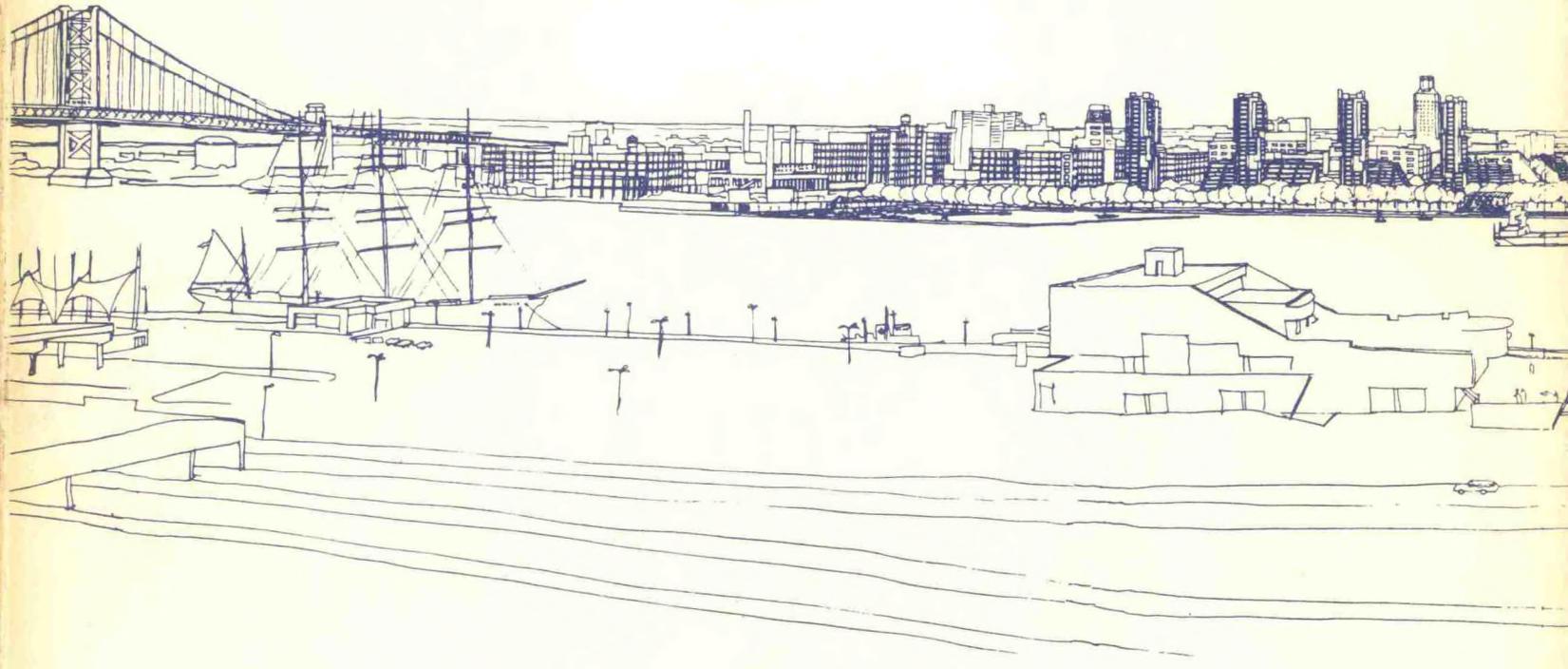
Managing the Nation's Coast

Biennial Report to the Congress On Coastal Zone Management

Fiscal Years 1980 and 1981



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Office of Coastal Zone Management

Public Law 96 - 464

Biennial Report to the Congress On Coastal Zone Management

Fiscal Years 1980 and 1981

June 1982

U. S. DEPARTMENT OF COMMERCE
Malcolm Baldrige, Secretary

National Oceanic and Atmospheric Administration
John V. Byrne, Administrator

Office of Coastal Zone Management
William Matuszeski, Acting Assistant Administrator

THE SECRETARY OF COMMERCE
Washington, D.C. 20230

29 JUL 1982

The President
The President of the Senate
The Speaker of the House of Representatives

Dear Sirs:

I am pleased to submit the Biennial Report of the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, pursuant to Section 316 of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451) for fiscal years 1980 and 1981. The report discusses the progress made during these years in administering the coastal zone management program and the problems encountered.

Sincerely,

Malcolm Baldrige

Secretary of Commerce

Enclosure

Table of Contents

Part II - Discussions in Depth (continued)

MANAGING THE NATION'S COAST
BIENNIAL REPORT COVERING FISCAL YEARS 1980 and 1981

Introduction: 1980 and 1981 Highlights

The coastal zone management program was reauthorized for five years in October 1980 with the passage of the Coastal Zone Management Improvement Act (P.L. 96-464), which amended the Coastal Zone Management Act of 1972 (CZMA). The unanimous Congressional vote followed an extensive legislative review which included eleven hearings held in a variety of States.

The reauthorization was a key event of the last two years. Other coastal zone management program highlights of fiscal years 1980 and 1981 included:

1) Eight State coastal zone management (CZM) programs received Federal approval, bringing to 26 the total number of approved State programs, covering nearly 87 percent of the Nation's shoreline. The newly approved programs are:

   American Samoa
   Connecticut
   Florida
   Louisiana
   Mississippi
   New Jersey
   Northern Marianas
   Pennsylvania

2) Five estuarine sanctuaries were designated, bringing the total to 12:

   Chesapeake Bay, Maryland
   Jobos Bay, Puerto Rico
   Narragansett Bay, Rhode Island
   Padilla Bay, Washington
   Tijuana River, California.

3) Four marine sanctuaries were designated, bringing the total to 6:

   Channel Islands, California
   Gray's Reef, Georgia
   Looe Key, Florida
   Point Reyes/Farallon Islands, California

4) The Coastal Energy Impact Program (CEIP) issued grants and loans totalling $117 million to 30 States to mitigate the effects of energy development.

5) The Office of Resources Coordination and Assessment (ORCA) completed a detailed East Coast Assessment project, which analyzed and mapped key coastal resources and other relevant data. Similar assessments were started for the Gulf of Mexico and the Bering, Beaufort and Chukchi Seas in the Arctic.

6) The year 1980 was proclaimed "Year of the Coast," and State and local

governments carried out various projects highlighting the importance of the coast, its resources and the need for its balanced management.

7) In conjunction with Year of the Coast activities, the Coastal Zone '80 Symposium was held November 17-20, 1980 in Hollywood, Florida.

8) The 1980 Amendments to the CZMA established "national interest" areas which States are required to address through the implementation of their management programs.

9) Finally, in conjunction with new Administration policy, the Federal Office of Coastal Zone Management (OCZM) began preparation for the phase down of Federal funding for coastal zone management and coastal energy impact programs during the next fiscal years. The phase down will require the States to assume more responsibility for funding the management of coastal resources.

Program Summary.

When Congress enacted the Coastal Zone Management Act of 1972, it culminated a period of public debate and review highlighted by the Stratton Commission Report of 1969, by declaring, "there is a national interest in the effective management, beneficial use, protection and development of the coastal zone (Sec. 302(a), CZMA)." Congress provided that the key to effective management is to encourage coastal States to exercise their full constitutional authority over land and waters in their coastal zone by developing and implementing coastal zone management programs.

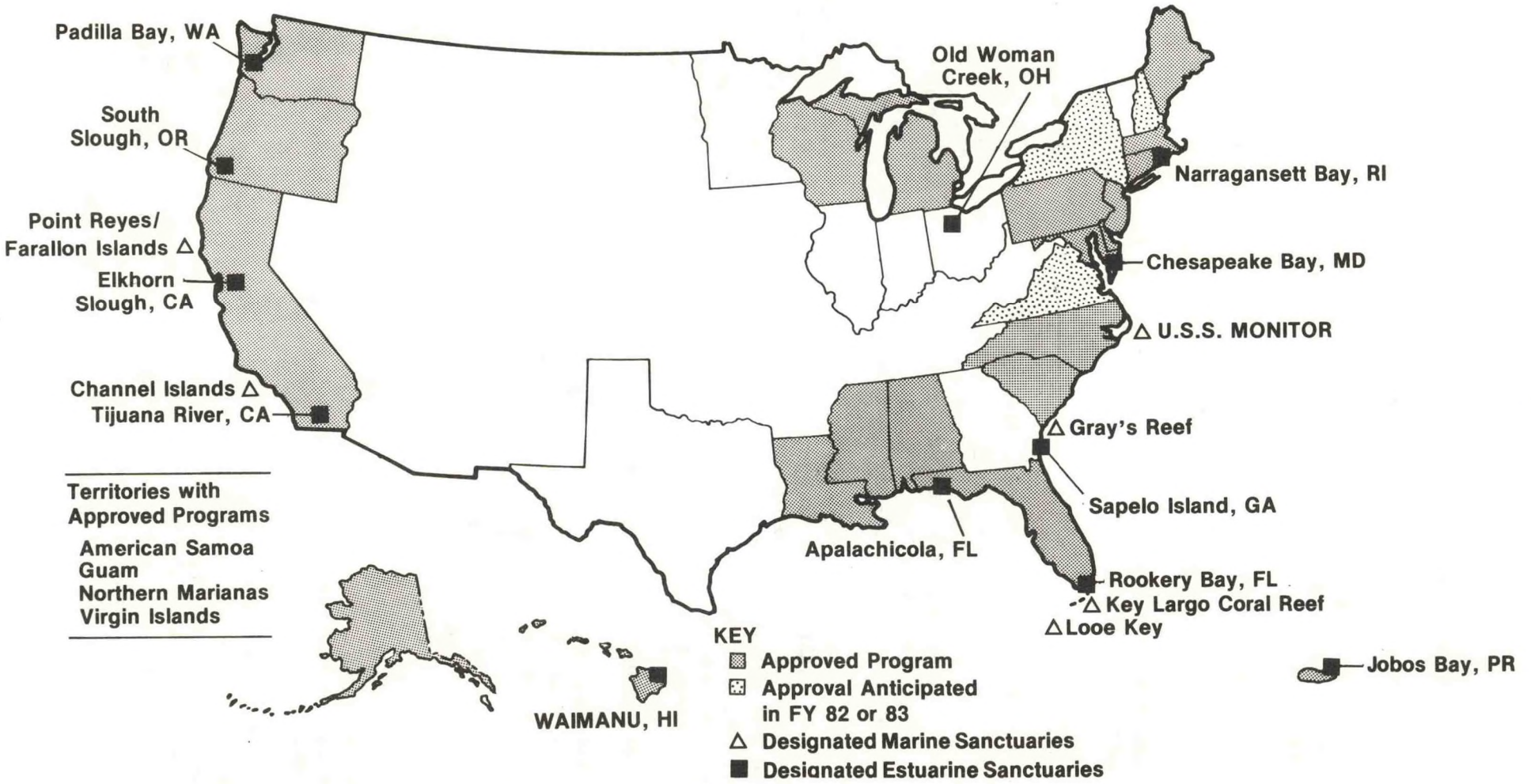
The national Coastal Zone Management Program (CZM) establishes a balanced approach to management of coastal land and water uses. The CZMA provides funds to State governments to establish CZM programs that meet Federal objectives. Figure 1 shows states which have Federal-approved programs or are actively working toward them.

Amendments to the CZMA, passed in 1976 and augmented by Congress in 1978 during consideration and enactment of the Outer Continental Shelf Lands Act Amendments, added the Coastal Energy Impact Program (CEIP) - a financial assistance program designed to assist States in planning for and mitigating the impacts of offshore oil and gas development and other coastal energy activity. A specific goal of the CEIP is to balance the need for energy development with protection of valuable coastal resources. The CZM and CEIP programs are administered at the Federal level by the Office of Coastal Zone Management (OCZM) of the National Oceanic and Atmospheric Administration (NOAA), and at the State level by designated State Coastal Zone Management, Coastal Energy Impact Program, and Outer Continental Shelf (OCS) coordinating agencies.

The 1980 Amendments to the CZMA confirmed the basic structure of the CZM program and, in addition, identified nine national interest areas in which States are required to make improvements as part of their CZM programs:

- Protection of natural resources
- Management of coastal development to avoid hazardous areas
- Priority consideration given to coastal dependent uses and energy facility siting

Map 1- States with Approved Coastal Zone Management Programs
Estuarine Sanctuaries and Marine Sanctuaries FY- 81



- o Public shorefront access
- o Assistance in redevelopment of urban waterfronts and ports
- o Coordination and simplification of governmental procedures to ensure expedited governmental decisionmaking for management of coastal resources
- o Consultation and coordination with Federal agencies
- o Public participation in coastal decisionmaking
- o Comprehensive planning, conservation, and management of living marine resources.

This report highlights the accomplishments of the CZM and CEIP programs both at the State and national levels, in selected national interest areas - ports, fisheries, energy, hazards, barrier islands, wetlands preservation/permit simplification, special area management planning, shorefront access, and urban waterfronts. Part II presents individual State CZM and CEIP program descriptions and accomplishments during FY 1980 and 1981 in detail, lists and describes individual estuarine sanctuaries, and presents other general information on the programs administered by OCZM.

OCZM administers two programs to manage particularly valuable aquatic areas. Section 315 of Coastal Zone Management Act establishes the National Estuarine Sanctuary Program. This program provides 50 percent matching grants to States to acquire and manage estuarine sites for purposes of protection, research, and education, in order to examine the basic ecological relationships within the area. The program now includes twelve sites, with a total of approximately 30 planned to represent biogeographic regions. The sanctuaries are described in detail in Part II. This section also provides funds for island preservation. (Figure 1 displays established sanctuaries.)

The National Marine Sanctuary Program is authorized by Title III of the Marine Protection, Research and Sanctuaries Act of 1972 (16 U.S.C. 1431-1434). Marine sanctuaries are marine or Great Lakes waters designated by the Secretary of Commerce to protect or restore their unique conservation, recreational, ecological or aesthetic values. Six sanctuaries are being managed by the program currently. While not statutorily linked to the CZMA, the Marine Sanctuary Program supports the national interest goals of the CZM program by providing comprehensive natural resource management of special marine areas. It offers increased environmental protection, research and assessment of the condition of sanctuary resources and education programs to enhance wise public use. The Marine Sanctuary Program is discussed below. (Figure 1 displays designated sanctuaries.)

In the past two years, the Office of Resources Coordination and Assessment (ORCA) has significantly improved OCZM's ability to advise a range of interested parties on management issues involving coastal and ocean resources. ORCA has completed an assessment of living marine resources and problems of the Atlantic Coast, and is completing similar assessments for the Gulf and certain Arctic areas. In addition, ORCA has key responsibilities for NOAA activities related to OCS Lands Act and the implementation of the Comprehensive Environmental

Response Compensation and Liability Act of 1980 (Superfund). Further description is located in the ORCA section of this report.

The Near Future.

In February 1981, based on an assessment of the success of state coastal management programs and consistent with the original intent of the CZMA to provide Federal seed money, the Administration proposed the termination of Federal funding for CZM and CEIP programs. The Congress provided $40 million to accomplish the transition to full state funding of the programs and the phase out of Federal support. By the end of FY 1981, OCZM had completed plans for the distribution of final financial assistance to the states.

At the end of fiscal year 1981, two States--New Hampshire and New York--were working toward program approvability. Approval of these programs is anticipated in fiscal year 1982 or early 1983.

OCZM is continuing to move toward completion of the National Estuarine Sanctuary Program. Designation of two to three estuarine sanctuaries is planned for fiscal year 1982. The National Marine Sanctuary Program has initiated a new process for identifying potential areas for designation. This process will result in a list of up to forty candidates for designation.

OCZM is pursuing several initiatives with the dual goal of better Federal coordination and more effective technical assistance to the States. These initiatives are in the areas of managing coastal development to avoid hazardous areas, protection of barrier islands, special area management planning, protection of wetlands, permit simplification, and port development. These areas are several of the "national interest areas" identified by the 1980 CZMA Amendments.

ORCA intends to complete work on the Gulf and Arctic Strategic Assessment projects in FY 1982 and 1983. In addition, ORCA plans to publish a detailed assessment of the damages caused by the massive Amoco Cadiz oil spill.

Long Term Objective: A Program of Shared Responsibility

The impending phase out of Federal funding and consequent strengthening of the role of the States in coastal zone management required a significant amount of reflection on the appropriate roles of the various levels of government in the CZM related programs. The CZMA directs the participation of local, State, regional and national governments in a coordinated national strategy to manage the coastal zone. The development of State plans and annual budgets and other Federal agency programs should be guided by this coordinated national strategy that builds on the accomplishments of the last decade and ensures the efficient use of available public financial resources. The national strategy should include at least the following major goals, based on the recent reauthorization legislation:

- Establish reliable and equitable sources of non-Federal funding for State coastal management programs.
- Institutionalize existing State coastal management programs and provide technical assistance to the remaining States interested in achieving approval under the CZMA.
- Simplify existing Federal coastal programs and encourage State assumption of implementation responsibilities established in Federal resource management statutes.

- o Improve intergovernmental coordination processes and the implementation of the shared statutory responsibilities between States and the Federal Government for the stewardship of coastal resources.

- o Establish and update an inventory of coastal and ocean resources.

- o Develop and implement management plans for those special areas requiring coordinated Federal, State and local decisions.

Implementation of a coordinated strategy at different levels of government--Federal, State, regional and local--requires the establishment of mechanisms that can fine tune and adjust ongoing government management programs to changes in legislative policy and to trends reflecting the general public use of our coastal zone. A variety of information and services will be critical to continuing development and successful implementation of such mechanisms. Over the next years, the Federal and State coastal zone management programs must evaluate the need for these items and provide the most critical. Among those most potentially useful in achieving the national strategy are:

- o Develop and maintain strategic assessments of coastal and ocean resources;

- o Assemble and provide data on current state of the art techniques and operational procedures for managing coastal resources;

- o Organize and carry out a forum for government and private interests to discuss management approaches to coastal issues;

- o Conduct surveys and inventories of coastal and ocean areas with concentration on valuable coastal resources and identify those areas requiring specific management plans; and

- o Monitor and provide conflict resolution services for those coastal decisions requiring involvement of various levels of government and private parties.

The Report

The report which follows has been organized into two sections. Part I presents discussions of state and Federal Coastal Zone Management activities organized by selected issue area. The topics were selected because they are included as "national interest areas" in the CZMA and were areas in which the CZM program has made especially noteworthy accomplishments during the past two fiscal years. In addition, Part I presents overviews of the Estuarine Sanctuary, Marine Sanctuary, and Ocean Resources Coordination and Assessment programs.

Part II presents detailed information on individual state CZM and CEIP programs. Individual estuarine sanctuaries are described briefly. Finally, in accordance with legislative requirements, we have listed research and education programs conducted by the CZM-related programs, and have discussed and listed program regulations promulgated or in force during the period covered by the report.

Part I

Overview of Coastal Zone Management Activities

PORTS

The Nation's seaports are one of the most important economic resources on the coast. In 1980, the port industry was directly and indirectly responsible for:

- o $66 billion gross resources in the national economy.
- o $35 billion contributed to the GNP.
- o $1.5 billion to the balance of payments
- o $23 billion in personal and business income.
- o $12 billion in Federal taxes.
- o $5 billion in State and local taxes.
- o 1,046,800 jobs 1/

The Coastal Zone Management Act recognizes ports as an important coastal resource, and encourages States to give priority consideration to coastal dependent uses and orderly processes for development of ports while at the same time encouraging States to provide for the protection of natural resources. Port development and the maintenance of environmental standards need not be mutually exclusive and CZM programs have sought both to stimulate port development and minimize adverse impacts.

Today, harbors are being dredged and maintained at greater depths than ever before. Port development and maintenance, by its very nature, requires dredging and the disposal of dredge spoils exacerbating the vulnerability of valuable coastal wetlands. In support of ports, marinas, and other water-dependent industries, coastal zone management has addressed the issue of necessary dredge spoil disposal. The objectives of the effort are to locate dredge spoil disposal sites adequate for port and industry needs that will also be compatible with environmental concerns and to facilitate approval of these sites through the regulatory process.

- o The Governor of Wisconsin has charged the State's coastal program with recommending improvements to State policy on open water disposal of dredged material and reconciling policy differences with the U.S. Army Corps of Engineers, which is responsible for maintaining access to the Nation's ports. State laws will be reviewed, eliminating discrepancies with policies of neighboring States, in order to allow greater disposal options and add more predictability to the regulatory process.
- o The Maryland CZM Program has aided the development of a comprehensive program for dredge and fill projects in Baltimore Harbor. Baltimore is the leading marine industrial workshop in the State. The Port of Baltimore is the single most important economic activity in Maryland, accounting for one out of every 10 jobs. The harbor project will

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1/ U.S. DOC (Marad): Annual Report to Congress 1980.

provide specific criteria for allowing dredge disposal and will develop an inventory of feasible environmental enhancement projects to be undertaken when appropriate.

States have selected a range of mechanisms to promote economically viable ports and water-dependent uses. In an effort to assure that traditional coastal uses will not be preempted by other economically attractive but nonwater-dependent interests, several States such as California, Hawaii, Mississippi, Oregon, South Carolina, Virgin Islands and Washington have adopted legislation or criteria which give highest priority consideration to the water-dependent nature of facilities and the irreversibility of such commitments to coastal sites and resources.

Port planning and management efforts are underway in several States such as California, Florida, Maine, Maryland, Massachusetts, Pennsylvania, and Wisconsin. Many of these CZM projects provide a comprehensive approach which integrates port development concerns. Cost-effectiveness, energy development impacts, safety, public access, and environmental protection have been added to the traditional industrial port planning considerations. CZM has fostered redevelopment, retrofitting, and more intensive use of available facilities where possible to reduce costs while promoting port expansion efforts.

- The State of Wisconsin has 23 commercial Great Lakes ports. With a financial boost from the Wisconsin Coastal Management Program, a unified port marketing campaign for the four major ports is underway and dredged material disposal sites for future port expansion and maintenance dredging have been identified. The development of a Superior/Duluth Harbor Management Plan, a CZM investment of $125,000, has already attracted development interests to the area. Private industry has committed $27 million to construct a grain export facility in Superior providing jobs with an expected overall economic impact of $30-50 million a year to the local economy.

- The Massachusetts Coastal Zone Management Program (MCZMP) has approved 12 areas suitable for maritime shipping and marine industry as designated ports to prevent the exclusion of maritime-dependent industrial uses by other development in these areas. These designations provide port planners and officials with predictable locations for future facilities development and expansion. All proposals for maritime-dependent industry in designated port areas will be encouraged by MCZMP and permitting reviews will be facilitated by State agencies, provided no serious conflict or preemption of existing maritime-dependent industry occurs.

- In Pennsylvania, the formal establishment of the Urban Waterfront Action Group (UWAG) in the Delaware River coastal zone has enhanced coordination and decisionmaking related to port planning, facility siting, permit processing and issue resolution. The UWAG includes port representatives, planners, economic development consultants, and regulatory officials at local, regional, State and Federal levels. The UWAG has been charged by the Pennsylvania CZM program to develop priority activities that will promote the economic vitality of Pennsylvania's ports.

- A significant portion (approximately 25 percent, $650,000) of Florida's first year Section 306 grant awarded September 1981, included work tasks on port development. These tasks included: development of standards and criteria for waters used for deepwater shipping and, where necessary, a separate water quality classification for such waters; a permit system for the performance, up to 25 years, of maintenance dredging; and a priority acquisition and improvement program for spoil disposal sites for the ports of Jacksonville, Tampa and Pensacola. The State is also using $100,000 in Coastal Energy Impact Funds to complete the year's work tasks relating to ports.

- Oregon has established an interagency coal transshipment planning group to coordinate the siting of coal transshipment facilities in Portland and Astoria.

ENERGY

One of the major objectives of the CZM Program is balancing protection of coastal resources with the need for coastal development. The need for balancing environmental and developmental pressures is perhaps greatest in the energy area. Thus, the CZMA requires approved State CZM programs to contain procedures for the orderly siting of energy facilities as well as for protecting natural resources. To strengthen the CZMA activity in the energy area, Congress in 1976 enacted the CEIP as a supplement to CZM to assist States and local governments in minimizing the environmental, social, economic, and recreational impacts of vital coastal energy development. In the 1980 Amendments to the Coastal Zone Management Act, Congress again highlighted the importance of coastal energy activity by including energy facility siting as a "national interest area" which States are required to address in their coastal zone management programs.

Coastal Energy Activity

The amount of energy activity affecting the coast is enormous: the majority of energy activity in the U.S. is coast-based. The following discussion details the extent of coastal energy activity.

Offshore Oil and Gas

Offshore oil and gas activity is the major energy activity affecting coastal resources. Since 1954, when Federal OCS lease sale activity first began, the Gulf of Mexico has been the leading region for OCS activity, while the Pacific region has been first in State waters oil development (See Table 1). This trend will continue unless accelerated OCS exploration results in the discovery of significant new resources in Alaska or other frontier areas.

The Gulf of Mexico, additionally, has the greatest concentration of both refining capacity and numbers of refineries in the U.S. About 98 percent of total U.S. refining capacity is located in coastal states (See Figures 2 & 3).

Table 1 - Oil and Gas Activity by Region, 1954 - 1980

	Alaska	Atlantic	Great Lakes	Gulf	Pacific	TOTAL
Federal Acres Leased	1,189,401	1,354,988	0	14,740,457	1,857,284	19,142,130
Accumulated Production						
a. State Waters						
(1) Oil (bbls)	734,604	0	0	1,240,239	1,757,864	3,732,707
(2) Gas (MMCF)	833,151	0	0	11,625,068	849,053	12,274,059
b. Federal Waters						
(1) Oil (bbls)	0	0	0	5,230,140	195,318	5,425,458
(2) Gas (MMCF)	0	0	0	48,451,397	80,220	48,531,617

Source: DOI

Coal Transportation, Transfer and Storage

The U.S. has 28 percent of the world's coal reserves. Coastal coal activity is concentrated currently in the Great Lakes and the Atlantic coast States. Approximately 70 out of 100 coal-fired electric generating plants in the country are located in the Great Lakes coastal area and Great Lakes ports ship over half the tonnage of U.S. shipped coal. The Atlantic ports ship most of the remaining tonnage and many power plants are converting to coal in that region. Nationwide, projected coal exports should rise from 66 million tons in 1979 to 110 million tons by 1990. Hampton Roads, Virginia; Baltimore, Maryland; Philadelphia, Pennsylvania; Mobile, Alabama; New Orleans, Louisiana; Long Beach and Los Angeles, California; Astoria, Oregon; and Grays Harbor, Washington, are some of the U.S. ports experiencing or anticipating more coal export activity.

Alternative Ocean Energy

The U.S. territories and Hawaii are more active than other coastal States in investigating the impact of alternative energy sources such as ocean thermal energy conversion, biomass, wind, and solar. However, States such as Maine, New Hampshire, New Jersey, North Carolina, Oregon, Washington, and Wisconsin are planning to continue work with local communities to look at the onsite impacts of wind, solar, peat, and other renewable energy sources.

Electric Generating and Other Coastal Energy Facilities

There are approximately 520 electric generating plants of 100 megawatts or greater operating in coastal counties and approximately 100 new facilities are proposed for construction in coastal areas. Approximately 40 percent of these operating facilities are located in the coastal areas of the Atlantic States and approximately 20 percent are located in the Great Lakes. For example, Michigan has 95 percent of its electric generating capacity located along its Great Lakes shoreline and six additional facilities are expected to be located in the coastal area soon.

In a number of ways CZM and CEIP programs plan for and respond to the location and effects of energy development:

Energy Facility Siting. The CZMA requires that approved State programs contain State "planning processes for energy facilities likely to be located in, or which may significantly affect, the coastal zone. . ." OCZM regulations further require that the State process must include: identification of energy facilities, procedures for assessing the suitability of sites for such facilities, and articulation and identification of enforceable State policies, authorities, and techniques for managing energy facilities and their impacts.

- The State of Maryland energy facility siting program includes extensive research to support identification of the most appropriate sites for power plants and, if possible, actual purchase of sites to ensure their selection.

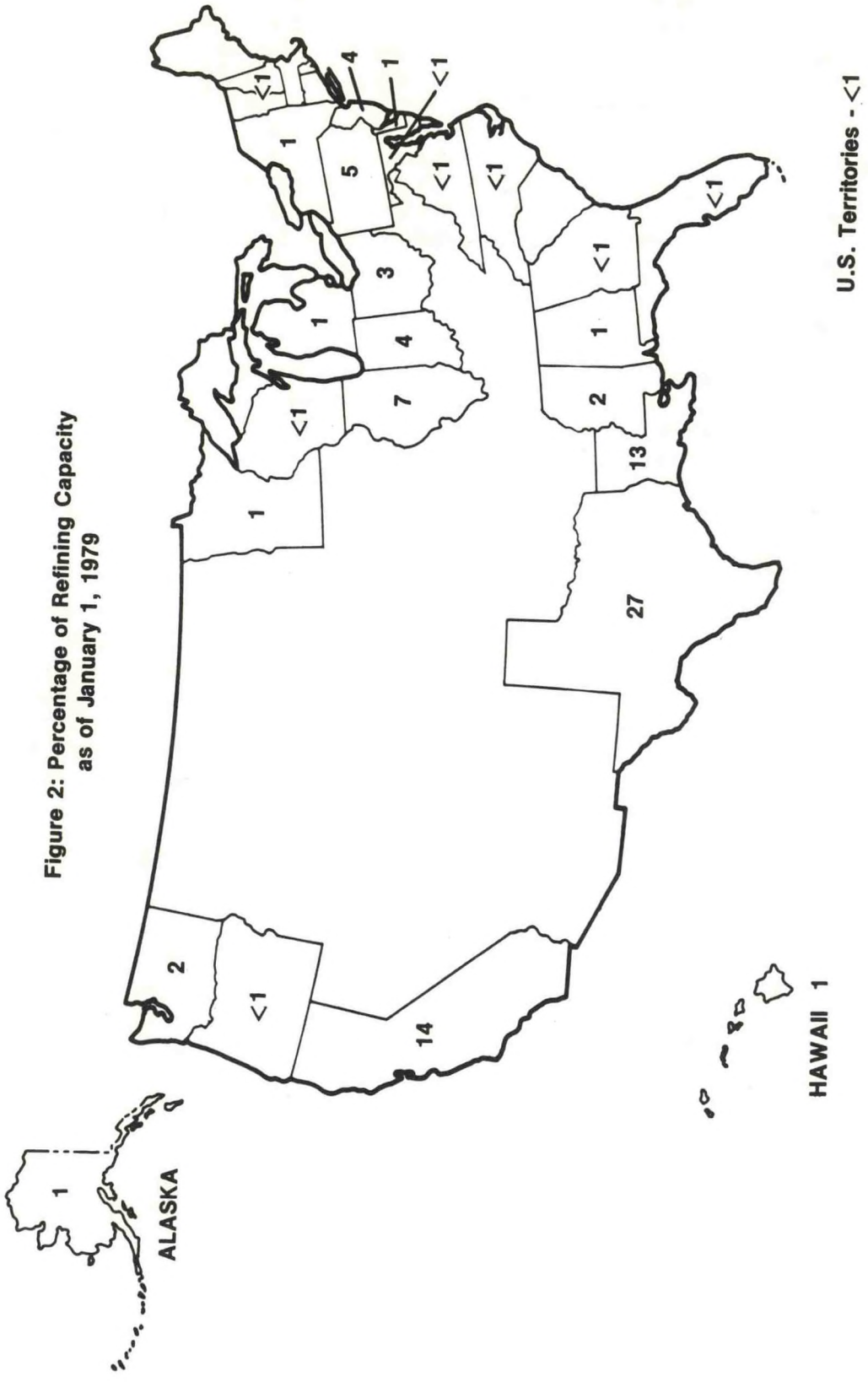
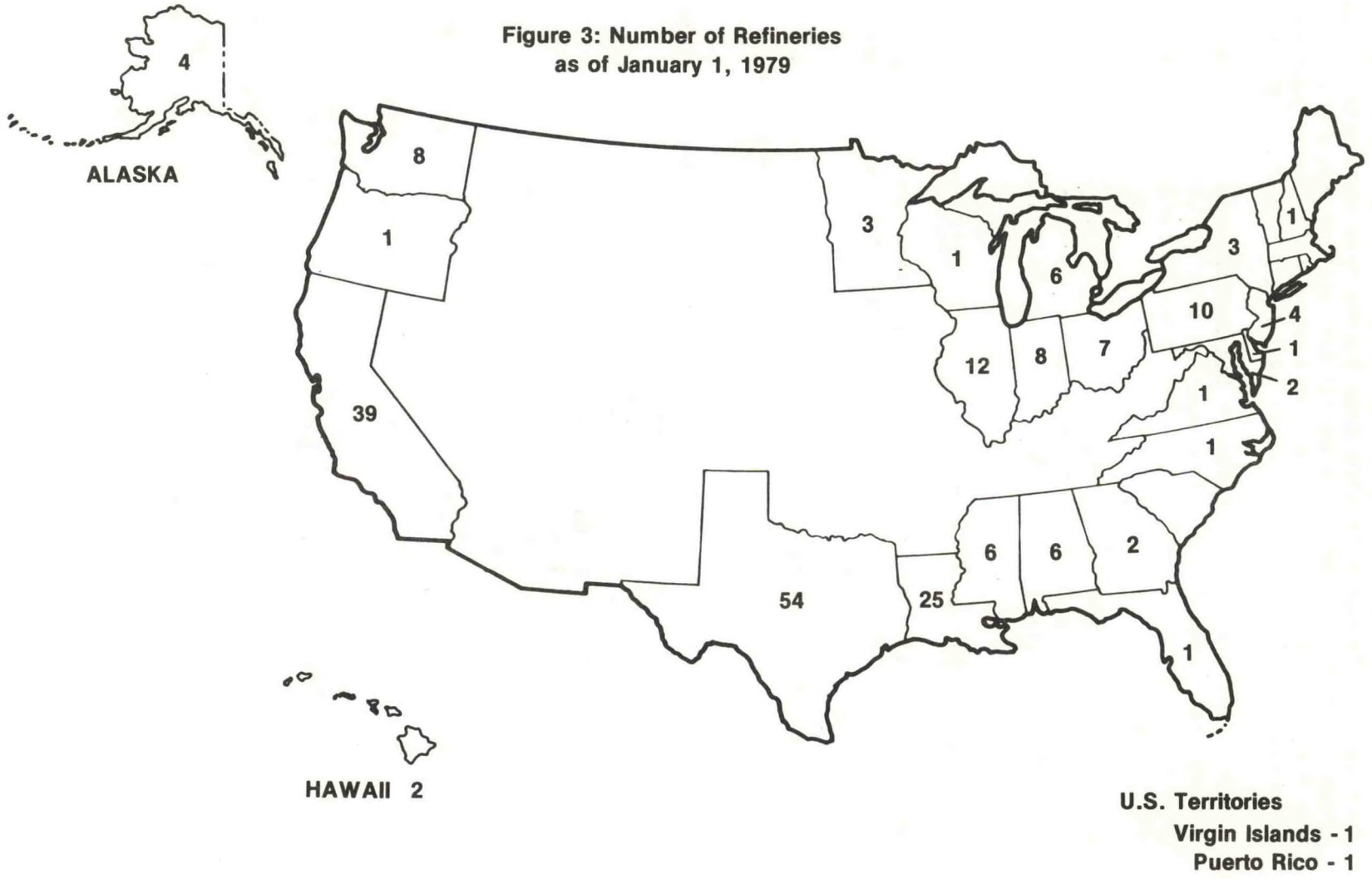


Figure 2: Percentage of Refining Capacity as of January 1, 1979

Figure 3: Number of Refineries as of January 1, 1979



U.S. Territories
Virgin Islands - 1
Puerto Rico - 1

- o Alaska has undertaken an unprecedented effort to plan for the ten major OCS lease sales to be held for waters off Alaska. In Western Alaska, four Coastal Resource Service Area Boards have been established to prepare unincorporated villages for the oil and gas activity. Two of the Boards have established OCS advisory committees to participate directly in the Federal OCS lease sale and exploration process.

- o The California Coastal Commission has developed an expedited permit process for areas of the coast where energy facility siting is appropriate. Other areas which are considered inappropriate have also been designated.

CEIP Assistance. CEIP was enacted to provide financial assistance to States to assist in addressing the impacts of energy development on coastal resources. Table 2 lists the impacts anticipated by the States on a regional basis.

Table 2 - Energy Related Impacts and Concerns by Region

Great Lakes:	o	Projected port tonnage of coal increases to triple current level: Duluth/Superior moving 8 million tons, projected to 20 million
	o	New facilities planned for: Kewaunee, Wisconsin Buffalo, New York Conneaut, Ohio
Atlantic:	o	Oil and gas transport, transfer, and storage concentrated in key port and harbor clusters: Casco and Penobscot Bays, Maine Piscataqua/Portsmouth Harbor, New Hampshire Boston Harbor, Massachusetts Long Island Sound, New York New York Harbor and Delaware Bay ports Baltimore, Maryland
	o	Concerns include oil spill and dredged materials disposal
	o	Coal transport, OCS exploration, and peat mining also concerns
Gulf:	o	Major port expansion for oil import; Louisiana Offshore Oil Port (LOOP)-first operating deepwater port in U.S.A.
	o	Dominant petroleum production and refining region of U.S.
	o	Shortage of public facilities and services and destruction of wetlands are key impacts of rapid energy development
	o	New coal facilities planned for Mobile and New Orleans

Pacific:

- Oil and gas exploration and development
- Concerned with energy facility siting, Northern Tier Pipeline, and OCS development
- Coal export: Grays Harbor, Washington
  Astoria, Washington
  Long Beach, California
  Los Angeles, California
- Alternative Ocean Energy Activities, particularly Ocean Thermal Energy Conversion:
  Guam
  Hawaii
  Northern Marianas

Alaska:

- Oil and gas exploration
- Concerned with facility siting

CEIP assistance has been used for various energy impact mitigation projects, including planning for impact mitigation or facility siting; environmental and recreational mitigation such as parks; infrastructure development and improvement such as water and sewer lines in areas that are affected by increases in energy employment; and funding of State responsibilities under the OCS Lands Act. The Appendix presents detailed information on specific projects in each State.

Coordination of Federal and State Activities

(1) OCS leasing schedule comments - ORCA prepares NOAA's comments on proposed OCS lease sale activities sponsored by the Department of the Interior. The positions are based in part on the data assessments ORCA has completed or has in progress and on information from other parts of NOAA.

(2) State review of proposed Federal actions through consistency procedures - Federal actions that impact the coastal zone, including the issuance of licenses and permits, generally must be consistent with approved state coastal management programs. Such actions include: various Federal actions during the development of OCS oil and gas resources; the licensing of nuclear power plants, as well as other significant energy-related activities. The consistency process involves negotiation among the State, the relevant Federal agencies, and any private developers involved to arrive at acceptable conditions for the proposed activity. Although States have occasionally objected to certain aspects of particular energy activities, in most situations the negotiation process led to an acceptable compromise.

- A recent GAO report documented that the State of California in FY 1979 and FY 1980 processed 19 OCS consistency related actions in an average time of of just over 60 days. The shortest period for review was 23 days, while the longest was just under six months. FY 1981 data indicates that California's average time had dropped to 46 days, with the longest time recorded being 76 days.

- In Louisiana, over 794 consistency determinations, in large part OCS-related, were made during the period from October 1980 through September 1981. The time of review for each determination ranged from one to 30 days.

- Recently the States of Alabama, Louisiana, and Mississippi simplified reporting requirements and procedures for the review of OCS Environmental

  Reports. Lessees or operators may now prepare a single shortened report for distribution to all three States. As a result of these and other intrastate coordination agreements, Mississippi is making determinations of consistency in five days for routine matters.

- In addition, the Louisiana Coastal Resources Program has recently granted a general concurrence for certain classes of minor OCS actions, thereby reducing reporting requirements for lessees and the U.S. Geological Survey.

(3) OCS Participation Grants - OCS Participation Grants were added to CEIP by the 1978 Amendments to the OCS Lands Act (OCSLA). Funds granted under this section provide for participation by States in the OCS leasing process under the OCSLA. CEIP awarded nearly $6 million in OCS participation Grants in FY 1980 and 1981.

Data Generation - The strategic assessment projects being completed by ORCA assist greatly in the development of energy policy by both OCZM and State CZM programs by helping to identify sites for energy development which will have minimal negative impact. The strategic assessment program also identifies key biological sites and thus supports NOAA's recommendations for tract selection in the OCS leasing process.

FISHERIES

The nation's fishery resources support an $11.7 billion commercial and recreational fishing industry.[1/] Fish provide high quality protein to eat, and oils for a variety of commercial uses. Table 3 depicts commercial landings by individual States for 1980 and 1981. Annual domestic fishery landings from 1950 to 1977 are over 5 billion pounds. The dockside value of the catch has grown from $99 million in 1940 to over $1.8 billion in 1978. In addition, commercial fisheries have historically provided employment to over 200,000 people.

The Coastal Zone Management Act identified as a national interest the conservation and management of fisheries resources and their habitat stating, "The coastal zone, and the fish, shellfish and living marine resources and wildlife therein, are ecologically fragile and consequently extremely vulnerable to destruction by man's alteration." OCZM, in conjunction with other interested parts of NOAA, has concentrated the last two years on the development of an agency-wide approach to this particularly important issue.

As a result, in March 1980 NOAA proposed establishment of a State/Federal process to coordinate and integrate the planning, programming, and budgeting of State and Federal funds, personnel, and facilities used to address living marine, estuarine, anadromous and Great Lakes fisheries resources, as well as activities in the coastal zone which impact those resources. Coastal Zone Management funds, grants from the National Marine Fisheries Service, and research sponsored by the National Sea Grant Program were to be used to support development and implementation of a State-level Comprehensive Living Marine Resources Strategy (CLMRS) through the State/Federal process. Adoption of CLMRS as State policy and as part of a State's coastal management program should result in full consideration of fisheries interests in coastal zone management decisions.

Many States (Delaware, Maryland, Massachusetts, and New Jersey) have embarked on development of CLMRSs and others are conducting projects through their coastal zone management programs that will lead to development of CLMRSs. Some of these projects have already resulted in quantifiable economic benefits to the States.

- The South Carolina Coastal Management Program is evaluating the environmental impacts of a mechanical oyster harvester. The harvester will be used to move oysters from polluted areas to unpolluted areas in order to open up new shellfish beds and will be available for commerical shellfish harvesting. It reduces the cost of harvesting oysters from $1.50 per bushel by hand to $.40-.50 per bushel by machine. Slow and inefficient harvesting methods have kept South Carolina's only oyster cannery running at only 50 percent of its capacity. The mechanical harvester will be used to increase production to full capacity, at a savings of $1,500 per day over conventional harvesting techniques (1,500 bushels times $1.00 savings in harvesting costs). The annual saving for this small application alone is $540,000.

- Maryland is conducting a Biological Management Study designed to analyze the applicability of existing fisheries data for species management models. This study found that while the State has been spending $200,000 per year to manage its data base, much of the

1. U.S. Department of Commerce, The Economic Benefits of Coastal Zone Management: An Overview, Washington, D.C., 1976, p. 3-4.

Table 3 - U.S. COMMERCIAL LANDINGS, BY STATES, 1980 AND 1981 (1)

State	1980		1981		Record landings	
	Thousand pounds	Thousand dollars	Thousand pounds	Thousand dollars	Year	Thousand pounds
Alabama	26,605	25,575	33,677	44,148	1973	39,749
Alaska	1,053,896	560,603	975,245	639,797	1980	1,053,895
California	804,276	323,393	775,171	275,196	1936	1,760,183
Connecticut	5,198	4,675	1,272	2,128	1930	88,012
Delaware	4,074	1,969	3,030	1,662	1953	367,500
Florida	191,470	124,834	215,281	172,726	1938	241,443
Georgia	19,427	20,061	18,589	13,158	1927	47,607
Hawaii	11,435	11,870	13,396	18,338	1954	20,610
Illinois	4,587	1,103	4,453	994	-	(2)
Indiana	127	112	185	129	-	(2)
Louisiana	1,423,374	177,994	1,168,597	193,594	1978	1,673,922
Maine	244,686	92,697	238,107	103,945	1950	356,266
Maryland	79,571	44,658	115,115	56,640	1890	141,607
Massachusetts	438,382	178,602	369,640	196,854	1948	649,696
Michigan	10,455	4,822	12,823	5,647	1930	35,580
Minnesota	10,317	2,128	8,236	1,960	-	(2)
Mississippi	337,765	26,601	264,891	30,159	1971	400,576
New Hampshire	19,050	5,182	7,690	4,162	-	(2)
New Jersey	200,634	49,879	188,396	48,283	1956	540,060
New York	39,725	45,058	36,522	45,555	1880	335,000
North Carolina	356,193	68,784	432,006	57,520	1981	432,006
Ohio	10,490	3,351	7,577	2,198	1936	31,083
Oregon	126,316	55,748	134,626	52,461	1978	134,657
Pennsylvania	347	312	343	189	-	(2)
Rhode Island	80,773	46,143	80,288	48,761	1889	128,056
South Carolina	21,183	20,448	16,232	14,161	1965	26,611
Texas	94,478	153,880	113,108	174,787	1960	237,684
Virginia	637,515	84,993	487,919	69,124	1972	666,180
Washington	155,790	85,511	184,593	95,995	1941	197,253
Wisconsin	13,035	3,719	4,265	3,941	-	(2)

(1) Landings are reported in round (live) weight for all items except univalve and bivalve mollusks, such as clams, oysters, and scallops, which are reported in weight of meats (excluding the shell).

(2) Not determined.

Note:--Data are preliminary. Data do not include landings by U.S.-flag vessels at Puerto Rico and other ports outside the 50 States, or catch by U.S.-flag vessels unloaded onto foreign vessels within the U.S. FCZ (joint venture). Data do not include production of aquaculture, except oysters and clams.

Source:
Fisheries of the United States 1981. National Marine Fisheries Service. April 1982

data gathered on fisheries in the past is of little or no management value. The current study is expected to result in an annual saving of $150,000 in reduced data base management costs and an improved data base for management decisionmaking.

- The Maine Coastal Zone Management Program is funding a joint local/State project to eliminate discharge of untreated municipal wastes in clam flats. In 1980, this project opened 135 new acres of clam flats, valued at $265,000 of standing crops and $100,000-150,000 of sustained yield per year. If continued, it is expected to open an additional 1400 acres with a standing crop value of $2.5 million and a sustained yield of over $750,000.

- In 1981 the Great Lakes Fishery Commission (GLFC) ratified its "Joint Strategic Plan for Management of Great Lakes Fisheries." The Plan was endorsed by the 12 member States, Provincial and Federal agencies representing fishery interests in the Great Lakes area. Ratification of the Plan commits the agencies to cooperate in the exchange of information, to develop management programs, to resolve problems by consensus and sets the stage for improved management and future development of the Great Lakes fisheries. The Wisconsin and Michigan coastal programs sponsored similar projects which complement the efforts described in the Strategic Plan. These projects identify and evaluate key offshore reefs in Lakes Michigan and Superior to be used as spawning refuges for reestablishing lake trout and yellow perch for recreational fishing.

- Rhode Island's Coastal Resources Management Council (RICRMC) through its permitting program, has been actively involved in reducing pollution levels in Narragansett Bay and its river tributaries for spawning. As a result, many Narragansett Bay shellfish beds have been reopened to commercial harvesting. The estimated average annual value of the increase in shellfish harvest is $10 million from commercial fishing and $5 million from recreational fishing and boating. In addition, RICRMC is funding a $50,000 aquaculture development planning project that has already stimulated the development of a $1 million aquaculture industry in Rhode Island.

- The California coastal program is using a Coastal Energy Impact Program loan to finance construction of 60 commercial fishing slips at Channel Islands Harbor. The slips will be used to accommodate fishermen displaced from Port Hueneme by support activities for offshore oil and gas drilling. Commercial fish landings at Port Hueneme in 1976 were 47,151 pounds valued at $1.335 million. The commercial fishing industry in this area would have been jeopardized without a ready alternative harbor.

- Oregon is classifying estuaries on the bases of studies identifying commercially important fisheries habitat and developing management plans for each species.

- Guam has adopted a Fisheries Development and Management Plan which embodies many of the CLMRS concepts. Guam is researching funding sources, compiling fisheries data and researching new markets for its fisheries.

HAZARDS

Natural hazards pose a large and growing threat to lives and property along much of the Nation's shoreline. Intense development pressure has resulted in rapid population growth and accelerated economic development within the floodplain, in low-lying areas and on barrier islands that are particularly vulnerable to coastal hazards such as hurricanes and tropical storms with their associated flooding and wind damage, coastal erosion (See Table 4), tsunamis and land subsidence. In recent years, policymakers have recognized that Federal programs have also facilitated development and population growth in hazardous coastal areas, and have supported a construction-destruction-reconstruction cycle, largely at the taxpayer's expense. The growing awareness of our vulnerability to natural hazards has led to a new interest in natural hazard management to minimize loss of life and property.

The trend has been toward increased property damage and decreased loss of life since the city of Galveston, Texas, was devastated by a hurricane in 1900 which killed 6,000 people. Hurricane Frederic, which occurred in 1979, caused $2.3 billion in property damage (see Table 5) and claimed ten casualties. Further evidence of the spiraling cost of natural hazards is the fact that flood insurance is the second largest obligation of the U.S. Treasury, following only Social Security. The Flood Insurance Administration reports that flood insurance coverage along the Atlantic and Gulf coasts alone accounts for over $54 billion.

State coastal zone management programs are providing policy direction and financial assistance to plan for natural hazards impacts and make effective use of state and local authorities to minimize risk to life and property. In addition, OCZM has taken the initiative to coordinate with other NOAA offices and to work with other Federal agencies to develop a unified national policy for floodplain management.

The 1980 Amendments to the CZMA gave increased visibility and importance to hazard management by including it as one of nine national coastal management objectives. The legislation declares that it is national policy to ". . .provide for . . . the management of coastal development to minimize the loss of life and property caused by improper development in flood-prone, storm surge, geologic hazard and erosion prone areas and in areas of subsidence and salt-water intrusion, and by the destruction of natural protective features such as beaches, dunes, wetlands, and barrier islands."

State CZM programs have implemented a wide variety of coastal hazard management and mitigation activities, including floodplain and critical erosion area mapping, watershed management planning, and implementation of setbacks and permitting systems to limit development on the most exposed and dangerous areas.

- In North Carolina, the CZM program has established comprehensive approach to hazard mitigation. It relies on setback lines, which have been established along the shoreline to provide protection from coastal

Table 4. LENGTH OF ERODING SHORELINE BY STATE.
(Computed by the Army Corps of Engineers)

State or Region	Total Shoreline	Critically eroding Miles	Critically eroding %	Non-critically eroding Miles	Non-critically eroding %	Significantly eroding[1]/ %	Not eroding Miles	Not eroding %
Maine	2,500	20	2/	2,475	99	99	5	2
New Hampshire	40	2	5	36	90	95	2	5
Massachusetts	1,200	135	11	1,030	86	97	35	3
Rhode Island	340	5	7	310	91	98	5	1
Connecticut	270	25	9	240	89	98	5	2
New York	638	299	47	399	53	100	0	0
New Jersey	469	122	26	110	23	49	237	51
Delaware	226	28	12	31	14	26	167	74
Maryland	1,939	180	9	1,500	77	86	259	13
Virginia	993	258	26	300	30	56	435	44
North Carolina	3,661	539	15	723	20	35	2,399	66
South Carolina	3,063	57	2	191	6	8	2,815	92
Georgia	204	7	4	37	18	22	160	78
Florida	6,266	292	5	690	11	16	5,284	84
Alabama	352	33	9	111	32	41	206	59
Mississippi	247	37	15	69	28	43	142	57
Louisiana	1,943	29	2	1,554	80	82	360	19
Texas	2,498	93	4	259	10	14	2,146	86
California	1,827	80	4	1,487	81	85	260	14
Oregon	500	64	13	102	20	33	335	67
Washington	2,337	7	*	91	4	4	2,239	96
3/Pennsylvania	120	202	17	1	1	21	74	61
3/Michigan	3,282	400	12	1,500	46	58	1,382	42
3/Wisconsin	820	150	18	250	30	49	420	51

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[1]Significantly eroding = critically eroding and noncritically eroding.
2/Less than 1%
3/Source: State CZMP Office

Source: U.S. Army Corps of Engineers 1971. The National Shoreline Study.

Table 5. The costliest United States hurricanes of this century.

COSTLIEST HURRICANES, UNITED STATES 1900-1981
(more than $50,000,000 damage)

	HURRICANE	YEAR	DAMAGE (U.S.)
1.	FREDERIC (Ala., Miss.)	1979	$2,300,000,000
2.	AGNES (Northeast U.S.)	1972	2,100,000,000
3.	CAMILLE (Miss./La.)	1969	1,420,700,000
4.	BETSY (Fla./La.)	1965	1,420,500,000
5.	DIANE (Northeast U.S.)	1955	831,700,000
6.	ELOISE (Northwest Fla.)	1975	550,000,000#
7.	CAROL (Northeast U.S.)	1954	461,000,000
8.	CELIA (S. Texas)	1970	453,000,000
9.	CARLA (Texas)	1961	408,000,000
10.	CLAUDETTE (Texas)	1979	400,000,000
11.	DONNA (Fla./Eastern U.S.)	1960	387,000,000
12.	DAVID (Fla./Eastern U.S.)	1979	320,000,000
13.	New England	1938	306,000,000
14.	ALLEN (S. Texas)	1980	300,000,000
15.	HAZEL (S.C./N.C.)	1954	281,000,000
16.	DORA (Northeast Fla.)	1964	250,000,000
17.	BEULAH (S. Texas)	1967	200,000,000
18.	AUDREY (La./Tex.)	1957	150,000,000
19.	CARMEN (Louisiana)	1974	150,000,000
20.	CLEO (Southeast Fla.)	1964	128,500,000
21.	HILDA (Louisiana)	1964	125,000,000
22.	Florida (Miami)	1926	112,000,000
23.	Southeast Fla./La.-Miss.	1947	110,000,000
24.	Northeast U.S.	1944	100,000,000
25.	BELLE (Northeast U.S.)	1976	100,000,000
26.	IONE (N. Carolina)	1955	88,000,000
27.	Southwest and Northeast Fla.	1944	63,000,000
28.	Southeast Florida	1945	60,000,000
29.	Southeast Florida	1949	52,000,000

Includes $60,000,000 in Puerto Rico.

SOURCE:
The Deadliest, Costliest, and Most Intense U.S. Hurricanes of this Century, National Hurricane Center of Miami, Florida, Department of Commerce.

storms and ensure at least 30 years of protection from coastal erosion. Permitting occurs behind the setback line to the 100-year storm recession line (i.e., the line to which the shore would recede if struck by a 100 year storm). Other protective measures include a hazard notice to all permit applicants which gives the erosion rate in the area, notes that bulkheads and seawalls are not allowed, and notes that the area is hazardous and that the property owner is at risk. The North Carolina Coastal Resources Commission has its developed ocean and inlet hazard standards based on three precepts: mitigation of loss of life and property resulting from storms and erosion, prevention of encroachment of structures on public beaches, and reduction in wasteful public expenditure.

- In Massachusetts, the coastal hazard mitigation program is accomplished primarily through coastal wetlands regulations which define performance standards that will protect the storm damage buffering ability of coastal wetland areas. In addition, the State program is educating the public on coastal hazard mitigation and coastal processes, developing information on shoreline change and incorporating this information into coastal hazard maps of the State's coast, and providing technical assistance to support State legislation allowing flood-prone areas to be acquired.

- In Delaware, beach erosion problems and possible solutions have been assessed and implemented. Protective measures include a setback or building line 100 feet landward of the adjusted seaward-most 10-foot contour along the Atlantic coast and similar setbacks along the Delaware Bay.

- In Michigan, the Coastal Management Program has established a management process for high risk erosion areas which includes identification of high risk erosion areas (i.e., those areas where the bluffline is receding or moving landward at a long-term rate of one foot or more per year); designation of high risk erosion areas, which includes notifying affected property owners and meeting with them to explain what the designation means; and implementation of a nonstructural approach to reduction of damages from shore erosion, using setback provisions to protect permanent structures from damage.

- In Pennsylvania, prior to program approval, the Bluff Recession and Setback Act was passed. The Act requires municipalities designated as having bluff recession hazard areas to develop bluff setback ordinances which would require a 100 foot setback distance from the bluff line. The Pennsylvania Coastal Zone Management Program (PCZMP) prepared a model ordinance which has been adopted by seven of the eight designated communities. In addition, the PCZMP prepared a pilot stormwater management study for the Lake Erie and Elk Creek coastal watersheds. The pilot study is being used to establish standards to control stormwater runoff. Accordingly, local ordinances will be developed from the results of the pilot study.

- American Samoa completed a study identifying areas subject to high erosion and flooding. The Development Planning Office is requiring setbacks for development in these areas and has undertaken a program with local villages to plan for future development away from these areas.

- The State of Florida has recognized the need to develop a comprehensive State, regional and local government storm hazard management program designed primarily to address issues associated with hurricanes. The State has already completed a number of actions such as the development of a joint resolution and several memoranda of understanding on State agency coordination concerning hazards. The State will develop an information program regarding hurricane hazards and will undertake a number of tasks to strengthen the coastal construction review program. Three significant regional projects will be undertaken: the development of a hurricane evacuation plan for the Treasure Coast Region (centered around West Palm Beach); the development of a Central Florida Inland Shelter Plan, which will identify inland shelters for coastal residents fleeing hurricanes; and a hurricane damage loss study for the southwest Florida Region which will, as the first phase of a hurricane mitigation plan, identify those areas most likely to suffer property damage in the event of a hurricane.

BARRIER ISLANDS

The first line of storm defense for a thousand miles of Atlantic and Gulf coastline is the barrier island system--a succession of low-lying narrow islands, spits, and bay barriers generally located parallel to the mainland coast. The barrier islands are so named because they protect lagoons, salt marshes, estuarine systems, and the mainland from the direct attack of ocean waves and storm surges. On one side, they face and absorb the full force and energy of the oceanic environment. On the other, they face calmer waters and stable shores that result from the physical barrier formed by the island itself.

Barrier islands are constantly changing in shape and size, and the combination of rising water level, coastal storm surges, wave action, and high winds make development hazardous on many parts of the islands. However, despite the hazards, development on barrier islands has been growing at a rate greater than 6,000 acres per year. Table 6 shows the development status of major barrier islands as of 1977.

Because barrier islands are valuable natural coastal resources and because improved management of development on such islands is essential to avoid losses to life and property, barrier islands have received significant attention in the development and implementation of State CZM programs along the Atlantic and Gulf coasts. Many Atlantic and Gulf States with approved CZM programs currently place some restrictions upon further development of barrier islands. The need to preserve the natural protective features of barrier islands was also explicitly recognized in the 1980 Amendments to the CZMA.

State CZM programs in the Atlantic and Gulf have developed mechanisms to afford barrier islands greater protection than existed before CZM went into effect. For example:

- Most States administer permitting systems which must take account of the values of special resource areas such as beaches, dunes, and wetlands associated with barrier island systems. In Rhode Island, for example, future development of presently undeveloped barrier beaches is prohibited and specific safety requirements are applied to additional development of beaches which are partially developed.

- Many States have studied erosion problems of barrier islands and have developed procedures for the management of shoreline erosion. For example, Delaware has mapped its barrier beaches and dune systems and, as a result, has established a setback line and promulgated regulations which require that new development be located landward of beaches and dunes to protect both the development and the beach and dune systems.

- Some States have undertaken a truly comprehensive approach to the management of barrier resources and other ecologically valuable but hazard-prone areas. For example, North Carolina's coastal management statute combines setbacks, permitting, prohibition of erosion control structures, limitations on infrastructure investment, and public information. Another approach was taken in Massachusetts, where in August 1980, Governor King issued an Executive Order on barrier beach protection.

Table 6 - Development Status of Major Barrier Islands

State or Region	Developed Miles	%	Preserved Miles	%	Undeveloped and Unpreserved Miles	%	Undeveloped and unpreserved but with infrastructure for development extant Miles	%
Massachusetts	1.8	10	15.5	90	0	0	0	0
New York	38.2	41	54.5	59	0	0	0	0
New Jersey	70.0	70	24.9	24	3.8	4	2.1	2
Delaware	3.0	49	2.3	38	0.8	13	0	0
Maryland	8.8	29	21.7	71	0	0	0	0
Virginia	3.0	4	64.4	96	0	0	0	0
North Carolina	94.7	33	119.8	42	47.1	17	23.8	8
South Carolina	33.2	35	34.5	36	21.4	22	6.9	7
Georgia	15.3	18	41.4	49	28.2	33	0	0
Florida	247.7	44	89.7	16	142.9	26	75.8	14
Florida Atlantic	135.9	48	28.3	10	64.2	23	54.3	19
Florida Gulf	103.8	43	45.4	19	72.7	30	21.5	9
Alabama	6.1	32	0.5	3	11.6	61	0.7	4
Mississippi	0	0	26.8	87	3.9	13	0	0
Louisiana	6.3	11	28.0	47	25.2	42	0	0
Texas	29.0	13	116.4	54	55.1	25	16.6	8
Total	549.1	34	624.4	38	334.0	20	123.8	8
Atlantic	403.9	38	407.3	38	165.5	16	87.1	8
North Atlantic	124.8	40	183.3	58	4.6	1	2.1	*
South Atlantic	279.1	37	224.0	30	160.9	21	85.0	11
Gulf	145.2	25	217.1	38	168.5	30	38.8	7

*Less than 1%

Source: Adapted from John R. Clark. July 1977. Review of Major Barrier Islands of the United States. New York: The Barrier Islands Workshop; Robert Peoples, U.S. Fish and Wildlife Service, Washington, D.C., pers. comm.

The Order, which is being coordinated by the Massachusetts Coastal Management Program, directs State agencies to give priority to acquisition of barrier beaches, use disaster assistance funds to relocate willing sellers from storm damaged barrier beach areas, and assure that State and Federal funds will not be used to encourage further growth and development in these areas. The Order recognizes barrier beaches as hazardous areas where further storm damage will inevitably occur.

WETLANDS PROTECTION/PERMIT SIMPLIFICATION

Coastal wetlands are extremely valuable natural areas that provide habitat and spawning grounds for most commercial fish and shellfish species, provide shelter and food for many forms of wildlife, and serve as resting places for migratory birds. Coastal wetlands also serve as natural barriers against wave action, absorbing energy that would otherwise damage adjacent property through erosion or flooding, serve as natural pollution control devices, and provide recreational opportunities for naturalists, hikers, and sportsmen. In addition, wetlands tend to be located in areas that offer prime potential for certain development.

Until recently, wetlands were disappearing at a staggering rate. Some anecdotal data indicate the extent of the national problem:

- It is estimated that 47 square miles of coastal wetlands are lost each year in Louisiana;
- California estimates that 85 percent of State wetlands were destroyed by 1970; and
- In 1977, the Michigan Department of Natural Resources estimated a 71 percent loss of its coastal wetlands resource base since the turn of the century.

Although comprehensive data on the trends in wetlands losses over the last five years are not available, the Nation's remaining supply of coastal wetlands continues to be threatened by dredging and filling for housing projects, marinas, canals, roads, oil and gas drilling, ports, natural erosion, and dredged spoil and solid waste disposal.

It was partially in response to the alarming destruction of wetlands that Congress enacted the CZMA, which encourages States to develop comprehensive management programs for coastal resources. The 1980 Amendments specifically recognized the value of wetlands by mentioning them in several national interest objectives. These include:

- Protection of natural resources, and
- Management of development in hazardous areas including areas affected by the destruction of natural protective features such as wetlands.

An element of each State CZM program is the adoption of enforceable policies for protecting coastal wetlands. To date, 26 States have approved management programs, and each approved State coastal management program must contain provisions for managing the use and conservation of its wetlands resources. Concurrently, States are developing procedures to assure that necessary development which may affect wetlands is reviewed as expeditously as possible.

Wetlands Protection.

Nearly all of the 26 States and territories with approved CZM programs have new wetlands statutes and regulations or have improved implementation of existing laws dealing with wetlands preservation.

New wetlands legislation or regulations have been enacted in direct response to the requirements of the CZMA in a number of States:

- Alabama, Guam, Louisiana, South Carolina, and the Virgin Islands have enacted statutes to protect their wetlands as a direct result of participation in the CZM program. These are places where there are extensive wetlands resources and where, previously, there were no State controls over wetlands alterations.

- In Louisiana, regulations were developed in 1980 that govern activities affecting the State's coastal wetlands. Louisiana contains more wetlands than any other State in the Nation. These regulations were developed pursuant to a mandate in Act 361, the State's Comprehensive Coastal Management Act, enacted in 1978.

- In Michigan, protection for wetlands has been enhanced by the passage of the 1979 Wetlands Protection Act. Wetlands in Michigan are also protected under Act 245 which provides for the designation of "environmental areas" for those coastal wetlands necessary for the preservation and maintenance of fish and wildlife. Also, State and Federal agencies reviewing permits or activities in wetlands must document wetland values and functions in order to justify permit application decisions. Environmental designations and permit denials are estimated to have preserved over 250 acres of wetlands in 1981 alone. The Michigan CZM Program has estimated that approximately 17,000 acres of wetlands have been preserved or restored over the past three years.

Improvements in pre-existing wetlands laws are being achieved in certain States--in some cases, through the issuance of new and expanded regulations; in others, through more effective implementation.

- The Massachusetts Executive Office of Environmental Affairs issued within four months of program approval rules and regulations pursuant to the Commonwealth's Wetlands Protection Act and Waterways Management Act. These new regulations provide a much clearer set of procedures and broaden the environmental review to assure wetlands will be protected in accordance with the policies of the approved Massachusetts coastal management program.

- Mississippi expanded its authorities under its wetlands law and rewrote rules and guidelines relating to permits prior to Federal approval of its program.

- In Pennsylvania, the Waters Obstructions Act of 1929 was amended, as a condition of program approval, to provide protection and regulations for activities affecting the State's remaining tidal and freshwater wetlands. Any activity impacting wetlands must first receive a State permit.

- In South Carolina, new regulations for permitting in wetland areas were developed which established specific policies and environmental criteria to assure adequate protection.

- Oregon established an estuary mitigation revolving fund which the State uses to restore wetlands. Applicants for wetlands permits may purchase credits from the fund if mitigation requirements are imposed. The payments are used in turn to restore more wetlands.

- Louisiana took a major step toward dealing with land loss, coastal erosion, wetlands deterioration, and salt-water intrusion by setting aside a $35 million Coastal Environmental Protection Trust Fund. Money from the Fund is to be used for research, pilot projects, and matching funds for associated Federal construction projects concerning erosion, subsidence, freshwater diversion, wetlands management, and barrier island stabilization. The creation of the Fund to address these coastal issues is a very significant and visible step toward the improved protection and management of Louisiana's coastal resources.

State and Federal coastal wetlands management policies are enforced primarily through dual permitting systems administered by the States and the Federal Government. The primary Federal wetlands management mechanism is Section 404 of the Clean Water Act, which requires a permit for the disposal of dredged material in waters of the U.S. including wetlands. Section 404 is implemented by the U.S. Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA). The COE administers a permit program that regulates the discharge of solid materials into coastal waters and adjacent wetlands. The EPA is responsible for formulating guidelines for evaluating the suitability of proposed disposal sites.

Permit Simplification

While States have increasingly exercised their own management authority over wetlands, they were also active in helping to streamline the Federal permitting processes. The principal techniques for reducing permitting times are:

(1) General Permits. These are blanket authorizations for specific types of activities in certain geographic areas. Nationwide permits are authorizations that have been issued by regulations for specified activities. The COE has issued a nationwide 404 permit for certain activities that have minor wetland impacts or are covered by other Federal permits. Regional permits may be issued by each individual COE district in response to local needs.

- o In North Carolina, the Corps and State Office of Coastal Management signed a general permit agreement which allows most permit applications (80 percent) to be processed by the State. The new procedures avoid duplication and cut permit processing time by approximately 3 weeks.

2) Joint Interagency Processing. Federal and State officials meet regularly to discuss projects submitted for Federal and State permits.

- o The COE Baltimore District holds monthly meetings with representatives from EPA, FWS, NMFS and State of Maryland regulatory advisory agencies to discuss project impacts and alternatives. Although decisions made at meetings are not binding, the COE reports that these meetings have reduced processing time by 50 percent in non-controversial projects and by 20 to 30 percent in controversial ones.

- o In Alaska, a wetlands task force has been established to improve State and Federal wetlands regulation. As a result, joint public notice procedures have been implemented, reducing permit processing time by ten days.

(3) Permit Consolidation. State or local governments consolidate various permits under one application.

- o In North Carolina, five Federal and State permits were consolidated into a unified review process. Permit processing time under this new system has been reduced by more than 55 days for major actions and 17 days for minor projects.

- o The Virgin Islands consolidated four State permits into a unified review, thereby substantially reducing permit processing time.

(4) Mandatory Deadlines. Mandatory time limits are established for various stages in the permitting process.

- o In the Virgin Islands, action on a wetlands permit must be taken within 90 days or approval is presumed.

(5) Pre-Application Consultation. Proponents of large complex projects meet with regulatory authorities to resolve conflicts before submission of permit applications.

- o New Jersey encourages preapplication conferences with potential developers of major projects to discuss their choice of site, type of project, and project design at an early stage when plans are relatively flexible. These conferences often enable the staff to guide applicants toward changes in their proposals which increase both the likelihood of permit approval and the speed with which a decision can be made.

(6) Joint Applications and Public Notices. Federal and State permits are applied for and noticed simultaneously.

- For example, in Michigan and Oregon the Coastal Management Program and the COE have implemented a joint application process to prevent duplication of paperwork and to ensure coordination of decisions made by the two agencies on each permit. As a result of the Michigan CZM efforts, routine permit processing time has been reduced from 150 days to less than 20 days.

(7) Special Area Planning. Federal, State, and local permitting agencies jointly develop a specific management plan for the management of a geographic area. The plan provides greater predictability for permit applicants by delineating acceptable uses for specific portions of the area.

- A number of ports in the Gulf Region have begun joint consultation processes which may eventually lead to the development of special area management plans (SAMPs). Projects of this type are underway in the Ports of Bienville and Pascagoula in Mississippi.

SPECIAL AREA MANAGEMENT PLANNING

A Special Area Management Plan (SAMP) is a comprehensive land and water use plan for a defined geographic area (e.g., marsh, bay, port, urban waterfront). The "special area" which is the subject of planning and management concerns is small enough to conduct essential resource inventories but large enough to allow problems to be addressed on a total environment or ecosystem basis. Section 304(17) of the CZMA defines a special area management plan as a "comprehensive plan providing for natural resource protection and reasonable coastal-dependent economic growth containing a detailed and comprehensive statement of policies, standards and criteria to guide public and private uses of land and waters, and mechanisms for timely implementation in specific geographic areas within the coastal zone."

The purpose of a SAMP is to resolve recurring interjurisdictional conflicts over the preservation or development of valuable natural or man-made coastal resources which traditional planning methods have not been able to resolve. The planning process consists of collaborative cooperation and agreement by all identified relevant parties to the conflict in order to gain an understanding of the resources and their potential uses and to make management decisions by consensus over the future uses of the resources.

Once a SAMP is adopted, it provides more predictability to agency decision-making, a major boon to permit applicants. Applicants for permits for development in coastal areas must comply with various laws administered by a variety of agencies, whose policies respond to various statutory mandates. These statutes include the Clean Water Act, the National Environmental Policy Act (NEPA), the Endangered Species Act, and State coastal zone management and environmental laws. These statutes, although they may have similar general goals, often have individual policies that are not fully consistent or coordinated. A SAMP coordinates agency positions in advance and provides significant guidance on which future permitting decisions can be based.

The final product of the SAMP process is therefore a site specific plan with designated permissible and nonpermissible uses and areas for preservation and development. It provides predictability and consistency in the permitting process, avoids future conflicts, and provides for a balance among the conflicting demands of resources users.

Section 303(3) of the CZMA and the legislative reports on the 1980 Amendments to the CZMA specifically encourage special area management planning. Congress envisioned that such plans would become an integral part of comprehensive State coastal zone management programs. The States continue to undertake a range of activities, with varying degrees of OCZM participation, which can be categorized as SAMPs.

- As part of the Washington State Coastal Zone Management Program approved in 1976, the State designated the Grays Harbor estuary as an area of particular concern (following a permit controversy which lasted two years) and funded the Grays Harbor Regional Planning Commission to develop a SAMP. The Port of Grays Harbor remains an enthusiastic supporter of the process which has dealt with complicated issues under the Clean Water Act and the Endangered Species Act. A plan should be issued for review in FY 1982.

- Special area management plans have been or are being developed for San Francisco Bay, and the Ports of Bienville and Pascagoula in Mississippi. The San Francisco Bay program was developed prior to enactment of the CZMA; the efforts in the Gulf States are in their infancy, having just begun their consultation process.

- Several State coastal management programs have prepared extensive management plans for specific resource areas without the full formality of the SAMPs process. These plans establish policies and procedures for protecting the resources and are based on statutory authorities from the local, State and Federal levels. An example is the recently approved St. Clair Flats Management Plan by the Michigan Natural Resources Commission. The St. Clair Flats, located at the mouth of the St. Clair River, represents the largest deltaic wetland system in the Great Lakes. Prior to 1900, the Flats contained over 13,500 acres of wetlands. Today, less than 4,500 acres of wetlands remain. Dredging, filling and bulkheading have destroyed important fish and waterfowl habitat and reduced public recreation opportunities. Through a program of revised land management policies, enforcement of environmental regulations, and acquisition of critical lands, the Flats are now being preserved and enhanced as a public recreational, environmental and economic resource. Full implementation of the management plan involves the active leadership of the Department of Natural Resources and the cooperation of local, State, and Federal agencies and private organizations.

SHOREFRONT ACCESS

Public access to the shore for recreational purposes has been a serious problem in the United States. The 1980 Census shows that nearly one-half of the population lives in coastal counties. Demand for coastal recreation activities is increasing at about 3 percent per year. At the same time, the supply of beaches available for public recreation is decreasing, due to private development, erosion, and efforts of individuals to encroach upon public beach property.

Even reaching those beaches the public now owns or has the right to use often poses a significant problem. There is often no way for the public to get to the public portions of the coast because they are separated from the nearest public road by privately owned land. This problem is becoming increasingly intense because private land that has been vacant or at least usable by the public for access is being converted to more profitable uses by the owners as development pressure increases. In some cases, accessways formerly dedicated to the public are being withdrawn.

The 1976 Amendments to the CZMA added the requirement that all States assess the need for improved access programs. The 1980 Amendments further strengthened the provision. Some States, such as California, have been leaders in access, establishing statewide programs even before enactment of the CZMA in 1972.

States have addressed the access issue in a number of ways:

Facilitation of Access - In several States, the problem of access has been defined as an inability to get to existing accessways. This assessment of the problem led to the development of mass transit-type programs. Other approaches in this category include time-sharing programs for industrial and commercial parking lots located near coastal access points.

- New Jersey and North Carolina have experimented with shuttle buses running from remote parking lots to accessways.
- Hawaii attached surfboard racks to some buses serving the coast.
- In San Francisco, special buses are operated to the Golden Gate Recreation Area and Point Reyes National Seashore.
- The State of Michigan is implementing a program enhancing beach access for the handicapped.

Facilities Improvement - Another means of increasing public access to the shore is through improvement of existing facilities or providing new or additional equipment to enhance public use.

- The State of Michigan was designated by OCZM as the demonstration State for low-cost construction projects. Under the provisions of the demonstration grants, Michigan had the option of spending as much

of the Federal awards on low-cost construction efforts as it deemed appropriate. All of the State's projects performed under this designation were conducted in areas of preservation and restoration, which were also designated areas of particular concern. Examples of activities funded include: construction of boardwalks, stairways, fishing piers, nature trails, off road vehicle control, special handicapped access facilities, landscaping and parking facilities. These projects have assisted communities in refocusing attention to their waterfronts and capitalizing on their assets for increased tourism and recreation.

- The California Coastal Commission and State Coastal Conservancy established a grant program to local governments to open and improve public accessways. Thirty grants supporting 48 projects (such as building stairways down steep bluffs to previously inaccessible "pocket beaches") have been awarded. These two agencies also published "The Affordable Coast," a manual showing designs for inexpensive accessway facilities and describing how citizen groups can raise funds to improve accessways.

Rediscovery and management of existing access - Some States have developed programs to review systematically their coastal areas to identify accessways that are already in public ownership and areas of the beach that the public has the right to use. These programs document public ownership and use rights and explore ways to protect these rights in the future. Examples of these programs are Hawaii's effort to document rights to ancient trails, Rhode Island's attempt to document state ownership of rights-of-way, and similar programs in Delaware and North Carolina.

Acquisition

(a) Purchase - A number of States have active programs to purchase accessways along the coast. The recent Federal approval of the Florida Coastal Program coincides with the initiation of the "Save Our Coasts" Program. This initiative provides for an accelerated program of beach acquisition using a new bond program. Oregon and California have been systematically buying small accessways along the coast. In North Carolina, a new coastal beach access program has been created which includes an appropriation of $1 million. The program is designed to acquire beach land, especially hazard-prone areas, and to improve accessways.

(b) Easements - There are a number of interesting variations to outright acquisition such as (1) easements acquired by the public to use an accessway formerly restricted to the use of lot owners in a subdivision or (2) the acquisition of an access easement on top of a utility right-of-way. The public acquisition of easements through continuous usage under an implied dedication or customary use doctrine is a part of some State programs.

(c) Dedication - Several States and many communities require that accessways be dedicated to the public as a condition of obtaining a permit to develop or subdivide a parcel of shorefront land. In some States, developers are simply precluded from closing existing accessways, but in others they are required to provide and sometimes develop new accessways.

- o California's permitting process includes provisions for access dedication. The State estimates that approximately 220 of the 4,000 permits issued annually include such provisions.

- o The California Coastal Commission has negotiated with other State and local agencies to accept and manage dedicated accessways. One hundred five offers of this type were accepted in 1980 and 1981 as a result. A "Coastal Access Guide" was published showing where these and other open accessways are located and explaining the various environments and facilities available.

- o Under the Hawaii Coastal Act, each of the four counties must assure that public access is provided in approval of new development projects. In order to determine in what locations access is needed, the County of Hawaii has completed a Public Access Plan to be used in the permit decisionmaking process.

- o Similarly, provisions for access dedication exist in both Michigan and Pennsylvania and the permit process is the vehicle by which this is accomplished.

(d) Transfers - Puerto Rico has negotiated a number of transfers of small cays (islands) to the Department of Natural Resources from other Commonwealth and Federal agencies. Puerto Rico has also encouraged gifts of "undevelopable" land from private developers.

URBAN WATERFRONTS

Nearly 40 percent of the United States population is concentrated in coastal urban centers whose populations exceed 500,000 persons. Historically, the coastal cities--the important seaports of their day and the centers of power and commerce--were the key links of trade and transport. Time and changing technologies, however, have altered this pattern and left quantities of derelict land and deteriorated waterfront in their wake. The urban waterfront, once a hub of activity, has been walled off both literally and psychologically from the inhabitants of most American cities.

State Coastal Zone Management programs have assisted the redevelopment of urban waterfronts. In 1978, OCZM began to make grants to States to begin or augment urban waterfront revitalization projects, and, in November 1980, the Coastal Zone Management Act Amendments encouraged the CZM program to provide "assistance in the redevelopment of deteriorating urban waterfronts and ports, and sensitive preservation and restoration of historic, cultural, and esthetic coastal features."

State Coastal Zone Management Programs and Coastal Energy Impact Programs have supported a variety of urban waterfront projects. These projects have not only provided for renovation of waterfront areas, but have also spawned private investment in those formerly declining areas. The following discussion summarizes some key CZM sponsored projects which encouraged private investment: In addition, the CEIP program has also been very active in supporting urban waterfront projects. Figure 4 shows the location of key urban waterfront projects sponsored by CZM.

o The Washington Department of Ecology initiated a local grant program to improve urban waterfronts. Takoma used the funds to develop a nationally acclaimed plan for "Rustin Way" to revitalize its waterfront.

o The California Coastal Commission initiated a Design Awards Program for honoring those projects which integrate coastal act policies. In 1980, 14 projects were honored, including five which integrated public access and facilities for low and moderate income citizens in commercial waterfront development.

o The Rhode Island Coastal Management Program served as a coordination mechanism for the redevelopment of the Quonset Point/Davisville Navy Facility into an industrial park.

o Coastal programs in Connecticut and Massachusetts sponsored waterfront development in Norwalk, Connecticut, and Beverly, Massachusetts.

o An $18,000 grant from the North Carolina coastal program attracted $5 million in private business commitments for waterfront development in Wilmington, North Carolina.

o The Michigan coastal program sponsored the St. Joseph Harbor Development Study which resulted in a private investment of $1,200,000 for new grain elevators. The study included an economic analysis of the harbor conditions, a selection of sites for harbor development, and a determination of the feasibility of commercial harbor development.

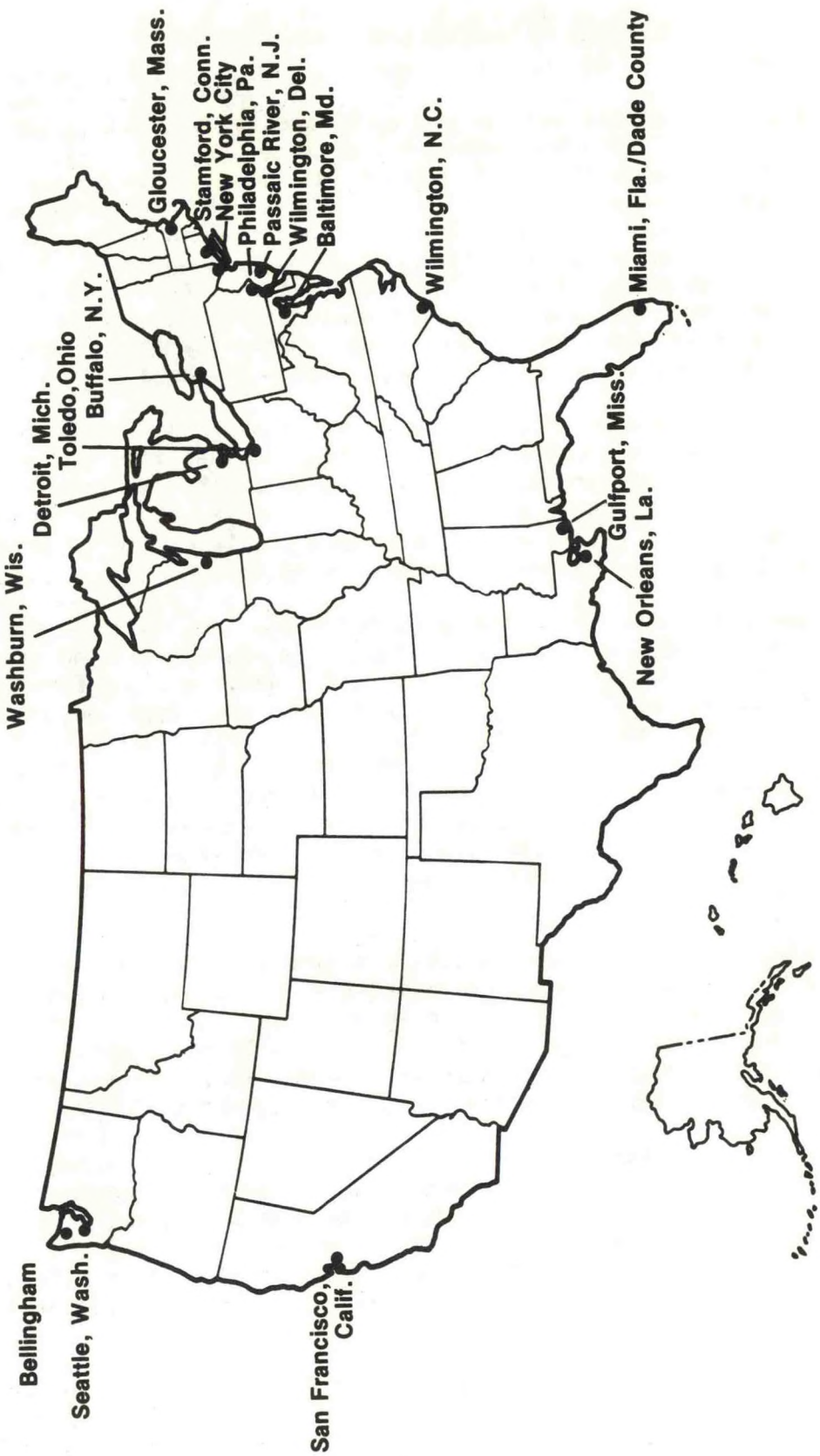

Figure 4 - Key Waterfront Grants
FY 1981

NATIONAL ESTUARINE SANCTUARY PROGRAM

The National Estuarine Sanctuary Program was established by Congress as part of the Coastal Zone Management Act of 1972 (P.L. 92-583), as amended, to assist States through 50 percent matching grants to acquire and manage estuarine areas as natural field laboratories for long-term research and educational opportunities. An esturarine sanctuary, as defined in the Federal program guidelines, is a "research area which may include any part or all of an estuary and any island, transitional area, and upland in, adjoining or adjacent to the estuary, which constitutes 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."

The sanctuaries are owned and operated by States under the direction of the Estuarine Sanctuary Guidelines. These guidelines also include descriptions of the eleven biogeographic regions into which the Nation's estuaries have been divided. To protect a representative sample, the goal of the national system will be to set up approximately thirty estuarine sanctuaries from these biogeographic regions and major subregions.

The estuarine sanctuary program provides assistance in three phases: pre-acquisition, acquisition, and operations. The pre-acquisition grant may be used for land appraisals, refinement of boundaries, and for the development of management plans including research and education programs. The acquisition grant covers the costs for fee and less-than-fee forms of land acquisition. The operations grant provides for an on-site manager and establishing and maintaining the research and education programs. The sanctuaries receive operations grants for five years after which time the management responsibility for the site transfers completely to the State. Subsequently, the Federal Sanctuary Programs Office acts in a consultative capacity to the State.

Since 1974, twelve estuarine sanctuaries have been established: Apalachicola River/Bay, Florida; Chesapeake Bay, Maryland; Elkhorn Slough, California; Jobos Bay, Puerto Rico; Narragansett Bay, Rhode Island; Old Woman Creek, Ohio; Padilla Bay, Washington; Sapelo Island, Georgia; South Slough, Oregon; Tijuana River, California; and Waimanu, Hawaii. Descriptions of these individual sites are included in Part II of this report.

As the national system is completed, the focus of the program will move from acquisition to management and operation. Research, interpretation, and educational activities will be important to enhance public awareness of the value and need for long-term conservation of estuarine systems.

NATIONAL MARINE SANCTUARY PROGRAM

Fiscal years 1980 and 1981 were a productive and successful time in the short history of the National Marine Sanctuary Program. Efforts during this time led to several significant accomplishments and the development of policies to guide future implementation of the program. These achievements and a reorientation of the program's philosophies around a well-defined concept of comprehensive resource management have led to increased recognition and support from both the Congress and the public.

Under Title III of the Marine Protection, Research and Sanctuaries Act, the Secretary of Commerce may designate areas in the ocean waters off the United States, and in the Great Lakes, as marine sanctuaries for the purpose of protecting their conservational, recreational, ecological, or esthetic values. Marine sanctuaries are built around the existence of distinctive marine resources whose protection and beneficial use requires comprehensive, geographically-oriented planning and management. Map 1 shows the location of current marine sanctuaries.

OCZM's Sanctuary Programs Office (SPO) identifies, evaluates, designates, and manages special ocean areas as National Marine Sanctuaries. In order to accomplish these tasks SPO works closely with various State and Federal agencies, academic and research institutions, conservation-oriented organizations and individuals.

Four sanctuaries were designated in this two year period, joining the two previously established in 1975 (Key Largo and the site of the U.S.S. Monitor). The new sanctuaries are:

- The Channel Islands National Marine Sanctuary--This sanctuary, designated in September 1980, consists of an area of approximately 1252 square nautical miles off the coast of California adjacent to the northern Channel Islands and Santa Barbara Island. Sanctuary status ensures that valuable habitats for marine mammals, including extensive pinniped assemblages, and seabirds are protected.

- The Looe Key National Marine Sanctuary--The sanctuary consists of a five-square-nautical mile submerged section of the Florida reef tract southwest of Big Pine Key. The site includes a beautiful "spur and groove" coral formation supporting a diverse marine community and a wide variety of human uses. It was designated in January 1981.

- The Gray's Reef National Marine Sanctuary--The site, designated in January 1981, is a submerged live bottom area located on the South Atlantic continental shelf due east of Sapelo Island, Georgia. The sanctuary, which encompasses about 17 square nautical miles, protects a productive and unusual habitat for a wide variety of species including corals, tropical fish, and sea turtles.

- The Point Reyes - Farallon Islands National Marine Sanctuary--This 948-square-nautical mile area off the California coast north of San Francisco contains a diverse array of marine mammals and marine birds,

as well as fishery, plant and benthic resources. The sanctuary was designated in January 1981 to ensure that the area receives long-term, comprehensive protection.

In addition, several other sites throughout the Nation received consideration through the sanctuary nomination and designation process.

Equally important are those actions SPO took during FY 1980 and 1981 to continue its successes and ensure that these achievements would not be isolated events. Foremost was the clarification of the aims of the program, as expresssed in its mission and goals. Refinements to the designation process and new methods to identify a pool of future proposed sanctuary candidates were implemented. Steps also were taken to improve management of existing sites. These changes were described in a draft Program Development Plan, issued in March 1981. The Plan describes a policy and administrative framework for future implementation of the program. It provides a detailed description of the program's mission, goals, and operational policy; the site identification and selection criteria; the nomination and designation process; and the elements and purposes of the site-specific Management Plans that are prepared for each sanctuary.

The goals of the program establish specific designation purposes. National Marine Sanctuaries are designated to:

- o Enhance resource protection through the implemention of a comprehensive, long-term management plan tailored to the specific resources;
- o Promote and coordinate research to expand scientific knowledge of significant marine resources and improve management decisionmaking;
- o Enhance public awareness, understanding, and wise use of the marine environment through public educational, interpretive, and recreational programs; and
- o Provide for maximum compatible public and private use of special marine areas.

The resource protection goal is primary and will be the principal focus in each designated sanctuary. The emphasis on the other three goals will vary among sites, although a large degree of overlap is expected in many instances. For example, while one sanctuary may emphasize recreation and, thus the third and fourth goals, another may be designated primarily for research purposes (the second and fourth goals).

As a consequence of activities over these last two years in nurturing the growth of the National Marine Sanctuary Program, particularly in establishing a mission and goals and more defined procedures, the agency is in a strong position to continue to carry out its legislative mandate. By addressing all facets of marine resource protection and stressing the effective management of a particular site as the highest priority, rather than focusing simply on the regulation of certain human acitivites, the program further ensures that the intent of the Congress is achieved.

For example, OCZM is developing detailed management plans for each of the recently designated sites. These plans will focus on resource protection within the sanctuaries, as well as interpretive, educational and research needs. Similarly, for upcoming sites the environmental impact statement will focus on the impacts of management plan implementation. OCZM is now sponsoring a variety of research studies (detailed in Part II) throughout the marine sanctuary system to assess the natural resources.

The Marine Sanctuary Program is a dynamic, ongoing process. Few countries can claim the diversity and richness of marine resources found in our coastal waters and the National Marine Sanctuary Program provides a significant mechanism to protect certain special marine areas for this and future generations.

OFFICE OF RESOURCES COORDINATION & ASSESSMENT

The Office of Ocean Resources Coordination and Assessment (ORCA) is responsible for identifying and evaluating the impacts of alternative resource uses in intensely used coastal and ocean regions of the United States. ORCA has responsibility for the development of NOAA-wide policy positions in two important ocean use areas: (1) outer continental shelf oil and gas exploration and development; and (2) marine transportation. It also has NOAA-wide responsibility for deepwater port proposal impact assessments as required by the Deepwater Ports Act of 1974.

Through its Strategic Assessment Program, ORCA sponsors projects to develop, apply, and evaluate new methods for projecting and evaluating both short- and long-range environmental and economic impacts of coastal and ocean resources uses. It has initiated a series of five regional assessments of the entire U.S. coastal and fishery conservation zone to identify significant resources use conflicts before they occur. Two important components of the Strategic Assessment Program are the development and maintenance of a national coastal pollutant discharge inventory and an automated data base on the spatial and temporal distribution of the life history of living marine resources.

Most recently ORCA has been designated as the lead office responsible for coordinating NOAA activities under the Comprehensive Environmental Response Compensation and Liability Act of 1980 ("Superfund") and the National Contingency Plan. As part of its new responsibilities, ORCA coordinates NOAA's activities as the Federal trustee for living marine resources, including data collection, methods development, and regulations development for damage assessment. ORCA has recently completed an assessment of the economic damages of the 1978 Amoco Cadiz oil spill -- the most comprehensive and rigorous assessment undertaken to date of the social costs of a major oil spill.

ORCA provides technical assistance to State and Federal agencies on a wide variety of coastal and ocean resources issues, such as coastal and marine pollution and the identification of biologically important areas. It administers OCZM's responsibilities for compliance with the National Environmental Policy Act (NEPA) and other environmental laws.

Current Status of The Strategic Assessment Program

Strategic assessments are currently under way in three large regions of the coastal and ocean zones of the United States: (1) the East Coast, (2) the Gulf of Mexico, and (3) the Bering, Chukchi and Beaufort Seas. Two additional assessments are planned which will include the regions south of the Aleutian Islands to the California coast. In each assessment five categories of coastal and marine data are developed to facilitate analysis: physical characteristics; plants; animals; economic activities; and management jurisdictions. Data selected for inclusion in these categories are based on the following criteria: geographic comprehensiveness; quality commensurate with other data in the category; availability and accessibility; and relevance to known or perceived resource use conflicts.

The assessments rely on existing and available data. ORCA neither sponsors nor conducts primary data collection in the field or laboratory research. Much of the data used comes from other NOAA programs and other Federal agencies. Other data sources include State coastal management, natural resource management, environmental protection, fish and game, and public health agencies, as well as universities, and the private sector - particularly major coastal and ocean industries.

The East Coast Strategic Assessment Project was initiated in 1979 at the request of the President's Council on Environmental Quality (CEQ). Because of concern about major oil refinery proposals in two sensitive areas of the East Coast, CEQ suggested the development of a series of maps identifying areas of special biological importance along the entire east coast. These maps could be used by both the public and the private sectors to advance planning and evaluation of major development projects, including outer continental shelf oil and gas lease sales, and proposals for oil refineries, tanker terminals, and pipelines from offshore oil and gas fields.

A Gulf of Mexico Strategic Assessment project was initiated in October 1980, partially funded by the U.S. Department of State as a prototype of the assessments to be carried out through the Caribbean Environmental Action Plan. This project focuses on the entire Gulf of Mexico, including both the American and Mexican coastal and ocean zones. In addition to resources and economic activity data collection and mapping similar to the East Coast assessment, two pollutant transport models have been developed to predict the movement of pollutants on and beneath the surface of the Gulf.

An important objective of the Gulf of Mexico Strategic Assessment is to demonstrate an explicit framework within which ocean resources use conflicts can be evaluated in a quantitative manner. The framework will be applicable to a wide range of problem contexts and be capable of application with varying degrees of complexity, depending on available data, resources time and expertise. For example, pollutant transport models will be used in conjunction with information on the costs and efficiency of alternative control technologies for various Gulf of Mexico pollution sources to determine least-cost strategies to achieve different levels of ambient water quality. A Gulf of Mexico Data Atlas will be published in the spring of 1982.

A Bering, Chukchi and Beaufort Seas Strategic Assessment project was begun in November 1980. The objective of this study is to assess resource use conflicts in Alaska's "ice-stressed" region by collecting data specific to selected living marine resources and their ecological requirements, organizing these data in a standard format (maps and supporting data sets), and then analyzing them to determine areas of special biological importance.

Results of this asessment will allow NOAA and other Federal agencies, as well as the private sector, to evaluate better proposals for future economic development in this region. Contained in this region is one of the world's major fishing areas (the Bering Sea), the Nation's greatest concentration of marine mammals and birds, and sedimentary basins that will most likely make it the most productive offshore oil and gas region in the U.S. over the next

twenty years. Conflicts between extracting, processing, transporting and/or conserving both living and non-living resources are inevitable. A Bering, Chukchi and Beaufort Seas Data Atlas will be published by the end of 1982.

An important by-product of these assessments has been the development of two unique national computer-based data systems: the "National Coastal Pollutant Discharge Date Base"; and an "Automated Data System for the Strategic Assessment of Living Marine Resources". The former is a detailed inventory of all land-based and ocean-based sources of seventeen water quality parameters in the entire U.S. coastal and ocean zones, as well as the coastal and ocean zones of Mexico in the Gulf of Mexico. Land-based sources include both point and nonpoint sources which can be aggregated in a number of ways, e.g. by hydrological units, coastal counties, coastline segments and estuaries. Ocean-based sources include offshore oil and gas platforms, marine terminals, ships and ocean dumping. This data base represents the most complete and accurate "national" pollutant discharge data base constructed to date.

The "Automated Data System for the Strategic Assessment of Living Marine Resources" has been designed to access, manipulate, retrieve and display (computer-generated maps) the temporal and spatial distributions of living marine resources. The system includes spatial and temporal life history data mapped for each species, e.g. spawning areas, nursery areas and adult concentrations by season. Thus far, data have been placed into the system on over 100 species of marine fishes, invertebrates, reptiles and mammals along the East Coast and Gulf of Mexico. The life history data were primarily collected from the published literature by marine biologists of NOAA's National Marine Fisheries Service. Both these data bases are an integral part of each regional strategic assessment, but have application to a wide range of uses in other contexts.

Uses and Users

Products of the Strategic Assessment Program have only recently begun to be published and distributed. Many of the evolving data bases and analytical capabilities of the program described above have not yet been completed and are not generally available. Nevertheless, available products, such as the Eastern United States Ocean and Coastal Zone Data Atlas, individual maps on species life histories and pollutant discharge distributions for the East Coast and Gulf of Mexico, and the marine transportation analysis for the Gulf of Mexico, have been widely distributed and used. For example, both the Bureau of Land Management and the US Geological Survey are using the results of the program for environmental assessments of OCS oil and gas activities. The Environmental Protection Agency will use the information for the identification of biologically sensitive areas in its issuance of general permits for offshore activities, as well as the evaluation of alternative ocean dump sites. The U.S. Coast Guard is interested in the use of the data bases and assessment capabilities for oil spill contingency planning and the evaluation of marine transportation proposals such as port access routes and lightering zones. Within NOAA information from the regional assessments will be used for the preliminary screening of candidate sites for marine sanctuaries based on biological and ecological importance and conflicts with other uses. The National Coastal Pollutant Discharge Data Base has been particularly useful to NOAA's National Marine Pollution Program Office in identifying and quantifying national problems related to alternative coastal land uses.

YEAR OF THE COAST

The President designated 1980 the "Year of the Coast" to focus public attention on the importance of America's coastal resources. The "Year of the Coast" coincided with the NOAA's tenth anniversary and Congressional reauthorization of the CZMA. This year-long celebration stimulated public awareness and appreciation of our coastal resources and included numerous conferences and gatherings on coastal themes, publication of educational materials, hikes, outings, seafood festivals, public exhibits and the "tall ships" visits.

- The year began enthusiastically with over 30 beachwalks on New Year's Day to kick-off the "Year of the Coast."
- Sixteen governors proclaimed 1980 "Year of the Coast" for their States.
- Boston sponsored "Operation Sail '80" on Memorial Day as part of the city's celebration of its 350th anniversary.
- In Michigan, the 4-H Club sponsored a bicycle trip along the 1,000 miles of Lake Michigan's shoreline.
- In California, the Los Angeles Oceanic Society sponsored a Coastal Monitoring Conference aboard the Queen Mary in Long Beach called "Citizens and the Coast."
- In Hawaii, the North Shore Coastal Festival concentrated on ocean-related sports and activities.
- The South Padre Island, Texas Chamber of Commerce sponsored a Seafest '80 festival.
- Norfolk, Virginia was the site of Harborfest '80 which included a parade of tall ships entering the harbor.

The "Year of the Coast" also stimulated special educational activities to draw public attention to the value of coastal resources.

- Several national magazines, including Life, Audubon, Time, Newsweek, Sierra Club, National Wildlife, Ranger Rick, NOAA, and EPA Journal contained featured articles about the coast and its resources.
- In addition, the Summer 1980 issue of CURRENT, the Journal of the National Marine Education Association included on article entitled "Opportunities for Teachers in the Year of the Coast."
- The 1980 Annual Conference of the National Marine Education Association centered on the theme "Our Coast: Heritage, Conflict and Challenge." The culminating educational activity of the "Year of the Coast" was "Coastal Zone 80", a symposium on the management, conservation and utilization of the coastal zone (see discussion on following page).

COASTAL ZONE 80

OCZM, in cooperation with the American Society of Civil Engineers and 25 other government and private groups, sponsored a four-day national symposium in Hollywood, Florida on November 17-20, 1980. Coastal Zone 80 was a multi-disciplinary conference that provided nearly 300 experts in the coastal and ocean management field a forum for productive discussion and interaction on major coastal management and ocean resource issues. The Symposium was a follow-up to Coastal Zone 78, which was held in San Francisco. Based on the success of Coastal Zone 78 and 80, plans are underway for Coastal Zone 83, which is scheduled to be held June 1-4, 1983 in San Diego.

The Symposium brought together more than 1,300 individuals (scientists, government officials, environmentalists, legislators, industrialists, engineers and planners) to discuss and exchange information and views.

Three major plenary panels were held addressing "Future Coastal and Ocean Management," "Barrier Islands," and "National Interest" issues. Forty-eight individual sessions were scheduled concurrently during the 4-day period.

Some of the major topics of the session discussions were: coastal fisheries, OCS-onshore and offshore impacts, wetlands regulatory programs, assessments of storm hazards to development, ocean pollution and dumping, siting coastal power plants, oil and gas pipeline issues and public access to the shore.

Part II

Discussions in Depth

Part II

Introduction

The following section contains detailed information about the programs administered by OCZM. These programs are the Coastal Zone Management Program (CZM), the Coastal Energy Impact Program (CEIP), the Estuarine Sanctuary Program, the Marine Sanctuary Program, and related research and education programs supported by the CZMA.

The material describing the accomplishments of the CZM, CEIP, and the Estuarine Sanctuary Programs is organized alphabetically by State. The State summaries include a description of the CZM and CEIP programs, a listing of FY 1980 and FY 1981 State CZM accomplishments, description of CEIP awards, and a discussion of established estuarine sanctuaries. These State discussions include edited summaries of evaluation findings for the period covered by the report.

Research and education projects of CZM and CEIP are described generally. Detailed project listings are provided for similar projects conducted by the Sanctuary programs.

Chart 1 shows the status of State CZM programs as of the date of this report's preparation (May 1982). As of the date of this report, no State CZM programs have been disapproved nor State grants awarded under the CZMA been terminated.

Chart 2 summarizes funds awarded to States under the various major sections of the Act.

In addition, material is included on CZM regulations promulgated or in effect during the report period.

Chart 1

STATUS OF STATE COASTAL ZONE MANAGEMENT PROGRAMS

State	Actual or Estimated Federal Approval Date By Fiscal Year (ends 9/30)	Comments and Status 6/1/82
Washington	1976	Approved
Oregon	1977	Approved
California	1978	Approved
Massachusetts	1978	Approved
Wisconsin	1978	Approved
Rhode Island	1978	Approved
Michigan	1978	Approved
North Carolina	1978	Approved
Puerto Rico	1978	Approved
Hawaii	1978	Approved
Maine	1978	Approved
Maryland	1978	Approved
New Jersey (Bay and Ocean Shore Segment)	1978	Approved
Virgin Islands	1979	Approved
Alaska	1979	Approved
Guam	1979	Approved
Delaware	1979	Approved
Alabama	1979	Approved
South Carolina	1979	Approved
Louisiana	1980	Approved
Mississippi	1980	Approved
Connecticut	1980	Approved
Pennsylvania	1980	Approved
New Jersey (Remaining Section)	1980	Approved
Northern Marianas	1980	Approved
American Samoa	1980	Approved
Florida	1981	Approved
New Hampshire (Ocean Segment)	1982	Approved
New York	1982/83	DEIS to be Available in June 1982
Virginia	?	Governor Robb requested re-initiation of the CZM Program in May 1982; OCZM decision pending
Ohio	Not Participating	
Indiana	Not Participating	
Georgia	Not Participating	
Minnesota	Not Participating	
Illinois	Not Participating	
Texas	Not Participating	

Chart 2

Funds Expended by States Under the CZMA by Section
Fiscal Years 1980 and 1981
(Dollars in Thousands)

State	Section 306		Section 308		Section 315	
	1980	1981	1980	1981	1980	1981
Alabama	$1,450	$ 0	$ 473	$3,035	$ 0	$ 0
Alaska	4,250	3,837	1,797	1,818	0	0
American Samoa	500	606	0	151	0	0
California	1,500	5,500	5,300	566	919	602
Connecticut	1,300	1,196	1,041	528	0	0
Delaware	375	1,125	935	465	0	0
Florida	0	2,600	2,673	260	100	189
Georgia	0	0	0	0	0	0
Guam	250	641	157	78	0	0
Hawaii	250	641	157	78	0	0
Illinois	0	0	0	0	0	0
Indiana	0	0	0	302	0	0
Louisiana	2,500	300	24,312	8,631	0	0
Maine	1,968	250	1,138	667	0	30
Maryland	1,249	1,600	1,139	367	0	618
Massachusetts	1,735	1,780	3,708	791	0	28
Michigan	1,872	2,082	127	290	0	0
Minnesota	0	0	0	0	0	0
Mississippi	800	675	13,777	1,145	0	0
New Hampshire	0	0	903	125	0	23
New Jersey	2,012	615	1,664	1,420	0	50
New York	0	0	328	754	0	50
North Carolina	1,314	1,505	1,226	476	0	85
Northern Marianas	449	595	137	77	0	0
Ohio	0	0	301	53	150	90
Oregon	1,208	1,152	61	996	95	25
Pennsylvania	649	1,896	42	644	0	0
Puerto Rico	1,367	1,215	0	86	0	400
Rhode Island	1,070	890	206	1,173	457	150
South Carolina	582	1,450	653	896	0	0
Texas	0	0	7,184	9,484	0	0
Virgin Islands	350	700	0	46	0	0
Virginia	0	0	0	0	0	0
Washington	1,550	1,513	1,199	485	1,113	0
Wisconsin	1,319	1,170	119	222	0	0

Alabama

Background - CZM and CEIP Programs:

The Alabama Coastal Area Management Program (ACAMP) was approved in September 1979. The Alabama Coastal Area Act established the Coastal Area Board (CAB) and mandated it to develop a comprehensive management program.

The Office of State Planning and Federal Programs is the designated agency for the Coastal Energy Impact Program. In past years, grant and loan assistance have been used for a variety of planning studies, public works construction, land acquisition, and environmental loss mitigation projects. Alabama's major energy impacts are from OCS development and coal export activities.

Milestones - FY 1980 and FY 1981:

First year program tasks were divided into three areas: (1) basic administration (personnel, grant applications processing, program evaluation, publications, coordination); (2) implementation (setting up MOUs with State agencies, basic monitoring and enforcement of activities, setting up permit information center, review of applications); and (3) special studies (determining present levels of biological and scientific data work for monitoring base, public access, port development, special studies in the Mobile Delta, shoreline erosion, and hazards). Hurricane Frederic caused severe damage to the coastal area at the time of approval and the Coastal Area Board received a supplement of $100,000 to aid in the recovery efforts of Mobile and Baldwin Counties. The funds were used to draft new building codes for floodable areas for mitigation planning and for hiring of building inspectors.

Alabama's second year Section 306 grant was issued in September 1980. This grant concentrates on three core tasks: (1) administration (e.g., personnel, grant and contract processing, program evaluation, publications, coordination), (2) implementation (e.g., permit information center, technical assistance, consistency review and monitoring and enforcement), and (3) planning (e.g., public access, port development, tourist development, and Gulf Shores project). During August of 1981, the CAB adopted an interim dune crestline which enables Alabama to implement the construction setback line provided for in the ACAMP regulations. The CAB is investigating the possibility of doing a special area management plan for Mobile Bay to determine the placement of spoil that would result from port expansion and channel deepening. The CAB is undertaking an oil and gas development plan to meet the need for facilities due to expanded exploration in Mobile Bay.

In FY 1980 approximately $850,000 and in FY 1981 $1.07 million in CEIP grants and $1.9 million in CEIP loans were awarded the State. Some of the projects funded included: the purchase of oil spill booms by Mobile County; public beach, boat house, and several park improvements in Mobile County and the Cities of Mobile, Dauphine, Gulf Shores; and planning projects for a community center and marine interpretive center. The largest project of 1981 was a $1.9 million loan to construct a medical clinic for the Town of Bayou LeBatre.

Summary of Evaluation Findings:

FOR THE PERIOD FROM OCTOBER 1979 THROUGH JUNE 1980

Progress in completing the tasks during the first nine months of implementation was hindered by a lack of staff and by the devastation caused by Hurricane Frederic. The State of Alabama adhered in most respects to its approved coastal management program. CAB actively supported post-hurricane recovery efforts by joining the Baldwin and Mobile Counties' Economic Recovery Councils, assisted in planning studies for the recovery of the City of Gulf Shores and Dauphin Island, and funded building inspection services to monitor recovery activities in Baldwin County.

The CAB signed Memoranda of Agreement (MOAs) with Federal and State agencies, which defined and coordinated each agency's role in implementing the ACAMP. The MOAs also outlined the process by which the CAB reviews and certifies for consistency, Federal and State permits for activities affecting the coastal area. The public decisionmaking process was improved through the MOAs by the publication and distribution of a permit information book, and the establishment of a permit information center. The CAB's efforts to improve its newsletter and increase its circulation resulted in increased public involvement in the ACAMP.

A number of serious deficiencies in the implementation of the ACAMP were also identified. These included: the inability of the CAB to implement the dune setback construction line, as the dunes had been destroyed by the hurricane; the failure of some Federal and State agencies to comply with Federal consistency (i.e., the Alabama Highway Administration's failure to submit an application to reconstruct the Dauphin Island Bridge); problems related to monitoring and enforcement; the need to use the Coastal Area Advisory Committee; and the need to improve visibility of the ACAMP to the public.

FOR THE PERIOD FROM JULY 1980 THROUGH SEPTEMBER 1981

The State has taken significant action to protect dunes and beaches by the passage of Act 81-563 on May 20, 1981, which prohibits the operation of motor vehicles on beaches and dunes. The CAB has reestablished the dune crestline on maps after the dune system was destroyed during Hurricane Frederic. The dune crestline was determined by aerial photography and a site survey by the CAB staff. The dune crestline is used to determine construction setback requirements, which is an important component of the ACAMP. The CAB also is conducting biological baseline studies and benthic sampling for use in the preparation of CAB consistency certifications to State and Federal regulatory agencies. Memoranda of Agreement with Baldwin and Mobile Counties have been signed providing for local enforcement of some provisions of the ACAMP.

The most significant issues which need to be addressed by the State of Alabama concern the long-term management and coastal resources planning for Mobile Bay to minimize the potential conflicts among proposed uses of Mobile Bay, and the need to improve coordination with Federal agencies.

Alaska

Background - CZM and CEIP Programs:

The Alaska Coastal Management Program (ACMP) was approved in July 1979. The legal basis of the ACMP is the Alaska Coastal Management Act (ACMA) of 1977. The major issues that the ACMP is addressing are the siting and effects of oil and gas develoment; mining, logging, and fisheries development; protection of wetlands; and simplifying the development review and approval process.

Alaska's Coastal Energy Impact Program is administered by the Department of Community and Regional Affairs (DCRA). The State's major energy impacts are from OCS oil and gas exploration and development.

Milestones - FY 1980 and 1981:

In its second year of program implementation (1980), the State focused on district program development. During this period, the CPC approved district programs for Skagway, Yakutat, Cordova and Sitka. The State has focused on fine tuning its State-Federal consistency process, developed wetlands management strategies under the auspices of the State-Federal Alaska Wetlands Task Force, and permit simplification. The State also began developing a needs assessment as part of its fisheries planning element.

The Program has had a significant impact on State and Federal agency decisionmaking. The OCM's summary of its Federal consistency review activities during the past grant year indicates that 513 projects were reviewed, 354 of which were found consistent, 50 consistent with conditions, 21 determined inconsistent, and the rest either withdrawn by the applicant or remaining in review. In addition, the improved interagency coordination resulting from the Federal consistency process resulted in a reduction in the amount of time taken by the Corps of Engineers to issue 404 permits.

In 1981 Alaska received a $3.8 million Federal grant to assist its third year of program implementation. Work continued on the development of local coastal programs and strengthening implementation of the ACMP Guidelines and Standards.

Alaska was allotted $2.2 million in CEIP grants in FY 1980 and $835,125 for CEIP projects in FY 1981. CEIP activities were directed toward the development of State policy regarding the 16 proposed OCS lease sales over the next five years and managing energy-related population and support facility growth located primarily in the Municipality of Anchorage and in the Kenai peninsula region. Specific projects included: a preliminary engineering study for roads, streets, and sidewalks in Homer; a comprehensive plan and capital improvement program update in Yakutat; a comprehensive water study in Kodiak; and support for a resource coordinator in Nome who will be directly responsible to the City for coordination with private and public entities involved with Lease Sale 57 and a possible onshore support base. In addition, over $22 million in loan funds were awarded to the Municipality of Anchorage for water, sewer, and utility improvements.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JULY 1979 THROUGH MARCH 1980

During the nine months covered by this review, progress in implementing the ACMP was achieved, particularly in planning in isolated areas and implementation of Federal consistency. Under the ACMP, the State initiated coastal land use planning in its more isolated areas, which, in general, have limited planning capabilities and resources. These boroughs addressed a variety of planning issues, such as energy facility siting and fisheries development, that otherwise would not have been addressed. The Federal consistency requirements of the CZMA were implemented by extending the Division of Policy Development and Planning's State Clearinghouse procedure to cover Federal licenses, permits, and activities. Memoranda of Understanding with Federal agencies specifying the actions or projects subject to review and the review procedures within the Clearinghouse have facilitated this process.

District program development proceeded on schedule for those areas targeted in the first year. However, the schedule for development of the remaining district programs appeared optimistic, especially for the unincorporated areas which must first be organized into coastal resource service areas, and needs revision. The revised schedule needs to set priorities for program development based on an assessment of emerging issues. The Alaska Office of Coastal Management must accelerate and give priority to the development of district programs, including energy facility siting elements, in these areas.

FOR THE PERIOD FROM APRIL 1980 THROUGH MAY 1981

Program achievements during the review period included: publication of the "Wetlands Report," the "Special Areas in the Alaska Coastal Zone: Abstracts of Proposals," the Outer Continental Shelf Operators Handbook, the "Bering Sea OCS Issues," the Sitka habitat studies, and the draft Kenai Memorandum of Understanding. Additional accomplishments resulted from Federal consistency activities.

This was a controversial year for the ACMP as it was subjected to legislative oversight hearings and repeal attempts. Despite the disruption caused by these events, some progress was made. Major concerns related to potential changes to the legislative and administrative basis of the ACMP, district program development and approval, and State agency compliance with the provisions of the ACMP.

American Samoa

Background - CZM and CEIP Programs:

The Territory's Coastal Management Program (ASCMP) was approved in September 1980, after less than two years of development by the Territory's Development Planning Office (DPO). It relies on a Governor's Executive Order which directs all territorial agencies exercising control over uses of land and water to act consistently with the policies of the ASCMP established in the Executive Order. The DPO operates a permit clearinghouse to assure that projects are consistent with the program. The territory has no local governments, but villages retain control of 92% of the land and are governed by chiefs and councils. DPO is working with the villages to develop land use plans that will guide future growth while protecting significant resource values.

The Coastal Energy Impact Program is also administered by the Development Planning Office. Major energy impacts faced by Samoa are related to expansion or relocation of existing facilities, including the two existing oil-fired power plants, and the oil dock and tank farm which accommodate imported oil upon which the island and its fisheries industry are dependent.

Milestones - FY 1980 and 1981:

American Samoa's first year 306 grant of $500,000 was used to develop village plans, set up project review/permit coordination procedures, complete the production of a coastal atlas, develop erosion control procedures for local public works and agriculture, undertake a detailed soil survey, and implement a marine science curriculum in the public school system. American Samoa was also awarded $156,000 in CEIP funds to initiate two energy-related projects on the main Island, Tutuila.

DPO established a consolidated land use permit and review procedure for Territorial permits and Federal assistance projects (A-95) in August 1981. The Project Notification and Review System (PNRS) will ensure effective implementation of coastal policies by DPO and other Samoa agencies. Samoa's Coastal Atlas will be completed and printed in 1982. DPO helped approximately seven villages draw up land use plans that will accommodate growth without destroying social and natural values. The Department of Education prepared and has used a week-long mini course on marine science and coastal management in Samoa's junior high schools. The Department of Public Works developed erosion control procedures for public and private land-use activities. American Samoa initiated a detailed soil survey in July 1981. Samoa supported its second year of program implementation with a Federal grant of $606,000. The work program continued the work tasks described above and expanded the involvement of Territorial agencies in the activities of the ASCMP.

Samoa received a $76,000 CEIP grant during FY 1981. One of the major projects funded was the development and implementation of a plan for relocating oil transshipment and storage facilities in the Pago Pago Harbor area. Other projects included an analysis of new and expanded energy facilities; and a building code revision study to identify how building code and development standards could be revised to promote energy conservation.

Summary of Evaluation Findings:

FOR THE PERIOD FROM OCTOBER 1980 THROUGH MAY 1981

Several areas were identified during the review where improvements in the implementation of the ASCMP would enhance the capability of the DPO to deal with coastal issues.

The DPO was advised to proceed with the full implementation of the PNRS and clarify how the ASG is organized to accomplish the various PNRS tasks. As the PNRS becomes operational, the DPO needs to ensure that agency reviews are professional and comprehensive. The DPO should assist and improve the capabilities of other agencies by providing training on PNRS procedures, use of the Coastal Atlas, and general resources management.

Other areas for attention included actively encouraging the development of village plans and their implementation. The DPO should develop a proposed schedule setting out specific time frames and procedures for the development, approval, and implementation of village plans.

Also, it was suggested that DPO improve its management of the financial assistance award to ensure that completed materials are submitted by the dates requested and hire additional DPO personnel to help relieve the Program Manager's heavy workload. In addition, the Director of the DPO should take a more active role in the implementation of the ASCMP.

Finally, it was recommended that the DPO refine and implement the Federal consistency provisions of the ASCMP by identifying clear procedures for reviewing Federal activities; and work with the Coastal Zone Subcommittee of the Pacific Federal Executive Board to ensure the ASCMP Federal consistency provisions are acknowledged and understood by Federal agencies involved in projects in American Samoa.

California

Background - CZM and CEIP Programs:

The California Coastal Management Program (CCMP) is comprised of two segments. The management program for the San Francisco Bay segment, which is administered by the Bay Conservation and Development Commission (BCDC), was approved in February 1977. The management program for the rest of the coast, which is administered by the California Coastal Commission, was approved in November 1977. The Coastal Commission was designated by the Governor as the lead agency for program implementation under Section 305 and 307 of the CZMA.

The Commission administers the California Coastal Act of 1976, as amended, which established one permanent State Coastal Commission to control development within the State's coastal zone while local governments prepare local coastal programs (LCPs). The Commission is also responsible for approving LCPs and hearing appeals from local permit decisions. Both the Commission and BCDC are assisted by the State Coastal Conservancy which has land acquisition authority and coastal resource enhancement funds.

California's Coastal Energy Impact Program is also administered by the Coastal Commission. The State faces major impacts from OCS oil and gas activities. Its mitigation strategy is directed toward preventing environmental and recreational losses to valuable natural resources before they occur (primarily in northern California), and offsetting losses in areas where extensive coastal oil development is occurring (primarily in central and southern California).

Milestones - FY 1980 and 1981:

The Commission approved 20 of 68 LCPs and 4 port plans and focused on the most controversial issues in areas such as Los Angeles and Monterey Counties in an attempt to bring these areas under resource management plans. The State Coastal Conservancy and the Commission implemented a public access grant and sign program with the goal of opening dedicated accessways for public use with the help of CZMA funds.

The active consistency review program has resulted in negotiated solutions and improved coordination of Federal and State activities in most instances. The Coastal Commission objected to an OCS plan of exploration in the Santa Barbara Channel proposed by Chevron. After difficult negotiations a revised plan was developed by Chevron and approved by the Commission.

The General Services Administration recently refused to participate in mediation proceedings under CZMA Section 307 concerning a dispute with BCDC over surplusing of Hamilton Air Force Base in Marin County. The BCDC proceeded with its suit against GSA while a settlement was attempted.

Both Commissions used Section 306 grant funding to improve programs of monitoring and enforcement. BCDC has considerable resources devoted to this effort and the Commission increased personnel assigned to this area.

The California Senate and Assembly held important oversight hearings in November 1980 on the Coastal Act. Two important deadlines occurred.

January 1, 1981 was the date all LCPs had to be submitted for certification; on July 31, 1981, the six regional commissions terminated. The Coastal Commission thereafter reorganized to deal with increased workloads in absence of the regional commissions. The Legislature completed the process of appointing Commissioners to fill vacancies on the State Coastal Commission created by termination of the regional commissions and also passed bills which changed part of the Program's policy and authority. Legislation was subsequently passed extending to January 1, 1983 the deadline for completing LCPs and local governments have now resumed issuing permits when they have approved land use plans. Until the zoning ordinances are completed, the Commission will be able to appeal any local decision.

California received $503,440 in CEIP grant awards during FY 1981 and over $1.7 million in CEIP grant awards in FY 1980. Santa Barbara received a $1.4 million loan to reconstruct a wharf and develop a waterfront port. Funding was provided for projects identifying sites for coastal energy facilities (proposed power plants in Collinsvile, Pittsburg, and San Francisco; and oil refinery and terminal modifications along Contra Coastal County's shoreline), increasing port and navigational safety related to the transfer and storage of energy sources, and developing state policies related to OCS oil and gas exploration and development. In addition, $40,000 of the award was used to acquire 1.6 acres of land in the Ormond Beach area of Oxnard to ensure permanent public access and recreational use. The project also protects the nesting site of the threatened California Least Tern. This recreational improvement is needed to mitigate an impending loss of 24 acres of an offshore oil pipeline storage facility.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JANUARY 1979 TO SEPTEMBER 1980

Noteworthy areas of progress and accomplishment included the developoment of local land use plans and a few local coastal programs; the provision of guidance on energy facility siting, hazards, and wetlands management; port planning; the preservation of agricultural lands; and management of the San Francisco Bay program segment by the Bay Conservation and Development Commission.

Several serious problems existed which warranted special attention in the forthcoming grant period. These problems concerned the local coastal program development, review, and certification process; the management of efforts to increase public access to the coast; the regional coastal permit administration process, including permit monitoring and enforcement; and the adequacy of technical assistance to local governments.

FOR THE PERIOD FROM SEPTEMBER 1980 THROUGH NOVEMBER 1981

California's noteworthy areas of progress and accomplishment included increased public recreational access to the coast, preservation of wetlands, improved coordination and cooperation with affected State agencies and with Federal agencies, particularly in Federal consistency reviews, and continued protection of coastal natural resources.

Areas for improvement included increasing State agency coordination and monitoring of State agency decisions; establishing a monitoring process for local decisions made under approved local coastal programs; improving the

enforcement program; strengthening the efforts for completion of all local coastal programs, with increased technical assistance and more clearly defined State and local relationships; and examining the future role of the programs, including identifying and seeking alternative funding sources.

Estuarine Sanctuaries:

Elkhorn Slough, California:

Facts:

Location: Monterey County, California
Size: 1,500 acres
Biogeographic Region: Californian
Acquisition Status: 66% complete

Description:

The Elkhorn Slough, California, estuarine sanctuary, which is on the south and east portions of the slough, covers 1,510 acres. The small town of Moss Landing, at the mouth of the slough, contains the Moss Landing Marine Laboratory, which has been and will continue doing research on the slough. Because the salt concentration of Elkhorn is close to marine, one researcher has called it "a portion of the ocean bottom conveniently located for study."

Tijuana River, California:

Facts:

Location: Between San Diego County and Mexico
Size: 2,541 acres
Biogeographic Region: Californian
Acquisition Status: 60% complete

Description:

The California Coastal Commission was awarded an acquisition grant in September 1981 to establish an estuarine sanctuary in the Tijuana River, 12 miles south of San Diego, adjacent to the California-Mexico international border. The site is a tidally-flushed area with a network of channels, mudflats, mudbanks, and salt marshes. The total estuarine sanctuary area is approximately 2,531 acres (1,646 acres are presently held by Federal, State, and local government agencies). The California Coastal Conservancy will perform the acquisition activities for the 885 acres of the estuary, marsh and mudflats, and adjacent uplands, which are in private ownership. Of the 31 parcels proposed for acquisition, seven parcels above the river and thirteen below the river will be "leased back" to sellers for agricultural use and other activities compatible with the maintenance of the sanctuary.

Connecticut

Background - CZM and CEIP Programs:

The Connecticut Coastal Management Program (CCMP) was approved on September 29, 1980, and is based on the Connecticut Coastal Area Management Act of 1979. The program is administered at the local level through incorporation of the policies and standards into municipal coastal site plan reviews. The State has the ability to intervene if a municipality approves a project which fails to adhere to the policies and standards outlined in the Coastal Area Management Act. Major issues addressed by the program include: administration of the Tidal Wetlands Act, funding local municipal reviews, the development of local coastal management plans, and protection of critical resources.

The Coastal Energy Impact Program is administered by the Office of Policy and Management. Energy impacts along the Connecticut portion of Long Island Sound are quite varied. They include shipping of petroleum products, five electric generating plants, nuclear power plants, alternative energy sources, OCS activities, and transmission lines.

Milestones - FY 1980 and FY 1981:

In FY 1980, the State received a Section 306 grant for $1.3 million. Half of the funds were made available to municipalities for coastal site plan reviews and development of local coastal programs. The remaining funds were used for technical assistance, program monitoring, increasing waterfront access, a study of the environmental problems of coastal embayments, and a floodplain acquisition priority study.

In September 1981, the State received a Section 306 supplemental grant for $1.2 million. The second year program included a competition among towns for providing innovative ways to obtain public access. The majority of the funds went to the local governments who are responsible for local site plan reviews.

Over $600,000 was awarded to Connecticut in CEIP grants during FY 1981 and $1.4 million in FY 1980. CEIP financed a planning study for the New Haven area to move oil storage facilities out of the coastal zone and to take other precautions against environmental loss due to accidents or oil spills. A statewide study and program for oil spill containment were also funded. Planning studies were made in the Millstone area for economic and environmental impacts resulting from the nuclear power plants. Future projects are under consideration to assess the impacts that result from hydropower and wind proposals.

Summary of Evaluation Findings:

FOR THE PERIOD FROM OCTOBER 1980 THROUGH MAY 1981

Through the activities of the Department of Environmental Protection (DEP), the State of Connecticut had a successful first year in implementing the CCMP. All 41 coastal towns reviewed development proposals within the

coastal boundary for adherence to coastal policies. In addition, the State encouraged 29 communities to develop municipal coastal programs which will ensure long-term institutionalization of the coastal policies.

Several issues were identified which needed to be addressed by the DEP. The most significant issue concerned the need to enable Zoning Boards of Appeal to waive or exempt Coastal Site Plan Review requirements for minor activities which do not have coastal impacts.

Delaware

Background - CZM and CEIP Programs:

The Delaware Coastal Management Program (DCMP) was approved in August 1979 and is based on a number of State laws which govern the use of valuable coastal resources. These include the Coastal Zone Act, the Wetlands Act, the Beach Preservation Act and the Submerged Lands Act. The lead agency is the Department of Natural Resources and Environmental Control (DNREC), which administers all the basic authorities of the program.

Delaware's Coastal Energy Impact Program is also housed within the DNREC. In FY 1981 it completed a five-year strategy which identified four major energy issues: the impact of new electric power generating capacity in Salem County, New Jersey, where four nuclear power plants are proposed; the effects of power plant conversions from oil to coal burning; the increasing likelihood of coal transfer-storage-shipping facilities on the Delaware coast; and the likelihood of oil or natural gas pipelines locating in Delaware as a result of OCS activities, and the need to improve State planning and regulation of pipeline corridors and pipeline construction and operations.

Milestones - FY 1980 and FY 1981:

The Delaware Coastal Management Program has made real progress in managing its coastal resources.

- Public access to the waterfront has been increased through working with city, county and local interests to develop plans for the revitalization of the Wilmington waterfront. The State has also funded a project to identify public recreational access sites along the Christina River from Wilmington (at the Delaware River) to Newark.

- Governor duPont established a Task Force of recreational and commercial fishermen and others concerned with the effective and productive use of fisheries to review the State's policies and authorities with regard to fisheries and make recommendations for actions to address identified weaknesses. New legislation based on the Task Force report is currently pending before the General Assembly.

- In July 1981, the State promulgated new regulations under the Beach Preservation Act to better define the building setback line to protect the dune and beach system and enhance its natural function as buffer against coastal storms.

- The DCMP has engaged in an intensive legal effort to reassert State ownership of waterfront lands claimed or encroached upon by private individuals. This activity has been very successful and approximately 125 acres of land have been returned to the public domain.

- o The DCMP has undertaken a major effort to develop a resource management plan for the Indian River/Rehoboth Bay area. This back bay area is experiencing increasing stress from development and recreational activities and a coordinated approach must be developed to protect this valuable resource.

CEIP:

A major focus of the Delaware CEIP has been the Port of Wilmington. Efforts in this area include the purchase of equipment to control dust emissions associated with the movement of petrocoke, the purchase of a fire boat to be used along the Christina and Delaware Rivers, the development of an EIS on a disposal site for material dredged from the Christina River, and an examination of railway drainage problems. Other awards included $65,000 to Delaware City to ameliorate the impact of petroleum transfer and storage, and $57,312 to the City of Newark to study the environmental and generating peak sharing unit for the City's municipal electrical system. The State received $36,876 in CEIP funds during FY 1981 and $880,581 in FY 1980.

Summary of Evaluation Findings:

FOR THE PERIOD FROM AUGUST 1979 THROUGH JUNE 1980

Areas of progress and accomplishment included the open marsh water management program, rural wastewater management activities, beach and dune management, the Erosion and Sediment Control Handbook, and the draft amendments to the Wetlands Act.

A number of problems existed which warranted special attention in the next grant period. These problems included the absence of strong leadership in the management of coastal resources in the Wilmington areas, the failure to develop a fisheries management strategy, the lack of a mechanism to assure Federal consistency, and the delay in developing regulations to implement the Delaware Coastal Zone Act.

FOR THE PERIOD FROM JUNE 1980 THROUGH OCTOBER 1981

Delaware's accomplishments included the open marsh water management program, implementation of a Natural Area Preservation System for the State, promulgation of certification procedures for conservation easements, adoption and implementation of regulations for the Beach Preservation Act, and the State's rural wastewater management activities.

Areas for improvement included the delay in the promulgation of regulations for the Coastal Zone Act, the necessity to resolve the issue surrounding the State's inland bays, and the lack of an aggressive consistency review of Federal projects by the DCMP. Also, with the recent reorganization of the State governmental offices, a number of managerial and administrative details needed resolution.

Florida

Background - CZM and CEIP Programs:

The Florida Coastal Management Program (FCMP) was approved in September 1981. The Florida Coastal Management Program, as required by State enabling legislation, is based upon existing State laws. Twenty-five statutes specifically serve as the authorities for direct State management of the resources. The Department of Environmental Regulation, the designated CZM agency, works closely with the Departments of Natural Resources and Veteran and Community Affairs in implementing the Florida Coastal Management Program. Instrumental in the coordination of State government and policy development is the Interagency Management Committee (IMC) which is an advisory body composed of the heads of the State agencies which have responsibilities for resource management activities.

The Department of Veteran and Community Affairs (DVCA) is the designated CEIP office. In addition to providing planning and technical assistance to local governments affected by general energy development, DVCA has a State/Local OCS Program which provides assistance to local governments on OCS issues. Statewide OCS policy formulation and interaction with the Federal government is the responsibility of the OCS State Participation Program located in the Governor's Office of Budget and Planning. Florida's major energy impacts presently result from electrical generating plants, although future impacts will occur as new OCS and coal export activities begin.

Milestones - FY 1980 and FY 1981:

The Department of Environmental Regulation was awarded a first-year Section 306 grant of $2.6 million for CZM program implementation. Major first year work projects included hazard mitigation planning, port dredging and spoil disposal, and technical assistance for areas designated as Areas of Critical State Concern. Federal approval of the FCMP coincides with Governor Graham's "Save Our Coasts" program. This initiative provided a review of coastal protection programs by the IMC. The Committee identified areas which may be improved by either programmatic or legislative changes. This initiative also directs State agencies to deny State and Federal funds to coastal areas which cannot accommodate growth and to give special consideration to hurricane hazards.

Specific CEIP projects awarded in FY 1981 included three interrelated OCS onshore support facility siting studies undertaken by DVCA and the three southwestern Florida Regional Planning Councils, several port planning studies and a study by the Apalachee Regional Planning Council of oil and pollution mitigation for the Apalachicola, Chattahoochee, and Flint Rivers system. Close to $1.8 million was awarded for CEIP projects in FY 1981 and nearly $2.5 million was awarded in FY 1980.

Estuarine Sanctuaries:

Rookery Bay, Florida:

Facts:

Location:	Collier County, Florida
Size:	8,500 acres
Biogeographic Region:	West Indian
Acquisition Status:	57% complete

Description:

Florida's Rookery Bay estuarine sanctuary preserves a large mangrove-filled bay and two creeks. Management of the sanctuary is by the Florida Department of Natural Resources, the Collier County Conservancy, and the National Audubon Society. This unusual management structure originally was created when the two private organizations granted a dollar-per-year, 99-year lease of their land to the State. Federal and State funds will add additional key acreage to the existing core area. Within the Sanctuary is the Rookery Bay Marine Laboratory. A headquarters building has been constructed to house an on-site manager.

Apalachicola River/Bay, Florida:

Facts:

Location:	Franklin County, Florida
Size:	192,758 acres
Biogeographic Region:	Louisianan
Acquisition Status:	94% complete

Description:

The largest estuarine sanctuary, Florida's Apalachicola River/Bay estuary, is one of the largest remaining naturally functioning estuarine systems in the Nation, and it is also the first sanctuary on the mouth of a major navigable river. It is expected that the sanctuary will benefit the oyster and other fishing industries by protecting the environment and by providing research information that will help assure the continued productivity of this river/bay ecosystem. Within the Apalachicola Estuarine Sanctuary boundaries are an existing U.S. Fish and Wildlife Refuge and a State Park.

Georgia

Background - CZM and CEIP Programs:

Georgia is not currently participating in the CZM Program but the State did submit a document for review in December 1979 in order to seek eligibility for the Coastal Energy Impact Program. On February 3, 1980, the Assistant Administrator for CZM issued a set of negative findings on the Georgia documents, based on the State's lack of satisfactory progress toward meeting the requirements of Section 306. Governor Busbee appealed the decision to the Secretary of Commerce and after meetings and discussions among Commerce, NOAA, OCZM, and State officials, Georgia was found ineligible to receive CEIP funds.

Estuarine Sanctuary:

Sapelo Island, Georgia:

Facts:

Location: McIntosh County, Georgia
Size: 7,400 acres
Biogeographic Region: Carolinian
Acquisition Status: 100 % complete

Description:

The concept of a "wetlands research park" became a reality in the unspoiled marshes and beach stretches of Sapelo Island, Georgia. Here, for more then 20 years, scientists have pursued a variety of studies in the biological sciences on the island's isolated wetlands environment. This research has been based at the University of Georgia Marine Institute, on the island's southern end, within the sanctuary. The sanctuary itself preserves 7,400 acres of Sapelo Island, encompassing the Duplin River. The whole island, in addition to two adjacent islands, is preserved by various State and Federal agencies. Sapelo is the site of prehistoric Indian mounds, an oyster shell ring, and numerous plantation ruins from the late 18th and early 19th century. The only privately held property on the island, within a community called Hog Hammock, belongs to approximately 200 individuals whose families have lived and worked on the islands since the early 1800's.

Guam

Background - CZM and CEIP Programs:

The Guam Coastal Management Program (GCMP) received Federal approval in August 1978. The program is being implemented by the Guam Bureau of Planning (BOP) as lead agency. The GCMP relies entirely on territorial agencies to implement the program. The Bureau of Planning works with the Territorial Planning Commission, the Department of Agriculture, Department of Land Management, Department of Public Works, the Department of Commerce, and the EPA.

The Coastal Energy Impact Program is administered by the Guam Energy Office. The Government's energy impact mitigation strategy is directed toward reducing the impacts of continued reliance on oil importation by developing energy self-sufficiency.

Milestones - FY 1980 and FY 1981:

Guam was awarded its third 306 grant in April 1981 totalling $641,000. Its program focused on fisheries development, conservation and zoning enforcement, public education, port and harbor planning, and the Territorial Seashore Park. The Bureau of Planning worked with the Guam Department of Agriculture (which houses the fisheries agency) to develop a Comprehensive Living Marine Resources Strategy. Guam continued to emphasize monitoring and enforcement. Guam also continued to support public education on coastal issues by producing classroom programs and providing staff for public presentations. The GCMP developed flood hazard maps and water quality standards in the first years of program implementation.

During FY 1980 and 1981, $235,000 and $78,000, respectively, in CEIP grants were awarded to Guam to plan for the consequences of new or expanding energy facility development from OTEC, oil energy, coal transshipment and storage, and other alternative energy facilities.

Summary of Evaluation Findings:

FOR THE PERIOD FROM AUGUST 1979 THROUGH NOVEMBER 1980

Specific substantive and procedural accomplishments were achieved including the revision of water quality standards, the enforcement of fish and game laws, and the improved management of the Territorial Seashore Park.

During the evaluation several problems concerning the implementation and management of the GCMP were identified which needed to be addressed by the BOP. The most significant issues included improved BOP review of Territorial Planning Commission permit applications, strengthening the networking of Territorial agencies and authorities, improved monitoring and enforcement of the GCMP's policies, and resolution of personnel hiring practices which severely hindered the employment of qualified individuals for an entire grant period.

Hawaii

Background - CZM and CEIP Programs:

The Hawaii Coastal Zone Management Program (HCZMP) received Federal approval in September 1978. The HCZMP principally relies on statutory provisions which direct State agencies and county governments to conduct their permitting and non-permitting activities in compliance with the coastal policies established in the Hawaii Revised Statutes. The Department of Planning and Economic Development (DPED) is the lead agency and Federal consistency agency and is advised on policy making and program implementation matters by a Statewide Adivisory Committee. As in other Pacific Basin areas, Hawaii is concerned with effective management of shoreline development, improvement and simplification of permit systems, and management of other ocean resources and marine development, e.g., Ocean Thermal Energy Conversion (OTEC), deep seabed mining, aquaculture, and fisheries.

The DPED administers Hawaii's Coastal Energy Impact Program. Hawaii faces impacts from the development of OTEC and alternative energy sources, electric generating plants, and oil transshipment. The State's energy impact mitigation strategy is to reduce the impacts of continued reliance on oil importation by developing energy self-sufficiency.

Milestones - FY 1980 and FY 1981:

The State hosted the Pacific Basin Development Conference in February 1980 attended by Guam, American Samoa and Marianas and the Departments of Commerce, Interior and Energy. Important discussions were held during panels which addressed CZM, ports and fisheries.

Hawaii's third year of program implementation was supported by a grant of $975,000 in September 1980. Its fourth year of implementation received an eight month grant of $600,000 in September 1981. The HCZMP focused on resolving several important coastal resource issues including: strengthening State agency and local government compliance with the enforceable policies of the program, developing a management plan that will lead to new enforceable State policies for the management of Hawaii's ocean resources, and developing and implementing a management plan for Kaiwainui Marsh, the largest remaining fresh water wetlands in the State. The State has implemented its automated permit monitoring system, H-PASS, which is utilized by 5 state agencies and the 4 counties.

Hawaii was awarded $87,000 in FY 1981 and $170,000 in FY 1980 for CEIP projects. These included planning for the consequences of wind, geothermal, and OTEC power sources on Oahu and Hawaii; mitigating prior environmental and recreational losses caused by the expansion of the Kahe electric generating plant; and planning for the consequences of oil transshipment activities in the Barbers Point Harbor.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JUNE 1979 THROUGH JUNE 1980

The DPED was involved in significant multi-year planning and study efforts

which do not impact upon the immediate implementation of the HCZMP. As these studies were not completed, questions remained about the focus and management of the HCZMP. The DPED was successful in some aspects of coastal management including the establishment of a Volunteer Enforcement Program, the expansion of Special Management Area boundaries to include almost 24,000 more acres of coastal lands in three counties, and the beginning of a long-range Ocean Management Study.

Several deficiencies concerning the implementation and management of the HCZMP were identified which needed to be addressed by the DPED. The most significant issue which emerged was the need for the DPED to devote more of its efforts to the immediate implementation and management of the HCZMP. Expanding the DPED's coordination with other State agencies with responsibilities for enforcing the provisions of the HCZMP and monitoring State and county permitting activities will help accomplish this goal. It was further recommended that DPED use the data collected for the interim permit monitoring system to improve its guidance and direction to other State agencies and county governments which support the HCZMP. Also, the DPED was advised to develop a clear definition of the duties, responsibilities, and authorities of the Statewide Advisory Committee.

FOR THE PERIOD FROM JUNE 1980 THROUGH JUNE 1981

Hawaii's significant accomplishments were the expanded authority of the voluntary conservation officer enforcement program, the DPED's liaison work with the counties to improve their resource management perspective regarding land-use decisions, and the States's ocean management activities.

Several program implementation problems existed in the DPED's relationship with other State agencies and the lack of definitive lead agency actions in identified problem areas.

Estuarine Sanctuaries:

Waimanu, Hawaii:

Facts:

Location: Island of Hawaii, County of Hawaii
Size: 5,900 acres (347 to be purchased)
Biogeographic Region: Insular
Acquisition Status: 94% complete

Description:

Waimanu, Hawaii, a mountain-enclosed stream valley, is so isolated that land access is gained only by a strenuous 6- to 8-hour hike. Because of this isolation, the 5,900-acre estuarine sanctuary is nearly pristine. Adjacent to Waimanu, however, is a nearly identical valley, Waipio, which has within it a few small taro (poi) farms. Because one is inhabited and the other is not, these two estuaries could, in the future, provide a "natural experiment" to examine the effects of farming and habitation on the estuarine ecology in comparison with an undisturbed system. Waimanu was recently featured in "America's Majestic Canyons," published by the National Geographic Society.

Illinois

Background - CZM and CEIP Programs:

The program was terminated in December 1978 when coastal legislation failed to pass. Primary opposition was to the proposed legislation's provisions for setbacks in erosion hazard areas and to increased public access to the lakeshore in private residential areas. State and OCZM staff reexamined the potential for reintroducing coastal legislation in the fall of 1980, but the decision was negative. No CEIP projects were ever awarded.

Milestones - FY 1980 and FY 1981:

Illinois is no longer participating in the CZM Program. This leaves 59 miles of Lake Michigan shoreline without comprehensive coastal resource protection.

Indiana

Background - CZM and CEIP Programs:

One final extension was made to the Section 305 grant to carry the State through May 31, 1981, the end of the session for the Indiana General Assembly, and to allow close-out and follow-up activities with the remaining unexpended Section 305 funds. The State was unable to develop the necessary organizational structure to implement the authorities of its proposed program. The program's final report contains work products from numerous CZM-funded projects, including recreational access studies, port and industrial feasibility studies and elementary and secondary educational teaching materials for coastal awareness.

Milestones - FY 1980 and FY 1981:

The 1980 session of the Indiana General Assembly ended without action on coastal legislation that would have established the State Planning Services Agency as the lead agency for purposes of implementing the State's Coastal Management Program. On March 28, 1980, the Governor's Executive Council agreed to establish a process on a trial basis to review the State actions for consistency with policies of the management program. Running concurrently with this review process was supposed to be a legislative study committee that would among other things explore the workability of statewide consistency procedures for the Coastal Program. Because the legislature failed to establish the committee in its April and May sessions, the Indiana Program was suspended effective July 17, 1980.

However, the Program was reinstated on August 20, 1980, when the State Legislative Council established the required legislative study committee which was to recommend the most appropriate management structure for implementing a coastal management program in Indiana. OCZM approved a no-cost extension of the State's Section 305 grant through March 31, 1981, which allowed Indiana to continue work toward an executive order on coastal legislation, and development of a Discussion Draft of its program. A key grant stipulation set November 10, 1980, as the deadline for naming members to the legislative study committee and establshing the committee's schedule and agenda. This condition was not met.

A CEIP-funded project completed by the Indiana Port Commission and its consultant was the "Burns Waterway Harbor Export Coal Feasibility Study." This study focused on the environmental and economic impacts likely to occur as a result of the construction of a two million ton a year ship-rail facility. The study concluded that the proposed facility was competitive, would provide an economic benefit, and have no adverse environmental impacts. The study was submitted for review by Indiana's Governor and Lt. Governor.

Louisiana

Background - CZM and CEIP Programs:

The Louisiana Coastal Resources Program (LCRP) was approved in September 1980, and is based on the State and Local Coastal Resources Management Act of 1978, as well as other pre-existing State laws which are incorporated into the program. Initially the program is being implemented directly by the State Department of Natural Resources (DNR) through a new coastal use permit program and through existing State permits. Local governments have the option of assuming responsibility for the permitting of a certain class of uses by developing a local coastal program which is consistent with State coastal policy.

In Louisiana the CEIP is administered by the DNR. It remains the largest Coastal Energy Impact Program among the States, facing impacts from oil and gas development on the Gulf OCS as well as from development in State waters.

Milestones - FY 1980 and FY 1981:

Following program approval in September 1980, the State was awarded a $2.8 million grant for first year program implementation. First year work efforts concentrated on the development and implementation of the new Coastal Use Permit Program. More than 1,900 permit applications were received by the State during this year. The average permit processing time was just over fifty days, which is a major accomplishment. The DNR also worked with the Corps of Engineers to develop a joint public notice in order to avoid redundant processing.

The formulation of barrier island, shoreline protection, and freshwater diversion plans for the Louisiana coastal zone were also major areas of focus in FY 1981. LCRP efforts regarding these issues were instrumental in recent legislative action authorizing a $35 million Coastal Environment Protection Trust Fund to address Louisiana's coastal land loss and erosion problems.

During FY 1980 and 1981, Louisiana received $15.5 million and $7.8 million in CEIP grants and $8.8 million and over $800,000 in CEIP loans. Projects awarded included: the third phase of a major dune protection study; construction of a new jail for Morgan City, an OCS "boom town"; public facility improvements in the Cities of Abbeville, Baldwin, Gueydan, DeQuincy, Madisonville, Slidell, Sulphur, New Orleans and Mandeville, and the Parishes of Cameron, Calcasieu, Tangipahoa, Terrebonne, Assumption, St. Tammany, and Vermilion; and boat launch or public park improvements, in Cameron, St. Mary, Jefferson, and St. Charles Parishes. A major event in 1981 was the dedication in June of the new Lakewood Hospital in Morgan City. The facility, constructed with 40 percent local funds and 60 percent CEIP loans and grants, features a helipad and burn unit to service accident victims from OCS oil and gas development accidents.

Summary of Evaluation Findings:

FOR THE PERIOD FROM OCTOBER 1980 THROUGH NOVEMBER 1981

The State of Louisiana has made progress toward the objectives of the Louisiana Coastal Resources Program. The Coastal Use Permit (CUP) program has been established and is being used to manage Louisiana's coastal resources. The DNR participated in the preparation of a report to the Governor and the legislature on land loss, erosion, wetlands deterioration, and saltwater intrusion which resulted in the passage of a law creating a $35 million trust fund to be used for additional research, pilot projects, and construction to reduce land loss and erosion processes in coastal Louisiana. The DNR will play an active role in the administration of this fund.

The most significant issues which need to be addressed concern the critical need for additional staff for the CMS/DNR and the need to develop a workable, legally sufficient appeal process for CUP decisions.

Maine

Background - CZM and CEIP Programs:

The Maine Coastal Management Program (MeCP) was approved in September 1978. The lead agency is the State Planning Office with associated agencies including the Department of Environmental Protection (which administers the majority of the core laws) and the Department of Marine Resources. Local agencies administer three of the 11 core laws. The major issues which the program addresses include harbor and port development, fisheries management, wetlands protection, and enforcement of the core laws.

The Maine Coastal Energy Impact Program is administered by the State Planning Office. Energy developments anticipated to produce significant impacts on the Maine coast between now and 1985 can be grouped into four major categories: OCS oil and gas exploration; oil transportation, storage, and refining; oil to coal conversion for electrical generating plants; and alternative energy prospects.

Milestones - FY 1980 and FY 1981:

Local CZM project efforts coordinated with development of a State policy to expand and enhance Maine's fishing industry spurred a fish pier planning and development program. Six towns received $9 million in State funds to match a $10 million EDA grant to kick off this program effort planned with Section 306 funds. The CZM program brought together a number of elements to revitalize fisheries.

In September 1981, the State received a supplemental Section 306 grant for $312,500 to continue CZM program activities. Key projects funded included: a clam flat pollution abatement program; impact analysis of tidal hydropower in the Bay of Fundy; funding for Regional Planning Commissions; and State Planning Office administration. The State coastal program has been an active participant in the review of OCS exploration plans on the Georges Bank and conditioned its consistency approval to assure controlled disposal of drill muds.

Maine received almost $1.8 million in FY 1980 and $570,000 in CEIP awards in FY 1981. The majority of the funds were used for energy facility planning in the Maine coastal zone. Several tidal power projects were underway, including an assessment of tidal power potential for the entire State, as well as site specific studies in Vinalhaven and North Haven Islands and continuation of projects in Half Moon Cove. Other ongoing projects included an oil transportation study along the Maine coast; a coal transportation study that will examine environmental and recreational impacts resulting from increased coal activities; oil spill and ecosystem studies in Casco Bay; an assessment of alternative leasing procedures for submerged lands; and the development of a residual ash disposal system for the Portland area.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JUNE 1979 THROUGH APRIL 1980.

The State adhered to its approved coastal management program; no major deviations from that program were discovered as a result of the review. However, the lack of clear evidence on the effectiveness of enforcement of the core laws on which the MeCP was approved represented the potential for a serious deviation.

Weaknesses in MeCP implementation included the need for more thorough State agency oversight, especially with respect to local governments; the need for increased technical assistance to towns to aid in the enforcement of two key coastal laws; the need to develop programs to enhance public coastal access; and the inadequate enforcement of core laws.

FOR THE PERIOD OCTOBER 1980 THROUGH OCTOBER 1981

Maine's noteworthy areas of progress and accomplishment included State efforts in review of the Georges Bank Outer Continental Shelf oil and gas exploration plans and the manner by which the State reacted to and implemented the results of a review of its core law enforcement. Also, the water pollution abatement program in shellfish areas, which provides a high return through a low cost solution (one enforcement officer) was commended.

The State should continue its efforts to institutionalize the MeCP to assure continuance after Federal funding is phased down. Critical to this effort would be the completion of the highest quality shoreland zoning possible in all localities and the institutional framework to assure adherence to adopted codes. Coastal access is likely to become an important problem in the future and the MeCP should take the leadership in defining ways of dealing with access issues.

Maryland

Background - CZM and CEIP Programs:

The Maryland Coastal Management Program (MCMP) was approved in September 1978. The Program is based on the networking of existing State laws and authorities. Implementation is accomplished through Memoranda of Understanding between the Department of Natural Resources, the lead agency, and other State agencies. These MOUs are supplemented by an Executive Order, a Secretarial Order, and two administrative procedures called "Project Evaluation" and "Program Review." The Program contains a strong public participation element in the Coastal Resources Advisory Committee.

Maryland's Coastal Energy Impact Program is housed within the Tidewater Administration in the Department of Natural Resources. The Program places considerable emphasis on the mitigation of coastal energy impacts as they relate to the opportunity for recreational access along Chesapeake Bay and its tributaries, as well as the environmentally acceptable management of dredging and associated spoil disposal.

Milestones - FY 1980 and FY 1981:

- The State has designated areas for special management under its Critical Areas Program. Designation has focused on tidal and non-tidal wetlands and railroad lines considered important to the economic health of the coastal region.

- The MCMP took the lead in the development of a management plan for the Sassafras River, a tributary of the Chesapeake Bay, which also forms the boundary between Cecil and Kent Counties. The local jurisdictions and citizens joined with State and Federal officials to address issues associated with recreational boating on the River and the impacts of surrounding development.

- An erosion control plan was developed for Ocean City to provide protection for this intensely developed area until the Corps of Engineers can undertake their major beach replenishment project. The plan involves the construction of a series of groins and sand fill which will complement the Corps' project to begin about 1990. Coordination has been maintained with the State of Delaware to assure no adverse impact on the shoreline.

CEIP:

CEIP funds have been used to address critical dredging issues as well as to provide new recreational opportunities lost as a result of energy activities.

- In Wicomico County, CEIP funds were used to purchase upland sites to be used for the disposal of material resulting from channel maintenance. The Coastal Resources Division worked with the county to develop a management plan for these areas to accommodate the next 50 years of maintenance dredging for the entire 24 miles stretch of the River to the Port of Salisbury.

o CEIP funds aided Kent and Calvert counties in their purchase of waterfront land to provide new recreational opportunities. Betterton Beach in Kent County was an old deteriorated amusement park which has now been renovated and is the only public beach in the county. Calvert County was able to purchase 125 acres including 1 mile of beach front adjacent to the Calvert Cliffs Nuclear Power Plant. Baltimore City also received funds to develop Redbird Park and to provide a buffer area between railyards and the Fairfield homes public housing project. CEIP awards totalled $424,340 in FY 1981, but exceeded $1.1 million in FY 1980.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JULY 1979 THROUGH APRIL 1980

The State did much to improve the MCMP since the 1979 evaluation, which was generally unfavorable.

Substantive and procedural improvements included the Coastal Fisheries Program, activities of the Coastal Resources Advisory Committee (CRAC), studies supported by the Coastal Resources Division (CRD) and their use in developing and revising management techniques. Several areas were identified in which the MCMP needed strengthening. The CRD should improve the Federal consistency review process, improve coordination with other State agencies and Department of Natural Resources (DNR) units, and focus on integration of coastal management policies and procedures into the regular operations of other State agencies, DNR units, and local governments.

FOR THE PERIOD FROM MAY 1980 THROUGH MARCH 1981

The MCMP's continuing strong commitment to the development of a comprehensive fisheries management strategy has brought the State to a point where it now has one of the best in the Nation. The State has the opportunity to begin development of specific species management plans for Chesapeake Bay fisheries which integrate the biological, stock management, habitat protection, social and economic dependency, and shore side facilities requirements into a single strategy and State policy.

Maryland has designated its first set of critical areas, including tidal wetlands, non-tidal wetlands, and certain railway lines. Noteworthy new efforts included coordination among State agencies to address important issues such as the Sassafras River management plan and dredging, the urban waterfront planning program, and the development of an aquatic critical areas technical manual.

Maryland continued its strong public participation effort, involving local government officials and the public of the 16 coastal counties and Baltimore City. The MCMP has been sensitive to local concerns and participated with the counties in projects, including funding, technical assistance, training, and consultation.

Estuarine Sanctuaries:

Chesapeake Bay, Maryland:

Facts:

Location: Monie Bay, Somerset County (eastern shore)
Rhode River, Anne Arundel County (western shore)
Size: Monie Bay - 3,343 acres; Rhode River - 2,725 acres
Biogeographic Region: Virginian
Acquisition Status: 95% complete

Description:

Maryland has begun the development of an estuarine sanctuary which when complete, will include a number of sites reflecting the broad diversity of salinity, physical systems, and biota for the Bay, for system-wide research and educational purposes. It is the first sanctuary to use a multiple site concept. The two initial designated components are the Muddy Creek portion of the Rhode River in Anne Arundel County (2,725 acres) representing typical mid-bay western shore estuaries, and the Monie Bay in Somerset County (3,343 acres) representing typical lower bay eastern shore estuaries.

The funds will be used for fee simple acquisition of 228 acres of uplands and wetlands at the Monie Bay site along the western shore of Little Creek, a tributary of Monie Bay, to develop facilities to accommodate visitors and education activities at both sanctuary sites, and to complete the selection of additional sites for the Chesapeake Bay National Estuarine Sanctuary. At the Rhode River site the sanctuary will be managed with the Smithsonian Institution which owns the land.

Massachusetts

Background - CZM and CEIP Programs:

The Massachusetts Coastal Zone Management Program (MCZMP) was approved in April 1978. The lead State agency is the Executive Office of Environmental Affairs which administers most of the regulatory programs associated with the program. The key laws include the Wetlands Protection Program, Waterways Program, Wetlands Restriction Program, Ocean Sanctuary Program, and Energy Facility Siting. The Wetlands Protection Program is jointly administered by the State and local conservation commissions. Major issues which the program addresses include coastal erosion, public access, and critical area planning.

The Executive Office of Environmental Affairs administers the Coastal Energy Impact Program for Massachusetts. The State faces impacts from the transportation, transfer, and storage of oil and gas. Over 220 million barrels of oil and gas are shipped into the State and over one billion gallons of oil and 96 million gallons of gas are stored in tanks in coastal areas. Coal conversion of existing oil fired electric generating facilities will greatly increase the amount of coal usage and coal traffic in the coastal zone. The Atlantic States are just beginning OCS offshore and onshore activity which could result in significant environmental, recreational, and economic impacts. Exploration drilling has begun on Georges Bank. Lease Sale 42 took place in 1980 and Lease Sale 52 is scheduled for 1982. Virtually every fishing center in the State will be affected.

Milestones - FY 1980 and FY 1981:

Funds under the third year Section 306 grant (1980) were used in the areas of harbor master plans, coastal erosion, public access, and critical area planning. Other central components of the third year program included Federal consistency with an emphasis on OCS activities, port and harbor development, coastal access and acquisition projects, and fishery development. The State co-sponsored a Conference on Tourism and New England Seaports in New Bedford along with the Conservation Foundation, Partners for Livable Places, and the National Trust for Historic Preservation. The Conference focused on enhancement and protection of coastal resources while at the same time encouraging economic development through sensitive use of the resources for tourism. The State received a $16 million consolidated CEIP loan for parks, commercial fish piers, and oil spill equipment for all coastal towns.

In August 1980, the Governor signed an Executive Order which limited the amount of public investment on barrier beaches, established a program to reduce building in the high velocity zones, and encouraged the purchase of high risk erosion areas for parks and recreation areas. In December 1980, the Governor signed an Executive Order to restrict the use of off-road vehicles (ORVs) on Massachusetts' public lands.

Close to $800,000 was awarded in CEIP grants during each of the fiscal years 1980 and 1981. A comprehensive oil spill program that will cover the entire coastal zone was developed and implemented with CEIP financing.

Several recreational projects were underway including public access and recreational planning for the Towns of Swansea, Fall River, Barnstable, Quincy, Chelsea, and Boston Harbor; and comprehensive waterfront revitalization in Beverly included construction of a public landing. The CEIP initiated several projects aimed at mitigating energy impacts to Massachusetts shellfish and fisheries resources and these were being continued under the present grant. CEIP loans totalling $2.8 million were awarded to Massachusetts for port improvements in Fall River and for a waterfront park in Lynn.

Summary of Evaluation Findings:

FOR THE PERIOD FROM APRIL 1979 THROUGH NOVEMBER 1979

Noteworthy elements included the Wetlands Protection Program, the creation of Areas of Critical Environmental Concern (ACECs), the use of a Scenic River concept, and the development of community assistance grants. The staff tackled difficult coastal issues such as the Waquoit Bay ACEC designation and asserted leadership on issues that were controversial yet important to better coastal management.

No major unjustified deviations from the program were discovered. However, problems of particular concern which surfaced during the evaluation included the lack of progress in restricting wetlands, the need for increased assurance of compliance with the MCZMP, and the desirability of enhanced program communication at all levels.

FOR THE PERIOD FROM DECEMBER 1979 THROUGH NOVEMBER 1980

Excellent results of the third year of MCZMP program implementation included Governor King's Barrier Beach and Off Road Vehicles Executive Orders and the OCM's coordination with the Massachusetts Port Authority (Mass Port) to develop a container port in the Boston Harbor. In addition, technical assistance provided through OCM to local governments and the public continued at a high level and became a vital part of program implementation. Other outstanding accomplishments included the continued designation of areas of critical environmental concern and Scenic Rivers, the placement of wetland restrictions on over 15,090 acres, the successful use of local planning and research grants to obtain funding for project implementation and the high level of implementation resulting from local grants, the State's success in coordinating with the Federal Emergency Management Agency, and the State's activities affecting offshore oil and gas exploration.

There were, however, a few opportunities for improvement: the regulatory review processes of the MCZMP, the future direction of the local grant program, and the development of a comprehensive living marine resources management strategy.

FOR THE PERIOD FROM DECEMBER 1980 THROUGH NOVEMBER 1981

The Massachusetts Coastal Zone Management Office (MCZM) continued to exhibit a high level of staff competency and professional dedication to the task of MCZMP implementation. This contributed to a number of accomplishments during the review period, even though there were funding delays associated with a financial audit of the MCZMP development phase (FY 1974-77). The evaluation recognized the start-up delays associated with the withheld funding which pre-dated the responsibility of current staff. A major accomplishment was the Federal consistency review of the initial exploration plans for Outer Continental Shelf oil and gas drilling on Georges Bank, and the final National Pollutant Discharge Elimination System permit which, at the State's urging, incorporated restrictions related to disposal of drilling effluents and debris. Both the oil companies and the environmental and fishery interests accepted the consistency determination.

Rigorous monitoring by the MCZM will be required to assure that significant improvements established in the FY 1981 award in compliance with the 1980 Amendments to the CZMA will be accomplished within the time limits agreed upon. Two of the interim benchmarks were not met by the scheduled dates.

Michigan

Background - CZM and CEIP Programs:

The Michigan Coastal Management Program (MCMP) was approved in August 1978. The Department of Natural Resources' (DNR) Land Resources Programs Division is responsible for administration and management of the MCMP and the Coastal Energy Impact Program. Major authorities under which the MCMP is administered include: the Shorelands Protection and Management Act; the Great Lakes Submerged Lands Act; the Sand Dune Protection and Management Act; the Inland Lakes and Streams Act; and the Michigan Environmental Protection Act. The Natural Resources Commission establishes policy and guidelines for all DNR programs based on recommendations of a Citizens Advisory Committee and the Standing Committee on Shorelands and Waters.

The major coastal energy impacts on Michgan's shorelines are from coal storage and transshipment. Coal transport on the Great Lakes has reached 40 million tons annually and has caused increased erosion in the connecting waterways, increased port dredging and resultant dredge disposal problems, the loss of many acres of wetlands for coal storage and fly ash disposal, air and water quality problems, the displacement of coastal parks, recreational boating facilities and decreased public access.

Milestones - FY 1980 and FY 1981:

Fiscal Year 1980: Third year implementation efforts included:

- Designating more than 150 miles of environmental areas subject to stringent State regulations; over 250 miles of high risk erosion areas subject to State structural setback requirements; 34 flood prone communities as flood hazard areas subject to State coastal floodplain management requirements; and more than 121,000 acres (227 miles) of sand dunes subject to State regulations for mining reclamation and protection;

- Preparing an inventory of potential sites for future large-scale energy facilities and developing coordination procedures for streamlining permit requirements;

- Coordinating and negotiating with the Fish and Wildlife Service and Corps of Engineers regarding environmental impacts and studies related to winter navigation;

- Participating in the development of the Great Lakes Fisheries Commission's Strategic Fisheries Management Plan designed to provide a comprehensive framework for Federal, State and Canadian management of Great Lakes fisheries resources;

- Developing a Management Plan for the St. Clair Flats and obtaining official approval from the Natural Resources Commission to implement the policies and procedures to manage the State's largest coastal wetland areas; and

- o Innovative low-cost construction projects related to preservation and restoration of coastal resources.

Fiscal Year 1981: Highlights of the work program (fourth-year implementation) for the MCMP follow:

- o Implementing marina lease fee schedules to expedite resolution of commercial bottomland trespasses;
- o Implementing the lease, deed and permit provisions of the St. Clair Flats Management Plan and beginning land acquisition of undeveloped and dilapidated leased parcels as funds are provided under the Michigan Land Trust Fund;
- o Implementing minor project permits to further reduce application processing time to 10 days or less;
- o Preparing an inventory of facilities accessible to the handicapped throughout the coastal zone;
- o Preserving sensitive coastal resources by providing public access and interpretive opportunities throughout the coast;
- o Increasing technical assistance to local zoning officials and building code enforcers regarding the provisions of State statutes for delegation of enforcement authority to local units with State approved ordinances.

Coastal Energy Impact Program:

In FY 1980 and FY 1981 the State concentrated its $239,000 of Section 308(c)(1) planning funds on three projects and its $178,000 of Section 308(d)(4) environmental/recreation loss funds on one major demonstration project. Planning funds supported one full-time and one part-time energy analyst to administer the CEIP and conduct energy related studies, funded an inventory of suitable and unsuitable lake sites for the location of new electric generating plants, and funded a study of fish entrainment at the Monroe Power Plant water intake to determine species loss.

Through DNR efforts and CEIP funds, the planned expansion of the Sims coal storage yard was moved from the Lake Michigan waterfront, a linear lakefront park was created, and the site was improved.

Summary of Evaluation Findings:

FOR THE PERIOD FROM MAY 1979 THROUGH APRIL 1980

The State made significant improvements in substantive and procedural accomplishments including implementation of the St. Clair Flats Management Plan, acquisition of the St. John's Marsh and development of a management plan for the Marsh areas, designation of additional flood prone and erosion hazard areas, and the State's impressive use of the Federal consistency provisions of the CZMA and implementing regulations to negotiate with Federal

agencies concerning the potential impacts on coastal resources of proposed Federal actions.

The most significant of the issues identified which needed addressing included the lack of State regulations to implement the Sand Dune Protection and Management Act and lengthy delays in issuance of sand dune mining permits.

FOR THE PERIOD FROM MAY 1980 THROUGH MAY 1981

The MCMP protected Michigan's valuable coastal resources and provided a process through which appropriate coastal development was expedited. Noteworthy MCMP accomplishments included improved control of dredge and fill areas through effective implementation of the Great Lakes Submerged Lands Act; development and adoption of management policies and procedures for the St. Clair Flats, the State's largest and most valuable coastal wetland; and generating local and volunteer support for completion of significant local projects for recreational access, dune stabilization, and other efforts initiated with small amounts of low-cost-construction funding. Michigan made progress in resolving the backlog of sand dune mining permits.

Areas for improvement included completion of additional bluff recession rate studies of high-risk erosion areas, and designation of Phase III sand dune areas.

Minnesota

Background - CZM and CEIP Programs:

After four years of program development efforts, the State's last grant expired in September 1978. The cessation of their work was the result of opposition from citizens in the two northernmost coastal counties, Lake and Cook. No CEIP projects were ever awarded. During the period of program development, the State conducted numerous technical studies dealing with natural areas, soil capabilities, and geologic restraints to development in the Lake Superior coastal area. In conjunction with the State of Wisconsin, a Duluth/Superior Harbor Management Plan was developed and adopted by the City of Duluth. Of major concern to the State during program development was the issue of development adjacent to Highway 61 along Lake Superior.

Milestones - FY 1980 and FY 1981:

Minnesota is no longer participating in the CZM program. This leaves 189 miles of Lake Superior shoreline without comprehensive coastal resource protection.

Mississippi

Background - CZM and CEIP Programs:

The Mississippi Coastal Program (MCP) was approved in September 1980 and is based, in large part, on the Mississippi Coastal Wetlands Protection Law. The Bureau of Marine Resources (BMR) administers the major portions of the program. Collectively, four "coastal program agencies" (BMR, the Bureaus of Pollution Control and Land and Water Resources, both in the Department of Natural Resources, and the Department of Archives and History) are responsible for reviewing projects that affect the coastal area and for ensuring that such decisions are made in accordance with the program's policies.

The Bureau of Marine Resources is also the designated agency for the Coastal Energy Impact Program. As in other Gulf states, with the exception of Florida, major energy impacts are from petroleum production and refining activities. Primary problems are shortage of public facilities and services such as water supply, wastewater treatment, street, recreation facilities, and schools. In addition, there have been damage to wetlands and loss of coastline for public access. Mississippi has used CEIP funds for public works construction projects as well as environmental and recreational planning.

Milestones - FY 1980 and FY 1981:

In September 1980 a $800,000 Section 306 grant was awarded to Mississippi to cover activities during the first year of implementation. These activities included the administration of the wetlands permit program, policy coordination and several SAMPS. Mississippi focused most of its efforts on implementing a new system for permit review through the A-95 clearinghouse. The MCP is in the same bureau as the CEIP program and the State fisheries office which also has provided a good opportunity for coordination between the various NOAA grants programs.

A $675,000 supplement was awarded to Mississippi in September 1981 to fund activities during the second year of implementation. These activities included the continued administration of the wetlands permitting process, policy coordination, detailed work on several special area management programs including planning for the Ports of Pascagoula and Bienville, and work on coordinating the State permit program with that of the Corps of Engineers.

Mississippi received $1.1 million in CEIP grant awards during FY 1981 compared to $440,000 in grants and over $13 million in loans in FY 1980. Specific projects included park improvements in Ocean Springs; dredge spoil site acquisition by the Harrison County Development Commission; beach restoration in Pass Christian; marina improvement in Long Beach; planning studies concerning erosion, drainage, and the effect of shoreline structure configuration on water quality; and the restoration of Lighthouse Pier and school improvements in Biloxi. Loan projects included airport improvements, new solid water recovery system and a major water line.

Summary of Evaluation Findings:

FOR THE PERIOD FROM SEPTEMBER 1980 THROUGH APRIL 1981

The MCP protected Mississippi's coastal resources and provided a process through which appropriate coastal development can be expedited. Noteworthy accomplishments of the MCP included implementation of the Wetlands Use Plan; low-cost construction restoration and preservation projects; monitoring and enforcement efforts; application of the expedited process for siting major water dependent industry; archaeological and wetland mapping projects; progress on basic steps toward one-stop permitting; simplified processing for Outer Continental Shelf (OCS) environmental reports; adjustment of the Corps of Engineers (Corps) dredging plans in Biloxi channel to meet consistency requirements; a variety of worthwhile initiatives in public and local government participation, and initial accomplishments toward the development of a comprehensive fisheries strategy.

Mississippi experienced initial start up delays in beginning the speical area plans and permit simplification efforts. Furthermore, relationships with the U.S. Army Corps of Engineers and the Mississippi Bureau of Pollution Control must be strengthened to ensure timely permit decisions.

New Hampshire

Background - CZM and CEIP Programs:

The New Hampshire Coastal Program has been developed to improve the administration of the existing State laws, policies, and regulations in order to provide for the optimal use of New Hampshire's coastal resources. It will also coordinate activities among the State agencies. The Program will be completed in two phases. The first phase, the ocean and harbor segment, which was recently approved, covers the Atlantic Ocean, the Hampton Estuary, and the Portsmouth Harbor portion of the New Hampshire coast. Phase two, completing the management program for the entire coast including all areas under tidal influence, will be developed over the next two years. The lead State agency is the Office of State Planning.

New Hampshire's Coastal Energy Impact Program is administered by the Office of State Planning. The greatest portion of the 2.8 million tons of hydrocarbon products that come through the Piscatagua River/Portsmouth Harbor is oil. Oil spill impact potential is great. Oil traffic has already caused a considerable loss of recreational resources along the Piscatagua River. The environmental consequences of nuclear power plants are expected to continue as the Seabrook Plants begin operating in 1984 and 1988, under current scheduling. Power plant conversions from oil to coal will produce impacts from transportation, transfer, and storage, as well as ash disposal. Lesser impacts are expected from OCS activities and projects related to alternative energy sources.

Milestones - FY 1980 and FY 1981:

A draft EIS was released on January 25, 1982 for the Ocean and Harbor segment, based on existing authorities. The remaining Great Bay Segment is awaiting improved legal authorities. The comment period ended March 8, 1982. A final Environmental Impact Statement (FEIS) on the proposed Coastal Program - Ocean and Harbor Segment was released on April 23, 1982. The New Hampshire Coastal Management Program Ocean and Harbor Segment was approved on May 27, 1982, making it the 27th State to receive Federal approval.

The State received $125,000 in CEIP awards during FY 1981 and $951,000 in FY 1980. Several of the projects funded related to the impacts of oil transportation. The Department of Fish and Game received funding to continue the development of a comprehensive inventory of marine resources of the Great Bay Estuary in order to assess the impacts of hydrocarbon spills on marine life and provide a baseline for identifying potential environmental damage. The Town of Hampton, next to Seabrook, received funding to designate and map prime tidal wetlands in order to properly plan for expected community growth as a direct result of the Seabrook plant. Other projects related to a nuclear power plant impact study, and a transportation study. A recreational boating project was funded to mitigate the loss of recreational resources along the Piscatagua River as a result of oil traffic.

New Jersey

Background - CZM and CEIP Programs:

The entire New Jersey Coastal Management Program (NJCMP) received Federal approval on September 29, 1980. The Bay and Ocean Shore Segment of the New Jersey Coastal Management Program had been approved in September 1978. The program is administered by the Department of Environmental Protection (DEP) which has regulatory control, through the Coastal Area Facilities Review Act (CAFRA), the Wetlands Act, the Waterfront Development Act, and the Riparian Statutes.

The lead agency for the Coastal Energy Impact Program is the Department of Energy. New Jersey may well be one of the most important "energy centers" on the East Coast because of two factors: its location as the crossroads between the mid-Atlantic and New England/New York regions and because of offshore oil and gas potential. A combination of pipeline corridors, refining capacity and other petrochemical processing, attendant storage, and a substantial consumption base (industrial and residential) produce a heavy demand for oil and gas. Camden, Newark, and Atlantic City are the major impacted areas. Coal transportation, transfer, and storage is expected to increase, with Newark and Camden receiving the greatest impacts. OCS activities in the Baltimore Canyon are just beginning. Potential impacts will be caused by support bases onshore and pipelines. Atlantic and Ocean Counties are the most likely affected areas.

Milestones - FY 1980 and FY 1981:

Following program approval in September 1980, the State received a third year Section 306 grant for $2 million with a 14-month grant period. The funds were used for administration of the program, aerial mapping of the boundary area, a fisheries management strategy, and completion of a Shore Protection Master Plan. Major issues which the program addressed included casino development at Atlantic City, urban waterfront revitalization, public access, and energy development.

In September 1981, the State received a Section 306 supplemental grant for $615,000. The supplemental funds were used to continue administration of the permit program; support urban revitalization projects; institute a public access beach shuttle program; and continue enforcement activities along the Hudson, Delaware, and Atlantic shorelines.

The State received almost $1.3 million in CEIP funds during FY 1981 and over $1.8 million in FY 1980. New Jersey carried out a variety of planning projects throughout the State's coastal zone. Some examples are: a coal related residue study; an impact study for the Millville coal-fired electric generating station; a project to assess the impact of oil pollution on the blue crab; a shellfish and finfish inventory; park planning along the lower Delaware River; energy facility siting planning for a coal marine

terminal; a separation/dehydration plant for an OCS gas pipeline, an OCS support base and a coal-fired power plant; and support for a Delaware Bay Weather Monitoring Facility. In October 1980 the State received a $45,000 CEIP grant to assist the City of Elizabeth in acquiring property on Arthur Kill for public recreational use.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JUNE 1979 THROUGH JUNE 1980

Program accomplishments included addressing the issues surrounding casino developments in Atlantic City, the introduction of dune and shorefront protection legislation, and the administration of permitting activities. The State provided strong direction to the implementation of the Bay and Ocean Shore Segment with relatively few problems while developing the rest of its coastal management program.

A number of areas where improvements in coastal management activities were needed included hazards management, use of the Geographic Information System, and contract processing.

FOR THE PERIOD FROM JUNE 1980 THROUGH JUNE 1981

Noteworthy improvements were observed in the NJCMP's actions to mitigate cumulative impacts resulting from residential development in the State's coastal zone. The DCR was extensively involved in the production of the Draft Environmental Impact Statement for the proposed Wading River (formerly the Mullica River) Estuarine Sanctuary. The DCR's Bureau of Coastal Planning and Development's array of coastal resource and development policies were amended in September 1980 to make them appropriate for an expanded coastal zone boundary, and rules under the State's Waterfront Development Law were reinterpreted to give the DEP upland jurisdiction in the State's urban waterfronts. The State's coastal access plan had progressed and was expected to be completed on schedule.

The NJCMP was strengthened during the past year, and, although the State made slow progress in addressing some problems identified in the 1980 evaluation, many improvements were achieved in other areas.

New York

Background - CZM and CEIP Programs:

The State received preliminary approval of its program under Section 305(d) in June 1979. The program is based on the Waterfront Revitalization and Coastal Resources Act which establishes the State management structure; the Coastal Erosion Hazard Areas Act which establishes a regulatory program for critical erosion areas; and the existing Tidal Wetlands Act.

The Department of State is the lead agency for New York's Coastal Energy Impact Program. Major impacts result from power generating plants on all the coasts including Long Island, Hudson River, St. Lawrence River, Lake Ontario, and a particular concentration around the City of Oswego and Lake Erie. Continued exploration and expected development of oil and gas in Baltimore Canyon and Georges Bank will greatly impact the State coastal areas. Lesser impacts are from development of coal transshipment facilities in New York City and Buffalo; coal waste transportation and disposal from Staten Island power plants in the Hudson Valley; a coal-based synthetic fuel plant in Buffalo; and a Brooklyn Navy Yard waste recovery plant construction.

Milestones - FY 1980 and FY 1981:

The New York Legislature passed two pieces of coastal legislation in June 1981. The Waterfront Revitalization and Coastal Resources Act provided the legal authority to establish a coastal program in the State. The Act established coastal policies for the State, established a coastal boundary, provided for optional local government waterfront revitalization programs, and established a process for coordination of State actions and programs. The Legislature also passed the Coastal Erosion Hazards Area Act which provided for uniform setback requirements in coastal high hazard areas. The State submitted a draft program document for OCZM review in December 1981. A notice of intent to prepare a DEIS was published in the Federal Register on January 15, 1982. A DEIS is scheduled to be printed in May or June.

New York received close to $640,000 in CEIP funding during FY 1980 and $135,000 in FY 1981. A major portion of the funds was expended for energy facility planning and the acquisition of oil spill equipment. Specific projects included: technical assistance for new housing starts for central New York; continued planning for Somerset steam electric generating plant; a study for consolidation and relocation of existing oil storage and distribution facilities in Kingston; a study of navigation and pollution effects of two coal powered generating stations in New York City; and a water quality assessment for the Brooklyn Navy Yard resource recovery facility. Close to $50,000 was awarded the State for rehabilitation of the Rhinebeck Town Landing to provide public access to and recreation on the Hudson River. Erosion there has increased due to oil traffic. Assistance was also provided the Village of Ocean Beach to make recreational improvements along the Great Bay frontage.

North Carolina

Background - CZM and CEIP Programs:

The North Carolina Coastal Management Program (NCCMP) was approved in September 1978. The program is based in large part on the Coastal Area Management Act (CAMA) although other State laws are networked in as well. A State Executive Order requires all State agency actions to be consistent with the goals and policies of the NCCMP. The Office of Coastal Management is responsible for implementing the NCCMP with the Coastal Resources Commission (CRC) primarily responsible for the implementation of CAMA. Activities occurring within areas of environmental concern (AECs) require a CAMA permit. These permits can be divided into two general classes: major development which is regulated at the State level and minor development regulated at the local level with State overview.

The Office of Coastal Management also administers the Coastal Energy Impact Program. Its recent five-year CEIP strategy identifies peat mining and OCS activity (to the extent petroleum deposits are found) as the major energy impacts. To a lesser extent, the transfer and storage of petroleum products and coal are likely to affect coastal areas.

Milestones - FY 1980 and 1981:

o The Coastal Resources Commission adopted new standards for development in inlet hazard areas in addition to their oceanfront standards. The new standards, which have been highly controversial, only permit readily movable single family or duplex housing on at least 15,000 sq. ft. plots to locate in the inlet hazard areas.

o The NCCMP has approved the updating of land use plans for 50 local jurisdictions.

o During 1981 new legislation was enacted which established a new state beach access acquisition program. The law requires that priority for land acquisition be given to "lands which, due to adverse effects of coastal natural hazards, such as past and potential erosion, flooding, and storm damage, are unsuitable for the placement of permanent structures..." Five public access projects were carried out under program implementation funding in 1981.

o In 1980 a waterfront revitalization study was conducted in Morehood City, the State's second largest port. In 1981, seven projects addressed historic preservation and the redevelopment of urban waterfronts.

CEIP:

Projects undertaken with CEIP funds include a Long Beach pedestrian scenic walkway to provide better public access; identification of local access points in Carolina Beach; a study of likely impacts from peat mining; the impacts of coal transport and transfer in New Bern, Wilmington, and Morehead City; a

broad examination of beach access needs for the entire coast; a coastal geologic atlas; and a study to determine the impacts of coastal energy development on fisheries.

Summary of Evaluation Findings:

FOR THE PERIOD FROM APRIL 1979 THROUGH MARCH 1980

Specific substantive and procedural accomplishments were achieved, including the revision and updating of land use plan guidelines which local governments apply in the development of county and local land use plans; the revision and expansion of permitting standards in Areas of Environmental Concern (AECs) which are used in making State and local decisions on permit applications; and the revision of local planning grant guidelines which counties and localities use in developing local planning projects.

During the evaluation, problems concerning the implementation and management of the NCCMP which needed to be addressed by the Office of Coastal Management (OCM) and the CRC were identified. The most significant issue concerns the need for the OCM to coordinate its coastal program efforts more closely with other State agencies on important problems such as the maintenance of water quality.

FOR THE PERIOD FROM APRIL 1980 THROUGH JUNE 1981

The NCCMP continued to carry out a strong permitting program to manage coastal resources and strengthened its permit monitoring and enforcement capabilities. Noteworthy improvements were made in the coordination of policy making, permit review, and coastal resource decisionmaking with other governmental agencies. The State Coastal Resources Commission revised its standards and guidelines for Ocean Hazard and Estuarine System Areas of Environmental Concern. The revision of local land use plans has proceeded on schedule and public acceptance of the NCCMP has been growing throughout the State as the NCCMP track record is further established.

The NCCMP was strengthened during the past year, and the State should continue to work in several areas where improvements are already being made. The long term issue of watershed management to protect and improve water quality needs to be addressed in the near future.

FOR THE PERIOD FROM MARCH 1981 THROUGH JANUARY 1982

The State aggressively continues to pursue the goals of the NCCMP. Noteworthy improvements have been made in adopting new and revised regulations, especially for inlet hazard areas and marinas and canals, and in addressing issues of setback reasonableness and expedited decision-making; implementing and improving the permitting program; updating local land use plans; exploring policies to guide the leasing of underwater bottomlands; pioneering efforts towards a cordinated State-local post-disaster

planning process; coordinating CEIP projects with other Office of Coastal Management efforts, particularly those related to major facilities siting issues related to the exporting of coal; providing and financing new beach access legislation; implementing new U.S. Army Corps of Engineers General Permitting procedures for 80 percent of all eligible cases; consulting with State and Federal agencies; and improving and expanding public information and public participation efforts.

Northern Marianas

Background - CZM and CEIP Programs:

The Commonwealth's Coastal Resources Management Program (CRMP) was approved on September 23, 1980. The CRMP Regulations establish a coastal permit program and the boundaries for four types of Areas of Particular Concern (APCs): shoreline, lagoon and reef, wetlands and mangrove, and port and industrial. The regulations also provide for strict controls on activities outside of designated APCs which constitute "major sitings," thereby bringing into the purview of the CRMP all activities which may result in direct and significant impacts on coastal waters. Mechanisms for designating future APCs are also provided for by the program. The Governor's Executive Order ensures full implementation of the CRMP by identifying those agencies responsible for permitting decisions within specific APCs and requiring that they act in conformance with the policies and standards of the program.

The Planning and Budget Affairs Office administers the Coastal Energy Impact Program for the Northern Marianas which faces impacts from the development of alternative energy sources.

Milestones - FY 1980 and 1981:

The Commonwealth's first year Section 306 grant of $448,795 awarded in 1980 focused on the implementation of the coastal permitting program and the fine-tuning necessary to coordinate decisionmaking and review procedures used by regulatory agencies and the CRMO. Since many of the traditional land use controls are non-existent in the Commonwealth, the CRMP has initiated land use planning with the Marianas Public Land Corporation, in addition to developing functional plans for energy siting and development, flood hazard zoning, port development, and fisheries management planning. The CRMO entered into agreements with other Commonwealth agencies to assure compliance and implementation of coastal management objectives. These agencies committed staff time to implement and enforce the CRMO. In addition, coastal coordinators were hired to work directly with three of the outer islands of the Commonwealth. The CRMO also worked with Federal agencies to coordinate Federal participation in Commonwealth projects and to provide for adequate Federal consistency reviews.

The Commonwealth's second year Section 306 grant of $594,592 was awarded on September 23, 1981. The Commonwealth continued to make good progress in enforcing its program regulations and in preparing a strategy to institutionalize the program by clarifying roles and responsibilities of the program agencies. The CZM Program was reviewed by the transition team of the new Governor, Pete P. Tenorio. It is possible that a reorganization may result as well as an initiative to legislatively adopt the program.

Since receiving its new grant in April 1981, 31 permit applications were received. Of these, 21 were issued with conditions, three were denied, two withdrawn, and the rest still are under review. The permit decisions

were made on an average of three and one half weeks from receipt of an application. The CRMO also provided a developers guide to aid in understanding permit process.

The NMI received $77,000 in CEIP awards in FY 1981 and $214,000 in FY 1980. Funds were used to plan for the consequences of new or expanding energy facilities, including a proposed OTEC project; a study on coal movement activities in the Pacific Basin; and CEIP administration.

Summary of Evaluation Findings:

FOR THE PERIOD FROM OCTOBER 1980 THROUGH APRIL 1980

The CRMO made adequate progress on its cooperative agreement work tasks and substantive and procedural accomplishments were achieved. However, an issue identified as an area for improvement was the need to ensure that all Commonwealth agencies fulfill their responsibilities under the CRMP.

FOR THE PERIOD FROM OCTOBER 1980 THROUGH APRIL 1981

The Commonwealth adhered to its approved coastal management program; no deviations were discoverd as a result of this performance review. The Coastal Resources Management Office made adequate progress on its cooperative agreement work tasks.

During the performance review several problems concerning the implementation and management of the CRMP were identified which needed to be addressed by the Commonwealth. The most significant issue was the need to ensure that all Commonwealth agencies fulfill their responsibilities under the CRMP.

Ohio

Background - CZM and CEIP Programs:

The lead agency for Coastal Management Program development is the Ohio Department of Natural Resources. After six years of program development effort, the final Section 305 development grant expired on December 31, 1980. Concerns generated by private landowners and industrial and commercial developers over the the general issue of land use control and, more specifically, the proposed erosion hazard setback requirements, were the sources of the major opposition to program development and approval.

The Ohio Coastal Energy Impact Program is administered by the Ohio Department of Energy. Ohio also lost its eligibility to receive new CEIP funds when the Section 305 grant expired.

Milestones - FY 1980 and FY 1981:

Although Ohio no longer participates in the CZM program, final work products were received from Ohio for eight previously awarded CEIP planning and environmental/recreational loss projects. These projects were: shorefront park and playground improvements in Ashtabula and Conneaut neighborhoods and shorefront access cut off by coal unit-trains, zoning ordinance revisions in Jerusalem Township and the City of Oregon (Toledo), and plans for a small boat "harbor of refuge" near Toledo.

Other major CEIP projects were an environmental impact assessment of the construction of a solid waste recovery and steam generation facility in Cuyahoga County (Cleveland) and construction of a floating-tire breakwater by the City of Lorain to be used as marina protection. Once an adjacent dredge spoil disposal site is filled, this property will be developed as a permanent public park and marina. The project is considered by the State to be a model for other Ohio coastal areas. Ohio will complete all outstanding CEIP grant work by March 1982.

Estuarine Sanctuary:

Old Woman Creek, Ohio:

Facts:

Location:	Erie County, Ohio
Size:	571 acres
Biogeographic Region:	Great Lakes
Acquisition Status:	100% complete

Description:

Old Woman Creek, Ohio, is relatively small--only 571 acres--but ecologically it is extremely valuable. The sanctuary area is one of the few comparatively natural estuaries remaining on the heavily populated shores of Lake Erie. As such, it is of great importance as a control, or baseline area, for measuring the success of coastal land and water management efforts for the Great Lakes biogeographic region. Ohio is currently exploring the use of Old Woman Creek Estuarine Sanctuary as the State's freshwater research center. Since it is near urban centers, the educational aspects of estuaries will be heavily emphasized.

Oregon

Background - CZM and CEIP Programs:

The second CZM program to receive Federal approval was Oregon, approved in 1977. Prior to that, the Oregon State Legislature endorsed comprehensive land use planning with adoption of the Land Use Act in 1973. The Act established the Land Conservation and Development Commission (LCDC) and its staff, the Department of Land Conservation and Development (DLCD), with a mandate to develop statewide goals and guidelines. Four goals specifically address coastal concerns: estuarine resources, shorelands, beaches and dunes, and ocean resources. In Oregon, development of coordinated comprehensive plans is mandatory for local units of government. LCDC must either acknowledge (i.e., approve) plans if they comply with State goals, deny an acknowledgement request pending the correction of minor goal deficiencies, or mandate plan development or local government compliance through enforecement orders to local jurisdictions in the event of non-compliance. If an enforcement order is not complied with, LCDC can seek a court order compelling compliance.

The Department of Energy administers the Oregon Coastal Energy Impact Program. Energy activities having the greatest impact on coastal areas are coal transshipment and the possibility of oil exploration in State waters and in the OCS. The State is seeking to reduce the negative consequences of continued reliance on oil fuel by advancing the development of renewable energy resources, particularly wind.

Milestones - FY 1980 and FY 1981:

The Department of Land Conservation and Development completed a description of its monitoring and enforcement program last October. LCDC focused its attention on improving monitoring, enforcement and completion of local comprehensive plans. The Department continued to maintain an enforcement order in Curry County due to inadequate progress with the development of a land use plan. As part of this year's effort, the Department has increased its plan review staff in order to expedite the completion of Local Comprehensive Plans. To date, six local comprehensive plans have been acknowledged (approved) by the State and 30 of the remaining 36 jurisdictions have submitted their plans for State review and acknowledgement.

Oregon was awarded $143,440 in CEIP grants during FY 1981. No awards were made in FY 80. The City of Bandon received supplemental funding to continue several studies related to the consequences of wind energy conversion. The Oregon State Parks and Recreation Division received funding to evaluate the compatibility of wind turbines in coastal parks (Fort Sevens, Nehalem Bay, Bullards Beach, and South Beach), to provide information needed for the design and implementation of a strategy, using renewable energy resources and public recreational lands, to offset impacts arising from dependence on conventional energy sources. Other projects included planning for the impacts of proposed coal transshipment along the lower Columbia River, mitigating the impacts from expanded LNG activity in Newport, development of oil spill protection plans for Coos Bay and Yaquina Bay, and planning for the consequences of hydroelectric facilities.

Summary of Evaluation Findings:

FOR THE PERIOD FROM MARCH 1979 THROUGH MARCH 1980

The State devoted its energies to moving local coordinated comprehensive plans (CCPs) toward acknowledgement. The activities of the Coos Bay Task Force demonstrated the positive results that can occur through the participaiton of local, State and Federal agencies in the resolution of conflicts arising from this planning process.

Problems of particular concern which surfaced during the evaluation must be addressed with great care within the next grant year to ensure continued program compliance. These concerns included the ability of local jurisdictions to develop CCPs in a timely manner, the timely review of those CCPs, and the manner of dealing with CCPs which will not meet the acknowledgement deadline. Also of concern were grants management activities, enforcement activities prior to and after CCP acknowledgement, formalized permitting processes, and management of the South Slough Estuarine Sanctuary. In addition, the State was to determine soon the specifics of other State and local management functions following acknowledgement of the CCPs.

FOR THE PERIOD FROM APRIL 1980 THROUGH FEBRUARY 1981

During this review period DLCD activities were directed toward the acknowledgement of comprehensive plans. Although 35 of 42 coastal jurisdictions remained without acknowledged comprehensive plans, increased State efforts accelerated the acknowledgement process. In addition, oversight of local planning grants was enhanced through tying local funding to planning milestones.

Despite DLCD efforts, acknowledgement remained a discouragingly slow process. Monitoring and enforcement before and after acknowledgement also remained of concern, even though the State had developed its "Procedures for Monitoring and Enforcement of Oregon's Coastal Program."

Estuarine Sanctuary:

South Slough, Oregon:

Facts:

Location: Coos Bay, Coos County, Oregon
Size: 4,476 acres
Biogeographic Region: Columbian
Acquisition Status: 82% complete

Description:

The first estuarine sanctuary funded by the Estuarine Sanctuary program was South Slough within Coos Bay, Oregon. Enabling researchers to study both "natural and human processes," this 4,476-acre sanctuary preserves

freshwater and saltwater marshes, an island covered with a climax forest, numerous species of plants and animals, and in addition, a prehistoric Indian midden, an abandoned gold mine, and the sites of old railroad logging dumps. This timber country sanctuary is managed by the South Slough Estuarine Sanctuary Management Commission, which is comprised of several State agencies, local agencies, private sector representation, and a member of the Oregon University system. Because South Slough is one of the first large natural areas to be preserved in this manner, its multidisciplinary management commission may become a prototype for the planners and managers of other ecosystems to be protected in the future.

Pennsylvania

Background - CZM and CEIP Programs:

The Pennsylvania Coastal Zone Management Program (PCZMP) was approved on September 30, 1980. The Department of Environmental Resources (DER) is the lead State agency for implementing, administering, and enforcing the PCZMP. The regulatory aspect of the program is centered around the following State authorities: Dam Safety and Encroachment Act, Floodplain Management Act, Bluff Recession and Setback Act, Clean Streams Act, as amended, and the Air Pollution Control Act, as amended. Program coordination and oversight is ensured through formation of the Coastal Zone Advisory Committee (CZAC), which is comprised of representatives from the DER's bureaus and offices and other State agencies, boards and independent commissions.

Pennsylvania's Coastal Energy Impact Program is administered by the Department of Community Affairs (DCA). The energy activities anticipated to produce significant impacts on the disparate State coastal areas between now and 1985 are: coal transfer, transshipment, and storage facilities--Delaware Estuary (Port of Philadelphia) and Lake Erie; expansion of refineries--Delaware Estuary; and natural gas drilling, both on and offshore--Lake Erie.

Milestones - FY 1980 and FY 1981:

Fiscal Year 1980: Several noteworthy program achievements in the national interest areas were made during the first year of implementation. These included:

- Preparation of a model ordinance for local administration of the Bluff Recession and Setback Act and development of a pilot stormwater management plan for the Erie County watershed;
- Restructuring and formalizing the coastal zone steering committees to involve local government officials and citizen representatives;
- Negotiating and finalizing an agreement with the Philadelphia District Army Corps of Engineers to hold monthly meetings to review permit applications;
- Developing a Statewide strategy for addressing economic issues in the coastal zone; and
- Establishment of the Delaware Estuary Urban Waterfront Action Group (UWAG) as a forum for pre-permit conferences with developers and Federal, State, and local agencies.

Fiscal Year 1981: Under its second year Section 306 implementation award, the PCZMP focused special attention on resolving the following programmatic work tasks:

- Improving the State's monitoring and enforcement capabilities which includes post-permit follow-up activities to ensure compliance with State regulations;

- o Redefining the process for coordinating and conducting Federal consistency activities in light of the State's decision to abolish A-95 Clearinghouse functions;

- o Increasing technical assistance to local units of governments in implementing regulatory authorities; and

- o Preparing a five-year strategy to guide the program in its transition from a basically Federally-funded program to a State-funded program.

Coastal Energy Impact Program:

The Pennsylvania CEIP used its funds on both the Lake Erie and Delaware River coasts. Problems in both coasts are primarily ones of public access and natural resources preservation. In Erie County the CEIP in conjunction with the CZM program funded the development of Elk Creek Park on a portion of the lakefront site of a coal-fired power plant. In the Philadelphia area the CEIP provided funds to rehabilitate the Pulaski Pier Park and purchase the undeveloped portion of Little Tinicum Island. The park provides public access to the highly developed waterfront area while the island preserves a major fish spawning area and wildlife refuge.

Summary of Evaluation Findings:

FOR THE PERIOD FROM SEPTEMBER 1980 THROUGH MAY 1981

The PCZMP carried out the necessary "start-up" activities to shift from program development to implementation. Noteworthy program achievements included the work of the Delaware Estuary Urban Waterfront Action Group to provide a forum for pre-permit conferences with developers and Federal, State, and local agencies; restructuring and formalizing the coastal steering committees to involve local government officials and citizen representatives; development of a pilot stormwater management plan for the Erie County watershed; and development of a model ordinance for local administration of the Bluff Recession and Setback Act.

In general, progress was considerably above the norm for a first year program. Several areas cited for attention in the upcoming year included the need to evaluate and possibly increase post-permit monitoring and enforcement activities, continued pursuit of final regulations for and improved implementation of key State statutes, increased technical assistance, and Federal consistency activities.

Puerto Rico

Background - CZM and CEIP Programs:

The Puerto Rico Coastal Management Program was approved in two stages. The approval of the plan for the Island of Culebra as a segment was granted on April 1, 1977. The Culebra plan was then integrated into a Commonwealth program upon the approval of the Puerto Rico Coastal Management Program on September 18, 1978. The Program is based on the island-wide land use plan established by the Puerto Rico Planning Board and adopted by the Governor on June 22, 1977. The Department of Natural Resources (DNR) is the agency designated to administer the coastal program. Other major agencies assisting in program implementation include the Puerto Rico Planning Board, which has statutory planning, zoning, and land use responsibilities; the Regulations and Permits Administration (RPA); and the Environmental Quality Board (EQB).

The Department of Natural Resources is the designated CEIP agency. Past activities have been limited to planning for the consequences of energy development especially the conversion from oil to coal powered electrical generation.

Milestones - FY 1980 and FY 1981:

As part of an ongoing hazards management effort, a report entitled "Coastal Flood Hazards and Response in Puerto Rico: An Overview" was completed. During FY 1980, two site-specific mitigation plans for hazards were developed. Special area management plans were completed for Tortuguera and are in final development and review stages for La Parguera and the Pinones sections of the island. The Puerto Rico Coastal Management Program identified and approved 10 sensitive resource areas to be preserved in their natural state. Other major program efforts centered around coastal hazards mitigation planning, permit coordination and enforcement and special area management planning. Regulations for maritime zone construction and shorefront access underwent State agency review. Two offshore sites were considered for a marine sanctuary. A draft permit simplification handbook was prepared. Other areas of program concentration included intra-agency coordination, public access, and waterfront redevelopment planning for San Juan Harbor.

Summary of Evaluation Findings:

FOR THE PERIOD FROM MAY 1979 THROUGH MAY 1980

The Commonwealth of Puerto Rico adhered to its approved coastal management program; no major deviations from the PRCMP were discovered. Significant accomplishments were the coordination and excellence of the enforcement activities of the Ranger Corps, the work on planning for disasters and hazard mitigation, and the development of special planning areas.

The evaluation indicated several program implementation problems in the area of Department of Natural Resources coordination with Federal and Commonwealth agencies, including the inadequate implementation of Federal consistency procedures.

FOR THE PERIOD FROM MAY 1980 THROUGH MAY 1981

The Commonwealth continued to adhere to its approved coastal management program. Significant accomplishments were continued good work by the Ranger Corps, the development of a Special Planning Area Management Plan for Jobos Bay and hazard mitigation plans.

In spite of delays resulting from a change of administration in the Department of Natural Resources, the Commonwealth made satisfactory progress on its work tasks. Several program implementation problems continued to exist in internal coordination within the DNR and the lack of a systems approach for permit reviews.

Estuarine Sanctuary:

Jobos Bay, Puerto Rico:

Facts:

Location:	Aquirre, Town of Salinas (Southwest Coast of Puerto Rico)
Size:	2,500 acres
Biogeographic Region:	West Indian
Acquisition Status:	100% complete

Description:

NOAA awarded a grant to the Commonwealth of Puerto Rico's Department of Natural Resources (DNR) in September 1981 establishing Jobos Bay as the eleventh national estuarine sanctuary. This grant enabled DNR to purchase, through fee simple acquisition, 1,205 acres of land on the south coastal plain of Puerto Rico. The property, which was purchased from the Aguirre Corporation, is located on Jobos Bay, approximately 25 miles east of the City of Ponce. South of Jobos Bay and east of the Aquirre property, DNR has acquired 17 islets (155 acres) known as Cayos Caribe that will be included in the sanctuary, along with 1,440 acres of mangrove channels, lagoons, and territorial waters. This estuarine sanctuary will ensure long-term natural productivity and continued ecosystem functioning of a significant portion of Puerto Rico's second largest estuarine zone.

Rhode Island

Background - CZM and CEIP Programs:

The Rhode Island Coastal Management Program (RICRMP) was approved in May 1978. The lead State agency is the Office of the Governor. The program is based on the Rhode Island Coastal Resources Management Act which was passed in 1971. Key agencies which are involved in administration of the program include the Coastal Resources Management Council (CRMC), the Department of Environmental Management (DEM), the State Planning Office, and the Coastal Resources Center at the University of Rhode Island. Major issues which the program addresses include salt pond management, designation and maintenance of public rights-of-way (58 designated within the past two years), and enforcement.

The Governor's Energy Office administers the Coastal Energy Impact Program. The abandoned Quonset Point/Davisville Navy Base in North Kingston serves as the primary OCS onshore service support base for the Baltimore Canyon and Georges Bank oil and gas exploration and development efforts. These impacts will expand as the OCS activities accelerate offshore. Lesser impacts will result from alternative energy-related projects.

Milestones - FY 1980 and FY 1981:

Major funding focused on a rights-of-way study to regain title to access ways in the State, a salt pond management program, oil spill "finger printing" program, funding marine enforcement officers examining the Upper Narragansett Bay water quality problems, and continued support for DEM and CRMC personnel to administer the program. The first Salt Pond Management Plan will be considered by the Coastal Resources Management Council in the fall of 1982.

Fiscal Year 1981 CEIP awards totalled over $850,000 and $220,000 was awarded in FY 1980. Many of the projects were related to OCS impacts, including an economic impact study, a transportation study, port management planning, a recreational impact study, and a public safety requirements study. Pipeline corridor designation was another OCS impact area that the State studied. Projects designed to make use of coal, wind, hydropower, peat, and solid waste conversion were underway or contemplated. These studies were concerned with both the viability and environmental impacts of alternative energy sources.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JANUARY 1979 TO DECEMBER 1979

Specific substantive and procedural accomplishments in various aspects of coastal management included CRMC permitting activities, DEM enforcement actions, designation and maintenance of rights-of-way, and technical assistance to coastal towns. The major items of concern involved the need to improve communications among the various State organizations which administer the RICRMP, to improve enforcement activities and processes, and for additional personnel.

FOR THE PERIOD FROM JANUARY 1980 THROUGH DECEMBER 1980

Through the activities of the CRMC and the DEM, the State made progress toward the goals of the RICRMP. Accomplishments continued in the areas of DEM enforcement actions (12 civil or criminal cases were litigated or filed between July 1 and November 30, 1980), CRMC permitting activities (passage and implementation of State enabling legislation for permitting activities related to aquaculture), and the designation of State owned rights-of-way to the coast.

During the evaluation, several problems concerning the implementation and management of the RICRMP were identified. The most significant issues concerned the authority of the CRMC to deal with the cumulative impacts of individual permit applications and the need for improved coordination among the State agencies implementing the RICRMP.

Estuarine Sanctuary:

Narragansett Bay, Rhode Island:

Facts:

Location:	Newport County, Rhode Island
Size:	2,629 acres
Biogeographic Region:	Virginian
Acquisition Status:	99% complete

Description:

The Narragansett Bay Estuarine Sanctuary consists of two islands and the portion of a third lying in the center of the bay. The bay itself extends for 25 miles from Newport on the ocean to Providence. With the assistance of the National Estuarine Sanctuary Program, almost all of Patience Island was purchased in 1980. It is combined with State-owned lands and waters on Hope and North Prudence Islands to form the 1,629-acre sanctuary, the first of its kind (Virginian classification which extends from Cape Cod to Cape Hatteras) in the National Estuarine Sanctuary Program. The islands contain the largest salt marshes in Rhode Island and the largest bird rookery in the Northeast. These marshes are generally in an undisturbed natural condition, or were once developed but are gradually returning to a natural state which the sanctuary protection will encourage.

South Carolina

Background - CZM and CEIP Programs:

The South Carolina Coastal Management Program (SCCMP) was approved in September 1979, and is based, in large part, on the South Carolina Coastal Management Act of 1977 (SCCMA). The Act establishes a permanent South Carolina Coastal Council (SCCC); provides for the development and administration of a comprehensive Coastal Management Program; sets up a permitting process for activities occurring in the four "critical areas" of the coastal zone (tidelands, coastal waters, beaches, and primary oceanfront sand dunes) and provides a mechanism for State and local agency consistency with the State's approved Coastal Management Program throughout the coastal zone.

The South Carolina Coastal Energy Impact Program is located in the Governor's Office. According to the State's five-year CEIP strategy, the following energy activities have been identified as producing the greatest impacts on the State's coastal areas: the transport, transfer, and storage of fossil fuel; OCS exploration and development; peat mining; alternative sources of energy; and energy facility siting, particularly LNG and electric generating plants.

Milestones - FY 1980 and FY 1981:

The General Assembly adopted the State's revised rules and regulations for permitting authority in highly sensitive areas. The revisions significantly strengthened the Council's direct permitting authority in those areas.

A special area management plan (SAMP) was completed for the Shem Creek area, an area north of Charleston that has been receiving intense development pressures. Permit monitoring and enforcement has consistently improved with pre-permit application meetings and aerial and ground surveillance.

The State used its CEIP funds extensively to mitigate the impact of energy activity on recreational resources. Land was purchased in Horry County and Mt. Pleasant to be used for recreational parks. A boardwalk and trail system was being developed at Palmetto Islands. Funds also were utilized to replace or upgrade boating facilities at Georgetown, Daufauski Island, and Pinckney Island. CEIP funded $150,000 worth of projects in FY 1980 and $900,000 in FY 1981.

Summary of Evaluation Findings:

FOR THE PERIOD FROM SEPTEMBER 1979 THROUGH OCTOBER 1980

The South Carolina Coastal Council firmly established and operated a system of direct permitting in critical areas, certification of State actions within the coastal zone but outside of the critical areas, and assessment of proposed Federal actions for consistency with the approved SCCMP. In addition, the SCCMP aggressively implemented a monitoring and enforcement program

designed to monitor permitted activities and provide routine air and ground surveillance of the entire coastal zone for the purpose of detecting any illegal alterations of resources within the "critical areas." The program was described as a major step forward for the State in the field of planning and resource protection.

There were two significant areas in which the SCCMP needed strengthening. First, a weakness of the current program was the level of protection provided to beach and sand dune systems and to life and property in proximity to them. Second, the SCCMP did not devote adequate time and resources to policy planning and other preventative aspects of coastal management. Recent procedural changes regarding the role of the SCCC in the permitting process has limited full Council participation to major cases and appeals.

Texas

Background - CZM and CEIP Programs:

The Texas Coastal Program (TCP) had been scheduled for approval in 1981. The TCP was being developed by the Natural Resources Division of the newly created Texas Energy and Natural Resources Advisory Council (TENRAC) and would have been based on existing State laws including the Coastal Public Lands Management Act, the Texas Water Code, the Dune Protection Act, and the Coastal Wetlands Acquisition Act. The TCP would have been implemented through the direct State control technique provided by existing State permits, leases, and other certifications. In a letter dated April 30, 1981, Governor Clements indicated that the State of Texas would not be submitting its draft program document for OCZM's review and approval. OCZM officially terminated the State's grant on May 4, 1981.

Although Texas is no longer eligible for participation in the Coastal Energy Impact Program, the termination will not affect the $5.5 million in CEIP grants and $20 million in CEIP loans awarded prior to May 1, 1981. The CEIP is administered by the Governor's Budget and Planning Office. Unlike most States, Texas by regulation limited the use of its CEIP grant funds to either planning or the mitigation of environmental or recreational loss. All CEIP funded public works projects in Texas have been supported by loans.

Milestones - FY 1980 and FY 1981:

CEIP planning projects included park planning by the City of Sinton, and the Counties of Galveston, Cameron, and Harris; a study to restore shrimp and shellfish nurseries in dry lake areas near Brownsville; and a study of the effects of coastal oil and gas development on recreation and tourism in Calhoun, Jackson, and Victoria Counties. Typical major projects included the construction of fishing piers in Port Arthur, Port Aransas, Fulton, and Nueces County; acquisition of 482 acres of floodplain land for parks and passive flood control in Harris County; acquisition of wetlands by the City of Portland; public beach improvements by Aransas, Calhoun, and Galveston County; and park improvements in Bay City, Beaumont, Gregory, Kingsville, and Rockport.

Loan projects included water lines in Port Arthur and Kingville and major public infrastructure to support a new housing development in Port Arthur which will provide housing for 19,000 people.

Virgin Islands

Background - CZM and CEIP Programs:

The Virgin Islands Coastal Zone Management Program (VICZMP) received Federal approval in June 1979. The Program is based on the Virgin Islands Coastal Zone Management Act of 1978 (VICZMA). The VICZMA established the organizational structure for the VICZMP by designating the Department of Conservation and Cultural Affairs (DCCA) as the lead administrative agency and creating a Coastal Zone Management Commission to serve as the decisionmaker for major permits. Also assisting in implementing the program are the Virgin Islands Planning Office and the Public Works Department. Major issues being addressed by the program are the management of shorefront development to provide continued economic growth while protecting the natural, historical, and cultural resources of the islands; the preservation of unique natural resources, e.g., salt meadows, mangroves, and lagoons; and preservation and enhancement of access to shorefront areas.

The Federal Programs Office has responsibility for administering the CEIP. To date, the major project has been St. Croix's planning for the effects of the Hess oil refinery (the largest in the Western Hemisphere) on the Island's economy, society, and natural resources.

Milestones - FY 1981 and FY 1981:

On June 6, 1980, the first year Section 306 grant was supplemented with an additional $350,000 and extended until December 30, 1980. In addition to implementing the coastal zone permit program, DCCA was in the process of completing several major tasks. These included development of procedural rules for the permit program, the water-use plan, and a developers' handbook. In addition, more detailed strategies were being developed for all of the eighteen geographic areas of particular concern.

A second year Section 306 grant was awarded on December 31, 1980. In addition to implementing the coastal zone permit program, DCCA undertook an assessment of existing uses in the first tier of the coastal zone. This effort identified nonconforming uses as opposed to "grandfathered" exceptions to the zoning code. Adoption of an island-wide Water Use Plan and the implementation of the boating registration program began. Other activities included the refining and implementation of guidance plans for areas of particular concern and creation of a ticketbook system.

OCZM awarded $45,810 in FY 1981 CEIP grants. The proposals included: support of an energy impact planner, a plan for the revitalization of Fredriksted, and a feasibility study for a major fuel oil terminal.

Summary of Evaluation Findings:

FOR THE PERIOD FROM JULY 1979 THROUGH JANUARY 1980

Due to start-up delays the VICZMP did not fully address all of the grant tasks proposed for the first year of program implementation; however,

progress was made toward reaching the VICZMP goals. Accomplishments included: the establishment of a Division of Coastal Zone Management, a comprehensive coastal zone management permit system, and a Bureau of Enforcement responsible for environmental, boating, and wildlife protection laws; improved beach cleaning and maintenance; and planning for designated areas of particular concern.

While a number of areas were found where improvements in coastal management activities were needed, most deficiencies were related to a lack of progress on grant tasks and were attributable to delays in hiring staff and procuring equipment necessary to carry out the program.

FOR THE PERIOD FROM NOVEMBER 1980 THROUGH SEPTEMBER 1981

DCCA improved the permitting system and the monitoring and enforcement of the program. The permit process was simplified through the use of pre-application conferences and reformatting the guidelines for preparing an environmental assessment report. Noteworthy accomplishments included the implementation of recommendations from the Guidance Plans for the Areas of Particular Concern. A draft Oil Spill Response Plan was completed. The DCCA worked toward acceptance of the Water Use Plan and defused several crisis situations between competing users on Water Island. A coordinated development plan for the area near the Enighed Library was completed and the DCCA worked with the Virgin Islands Department of Commerce to fund an extension of the Christiansted boardwalk.

Some problems were identified during the review. Legal staff remains insufficient to assure that work tasks requiring legal input are not delayed. Certain Virgin Islands governmental agencies were not complying with the Federal consistency provisions of the VICZMP. Communication and coordination with the Department of Public Works in enforcing Earth Change permit conditions, particularly erosion control measures, need improvement.

An audit survey of the DCCA financial management and procurement systems was carried out by the U.S. Department of Commerce Inspector General. The survey concluded that the Virgin Islands Government must revise their systems to meet prescribed standards.

Virginia

Background - CZM and CEIP Programs:

Virginia has not participated in the CZM Program since April 1979, when a major legislative initiative failed. The State continues to work with Maryland at both the legislative and executive levels to solve problems relating to the management of Chesapeake Bay.

Milestones - FY 1980 and FY 1981:

Two coastal bills were approved by the General Assembly in 1980; one established a permit system for dunes and the other would have expanded the existing wetlands law to cover non-vegetated wetlands. The Governor signed the dunes bill but vetoed the bill for non-vegetated wetlands. In May 1982, a letter was received from Governor Robb indicating the State's intention to resume the development of an approvable Coastal Management Program. OCZM is working on findings to determine the State's eligibility to receive CEIP funding.

Washington

Background - CZM and CEIP Programs:

The Washington Coastal Zone Management Program (WCZMP) was approved in 1976, distinguishing it as the first State to have a Federally-approved CZM program. It is based on the 1971 Shoreline Management Act (SMA). The Department of Ecology (DOE) is the WCZMP lead agency. The Departments of Natural Resources, Fish, Game, Highways, State Parks and Recreation, Archaeology and Historic Preservation, and Emergency Service Support and participate in the implementation of the WCZMP. Under the SMA the DOE is also authorized to assure protection of coastal resources from adverse impacts associated with development in lands adjacent to the shoreland boundary.

The Department of Ecology administers the Coastal Energy Impact Program in Washington. Major energy impacts in the State are oil and coal transshipment and current and potential nuclear and OCS support facilities.

Milestones - FY 1980 and FY 1981:

A Year of the Coast conference was held in October 1980 at the Seattle Center. Washington also conducted a Federal consistency workshop for Federal agencies and for State and local agencies in October 1980 in Seattle. An urban waterfront workshop was held in Bellingham in February 1980.

The Department of Ecology conducted county-by-county assessments for permit compliance with the SMA. Local jurisdictions submitted reports to assessments on January 23, 1981, with the remaining counties completed by June 1981. As a result of its assessment, the DOE developed a strategy for improving program enforcement and coordination with other State agencies to detect violations and unpermitted activities.

DOE issued clam harvesting guidelines to end a protracted local-State controversy.

The Chicago Bridge and Iron Company proposal of building a major OCS fabrication facility at Cherry Point, Whatcom County, was recently denied by DOE. DOE cited reasons that in addition to violating State shoreline law, there were other sites available that would not require extensive dredging and filling; for example, the Kaiser Steel Company site in the Grays Harbor area.

The Energy Facility Siting Council made a final decision 19-6 to reject the Northern Tier Pipeline Company (NTP) proposal to build an oilport at Port Angeles and a crude oil pipeline ending in Minnesota. The primary reasons included risk of oil spill and lack of demonstrated need for the pipeline. Governor Spellman made the final decision to affirm EFSEC's recommendation in April 1982.

Meanwhile, controversy between DOE and the District Corps of Engineers (COE) surfaced over COE granting a Section 404 permit to NTP. The COE Chief Counsel concluded that the State's concurrence with NTP's proposal was presumed due to DOE's lack of response within six months of the applicant's submission of a Federal consistency determination. However, Washington's program provides that the six month review period does not commence until the Governor's decision

on EFSEC's final recommendation. The State urged the COE not to grant the permit before receiving its consistency determination which will be made within 30 days of the Governor's decision.

In FY 1980, Washington received $206,136 in CEIP funds to carry out its responsibilities under the OCS Lands Act. In FY 1981, Washington was awarded $385,440 in CEIP funds. Projects included the development of State policy regarding the proposed Northern Tier oil pipeline, the assessment of impacts of coal transshipment along the Columbia River, the assessment and mitigation of continuing impacts from the Satsop nuclear power plant, and the assessment of consequences of OCS support facilities in Grays Harbor.

Summary of Evaluation Findings:

FOR THE PERIOD FROM FEBRUARY 1979 THROUGH JANUARY 1980

Specific substantive and procedural accomplishments included extensive improvement of urban waterfronts throughout the State, cooperation with the Department of Natural Resources and the Department of Fisheries in various aquatic area management projects, and local permit administration.

While no major deviations were discovered as a result of the evaluation, the WCZMP was advised to provide more effective leadership and direction on coastal management issues, and incidents of non-compliance with the shoreline permit system were encountered. Other items of concern included the necessity to determine the degree of compliance with shoreline permits and the adequacy of local government enforcement, conflicts between the permissible uses of the shoreline and adjacent interior lands, and the need for increased technical assistance to local shoreline administrators.

FOR THE PERIOD FROM JANUARY 1980 THROUGH JANUARY 1981

Redevelopment of urban waterfronts has been emphasized in the past few years and several towns and counties used coastal zone management funds to plan central city waterfront projects. For example, Port Angeles established criteria for rehabilitating its downtown. King County promulgated legislation which provided for the regulation of high hazard areas, San Juan County promulgated regulations regarding docks, and the new Aquatic Lands Management guidance established clear requirements for priority siting of coastal dependent development.

Although the WCZMP has made progress, several recurring areas were cited where improvements in program implementation would enhance the capacity of the WCZMP to address coastal issues. For example, activities on adjacent lands which extend beyond the designated shoreline and are within the coastal counties were not being adequately managed through the WCZMP. Each coastal county and city developed local master programs but they did not clearly define the process through which adjacent lands are to be managed to meet the coastal resource protection and management objectives of the WCZMP. In addition, county compliance assessments, reviews of each county's enforcement activity, were only partially completed.

Estuarine Sanctuary:

Padilla Bay, Washington:

Facts:

Location: Skagit County, Washington
Size: 11,612 acres
Biogeographic Region: Columbian
Acquisition Status: 40% Complete

Description:

The Padilla Bay sanctuary consists of 11,612 acres of tidal marsh and upland areas. Its extensive eelgrass beds, which are perhaps the largest within the continental United States, are primary habitats for substantial numbers of water fowl. On an average winter day there are over 50,000 ducks in Padilla Bay, including scamps, golden eyes, buffleheads and the endangered canvasback. Padilla Bay is the most important habitat in the Northwest for the scarce black brant duck, since this species is dependent on shallow, coastal bays with a supply of eelgrass. Other uncommon inhabitants of Padilla Bay include the American bald eagle, red fox, great blue heron, snowy owls and harbor seals.

The establishment of Padilla Bay was unique in land acquisition programs. A steering committee composed of local, State and Federal representatives was established and given authority to make all decisions about boundaries and sanctuary uses, as long as they were consistent with NOAA sanctuary guidelines and other Federal and State laws. The committee adopted a philosophy calling for coexistence of the sanctuary with other community needs such as agriculture and industry.

Wisconsin

Background - CZM and CEIP Programs:

The Wisconsin Coastal Management Program (WCMP) was approved in May 1978. The Bureau of Coastal Management in the Department of Administration is the lead agency for implementing the program which includes Section 306, Section 308 (CEIP) and Section 315 (Estuarine Sanctuaries). Regulatory responsibilities (33 are cited) are primarily carried out through the Department of Natural Resources, the Department of Transportation, the Public Service Commission and counties.

A gubernatorially appointed Council (25 members-Legislature, State agencies, local officials, tribal governments, citizens and the University) oversees program implementation and advises the Governor on State policies affecting the Great Lakes. The Wisconsin program has a strong policy of a State/local partnership in coastal resources management. The Wisconsin program has been most active in the areas of fisheries management, local water-dependent economic development, shoreline erosion, port-related issues, water regulation and zoning, dredged material disposal, tribal coastal management, public access and interbasin water transfer.

Milestones - FY 1980 and FY 1981:

A major change in Wisconsin's dredge spoil disposal policy occurred as a result of a WCMC study requested by Governor Dreyfuss. Previous State policy prohibited the disposal of any dredge spoil in Wisconsin waters. The task force recommended that this policy be modified under certain conditions to allow the lake disposal of clean material. The new policy continues to meet environmental concerns while at the same time providing economic benefits.

A WCMC task force conducted an assessment of the public access issue--demand, availability, and quality. Their recommendations covered a range of specific issues: the need for a State commitment to fund and support increased public access, concentration of access efforts near population centers, boating needs, acquisition and development priorities, subdivision dedication, off-road vehicles, and long-term problems.

The WCMC studied the issues associated with the interbasin export of Great Lakes water. The need for this study was in part a result of the Powder River Pipeline Company's interest in using Great Lakes' water to operate a coal slurry pipeline. Wisconsin's study concentrated on the legal aspects of this issue while a complementary effort being undertaken by the Michigan CZM program will explore the economic development aspects of interbasin water transfer.

Wisconsin continued to provide local technical assistance to solve erosion problems. Meetings were held to discuss erosion hazard provisions that can be included in zoning and subdivision regulations, to identify technical assistance personnel, and to conduct shoreland-wetland training sessions for water regulation and shoreland zoning field staff.

The WCMC continued to support comprehensive and specific studies of the Green Bay and its associated wetlands, one of the largest remaining wetlands areas in the Great Lakes. The Green Bay West Shore continued to be a focus of development pressures and conflict.

The State surveyed property owners of three potential sites for Estuarine Sanctuary nomination. Based on a favorable response from property owners in the North Bay and Mink River areas of Door County, the Wisconsin Coastal Management Program staff developed a discussion paper entitled "Options for Management of a Wisconsin Estuarine Sanctuary." This discussion paper, sent to the property owners, detailed the potential impact and options of an Estuarine Sanctuary at either the North Bay or Mink River sites.

Eight projects were undertaken to plan for or mitigate the impacts of coal and oil transportation transfer or storage facilities. In the City of Superior--Superior/Duluth Harbor area--four projects to improve public access were funded. A planning study of the effects on the Harbor Area of a coal slurry pipeline was also undertaken.

Public access improved in the Kewaunee area. Additional planning studies included an energy facility site selection project which determined sites suitable and unsuitable for energy facilities in the Bay-Lake Regional Planning Commission Area and an update of the Port of Milwaukee's 10 year plan concentrating on requirements necessary for power plants, coal and oil docks, and tank farms.

Summary of Evaluation Findings:

FOR THE PERIOD FROM MARCH 1979 THROUGH APRIL 1980

Significant progress was made including improvements in administrative management, the appointment of a new Coastal Management Council which focused its attention on major coastal issues and priorities, role clarification and increased use of regional liaison and field staffs, outstanding integration of the WCMP and the Wisconsin Coastal Energy Impact Program (CEIP), and accomplishments by the Department of Natural Resources (DNR) in wetlands and fisheries management and in identification of toxic substances.

The State of Wisconsin adhered to its approved coastal management program. However, areas cited for strengthening included a lower level of coordination among State and Federal agencies than should have evolved through the exercise of the State's Federal consistency responsibilities, the general weakness of the process by which Federal consistency is addressed, and the need for additional project monitoring to ensure continued strengthening and implementation of the WCMP policies and objectives.

FOR THE PERIOD FROM MARCH 1980 THROUGH APRIL 1981

Significant progress was made toward reaching the goals of the WCMP. These included improvements in administrative management, in particular administration of WCMP funded projects, implementation of the Federal consistency procedures, and the emergence of the Wisconsin Coastal Management Council (Council) as a State-level body with a significant role in the identification of issues and formation of State coastal resources management policy. Revisions to the Wisconsin Administrative Code were adopted which require every Wisconsin county to incorporate wetlands protection provisions into its shoreland zoning ordinance after receiving final Wisconsin Wetland Inventory Maps from the Department of Natural Resources (DNR). The process to evaluate, select, and nominate a Wisconsin Great Lakes estuarine area for National Estuarine Sanctuary designation was initiated.

Research and Education Programs

The CZM and CEIP Programs and the Estuarine and Marine Sanctuary Programs have sponsored a large amount of research on coastal issues. Some particularly notable projects sponsored by CZM and CEIP have been noted in the discussion of the respective States' Programs. A discussion of the strategic assessment project, a major research program of OCZM, is described in the ORCA chapter.

The information that follows describes the activities of the Coastal Zone Information Center (CZIC) which is responsible for coordinating the information activities of OCZM. This chapter also presents a detailed outline of research sponsored by the sanctuary programs.

Coastal Zone Information Center

The Coastal Zone Information Center (CZIC) provides a variety of information services to OCZM staff, State coastal management programs and the general public. CZIC provides answers to questions concerning the coastal zone, and provides guidance to those who wish to research a topic in detail. Services include compiling selected bibliographies of source documents, directories of applicable information sources, and providing information about the history and current status of the coastal zone management program. CZIC is currently producing the third edition of an annotated bibliography of State coastal zone management work products -- a detailed guide to the research that has been sponsored under the CZMA.

The Coastal Zone Information center contains a collection of 10,000 books, documents, periodicals, maps and atlases. The collection is available for specialized research into the field of coastal zone management.

The Office of Coastal Zone Management has long realized that in order for coastal management programs to work effectively, citizens must be aware of the value of coastal areas, the scarcity of those desirable resources, the nature of the conflict between uses, and the methods available to resolve those conflicts. In recognition of the need for public education and the necessity for a coastal awareness, OCZM funded the development of a one semester, high school social studies course. The course, Coastal Problems and Resource Management, was developed by the Curriculum Research and Development group at the University of Hawaii. Though many existing marine education materials are currently available, the new materials go beyond the scientific characteristics and value of the coast, explain the reasons why it is so attractive to so many users-commercial, recreational, industrial -- and identify the governmental mechanisms managing the use of the coast.

OCZM interested several coastal States in implementing the course by sponsoring teacher training workshops to introduce the course materials and working with State departments of education to encourage its use. Fifteen States and territories have held workshops on the course. The course is currently being taught in eight States.

Estuarine Sanctuary Research:

Established estuarine sanctuaries can receive up to $250,000 in matching grants over a five-year period to assist in the operation of the sanctuary. These grants enable the State to hire a full-time manager and implement the research and education programs as outlined in the final environmental impact statement. Research projects are not normally funded by Section 315 grants; however, the grant does allow for baseline and monitoring studies. In addition, the sanctuary manager coordinates all the research projects for the estuarine sanctuary and integrates them with the approved research program. Research projects are conducted by State agencies, environmental organizations, university students, and volunteers.

Listed below is a summary of the research projects that have been or are currently being conducted in the estuarine sanctuaries that have active research programs.

SUMMARY OF RESEARCH PROJECTS CONDUCTED AT NATIONAL ESTUARINE SANCTUARIES

Site/Project	Objective
California	
Elkhorn Slough	
o Hydrographic study (Moss Landing Marine Lab)	Obtain baseline data.
o Chemical oceanographic study (Moss Landing Marine Lab)	Obtain baseline data.
o Use of certain organisms as indicators of paleoenvironmental conditions (Moss Landing Marine Lab)	Obtain understanding of existing environmental conditions based on a study of these phenomena.
o Study of development impacts on ESNES (University of California at Berkeley and MLML)	Methods for relating land uses proposed for an estuary watershed to the resultant biological impacts.
Florida	
Apalachicola River/Bay	
o Short- and long-term effects of local timber harvesting on the water quality of the estuary (Florida State University)	Determine effects of local timber industry on the sanctuary.
o Water quality model (University of Florida, Florida State University, and EPA)	Predict dispersal of concentrations and pollutants released into the bay to determine whether the highly productive shellfish beds are affected.

Site/Project	Objective
o Physical, chemical and morphological study of estuarine salt water marsh soils (Florida A & M University)	Obtain baseline data.
o Water quality study (USGS)	Study effects of pesticide runoff, dredging, spoil disposal, and sedimentation.
Rookery Bay	
o Hydrography and water quality study (Collier County Conservancy)	Obtain baseline data.
o Compilation of invertebrates, fish, mammals, and birds (Collier County Conservancy)	Obtain baseline data.
o Monitoring program (chemical and physical characteristics)	Comparative analysis of water quality
o Survey of vascular plants (University of South Florida)	Obtain baseline data
o Vegetation map depicting various cover types (University of South Florida)	Obtain baseline data.
o Study of fiddler crab behavior	Obtain new data on estuarine-dependent species
o Survey of bryophytes and lichens found in mangrove forests	Obtain baseline data

Site/Project	Objective
Georgia	
Sapelo Island	
o Monitoring program (University of Georgia Marine Institute) -- soil sampling -- measurement of biomass production -- water quality analysis -- estimates of vertebrate and invertebrate populations -- heavy metal and pesticide concentrations in fish, shellfish and marsh grasses	Baseline monitoring to integrate with ongoing research activities to provide information for making decisions on coastal zone management
Hawaii	
Waimanu	
o In-depth field survey of mammals in the Waimanu Valley (Hawaii Department of Health)	Determine source of letospirosis bacteria.
Ohio	
Old Woman Creek	
o Monitoring program (measurement of biological, chemical, and physical characteristics)	Identify general water quality of the estuary.
o Compilation of aquatic and terrestrial plants and animals	Reference collection

Site/Project	Objective
o Survey of fish fry populations (Ohio Sea Grant)	Comparison with those of a large, unprotected estaury.
o Study of shifting sand bars and beach at the mouth of Old Woman Creek (Ohio State University)	Examine physical dynamics of the system.
o Archaeological survey (Independent Archaeological Services, Inc.)	Determination of amount of archaeological material present or sites demonstrating National Register potential.
Oregon	
South Slough	
o Impact of oyster culturing on the estuary (Oregon Institute of Marine Biology)	Determine if oyster culturing should be permitted activity in the sanctuary.
o Energy contribution of seasonal estuarine and marine algae (Oregon Institute of Marine Biology)	Ecosystem analysis
o Study of miobenthic fauna of sandy beaches (OIMB)	Obtain baseline data.
o Archaeological survey (Oregon State University)	Obtain baseline data.
o Monitoring program (sanctuary staff in cooperation with Oregon Department of Environmental Quality)	Comparative anaylsis of water quality.

Site/Project	Objective
o Inventory of plant and animal populations	Obtain baseline data.
o Analysis and mapping of soils and sediments	Obtain baseline data.
o Measurement of physical and chemical water quality characteristics	obtain baseline data.
Rhode Island	
Narragansett Bay	
o Regular testing of water and shellfish	Determine coliform counts.
o Compilation of bird species	Obtain baseline data; seasonal comparison studies
o Inventory of vegetation types and locations	Obtain baseline data; designation of valuable and fragile areas

SUMMARY OF EDUCATION PROGRAMS CONDUCTED AT NATIONAL ESTUARINE SANCTUARIES

California

Elkhorn Slough

1. Tours, as requested, for school groups.
2. Presentations on the sanctuary are given by the manager to civic groups, local governments, and private organizations.
3. Nature walks conducted for local universities, high schools and special interest groups.
4. Plans call for construction of an interpretive center.

Florida

Apalachicola River/Bay

1. Formal operations and implementation of approved education program are being developed.
2. Plans call for construction of an interpretive center, boardwalk trails, and a laboratory.

Rookery Bay

1. Environmental education program conducted on-site for 4th and 7th grade students.
2. Seminars, lectures, workshops, and nature walks held for general public.
3. Plans call for construction of an interpretive center and boardwalk.

Georgia

Sapelo Island

1. Three-hour guided tour conducted by sanctuary staff for schools, church and civic groups, and public organizations.

2. Coastal Ecology Program held at Coastal Resources Division in nearly Brunswick, Georgia to complement tour.

3. Exhibit center, lecture hall, and boardwalk are present at the site.

Ohio

Old Woman Creek

1. Lectures, field walks, canoe trips, and audio-visual presentations are conducted for environmental, school and youth groups.

2. Special programs (Ohio Wetlands Workshop, Ecology Workshop for Audubon Youth, and Ecology Workshop for Huron Gifted Program) are held on-site.

3. Construction underway for Research and Visitor Center (completion date - July 1982).

4. "Hands- on" classes are held for junior biology classes.

Oregon

South Slough

1. Workshops held for local teachers in estuarine biology.

2. Tours conducted by sanctuary staff for school groups, organizations and the public.

3. "Hands-on" classes are held for high school students.

4. Boardwalk trail system is present.

5. Plans call for renovation of an existing structure for an interpretive center.

Rhode Island

Narragansett Bay

1. On-site estuarine environment programs are conducted for all visitors.

2. Future programs will include extended walks as accessibility is improved.

3. Plans call for construction of a marsh boardwalk and repairs to an existing structure for use as an educational facility.

Marine Sanctuary Research

Research, monitoring, and environmental assessment are essential components of a comprehensive, effective sanctuary management approach. One of the goals for designating national marine sanctuaries is to provide opportunities to improve the understanding of the marine environment and management of special marine areas. Research may include: physical, geological, and chemical oceanography; meteorology; marine biology and ecology; archeological investigations; and studies on the relationship between sanctuary user groups and the sanctuary environment. Data acquired through sanctuary resource studies provide the foundation for interpreting or predicting natural or human-induced events in the sanctuary and related areas, identifying areas where critical data are lacking, and identifying the direction of future research and monitoring efforts.

The resource studies component of each management plan also provides a means for coordinating projects and tracking their progress, reviewing proposals and permit requests, serving on advisory committees on resource studies (where appropriate), stimulating information exchange, identifying new study areas and integrating new information into an envolving understanding of the sanctuary. NOAA provides funding, as possible, for various research projects described in the plan and encourages other funding agencies to support related proposals.

The following research has been supported by NOAA in the marine sanctuary system over the past two years.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM

Project (Research)	Objective
CALIFORNIA	
Channel Islands	
o Determination required of 6 enforcement levels (National Park Service)	Conduct periodic surveys to estimate daily use levels and relevant areas utilized. Categorize vessel types to determine kinds of use, both commercial and recreational.
o Pinniped abundance and distribution (National Marine Fisheries Service)	Conduct aerial, ground and boat surveys during peak pinniped pupping periods, to determine pinniped population levels and their distribution within the Sanctaury.
o Seabird population dynamics (National Park Service)	Determine species relationships, competition for roosting and nesting areas, and potential impacts of relevant human activities.
o Data management system (National Park Service)	Design and implement an automated data management system to store and manipulate all data gathered within the Sanctuary and pertinent data from research done within the adjacent National Park.
o Interpretive planning (James Dobbin Associates Limited)	Develop the Sanctuary interpretive plan, a major element o the total management plan. Recommend interpretive materials, programs, services, facilities and methods to implement the plan.
o Surveillance and enforcement (California Department of Fish and Game)	Develop the Sanctuary Surveillance and Enforcement plan to ensure that resources will be adequately protected.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM (con't)

Project (Research)	Objective
Point Reyes-Farallon Islands	
o Determination of required enforcement levels (National Park Service)	Identify the type and number of Sanctuary user groups. Survey level of activities conducted and their impacts.
o Threats to estuarine ecosystems (Point Reyes Bird Observatory)	Identify primary threats to the major estuaries. Develop a maintenance plan for these sites.
o Archeological survey (National Park Service)	Conduct magnetometric and sonic submarine surveys to determine the presence and location of the 1595 shipwreck, San Agustin, the first recorded shipwreck on the west coast.
o Intertidal and subtidal census (Point Reyes Bird Observatory)	Identify areas in these zones that are vulnerable to disturbance from visitor usage and commercial operations. Provide baseline data for an ongoing maintenance program.
o Harbor seal and human conflicts (Point Reyes Bird Observatory)	Determine extent of harbor seal population. Delineate the magnitude of adverse impacts specifically those related to visitor use.
o Pinniped and bird maintaining (Point Reyes Bird Observatory)	Monitor estuarine birds, seabirds, and coastal pinniped populations. Compare with historical data to determine seasonal variations.
o Interpretive planning (James Dobbin Associates Limited)	Develop the Sanctuary interpretive plan, a major element of the total management plan. Recommend interpretive materials,programs, services, facilities and methods to implement the plan.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM (con't)

Project (Research)	Objective
o Surveillance and enforcement plan (California Department of Fish and Game)	Develop the Sanctuary Surveillance and Enforcement Plan to ensure that resources will be adequately protected.
Monterey Bay Proposed Sanctuary (Active Candidate)	
o Chemical surveillance (California Department of Parks and Recreation)	Using mussels, determine existing heavy metal and hydrocarbon concentrations at six stations within the proposed sanctuary study area.
Cordell Bank (Sanctuary Nomination)	
o Description of the site (Cordell Bank Expeditions)	Conduct bathymetric surveys to refine depth contours. Conduct diving expeditions and collect samples to characterize different areas on the Bank.
FLORIDA	
Key Largo Coral Reef NMS	
o Surface and subsurface current measurements (General Oceanics, Inc.)	Study circulation patterns within the Sanctuary and the adjacent John Pennekamp State Park.
o Biological inventory and reef health assessment (University of Miami)	Analyze reef structure, zonation and diversity. Describe organisms in major Sanctuary provinces. Prepare a resource map. Analyze reef health.
Water quality monitoring (National Park Service)	Conduct surface and bottom sampling and analyses of eight parameters to monitor water quality.
Water quality modeling	Based on above and existing data develop a useful water quality model.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM (con't)

Project (Research)	Objective
o Fish tumor study (University of Miami)	Establish disease frequency or percent of population. Associate habitat types with disease distribution. (this project is also being conducted at the Looe Key site).
Looe Key NMS	
o Illustrated guidebook to shallow-water amphipods (newfound Harbor Marine Institute	Produce a users' (laymen and researchers) guide.
o Study of selected invertebrate groups (Smithsonian Institution)	Examine the population ecology of three interrelated invertebrate groups (polychaets, parasitic copepods, and isopod crustaceans) to provide needed information for management of the sanctuary.
o Interpretive and visitor use plans (James Dobbin Associates Limited)	Develop these elements of the Sanctuary Management Plan. Recommend interpretive materials, programs, services, facilities and methods to implement the plan and enhance visitor experience.
GEORGIA	
Gray's Reef NMS	
o Visitation survey (Georgia Department of Natural Resources)	Conduct aerial counts of visitors to determine use levels.
o Bottom trawl impact study (South Carolina Wildlife and Marine Resources Division)	Assess impact of bottom trawls on benthic habitats.
o Hydrographic survey (Skidaway Institute of Oceanography)	Determine nature and distribution of hard bottom areas in the Sanctuary.
o Fish censusing techniques (Georgia Department of Natural Resources)	Assess contemporary fish censusing technique for use in live bottom areas.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM (con't)

Project (Research)	Objective
MAINE	
Maine (Potential Sanctuary Nomination)	
o Environmental assessment (Smithsonian, Marine Systems Laboratory)	Environmental Assessment and systems analysis of Gouldsboro Bay, off coast of northern Maine.
NORTH CAROLINA	
U.S.S. MONITOR	
o An engineering structural assessment of the MONITOR (Dr. Bruce Muga, Duke University)	Identify and define on-site engineering data that must be collected and analyzed to determine the nature and extent of structural damage to the hull.
o Completion of a comprehensive set of engineering drawings of the MONITOR (Capt. Ernest Peterkin (USN, Ret.))	Illustrate the MONITOR as the vessel existed in 1862 and determine the necessary information that exists only at the site. This work will serve as plans for the development of archaeological and historical research proposals at the worksite, as well as plans for the production of models of the vessel for engineering assessment and educational displays.
o U.S.S. MONITOR preliminary recovery feasibility study (North Carolina Division of Archives and History)	Determine feasibility of recovery of the U.S.S. MONITOR.
o Feasibility study for transmission of a live television picture from the MONITOR Sanctuary to surveillance, research and visitor centers on shore. (Southeast Research Institute, San Antonio, Texas)	Establish feasibility of on-site surveillance and recording of scientific and monitoring observations of the MONITOR.

RESEARCH AND STUDIES FUNDED FY 80/81 BY THE NATIONAL MARINE SANCTUARY PROGRAM (con't)

Project (Research)	Objective
o U.S.S. MONITOR hull plate sample analyses and preservation (North Carolina Division of Archives and History)	Determine the physical condition of the wreck.
o U.S.S. MONITOR environmental data (Rockwell G. Tucker)	Determine the meteorological and oceanographic regimes around the area of the MONITOR National Marine Sanctuary.
o U.S.S. Monitor archival sources (North Carolina Division of Archives and History)	Survey and compile relevant documents concerning the MONITOR.
TEXAS/LOUISINA	
Flower Garden Banks Sanctuary (Active Candidate)	
o East Flower Garden Bank brine seep biological assessment (Texas A&M University and Harbor Branch Foundation)	Quanitatively sample and assess marine resources in order to whether the gnathostomulid species are a "living fossil" community previously undescribed.
AMERICAN SAMOA	
Fagatele Bay (Sanctuary Nomination)	
o Description of the site (Development Planning Office of the Territorial Government)	Collect baseline information.

Regulations

Following the reauthorization and amendment of the CZMA in October 1980, OCZM prepared to issue regulations implementing key provisions of the Act. On December 30, 1980, NOAA issued an advance notice of proposed rulemaking (ANPR) to solicit public comment on issues related to implementation of these amendments. NOAA received 38 comments before the close of the comment period on January 31, 1981. In February 1981, NOAA distributed seven issue papers to approximately 400 interested parties. Sixty-six comments were received.

Rulemaking activities were suspended in March 1981, following Administration action which proposed terminating all funding for CZM and CEIP programs. Congress, as part of action on the FY 81 supplemental and rescission bill, transferred funds from the Coastal Energy Impact Fund to gradually reduce funding in both programs. Following this action, OCZM re-activated the rulemaking process. A Notice of Proposed Rulemaking (NPR) was published in the Federal Regiser on October 20, 1981 and thirty-two comments were received.

Based on comments on the NPR, NOAA prepared final rules. Because of budgetary constraints and the need to eliminate unnecessary regulations, only those regulations necessary to the operation of the coastal management programs were proposed. Final regulations are expected to be published and effective in the summer of 1982 in these areas:

Section 303/306	- Significant improvements
Section 306(b)	- Program administration grants allocation formula
Section 308	- Administering CEIP grants
Section 312	- Review of performance

The final rules implementing Sections 303 and 306(a) broadly define "significant improvements" to include state accomplishments that add elements to current management programs or strengthen existing program elements. Generally, the final significant improvement regulations provide for a flexible and cooperative approach so that coastal states and NOAA can effectively deal with the phase down of Federal funding.

The allocation formula (Section 306(b)) in the final regulations is simple, straightforward, and easy to administer and will minimize the disruption in state funding from current levels. The formula is based on (1) an established minimum share allocated to each state and (2) a proportionate share of the remainder to be allocated 60 percent on the length of shoreline, which provides a reasonable approximation of the magnitude of the resource to be managed, and 40 percent on coastal county population which provides a reasonable approximation of the pressures for use of coastal resources.

The final regulations implementing Section 308(c)(3) have been combined with existing regulations implementing Sections 308(c)(1) and (2) and replace Subpart D (Planning for the Consequences of Energy Facilities) and Subpart L (OCS State Participation Grants) of 15 CFR Part 931 -- the Coastal Energy

Impact Program regulations. The final regulations, therefore, govern the award of all grants under Section 308(c). Consolidation of the three categories of "c" grants under one subpart will greatly simplify the regulations for administering the CEIP. Under this consolidated approach, states will receive one allotment under Section 308(c) that they will then apportion at their discretion among the allowable uses of Subsections (c)(1), (c)(2), and (c)(3).

Section 312 of the CZMA requires a "continuing review of the performance of coastal states with respect to coastal management." This review must include a written evaluation that assesses the extent to which the state has: (1) implemented and enforced its approved program; (2) addressed the coastal management needs identified in Section 303(2)(A)-(I) of the CZMA; and (3) adhered to the terms of any grant, loan or cooperative agreement funded under the CZMA. The basic requirements for continuing review are set forth in the regulations, which provide that evaluations will be conducted in the course of continuing reviews and that written findings will be prepared.

"Directly Affecting"

Section 307(c)(1) of the Coastal Zone Management Act of 1972, as amended (16 USC §1456(CZMA)), provides that Federal activities "directly affecting the coastal zone" of a State with a Federally-approved coastal zone management program must be consistent with those approved programs to the maximum extent practicable.

In October 1979, the term "directly affecting" was the subject of mediation by the Secretary of Commerce to resolve a disagreement between the State of California and the Interior Department over whether pre-lease sale activities associated with Outer Continental Shelf (OCS) Lease Sale No. 48 "directly" affected the coastal zone of California. California took the position that the Final Notice of Sale "directly" affected the coastal zone while DOI maintained that OCS activities conducted before Lease Sale No. 48 did not create a "direct" effect. The mediation effort was unsuccessful. California chose not to pursue further legal remedies because the substantive aspects of Lease Sale 48 were generally consistent with its coastal management plan.

The Secretary of Commerce, on February 27, 1980, in his report on the October 1979, mediation directed NOAA to clarify the term by regulation after reviewing the CZMA, its legislative history, and the Department of Justice Opinion of April 20, 1979. An interagency review process under OMB guidance would be utilized to resolve differences of opinions among Federal agencies.

Following the results of the 1980 reauthorization which failed to clarify the issues legislatively, on February 27, 1981, NOAA distributed an issue paper soliciting comments on the need for formal rulemaking to define "directly affecting," on the economic impact of such rulemaking, in order to conform to the requirements of Executive Order 12291, and on the content of any proposed regulations.

In late April and early May 1981, a series of Federal interagency meetings were held. In early May 1981, agreement was reached on the content of a proposed revision to 15 CFR 930, and proposed regulations were issued in May 1981.

The final rule, issued July 8, 1981, defined a Federal activity as "directly affecting the coastal zone" if the Federal agency finds that the conduct of the activity itself produces a measurable physical alteration in the coastal zone or if the activity initiates a chain of events reasonably certain to result in such alteration, without further required agency approval. "Direct effects" did not include effects identified by the Federal agency as uncertain, speculative or remote.

In April 1981, DOI had informed the State of California that the Final Notice of Sale for Lease Sale No. 53 did not "directly affect" California's Coastal Zone. In response, California and a coalition of environmental interest groups filed suit in Federal District Court in Los Angeles seeking a declaratory judgment that the activity directly affected the California coastal zone and enjoining DOI from conducting the leasing in the Santa Maria basin without furnishing a consistency determination that the sale was consistent with the California coastal management plan. On May 27, 1981, the court issued a preliminary injunction that prevented Interior from granting leases for certain tracts objected to by California. On August 18, 1981, the court issued an opinion on the merits holding that DOI had violated the CZMA and permanently enjoining the leasing of the disputed tracts. On August 19, the Federal Government appealed.

The court had also concluded that NOAA's new interpretation violated the CZMA. In addition, following publication of the final regulations, but before they became effective, NOAA received comments of concern from State governments and members of Congress assigned to Committees that have oversight responsibilities with respect to the CZMA. Congressional resolutions expressing disapproval of the final regulations were introduced in both the House and Senate.

On October 16, 1981, NOAA published a notice in the Federal Register proposing to withdraw the July 8 regulations (46 FR 50976) and suspending their effective date (46 FR 50937). The regulations were withdrawn on April 27, 1982. No new regulations have been proposed pending the outcome of the litigation.

Regulations in Effect.

The following regulations or guidelines, pertaining to the identified responsibilities of the Office of Coastal Zone Management under the Coastal Zone Management and Marine Sanctuaries Acts, were issued or were in effect during fiscal year 1980 or 1981.

A. Coastal Zone Management Act

"Estuarine Sanctuary Guidelines," implementing Section 315 of the Act (15 CFR 921 (1974 in part and 1977 in part)).

"State Coastal Management Programs, Development and Approval," implementing Sections 305 and 306 of the Act (15 CFR 923 (1979)).

"Federal Consistency with Approved Coastal Management programs," implementing Sections 307(c)(1), (2) and (3) and 307(d) of the Act (15 CFR 930 (1979)).

"Coastal Energy Impact Program, Administrative Procedures," implementing Section 308 of the Act except for Section 308(c)(2) (CFR 931 (1979)).

"Coastal Energy Impact Program the Outer Continental Shelf State Participation Grant Program," implementing Section 308(c)(2) of the Act (1980).

B. Title II of the Marine Protection, Research and Sanctuaries Act of 1972

"Marine Sanctuaries," general regulations for the administration of the marine sanctuaries program (15 CFR 922 (1979)).

"Monitor Marine Sanctuary," regulations for the administration of the Monitor Marine Sanctuary, designated on January 30, 1975 (15 CFR 924 (1975)).

"Key Largo Coral Reef Sanctuary," regulations for the administration of the Key Largo Coral Reef Sanctuary designated December 18, 1975 (15 CFR 929 (1976)).

Channel Islands National Marine Sanctuary, designated on September 22, 1980 (15 CFR 935 (1980)).

Point Reyes Farallon Islands National Marine Sanctuary, designated on January 16, 1981 (15 CFR 936 (1981)).

Looe Key National Marine sanctuary, designated on January 16, 1981 (15 CFR 937 (1981)).

Gray's Reef National Marine Sanctuary, designated on January 16, 1981 (15 CFR 938 (1981)).

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