adequate to carry out the purposes of this title and is consistent with the policy declared in section 303 of this title.

(2) The state has:

(A) coordinated its program with local, areawide, and interstate plans applicable to areas within the coastal zone existing on January 1 of the year in which the state's management program is submitted to the Secretary, which plans have been developed by a local government, an areawide agency designated pursuant to regulations established under section 204 of the Demonstration

Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency; and

80 Stat. 1262; 82 Stat. 208. 42 USC 3334.

(B) established an effective mechanism for continuing consultation and coordination between the management agency designated pursuant to paragraph (5) of this subsection and with local governments, interstate agencies, regional agencies, and areawide agencies within the coastal zone to assure the full participation of such local governments and agencies in carrying out the purposes of this title.

(3) The state has held public hearings in the development of the management program.

(4) The management program and any changes thereto have been reviewed and approved by the Governor.

(5) The Governor of the state has designated a single agency to receive and administer the grants for implementing the management program required under paragraph (1) of this subsection.

(6) The state is organized to implement the management program required under paragraph (1) of this subsection.

(7) The state has the authorities necessary to implement the program, including the authority required under subsection (d) of this section.

(8) The management program provides for adequate consideration of the national interest involved in the siting of facilities necessary to meet requirements which are other than local in nature.

(9) The management program makes provision for procedures whereby specific areas may be designated for the purpose of preserving or restoring them for their conservation, recreational, ecological, or esthetic values.

(d) Prior to granting approval of the management program, the Secretary shall find that the state, acting through its chosen agency or agencies, including local governments, areawide agencies designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, regional agencies, or interstate agencies, has authority for the management of the coastal zone in accordance with the management program. Such authority shall include power—

(1) to administer land and water use regulations, control development in order to ensure compliance with the management program, and to resolve conflicts among competing uses; and

(2) to acquire fee simple and less than fee simple interests in lands, waters, and other property through condemnation or other means when necessary to achieve conformance with the management program.

(e) Prior to granting approval, the Secretary shall also find that the program provides:

(1) for any one or a combination of the following general techniques for control of land and water uses within the coastal zone;

(A) State establishment of criteria and standards for local implementation, subject to administrative review and enforcement of compliance;

(B) Direct state land and water use planning and regulation; or

(C) State administrative review for consistency with the management program of all development plans, projects, or land and water use regulations, including exceptions and variances thereto, proposed by any state or local authority or private developer, with power to approve or disapprove after public notice and an opportunity for hearings.

(2) for a method of assuring that local land and water use regulations within the coastal zone do not unreasonably restrict or exclude land and water uses of regional benefit.

(f) With the approval of the Secretary, a state may allocate to a local government, an areawide agency designated under section 204 of the Demonstration Cities and Metropolitan Development Act of 1966, a regional agency, or an interstate agency, a portion of the grant under this section for the purpose of carrying out the provisions of this section: *Provided*, That such allocation shall not relieve the state of the responsibility for ensuring that any funds so allocated are applied in furtherance of such state's approved management program.

80 Stat. 1262; 82 Stat. 208. 42 USC 3334.

Program modification.

(g) The state shall be authorized to amend the management program. The modification shall be in accordance with the procedures required under subsection (c) of this section. Any amendment or modification of the program must be approved by the Secretary before additional administrative grants are made to the state under the program as amended.

Segmental development.

(h) At the discretion of the state and with the approval of the Secretary, a management program may be developed and adopted in segments so that immediate attention may be devoted to those areas within the coastal zone which most urgently need management programs: *Provided*, That the state adequately provides for the ultimate coordination of the various segments of the management program into a single unified program and that the unified program will be completed as soon as is reasonably practicable.

INTERAGENCY COORDINATION AND COOPERATION

SEC. 307. (a) In carrying out his functions and responsibilities under this title, the Secretary shall consult with, cooperate with, and, to the maximum extent practicable, coordinate his activities with other interested Federal agencies.

(b) The Secretary shall not approve the management program submitted by a state pursuant to section 306 unless the views of Federal agencies principally affected by such program have been adequately considered. In case of serious disagreement between any Federal agency and the state in the development of the program the Secretary, in cooperation with the Executive Office of the President, shall seek to mediate the differences.

(c)(1) Each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state management programs.

(2) Any Federal agency which shall undertake any development project in the coastal zone of a state shall insure that the project is, to the maximum extent practicable, consistent with approved state management programs.

Certification.

(3) After final approval by the Secretary of a state's management program, any applicant for a required Federal license or permit to conduct an activity affecting land or water uses in the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the state's approved program and that such activity will be conducted in a manner consistent with the program. At the same time, the applicant shall furnish to the state or its designated agency a copy of the certification, with all necessary information and data. Each coastal state shall establish procedures for public notice in the case of all such

certifications and, to the extent it deems appropriate, procedures for public hearings in connection therewith. At the earliest practicable time, the state or its designated agency shall notify the Federal agency concerned that the state concurs with or objects to the applicant's certification. If the state or its designated agency fails to furnish the required notification within six months after receipt of its copy of the applicant's certification, the state's concurrence with the certification shall be conclusively presumed. No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed, unless the Secretary, on his own initiative or upon appeal by the applicant, finds, after providing a reasonable opportunity for detailed comments from the Federal agency involved and from the state, that the activity is consistent with the objectives of this title or is otherwise necessary in the interest of national security.

Notification.

(d) State and local governments submitting applications for Federal assistance under other Federal programs affecting the coastal zone shall indicate the views of the appropriate state or local agency as to the relationship of such activities to the approved management program for the coastal zone. Such applications shall be submitted and coordinated in accordance with the provisions of title IV of the Intergovernmental Coordination Act of 1968 (82 Stat. 1098). Federal agencies shall not approve proposed projects that are inconsistent with a coastal state's management program, except upon a finding by the Secretary that such project is consistent with the purposes of this title or necessary in the interest of national security.

42 USC 4231.

(e) Nothing in this title shall be construed—

(1) to diminish either Federal or state jurisdiction, responsibility, or rights in the field of planning, development, or control of water resources, submerged lands, or navigable waters; nor to displace, supersede, limit, or modify any interstate compact or the jurisdiction or responsibility of any legally established joint or common agency of two or more states or of two or more states and the Federal Government; nor to limit the authority of Congress to authorize and fund projects;

(2) as superseding, modifying, or repealing existing laws applicable to the various Federal agencies; nor to affect the jurisdiction, powers, or prerogatives of the International Joint Commission, United States and Canada, the Permanent Engineering Board, and the United States operating entity or entities established pursuant to the Columbia River Basin Treaty, signed at Washington, January 17, 1961, or the International Boundary and Water Commission, United States and Mexico.

(f) Notwithstanding any other provision of this title, nothing in this title shall in any way affect any requirement (1) established by the Federal Water Pollution Control Act, as amended, or the Clean Air Act, as amended, or (2) established by the Federal Government or by any state or local government pursuant to such Acts. Such requirements shall be incorporated in any program developed pursuant to this title and shall be the water pollution control and air pollution control requirements applicable to such program.

Ante, p. 816.
81 Stat. 485;
84 Stat. 1676.
42 USC 1857 note.

(g) When any state's coastal zone management program, submitted for approval or proposed for modification pursuant to section 306 of this title, includes requirements as to shorelands which also would be subject to any Federally supported national land use program which may be hereafter enacted, the Secretary, prior to approving such pro-

gram, shall obtain the concurrence of the Secretary of the Interior, or such other Federal official as may be designated to administer the national land use program, with respect to that portion of the coastal zone management program affecting such inland areas.

PUBLIC HEARINGS

SEC. 308. All public hearings required under this title must be announced at least thirty days prior to the hearing date. At the time of the announcement, all agency materials pertinent to the hearings, including documents, studies, and other data, must be made available to the public for review and study. As similar materials are subsequently developed, they shall be made available to the public as they become available to the agency.

REVIEW OF PERFORMANCE

SEC. 309. (a) The Secretary shall conduct a continuing review of the management programs of the coastal states and of the performance of each state.

Financial assistance, termination.

(b) The Secretary shall have the authority to terminate any financial assistance extended under section 306 and to withdraw any unexpended portion of such assistance if (1) he determines that the state is failing to adhere to and is not justified in deviating from the program approved by the Secretary; and (2) the state has been given notice of the proposed termination and withdrawal and given an opportunity to present evidence of adherence or justification for altering its program.

RECORDS

SEC. 310. (a) Each recipient of a grant under this title shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition of the funds received under the grant, the total cost of the project or undertaking supplied by other sources, and such other records as will facilitate an effective audit.

Audit.

(b) The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of the grant that are pertinent to the determination that funds granted are used in accordance with this title.

ADVISORY COMMITTEE

Costal Zone Management Advisory Committee, establishment; membership.

SEC. 311. (a) The Secretary is authorized and directed to establish a Coastal Zone Management Advisory Committee to advise, consult with, and make recommendations to the Secretary on matters of policy concerning the coastal zone. Such committee shall be composed of not more than fifteen persons designated by the Secretary and shall perform such functions and operate in such a manner as the Secretary may direct. The Secretary shall insure that the committee membership as a group possesses a broad range of experience and knowledge relating to problems involving management, use, conservation, protection, and development of coastal zone resources.

Compensation, travel expenses.

(b) Members of the committee who are not regular full-time employees of the United States, while serving on the business of the committee, including traveltime, may receive compensation at rates not exceeding $100 per diem; and while so serving away from their

homes or regular places of business may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5703 of title 5, United States Code, for individuals in the Government service employed intermittently. 80 Stat. 499; 83 Stat. 190.

ESTUARINE SANCTUARIES

SEC. 312. The Secretary, in accordance with rules and regulations promulgated by him, is authorized to make available to a coastal state grants of up to 50 per centum of the costs of acquisition, development, and operation of estuarine sanctuaries for the purpose of creating natural field laboratories to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone. The Federal share of the cost for each such sanctuary shall not exceed $2,000,000. No Federal funds received pursuant to section 305 or section 306 shall be used for the purpose of this section. Grants. Federal share.

ANNUAL REPORT

SEC. 313. (a) The Secretary shall prepare and submit to the President for transmittal to the Congress not later than November 1 of each year a report on the administration of this title for the preceding fiscal year. The report shall include but not be restricted to (1) an identification of the state programs approved pursuant to this title during the preceding Federal fiscal year and a description of those programs; (2) a listing of the states participating in the provisions of this title and a description of the status of each state's programs and its accomplishments during the preceding Federal fiscal year; (3) an itemization of the allocation of funds to the various coastal states and a breakdown of the major projects and areas on which these funds were expended; (4) an identification of any state programs which have been reviewed and disapproved or with respect to which grants have been terminated under this title, and a statement of the reasons for such action; (5) a listing of all activities and projects which, pursuant to the provisions of subsection (c) or subsection (d) of section 307, are not consistent with an applicable approved state management program; (6) a summary of the regulations issued by the Secretary or in effect during the preceding Federal fiscal year; (7) a summary of a coordinated national strategy and program for the Nation's coastal zone including identification and discussion of Federal, regional, state, and local responsibilities and functions therein; (8) a summary of outstanding problems arising in the administration of this title in order of priority; and (9) such other information as may be appropriate.

(b) The report required by subsection (a) shall contain such recommendations for additional legislation as the Secretary deems necessary to achieve the objectives of this title and enhance its effective operation.

RULES AND REGULATIONS

SEC. 314. The Secretary shall develop and promulgate, pursuant to section 553 of title 5, United States Code, after notice and opportunity for full participation by relevant Federal agencies, state agencies, local governments, regional organizations, port authorities, and other interested parties, both public and private, such rules and regulations as may be necessary to carry out the provisions of this title. 80 Stat. 383.

AUTHORIZATION OF APPROPRIATIONS

SEC. 315. (a) There are authorized to be appropriated—

(1) the sum of $9,000,000 for the fiscal year ending June 30, 1973, and for each of the fiscal years 1974 through 1977 for grants under section 305, to remain available until expended;

(2) such sums, not to exceed $30,000,000, for the fiscal year ending June 30, 1974, and for each of the fiscal years 1975 through 1977, as may be necessary, for grants under section 306 to remain available until expended; and

(3) such sums, not to exceed $6,000,000 for the fiscal year ending June 30, 1974, as may be necessary, for grants under section 312, to remain available until expended.

(b) There are also authorized to be appropriated such sums, not to exceed $3,000,000, for fiscal year 1973 and for each of the four succeeding fiscal years, as may be necessary for administrative expenses incident to the administration of this title.

Approved October 27, 1972.

---

LEGISLATIVE HISTORY:

HOUSE REPORTS: No. 92-1049 accompanying H.R. 14146 (Comm. on Merchant Marine and Fisheries) and No. 92-1544 (Comm. of Conference).
SENATE REPORT No. 92-753 (Comm. on Commerce).
CONGRESSIONAL RECORD, Vol. 118 (1972):
Apr. 25, considered and passed Senate.
Aug. 2, considered and passed House, amended, in lieu of H.R. 14146.
Oct. 12, House and Senate agreed to conference report.
WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 8, No. 44:
Oct. 28, Presidential statement.

○

# APPENDIX 2

## FINAL RULES FOR ESTUARINE SANCTUARY GRANTS

(15 CFR 921, published June 4, 1974,

Federal Register 39 (108): 19922-19927)

federal register

TUESDAY, JUNE 4, 1974

WASHINGTON, D.C.

Volume 39 ■ Number 108

PART IV

# DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

■

## Estuarine Sanctuary Guidelines

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

No. 108—Pt. IV——1

Title 15—Commerce and Foreign Trade

## CHAPTER IX—NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

## PART 921—ESTURAINE SANCTUARY GUIDELINES

The National Oceanic and Atmospheric Administration (NOAA) on March 7, 1974, proposed guidelines (15 CFR Part 921) pursuant to section 312 of the Coastal Zone Management Act of 1972 (Pub. L. 92-583, 86 Stat. 1280), hereinafter referred to as the "Act," for the purpose of establishing the policy and procedures for the nomination, selection and management of estuarine sanctuaries.

Written comments were to be submitted to the Office of Coastal Environment (now the Office of Coastal Zone Management), National Oceanic and Atmospheric Administration, before April 8, 1974, and consideration has been given those comments.

The Act recognizes that the coastal zone is rich in a variety of natural, commercial, recreational, industrial and esthetic resources of immediate and potential value to the present and future well-being of the nation. States are encouraged to develop and implement management programs to achieve wise use of the resources of the coastal zone, and the Act authorizes Federal grants to the States for these purposes (sections 305 and 306).

In addition, under section 312 of the Act, the Secretary of Commerce is authorized to make available to a coastal State grants of up to 50 per centum of the cost of acquisition, development and operation of estuarine sanctuaries. The guidelines contained in this part are for grants under section 312.

In general, section 312 provides that grants may be awarded to States on a matching basis to acquire, develop and operate natural areas as estuarine sanctuaries in order that scientists and students may be provided the opportunity to examine over a period of time ecological relationships within the area. The purpose of these guidelines is to establish the rules and regulations for implementation of this program.

The National Oceanic and Atmospheric Administration is publishing herewith the final regulations describing the procedures for applications to receive grants for estuarine sanctuaries under section 312 of the Act. The final regulations and criteria were revised from the proposed guidelines based on the comments received. A total of fifty (50) States, agencies, organizations and individuals submitted responses to the proposed section 312 guidelines published in the FEDERAL REGISTER on March 7, 1974. Of those responses received, eight (8) offered no comment or were wholly favorable as to the nature and content of the guidelines as originally proposed. Forty-two (42) commentators submitted suggestions concerning the proposed section 312 guidelines.

The following summary analyzes key comments received on various sections of the proposed regulations and presents the rationale for the responses made.

Section 921.2 *Definitions*. Three comments requested that the term "estuary" be defined. Although the term is defined in the Act and also in the regulations dealing with Coastal Zone Management Program Development Grants (Part 920 of this chapter) published November 29, 1973, it has been added to these regulations and broadened slightly to include marine lagoons with restricted freshwater input such as might occur along the south Texas coast.

Two other comments requested that the "primary purpose" referred to in § 921.2(b) be clearly defined. Although elaborated upon in § 921.3(a), for the purpose of clarity this change has been made.

Section 921.3 *Objectives and Implementation*. Several comments suggested that the estuarine sanctuary program objectives were too narrowly defined and specifically that they should be broadened to include the acquisition and preservation of unique or endangered estuaries for wildlife or ecological reasons. Although the Act (section 302) declares it the nation's policy to preserve, protect, develop, and where possible, to restore or enhance coastal resources, this is perceived to be achievable through State actions pursuant to sections 305 and 305. While it is recognized that the creation of an estuarine sanctuary may in fact serve to preserve or protect an area or biological community, the legislative history of section 312 clearly indicates the estuarine sanctuary program was not intended to duplicate existing broad purpose Federal preservation programs, such as might be accommodated by use of the Land and Water Conservation Fund Act. Instead, both in the Act as well as its legislative history, the objective is defined as preserving representative estuarine areas for long-term research and educational uses.

Three other comments suggested the objectives of the program should be enlarged to include the restoration of environmentally degraded areas. This, too, is perceived to be a State requirement separate from section 312. In addition, adequate authority for restoring degraded water areas now exists (for example, Pub. L. 92-500 in addition to sections 302, 305 and 306 of the Act). No significant additional benefit would appear to result from declaring an area an estuarine sanctuary for the purposes of restoration.

A few comments indicated that the examples of sanctuary use were too heavily weighted toward scientific uses to the exclusion of educational uses. Public education concerning the value and benefits of, and the nature of conflict within the coastal zone, will be essential to the success of a coastal zone management program. The section has been changed to reflect an appropriate concern for educational use.

Some commentators suggested changes in or additions to the specific examples of sanctuary uses and purposes. These examples were taken from the Senate and House Committee Reports and are considered sufficient to reflect the kinds of uses intended within an estuarine sanctuary.

Several comments were received pertaining to § 921.3(c) involving the restrictions against overemphasis of destructive or manipulative research. Ten comments indicated that the section was too weak and would not provide sufficient long-term protection for the sanctuary ecosystem. Several commentators specifically recommended deleting the words "would not normally be permitted" and inserting in their place "will not be permitted." In contrast, three respondents indicated that the potential use of estuarine sanctuaries for manipulative or destructive research was too restricted, and that these uses should be generally permitted if not encouraged.

The legislative history of section 312 clearly indicates that the intent of the estuarine sanctuary program should be to preserve representative estuarine areas so that they may provide long-term (virtually permanent) scientific and educational use. The uses perceived are compatible with what has been defined as "research natural areas." In an era of rapidly degrading estuarine environments, the estuarine sanctuary program will ensure that a representative series of natural areas will be available for scientific or educational uses dependent on that natural character, for example, for baseline studies, for use in understanding the functioning of natural ecological systems, for controls against which the impacts of development in other areas might be compared, and as interpretive centers for educational purposes. Any use, research or otherwise, which would destroy or detract from the natural system, would be inappropriate under this program.

In general, the necessity of or benefit from permitting manipulative or destructive research within an estuarine sanctuary is unclear. While there is a legitimate need for such kinds of research, ample opportunity for manipulative or destructive research to assess directly man's impact or stresses on the estuarine environment exists now without the need for creation or use of an estuarine sanctuary for this purpose. In contrast, a clear need exists for natural areas to serve as controls for manipulative research or research on altered systems.

The section on manipulative research has been changed to reflect the concern for continued maintenance of the area as a natural system. However, the modifier "normally" has been retained because, within these limits, it is not felt necessary to preclude all such uses; the occasion may rarely arise when because of a thoroughly demonstrated direct benefit, such research may be permitted.

Several comments suggested that the program should include degraded estuarine systems, rather than be limited to areas which are "relatively undisturbed by human activities." Such areas would permit research efforts designed to restore an estuarine area. As indicated

above, an ample legislative mandate to restore environmentally degraded areas already exists; the benefits to be derived from declaring such areas estuarine sanctuaries would be marginal. Indeed, it would appear that if restoration efforts cannot occur without estuarine sanctuary designation, then, given the limited resources of this program, such efforts would not be feasible.

A few commentators suggested that the phrase (§ 921.3(e)) "if sufficient permanence and control by the State can be assured, the acquisition of a sanctuary may involve less than the acquisition of a fee simple interest" be more clearly defined. Explanatory language has been added to that section.

Section 921.4 *Zoogeographic Classification.* Because the classification scheme utilized plants as well as animals, two commentators suggested that zoogeographic be changed to biogeographic. This change is reflected in the final regulations.

One comment suggested that selection of sanctuaries should depend on the pressures and threats being brought to bear upon the natural areas involved even if this meant selecting several sanctuaries from one classification and none from another.

The legislative history of section 312 clearly shows the intent to select estuarine sanctuaries on a rational basis which would reflect regional differentiation and a variety of ecosystems. The biogeographic classification system, which reflects geographic, hydrographic, and biologic differences, fulfills that intention. A scheme which would abandon that system, or another similar one, and would not fulfill the requirements of providing regional differentiation and a variety of ecosystems, would not be consistent with the intended purpose of the Act.

A few comments received suggested that the biogeographic classification scheme be enlarged by the addition of a new class reflecting an area or State of special concern or interest to the respondent. (No two commentators suggested the same area.) It is felt that adequate national representation is provided by the biogeographic scheme proposed, and that the changes offered were in most cases examples of sub-categories that might be utilized.

One comment suggested a specific change in the definition of the "Great Lakes" category. Portions of that suggestion have been incorporated into the final rules.

Two commentators requested assurance that sub-categories of the biogeographic scheme will in fact be utilized. The final language substitutes "will be developed and utilized" for "may be developed and utilized."

Section 921.5 *Multiple Use.* Several comments were received pertaining to the multiple use concept. Three commentators suggested that the multiple use directive was contrary to or absent from the Act and should be omitted. Ten respondents felt the concept should be more explicitly defined and restricted so that the primary purpose of the sanctuary would be more clearly protected. In contrast, two commentators felt that the definition might prove too restrictive and should be broadened. Several commentators suggested that examples of anticipated multiple use might be appropriate.

While recognizing that it is not always possible to accommodate more than a single use in an environmentally sensitive area, it is not the intention to unnecessarily preclude the uses of sanctuary areas where they are clearly compatible with and do not detract from the long-term protection of the ecosystem for scientific and educational purposes. The language of § 921.5 has been changed accordingly.

Section 921.6 *Relationship to Other Provisions of the Act and to Marine Sanctuaries.* Several comments were received which commended and stressed the need for close coordination between the development of State coastal zone management programs, especially and land and water use controls, and the estuarine sanctuary program.

The relationship between the two programs is emphasized: estuarine sanctuaries should provide benefit—both short-term and long-term—to coastal zone management decision-makers; and State coastal zone management programs must provide necessary protection for estuarine sanctuaries. This necessary coordination is discussed not only in the estuarine sanctuary regulations, but will also be addressed in an appropriate fashion in guidelines and rules for Coastal Zone Management Program Approval Criteria and Administrative Grants.

Three commentators discussed the need for swift action by both State and Federal governments to establish and acquire estuarine sanctuaries. The Office of Coastal Zone Management intends to pursue the program as swiftly as available manpower restraints will permit.

A few comments sought reassurance that the estuarine sanctuaries program will in fact be coordinated with the Marine Sanctuaries Program (Title III, Pub. L. 92-532). The guidelines have been changed to reflect that both programs will be administered by the same office.

SUBPART B—APPLICATION FOR GRANTS

Section 921.10 *General.* One reviewer indicated uncertainty about which State agency may submit applications for grants under section 312. Although individual States may vary in the choice of individual agencies to apply for an estuarine sanctuary, because of the necessity for coordination with the State coastal zone management program the entity within the State which is the certified contact with the Office of Coastal Zone Management, NOAA, responsible for the administration of the coastal zone management program must endorse or approve an estuarine sanctuary application.

Appropriate language has been included to ensure this coordination.

Section 921.11 *Initial Application for Acquisition, Development and Operation Grants.* Two comments requested that the source and nature of acceptable matching funds should be explicitly identified.

OMB Circular A-102 generally defines and identifies legitimate "match" for Federal grant projects. In general, reference should be made to that document. However, the section has been expanded in response to some specific and frequent questions.

Two comments stressed the need for increased availability of research funds to adequately utilize the potential of estuarine sanctuaries. While not an appropriate function of the estuarine sanctuary program, the Office of Coastal Zone Management is discussing the necessity of adequate funding with appropriate agencies.

One comment suggested that the term "legal description" of the sanctuary (§ 921.11(a)) is not appropriate for all categories of information requested. The word "legal" has been omitted.

Three reviewers indicated that the Act provides no basis for consideration of socio-economic impacts (§ 921.11(i)) and that this criterion seemed inappropriate to selecting estuarine sanctuaries. Apparently these reviewers misunderstood the intention of this requirement. The information in this section is necessary for preparation of an environmental impact statement which will be prepared pursuant to NEPA. Although required in the application, such information is not a part of the selection criteria, which are addressed in Subpart C, § 921.20.

One similar comment was received with regard to consideration of existing and potential uses and conflicts (§ 921.11(h)). This item is also discussed under selection criteria (§ 921.20(h)). It is intended that this criterion will only be considered when choosing between two or more sanctuary applications within the same biogeographic category which are of otherwise equal merit.

One comment drew attention to an apparent typographic error in § 921.11 (m) where the term "marine estuaries" seems out of context. This has been corrected.

Two commentators suggested that public hearings should be required in the development of an estuarine sanctuary application. Although such a hearing is deemed desirable by the Office of Coastal Zone Management, it would not always seem to be necessary. The language in § 920.11(1) has been changed to reflect the sincere concern for the adequate involvement of the public, which is also addressed under a new § 920.21.

One respondent suggested that a new section be added requiring the applicant to discuss alternative methods of acquisition or control of the area, including the designation of a marine sanctuary, in place of establishing an estuarine sanctuary. A new section (§ 920.11(n)) has been added for this purpose.

Section 921.12 *Subsequent Application for Development and Operation Grants.* Three commentators expressed concern that the intent of § 921.12 be more clearly expressed. Appropriate changes have been made.

One comment was made that a provision should be included to use existing Federally owned land for the purpose of the estuarine sanctuary program. A section has been added for that purpose.

Section 921.20 *Criteria for Selection.* One comment suggested that the consideration of conflict with existing or potential competing uses should not be included as a selection criterion. As discussed above, this criterion is considered appropriate.

Another reviewer suggested the addition of a new criterion, consideration of "the need to protect a particular estuary from harmful development." As discussed earlier, this criterion is not considered appropriate. Such a basis for determining selection would lead to a reactionary, random series of estuarine sanctuaries, rather than the rationally chosen representative series mandated in the legislative history.

Two reviewers commented that the limitation on the Federal share ($2,000,000 for each sanctuary) was too low and would severely restrict the usefulness of the program. However, this limitation is provided by the Act.

Another commentator suggested that § 921.20(g) was unnecessarily restrictive in that it might prevent selecting an estuarine sanctuary in an area adjacent to existing preserved lands where the conjunction might be mutually beneficial. The language of § 921.20(g) does not preclude such action, but has been changed to specifically permit this possibility.

Two commentators inquired whether the reference to a "draft" environmental impact statement (§ 921.20, last paragraph) indicated an intention to avoid further compliance with NEPA. It is the firm intention of the Office of Coastal Zone Management to fully comply in all respects with NEPA. The word "draft" has been struck.

Three reviewers addressed the problems of providing adequate public participation in the review and selection process. In addition to the change in § 920.11(1), a new section has been added to address this issue.

SUBPART D—OPERATION

Section 921.30 *General.* One commentator suggested that during contract negotiations, there should be a meeting between the applicant agency and proposed sanctuary management team, and representatives of the Office of Coastal Zone Management. The general provisions have been broadened to provide for this suggestion.

Two comments were submitted which urged that some discretion be exercised in the use and access to the sanctuary by scientists and students. Two other comments were received which requested specific protection for use by the general public. The guidelines have been changed to include these suggestions.

One comment was received suggesting language to clarify § 921.30(g). This was incorporated into the guidelines.

Two commentators expressed concern for enforcement capabilities and activities to ensure protection of the estuarine sanctuaries. A new section has been added which addresses this issue.

Finally, one suggestion was received that a vehicle for change in the management policy or research programs should be provided. A new section has been added for that purpose.

Accordingly, having considered the comments received and other relevant information, the Secretary concludes by adopting the final regulations describing the procedure for applications to receive estuarine sanctuary grants under section 312 of the Act, as modified and set forth below.

Effective date: June 3, 1974.

Dated: May 31, 1974.

ROBERT M. WHITE,
*Administrator.*

Subpart A—General

Sec.
921.1 Policy and objectives.
921.2 Definitions.
921.3 Objectives and implementation of the program.
921.4 Biogeographic classification.
921.5 Multiple use.
921.6 Relationship to other provisions of the Act and to marine sanctuaries.

Subpart B—Application for Grants

921.10 General.
921.11 Application for initial acquisition, development and operation grants.
921.12 Application for subsequent development and operation grants.
921.13 Federally owned lands.

Subpart C—Selection Criteria

921.20 Criteria for selection.
921.21 Public participation.

Subpart D—Operation

921.30 General.
921.31 Changes in the sanctuary boundary, management policy or research program.
921.32 Program review.

AUTHORITY: Sec. 312 of the Coastal Zone Management Act of 1972 (Pub. L. 92-583, 86 Stat. 1280).

## Subpart A—General

### § 921.1 Policy and Objectives.

The estuarine sanctuaries program will provide grants to States on a matching basis to acquire, develop and operate natural areas as estuarine sanctuaries in order that scientists and students may be provided the opportunity to examine over a period of time the ecological relationships within the area. The purpose of these guidelines is to establish the rules and regulations for implementation of the program.

### § 921.2 Definitions.

(a) In addition to the definitions found in the Act and in the regulations dealing with Coastal Zone Management Program Development Grants published November 29, 1973 (Part 920 of this chapter) the term "estuarine sanctuary" as defined in the Act, means a research area which may include any part or all of an estuary, adjoining transitional areas, and adjacent uplands, constituting to the extent feasible a natural unit, set aside to provide scientists and students the opportunity to examine over a period of time the ecological relationships within the area.

(b) For the purposes of this section, "estuary" means that part of a river or stream or other body of water having unimpared connection with the open sea where the seawater is measurably diluted with freshwater derived from land drainage. The term includes estuary-type areas of the Great Lakes as well as lagoons in more arid coastal regions.

(c) The term "multiple use" as used in this section shall mean the simultaneous utilization of an area or resource for a variety of compatible purposes or to provide more than one benefit. The term implies the long-term, continued uses of such resources in such a fashion that other uses will not interfere with, diminish or prevent the primary purpose, which is the long-term protection of the area for scientific and educational use.

### § 921.3 Objectives and implementation of the program.

(a) General. The purpose of the estuarine sanctuaries program is to create natural field laboratories in which to gather data and make studies of the natural and human processes occurring within the estuaries of the coastal zone. This shall be accomplished by the establishment of a series of estuarine sanctuaries which will be designated so that at least one representative of each type of estuarine ecosystem will endure into the future for scientific and educational purposes. The primary use of estuarine sanctuaries shall be for research and educational purposes, especially to provide some of the information essential to coastal zone management decision-making. Specific examples of such purposes and uses include but are not limited to:

(1) To gain a thorough understanding of the ecological relationships within the estuarine environment.

(2) To make baseline ecological measurements.

(3) To monitor significant or vital changes in the estuarine environment.

(4) To assess the effects of man's stresses on the ecosystem and to forecast and mitigate possible deterioration from human activities.

(5) To provide a vehicle for increasing public knowledge and awareness of the complex nature of estuarine systems, their values and benefits to man and nature, and the problems which confront them.

(b) The emphasis within the program will be on the designation as estuarine sanctuaries of areas which will serve as natural field laboratories for studies and investigations over an extended period. The area chosen as an estuarine sanctuary shall, to the extent feasible, include water and land masses constituting a natural ecological unit.

(c) In order that the estuarine sanctuary will be available for future studies, research involving the destruction of any portion of an estuarine sanctuary which would permanently alter the nature of the ecosystem shall not normally be

permitted. In the unusual circumstances where permitted, manipulative field research shall be carefully controlled. No experiment which involves manipulative research shall be initiated until the termination date is specified and evidence given that the environment will be returned to its condition which existed prior to the experiment.

(d) It is anticipated that most of the areas selected as sanctuaries will be relatively undisturbed by human activities at the time of acquisition. Therefore, most of the areas selected will be areas with a minimum of development, industry or habitation.

(e) If sufficient permanence and control by the State can be assured, the acquisition of a sanctuary may involve less than the acquisition of a fee simple interest. Such interest may be, for example, the acquisition of a conservation easement, "development rights", or other partial interest sufficient to assure the protection of the natural system. Leasing, which would not assure permanent protection of the system, would not be an acceptable alternative.

### § 921.4 Biogeographic classification.

(a) It is intended that estuarine sanctuaries should not be chosen at random, but should reflect regional differentiation and a variety of ecosystems so as to cover all significant variations. To ensure adequate representation of all estuarine types reflecting regional differentiation and a variety of ecosystems, selections will be made by the Secretary from the following biogeographic classifications:

1. *Arcadian*. Northeast Atlantic coast south to Cape Cod, glaciated shoreline subject to winter icing; well developed algal flora; boreal biota.

2. *Virginian*. Middle Atlantic coast from Cape Cod to Cape Hatteras; lowland streams, coastal marshes and muddy bottoms; characteristics transitional between 1 and 3; biota primarily temperate with some boreal representatives.

3. *Carolinian*. South Atlantic coast, from Cape Hatteras to Cape Kennedy; extensive marshes and swamps; waters turbid and productive; biota temperate with seasonal tropical elements.

4. *West Indian*. South Florida coast from Cape Kennedy to Cedar Key; and Caribbean Islands; shoreland low-lying limestone; calcareous sands, marls and coral reefs; coastal marshes and mangroves; tropical biota.

5. *Louisianian*. Northern Gulf of Mexico, from Cedar Key to Mexico; characteristics of 3, with components of 4; strongly influenced by terrigenous factors; biota primarily temperate.

6. *Californian*. South Pacific coast from Mexico to Cape Mendocino; shoreland influenced by coastal mountains; rocky coasts with reduced fresh-water runoff; general absence of marshes and swamps; biota temperate.

7. *Columbian*. North Pacific coast from Cape Mendocino to Canada; mountaineous shoreland; rocky coasts; extensive algal communities; biota primarily temperate with some boreal.

8. *Fiords*. South coast Alaska and Aleutians; precipitous mountains; deep estuaries, some with glaciers; shoreline heavily indented and subject to winter icing; biota boreal to sub-Arctic.

9. *Subarctic*. West and north coasts of Alaska; ice stressed coasts; biota Arctic and sub-Arctic.

10. *Insular*. Larger islands, sometimes with precipitous mountains; considerable wave action; frequently with endemic species; larger island groups primarily with tropical biota.

11. *Great Lakes*. Great Lakes of North America; bluff-dune or rocky, glaciated shoreline; limited wetlands; freshwater only; biota a mixture of boreal and temperate species with anadromous species and some marine invaders.

(b) Various sub-categories will be developed and utilized as appropriate.

### § 921.5 Multiple use.

(a) While the primary purpose of estuarine sanctuaries is to provide long-term protection for natural areas so that they may be used for scientific and educational purposes, multiple use of estuarine sanctuaries will be encouraged to the extent that such use is compatible with this primary sanctuary purpose. The capacity of a given sanctuary to accommodate additional uses, and the kinds and intensity of such use, will be determined on a case by case basis. While it is anticipated that compatible uses may generally include activities such as low intensity recreation, fishing, hunting, and wildlife observation, it is recognized that the exclusive use of an area for scientific or educational purposes may provide the optimum benefit to coastal zone management and resource use and may on occasion be necessary.

(b) There shall be no effort to balance or optimize uses of an estuarine sanctuary on economic or other bases. All additional uses of the sanctuary are clearly secondary to the primary purpose and uses, which are long-term maintenance of the ecosystem for scientific and educational uses. Non-compatible uses, including those uses which would cause significant short or long-term ecological change or would otherwise detract from or restrict the use of the sanctuary as a natural field laboratory, will be prohibited.

### § 921.6 Relationship to other provisions of the act and to marine sanctuaries.

(a) The estuarine sanctuary program must interact with the overall coastal zone management program in two ways: (1) the intended research use of the sanctuary should provide relevant data and conclusions of assistance to coastal zone management decision-making, and (2) when developed, the State's coastal zone management program must recognize and be designed to protect the estuarine sanctuary; appropriate land and water use regulations and planning considerations must apply to adjacent lands. Although estuarine sanctuaries should be incorporated into the State coastal zone management program, their designation need not await the development and approval of the management program where operation of the estuarine sanctuary would aid in the development of a program.

(b) The estuarine sanctuaries program will be conducted in close cooperation with the marine sanctuaries program (Title III of the Marine Protection, Research Act of 1972, Pub. L. 92-532, which is also administered by the Office of Coastal Zone Management, NOAA), which recognizes that certain areas of the ocean waters, as far seaward as the outer edge of the Continental Shelf, or other coastal waters where the tide ebbs and flows, or of the Great Lakes and their connecting waters, need to be preserved or restored for their conservation, recreational, ecologic or esthetic values. It is anticipated that the Secretary on occasion may establish marine sanctuaries to complement the designation by States of estuarine sanctuaries, where this may be mutually beneficial.

## Subpart B—Application for Grants

### § 921.10 General.

Section 312 authorizes Federal grants to coastal States so that the States may establish sanctuaries according to regulations promulgated by the Secretary. Coastal States may file applications for grants with the Director, Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, Rockville, Maryland 20852. That agency which has been certified to the Office of Coastal Zone Management as the entity responsible for administration of the State coastal zone management program may either submit an application directly, or must endorse and approve applications submitted by other agencies within the State.

### § 921.11 Application for initial acquisition, development and operation grants.

(a) Grants may be awarded on a matching basis to cover the costs of acquisition, development and operation of estuarine sanctuaries. States may use donations of land or money to satisfy all or part of the matching cost requirements.

(b) In general, lands acquired pursuant to this section, including State owned lands but not State owned submerged lands or bay bottoms, that occur within the proposed sanctuary boundary are legitimate costs and their fair market value may be included as match. However, the value of lands donated to or by the State for inclusion in the sanctuary may only be used to match other costs of land acquisition. In the event that lands already exist in a protected status, their value cannot be used as match for sanctuary development and operation grants, which will require their own matching funds.

(c) Development and operation costs may include the administrative expenses necessary to monitor the sanctuary, to ensure its continued viability and to protect the integrity of the ecosystem. Research will not normally be funded by Section 312 grants. It is anticipated that other sources of Federal, State and

private funds will be available for research in estuarine sanctuaries.

(d) Initial applications should contain the following information:

(1) Description of the proposed sanctuary include location, boundaries, size and cost of acquisition, operation and development. A map should be included, as well as an aerial photograph, if available.

(2) Classification of the proposed sanctuary according to the biogeographic scheme set forth in § 921.4.

(3) Description of the major physical, geographic and biological characteristics and resources of the proposed sanctuary.

(4) Identification of ownership patterns; proportion of land already in the public domain.

(5) Description of intended research uses, potential research organizations or agencies and benefits to the overall coastal zone management program.

(6) Demonstration of necessary authority to acquire or control and manage the sanctuary.

(7) Description of proposed management techniques, including the management agency, principles and proposed budget including both State and Federal shares.

(8) Description of existing and potential uses of and conflicts within the area if it were not declared an estuarine sanctuary; potential use, use restrictions and conflicts if the sanctuary is established.

(i) Assessment of the environmental and socio-economic impacts of declaring the area an estuarine sanctuary, including the economic impact of such a designation on the surrounding community and its tax base.

(9) Description of planned or anticipated land and water use and controls for contiguous lands surrounding the proposed sanctuary (including if appropriate an analysis of the desirability of creating a marine sanctuary in adjacent areas).

(10) List of protected sites, either within the estuarine sanctuaries program or within other Federal, State or private programs, which are located in the same regional or biogeographic classification.

(i) It is essential that the opportunity be provided for public involvement and input in the development of the sanctuary proposal and application. Where the application is controversial or where controversial issues are addressed, the State should provide adequate means to ensure that all interested parties have the opportunity to present their views. This may be in the form of an adequately advertised public hearing.

(ii) During the development of an estuarine sanctuary application, all landowners within the proposed boundaries should be informed in writing of the proposed grant application.

(iii) The application should indicate the manner in which the State solicited the views of all interested parties prior to the actual submission of the application.

(e) In order to develop a truly representative scheme of estuarine sanctuaries, the States should attempt to coordinate their activities. This will help to minimize the possibility of similar estuarine types being proposed for designation in the same region. The application should indicate the extent to which neighboring States were consulted.

(f) Discussion, including cost and feasibility, of alternative methods for acquisition, control and protection of the area to provide similar uses. Use of the Marine Sanctuary authority and funds from the Land and Water Conservation Fund Act should be specifically addressed.

### § 921.12 Application for subsequent development and operation grants.

(a) Although the initial grant application for creation of an estuarine sanctuary should include initial development and operation costs, subsequent applications may be submitted following acquisition and establishment of an estuarine sanctuary for additional development and operation funds. As indicated in § 921.11, these costs may include administrative costs necessary to monitor the sanctuary and to protect the integrity of the ecosystem. Extensive management programs, capital expenses, or research will not normally be funded by section 312 grants.

(b) After the creation of an estuarine sanctuary established under this program, applications for such development and operation grants should include at least the following information:

(1) Identification of the boundary.

(2) Specifications of the management program, including managing agency and techniques.

(3) Detailed budget.

(4) Discussion of recent and projected use of the sanctuary.

(5) Perceived threats to the integrity of the sanctuary.

### § 921.13 Federally owned lands.

(a) Where Federally owned lands are a part of or adjacent to the area proposed for designation as an estuarine sanctuary, or where the control of land and water uses on such lands is necessary to protect the natural system within the sanctuary, the State should contact the Federal agency maintaining control of the land to request cooperation in providing coordinated management policies. Such lands and State request, and the Federal agency response, should be identified and conveyed to the Office of Coastal Zone Management.

(b) Where such proposed use or control of Federally owned lands would not conflict with the Federal use of their lands, such cooperation and coordination is encouraged to the maximum extent feasible.

(c) Section 312 grants may not be awarded to Federal agencies for creation of estuarine sanctuaries in Federally owned lands; however, a similar status may be provided on a voluntary basis for Federally owned lands under the provisions of the Federal Committee on Ecological Preserves program.

## Subpart C—Selection Criteria

### § 921.20 Criteria for selection.

Applications for grants to establish estuarine sanctuaries will be reviewed and judged on criteria including:

(a) Benefit to the coastal zone management program. Applications should demonstrate the benefit of the proposal to the development or operations of the overall coastal zone management program, including how well the proposal fits into the national program of representative estuarine types; the national or regional benefits; and the usefulness in research.

(b) The ecological characteristics of the ecosystem, including its biological productivity, diversity and representativeness. Extent of alteration of the natural system, its ability to remain a viable and healthy system in view of the present and possible development of external stresses.

(c) Size and choice of boundaries. To the extent feasible, estuarine sanctuaries should approximate a natural ecological unit. The minimal acceptable size will vary greatly and will depend on the nature of the ecosystem.

(d) Cost. Although the Act limits the Federal share of the cost for each sanctuary to $2,000,000, it is anticipated that in practice the average grant will be substantially less than this.

(e) Enhancement of non-competitive uses.

(f) Proximity and access to existing research facilities.

(g) Availability of suitable alternative sites already protected which might be capable of providing the same use or benefit. Unnecessary duplication of existing activities under other programs should be avoided. However, estuarine sanctuaries might be established adjacent to existing preserved lands where mutual enhancement or benefit of each might occur.

(h) Conflict with existing or potential competing uses.

(i) Compatibility with existing or proposed land and water use in contiguous areas.

If the initial review demonstrates the feasibility of the application, an environmental impact statement will be prepared by the Office of Coastal Zone Management in accordance with the National Environmental Policy Act of 1969 and implementing CEQ guidelines.

### § 921.21 Public participation.

Public participation will be an essential factor in the selection of estuarine sanctuaries. In addition to the participation during the application development process (§ 921.11(e)), public participation will be ensured at the Federal level by the NEPA process and by public hearings where desirable subsequent to NEPA. Such public hearings shall be held by the Office of Coastal Zone Management in the area to be affected by the proposed sanctuary no sooner than 30 days after it issues a draft environmental impact

statement on the sanctuary proposal. It will be the responsibility of the Office of Coastal Zone Management, with the assistance of the applicant State, to issue adequate public notice of its intention to hold a public hearing. Such public notice shall be distributed widely, especially in the area of the proposed sanctuary; affected property owners and those agencies, organizations or individuals with an identified interest in the area or estuarine sanctuary program shall be notified of the public hearing. The public notice shall contain the name, address and phone number of the appropriate Federal and State officials to contact for additional information about the proposal.

## Subpart D—Operation

### § 921.30 General.

Management of estuarine sanctuaries shall be the responsibility of the applicant State or its agent. However, the research uses and management program must be in conformance with these guidelines and regulations, and others implemented by the provisions of individual grants. It is suggested that prior to the grant award, representatives of the proposed sanctuary management team and the Office of Coastal Zone Management meet to discuss management policy and standards. It is anticipated that the grant provisions will vary with individual circumstances and will be mutually agreed to by the applicant and the granting agency. As a minimum, the grant document for each sanctuary shall:

(a) Define the intended research purposes of the estuarine sanctuary.

(b) Define permitted, compatible, restricted and prohibited uses of the sanctuary.

(c) Include a provision for monitoring the uses of the sanctuary, to ensure compliance with the intended uses.

(d) Ensure ready access to land use of the sanctuary by scientists, students and the general public as desirable and permissible for coordinated research and education uses, as well as for other compatible purposes.

(e) Ensure public availability and reasonable distribution of research results for timely use in the development of coastal zone management programs.

(f) Provide a basis for annual review of the status of the sanctuary, its value to the coastal zone program.

(g) Specify how the integrity of the system which the sanctuary represents will be maintained.

(h) Provide adequate authority and intent to enforce management policy and use restrictions.

### § 921.31 Changes in the sanctuary boundary, management policy or research program.

(a) The approved sanctuary boundaries; management policy, including permissible and prohibited uses; and research program may only be changed after public notice and the opportunity of public review and participation such as outlined in § 921.21.

(b) Individuals or organizations which are concerned about possible improper use or restriction of use of estuarine sanctuaries may petition the State management agency and the Office of Coastal Zone Management directly for review of the management program.

### § 921.32 Program review.

It is anticipated that reports will be required from the applicant State on a regular basis, no more frequently than annually, on the status of each estuarine sanctuary. The estuarine sanctuary program will be regularly reviewed to ensure that the objectives of the program are being met and that the program itself is scientifically sound. The key to the success of the estuarine sanctuaries program is to assure that the results of the studies and research conducted in these sanctuaries are available in a timely fashion so that the States can develop and administer land and water use programs for the coastal zone. Accordingly, all information and reports, including annual reports, relating to estuarine sanctuaries shall be part of the public record and available at all times for inspection by the public.

[FR Doc.74-12775 Filed 5-31-74;9:57 am]

Amendment

Draft Environmental Impact Statement

Proposed Estuarine Sanctuary Grant Award for

Old Woman Creek, Erie County, Ohio

Office of Coastal Zone Management
National Oceanic & Atmospheric Administration
United States Department of Commerce

Subsequent to the preparation and printing of this Draft Environmental Impact Statement, but prior to its release, the Ohio Department of Natural Resources (ODNR) submitted to the Office of Coastal Zone Management (OCZM) an amendment to its proposal to establish an estuarine sanctuary on Old Woman Creek. The State has now proposed that the eastern and western boundaries be trimmed, removing about 305 acres of agricultural lands from the proposed santuary. About two-thirds (209 acres) would be removed along the western boundary of the sanctuary and the remainder (96 acres) from the eastern edge. Additionally, the State has also suggested extending the sanctuary southward to add about 95 acres of forested woodlands adjacent to the creek. (See Figure A-1).

This amendment was proposed as a result of the substantial reaction which has developed among Erie County agricultural interests in opposition to the proposed sanctuary. These farming interests have expressed a strong concern about the loss of 518 acres of farm land as proposed in the original application.

Although this specific withdrawal of lands from agricultural use is so small as to be insignificant, it is a part of a large State-wide trend wherein farmlands are rapidly being converted to other uses (i.e., industrial, commercial, or residential use). Concern for this trend has led the State to attempt to minimize any additional loss of such lands.

This amended proposal approximates one of the boundary alternatives described in the DEIS (VI.B. p.21), although not all agricultural lands will be removed; about 200 acres of presently farmed land would remain in the proposed sanctuary. These lands would be restored to the original prairie-forest ground cover, and would provide suitable upland components of the estuarine ecosystem, as well as buffer the water areas from upland stresses. None of the areas removed from the proposed boundaries are riparian.

The amended proposal would result in taking only part of four different ownerships; that is, if established, the santuary as now drawn would result in acquiring portions of the land parcels owned by Anderson, Kaiser, Willgrube, and Greeno. This action might result in these owners being left with an unusable or economically unproductive parcel of land. If these owners so

desire, the State will acquire the entire parcel, rather than just a portion of their lands, relieving them of this burden.

This proposed change could result in diminished protection of the sanctuary ecosystem, and in maintaining agricultural stress on the area. As the original proposal, however, would have permitted some farming on life-estates on the same lands, this proposal should not differ significantly from the original concept, at least for this generation. Over the long-term, these lands would have been removed from agricultural use, as the life-estates expired; thus this proposed change would result in the continuation of some upland stresses on the Old Woman Creek estuarine ecosystem which would have otherwise been removed.

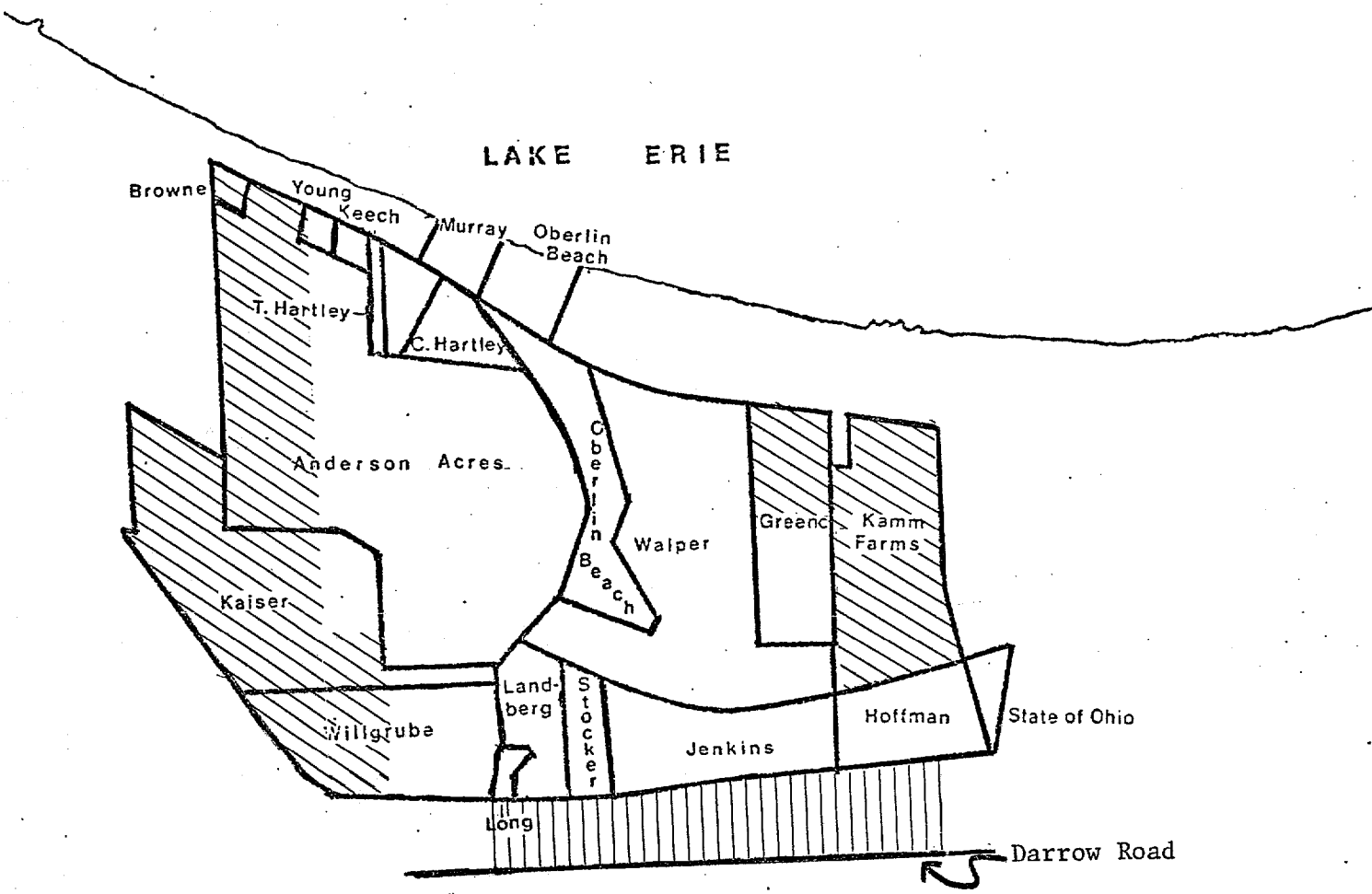
Probably the greatest adverse impace from this amendment would occur if the areas removed from the proposed boundaries were eventually developed. To prevent this action, however, the State has indicated its intention to control or regulate uses of those lands adjacent to the sanctuary omitted by this action, to ensure that the areas will continue to be used in an agricultural capacity. Although the means for this control have not yet been determined, one method proposed is the acquisition of the development rights or an easement which would preclude later development of these lands for industrial, commercial, or residential use. The State has also agreed to seek, if necessary, controls or restrictions on the agricultural practices on these lands. Such controls might address the manner, extent, and method of application of pesticides and fertilizers; requirements for planting ground cover after harvest and during fallow periods; and problems associated with runoff.

Reduction of the sanctuary size through these boundary changes will reduce the cost of acquisition about $325,000, and would also reduce relocation costs.

The State has also proposed to protect, as a part of the sanctuary, about 95 acres of forested lands between the original southern boundary and Darrow Road. (See Fig. A-1). These lands would provide increased representation of the forested uplands, and would extend the upstream (southern) boundary of the sanctuary to more closely approximate the inland extent of Lake Erie water influence (the upstream end of the mixing or estuarine zone). Because some residences do occur on these lands, the State has suggested that the lands be protected through purchase of a conservation easement rather than fee simple acquisition. By retaining the existing forest cover and protecting present uses, this would provide necessary protection of the ecosystem without the adverse social impacts or increased costs associated with relocation.

Due to the unavoidable delay in the release of the Draft Environmental Impact Statement, the closing date for written comments will be extended to 2 June 1975.

# OWNERSHIP PATTERN




LANDS REMOVED FROM PROPOSED SANCTUARY BOUNDARIES

LANDS PROPOSED FOR ADDITION TO SANCTUARY BOUNDARIES

Scale 1: 24,000

FIGURE A-1