Biennial Report to the Congress on Coastal Zone Management

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U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Ocean and Coastal Resource Management

UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary for
Oceans and Atmosphere
Washington, D.C. 20230

JUL 14 1992

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

Sirs:

I am pleased to submit the Biennial Report of the Office of Ocean and Coastal Resource Management, National Ocean Service, National Oceanic and Atmospheric Administration, pursuant to Section 316 of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451 et seq.) for fiscal years 1990 and 1991. The report discusses the progress made during these years in administering the coastal zone management and estuarine research reserve programs and the problems encountered.

Sincerely,

John A. Knauss

John A. Knauss

THE ADMINISTRATOR

INTRODUCTION

The National Oceanic and Atmospheric Administration (NOAA) is required to submit a report to Congress not later than April 1 on the administration of the Coastal Zone Management Act (CZMA) of the preceding two fiscal years. Pursuant to Section 316 of the CZMA, as amended, this report discusses the progress made during Fiscal Years 1990 and 1991 in administering the National Coastal Zone Management (CZM) and National Estuarine Research Reserve Programs and the problems encountered.

The document is comprised of two volumes. Volume I provides a summary of the CZM and estuarine reserve programs and describes the accomplishments of state CZM programs in selected national interest areas — coastal hazards, wetlands protection, coastal water quality, public access, and waterfront redevelopment. In addition, Volume I describes the highlights of CZMA administration during the biennium, including implementation of the Coastal Zone Act Reauthorization Amendments of 1990 (1990 CZMA Amendments), and delineates future directions for these efforts, including coastal management issues of national importance and administrative planning.

Volume II highlights NOAA administration of the CZM and estuarine reserve programs and states' accomplishments during the biennium. Chapter 1 includes a brief description of the CZM program and details NOAA's implementation of the key provisions of the 1990 CZMA Amendments, including the Coastal Nonpoint Pollution Control Program, the Coastal Zone Enhancement Grants Program and the new procedures for evaluating state CZM and estuarine reserve programs. This chapter also describes NOAA's activities during the biennium regarding Federal consistency actions.

In Chapter 2, individual state CZM programs are described, highlighting significant accomplishments made during the report period. Each state listing includes a summary of program accomplishments, significant program changes and evaluations of the state's performance. Chapter 3 presents a description of the National Estuarine Research Reserve System (NERRS), including its mission and structure. Program accomplishments during the biennium are provided in detail, as well as reflections on future program directions. Chapter 4 describes each estuarine reserve. Information is provided on reserve resources and facilities, important improvements during the biennium, education, research and monitoring activities, and state performance in managing the reserve.

The status of state CZM programs is provided in Appendix A. Appendix B itemizes state funding under sections 306, 309 and 315 of the CZMA during fiscal years 1990 and 1991. Appendix C summarizes Federal consistency appeals. Guidance regarding processing fees for Federal consistency appeals is provided in Appendix D. Proposed regulations implementing sections 309 and 312 of the Coastal Zone Act Reauthorization Amendments of 1990 are printed in Appendix E. Finally, a list of the estuarine reserves, the reserves' acreage and the year of designation is provided in Appendix F.

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Coastal Zone Management Program

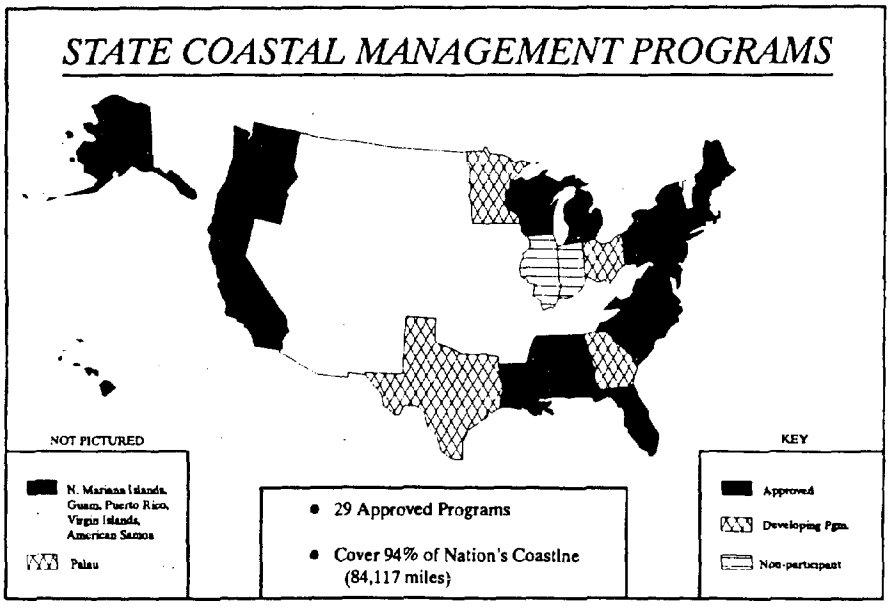
A voluntary partnership of Federal, state and local governments, the National Coastal Zone Management (CZM) Program was established in 1972 to promote wise use and protection of the Nation's sensitive coastal resources. The CZM program is the only comprehensive tool available to the Federal government and the states to manage the more than 95,000 miles of U.S. coastline bordering three oceans and the Great Lakes. NOAA's Office of Ocean and Coastal Resource Management administers the program.

Twenty-nine coastal states and U.S. island territories, covering 94 percent of the Nation's coastline, are taking part in the national program. These states developed comprehensive CZM programs with approval from NOAA. Other states, such as Minnesota, Ohio, Texas and Georgia, are moving to join the program. Under the Coastal Zone Management Act (CZMA), the CZM programs must address several national objectives:

- protection of natural resources;
- management of coastal development to avoid hazardous areas;
- priority consideration for coastal dependent uses and energy facility siting;
- public shorefront access;
- assistance in redevelopment of urban waterfronts and ports;
- coordination and simplification of governmental procedures to ensure expedited governmental decisionmaking for management of coastal resources;
- consultation and coordination with Federal agencies;
- public participation in coastal decisionmaking;
- comprehensive planning, conservation and management of living marine resources; and
- study and develop plans for addressing the adverse effects upon the coastal zone of land subsidence and sea level rise.

The nature and structure of CZM programs vary widely from state to state. Some states passed comprehensive legislation as a framework for coastal management, while others used existing land use legislation as the foundation for their programs or networked existing, single purpose laws into a comprehensive umbrella for coastal management. These programs continue to evolve as priorities change and as better information and technical capabilities become available.

Since 1974, the Federal government has invested over $700 million in the development and implementation of state CZM programs. The Federal funds, which are matched in part by state dollars, are allocated to states by a formula which takes into account shoreline mileage and coastal population. The Federal government provided $35.322 million in each of fiscal years 1990 and 1991 to the states for program implementation. The state-by-state summaries which follow this section explain in detail how the states used these funds during the biennium and what each program accomplished.



A New Agenda

The national CZM program was modernized and strengthened in 1990 with the passage of the Coastal Zone Act Reauthorization Amendments of 1990. Signed by the President on November 5, 1990, the 1990 CZMA Amendments established a number of major new provisions to address coastal issues of national importance.

Foremost among these provisions was the establishment of a new Coastal Nonpoint Pollution Control Program (CNPCP). This program, administered jointly by NOAA and the Environmental Protection Agency (EPA), requires states and territories to craft programs to deal effectively with nonpoint sources of pollution, which threaten coastal waters and resources. Sources of this pollution include runoff from agricultural and forestry land, construction activities and shoreline erosion. States will require that land uses which result in such pollution employ specific management measures to control nonpoint pollution as both remedial and preventive measures.

In addition, Congress established a new Coastal Zone Enhancement Grants Program to encourage state efforts to address eight issues of national importance. These issues are:

(1) protection, restoration, or enhancement of the existing coastal wetlands base, or creation of new coastal wetlands;

(2) preventing or significantly reducing threats to life and destruction of property by eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level rise;

(3) attaining increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological or cultural value;

(4) reducing marine debris entering the Nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris;

(5) development and adoption of procedures to assess, consider and control cumulative and secondary impacts of coastal growth and development, including the collective effect of individual activities on coastal resources, such as coastal wetlands and fishery resources;

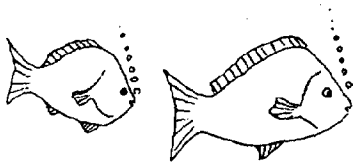
(6) preparing and implementing special area management plans for important coastal areas;

(7) planning for the use of ocean resources; and

(8) adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance.

To implement this program, NOAA worked with the states to identify their highest priorities among these issues. The states develop strategies to make changes to their CZM programs that support attainment of one or more of these enhancement objectives.

The 1990 Amendments also gave NOAA new authority to impose interim sanctions on states and territories that fail to adhere to federally approved CZM programs. NOAA is developing a process for invoking interim sanctions which will provide ample notice to a state and provide the state with an opportunity to comment on and rebut the non-adherence finding before NOAA takes any action.



Other changes to the CZMA made by the 1990 Amendments include:

• *Federal Consistency* — All Federal agency activities, including Outer Continental Shelf oil and gas lease sales and the designation of ocean dumping sites, whether in or outside of the coastal zone, are subject to the consistency requirements of section 307(c)(1) of the CZMA if they affect natural resources, land uses or water uses in the coastal zone. A new provision authorizes the President to exempt a specific Federal project if the President determines that it is in the paramount interest of the U.S.

• *CZM Fund* — The 1990 Amendments repeal the Coastal Energy Impact Program, but require that repayments of the remaining $87.5 million in program loans still outstanding be deposited into a new CZM Fund as they are repaid. Section 308(b)(2) authorizes the Secretary of Commerce to expend amounts in the Fund for administration of the CZM program and for specified discretionary activities including: regional and interstate projects; demonstration projects; emergency assistance; excellence awards; program development grants; and assistance to states in applying the public trust doctrine in the implementation of their CZM programs.

• *Technical Assistance* — A new section 310 requires the Secretary to provide technical assistance and management-oriented research to support development and implementation of state CZM programs, and appropriate to the furtherance of international cooperative efforts and technical assistance in coastal zone management.

• *Achievement Awards* — The amended CZMA authorizes NOAA to make annual achievement awards to individuals, local governments, and graduate students who have been recognized for outstanding accomplishments in the field of coastal zone management.

Implementing the New Law: A Phased Approach to Rulemaking

Since the passage of the 1990 Amendments, OCRM has worked closely with the states, other Federal agencies, and public and private groups to implement these new provisions. The following summary describes the activities undertaken by OCRM during the biennium to implement the 1990 Amendments.

Because of the substantial scope of changes to the CZMA and the one-year statutory requirement to develop regulations for the Coastal Zone Enhancement Grants Program, NOAA elected to undertake a phased approach to rulemaking to implement the 1990 Amendments. The Phase One rulemaking includes a new enhancement program under section 309, as well as new provisions for program evaluation under section 312. A Notice of Proposed Rulemaking for Phase One was published in the *Federal Register* on October

18, 1991 (the proposed regulations are reprinted in the Appendix). The proposed regulations describe procedures and criteria NOAA will follow in awarding enhancement grants and carrying out reviews of performance, as well as the criteria that NOAA will apply in deciding whether to invoke interim sanctions under the evaluation process. Phase Two of the rulemaking will include program approval requirements for the new Coastal Nonpoint Pollution Control Programs.

Since the 1990 Amendments also made extensive technical changes to the CZMA, OCRM also began a rulemaking to conform NOAA's existing regulations to these statutory changes. Technical changes included:

- revisions to Congressional findings and policies;

- new and revised definitions;

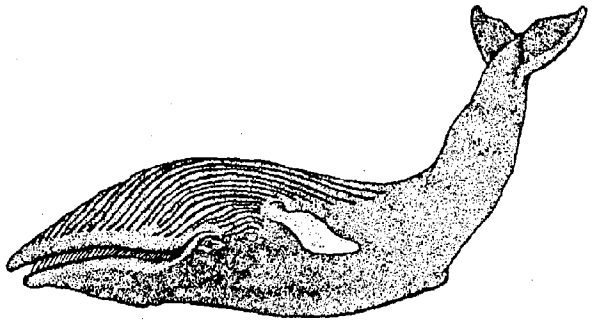
- repeal of provisions on program segmentation, significant improvements, and interstate CZM grants;

- reorganization and consolidation of program approval requirements; and

- revisions to provisions on the coastal energy impact program.

NOAA is preparing final regulations to conform NOAA's existing regulations to these changes. The regulations will be issued in final form because they conform NOAA's regulations to verbatim changes in the statute.

NOAA is not proposing to issue regulations on the CZM Fund, the technical assistance program, or the CZM achievement awards at this time. NOAA wants to gain more experience with these new CZMA provisions before deciding whether additional rulemaking is needed. The changes to the Federal consistency provisions, except for overturning the U.S. Supreme Court's decision on OCS oil and gas lease sales, merely codify NOAA's existing regulations.



Coastal Nonpoint Pollution Control Program — An Innovative Approach to Water Quality

The 1990 Amendments assigned responsibility for the Coastal Nonpoint Pollution Control Program (CNPCP) jointly to NOAA and EPA. Implementation of the program is taking a three-pronged approach. EPA, in consultation with NOAA, is developing the management measure guidance which will provide the technical basis for the program. NOAA and EPA together developed the proposed Program Development and Approval Guidance. This guidance describes the elements which the state programs must contain to receive Federal approval. Additionally, NOAA is undertaking a review of the state CZM boundaries to determine whether they are adequate to encompass all nonpoint sources that significantly affect coastal waters.

Management Measures

During the winter and spring of 1991, OCRM participated in interagency working groups to develop the management measures guidance. Management measures are defined as "economically achievable measures for the control of the addition of pollutants... which reflect the greatest degree of pollutant reduction through the application of the best available... practices, technologies, processes, siting criteria, operating methods or other alternatives." The management measures guidance includes at least six elements:

(1) a description of a range of methods, measures, or practices, including structural or nonstructural controls and operation and maintenance procedures, that constitute each measure;

(2) a description of the categories and subcategories of activities and locations for which each measure may be suitable;

(3) an identification of the individual pollutants or categories or classes of pollutants that may be controlled by the measures and the water quality effects of the measures;

(4) quantitative estimates of the pollution reduction effects and costs of the measures;

(5) a description of the factors which should be taken into account in adapting the measures to specific sites or locations; and

(6) any necessary monitoring techniques to accompany the measures to assess over time the success of the measures in reducing pollution loads and improving water quality.

EPA and NOAA released proposed management measures guidance in June 1991 for public review and comment. Final management measures guidance will be issued in 1992. In developing the proposed guidance, EPA focused on the significant categories and sources of nonpoint pollution identi-

fied in state section 319 nonpoint source assessments under the Clean Water Act. The categories of nonpoint sources addressed in the current proposal are:

- agricultural runoff,
- urban runoff (including developing and developed areas),
- silvicultural (forestry) runoff,
- hydromodification, shoreline erosion, and dams and levees, and
- marinas.

Several types of management practices are provided in the proposed guidance, which can be used to meet the management measures, including:

- buffer zones along streams and coastal waters,
- density limits which can be applied to adjacent land development,
- improved construction practices,
- erosion and sedimentation controls, and
- farming and pesticide management practices to reduce polluted runoff.

Program Development

In October 1991, NOAA and EPA issued proposed Program Development and Approval Guidance for public review and comment. Final guidance will be issued in 1992 simultaneously with the Final Management Measures Guidance. The proposed guidance addresses several issues:

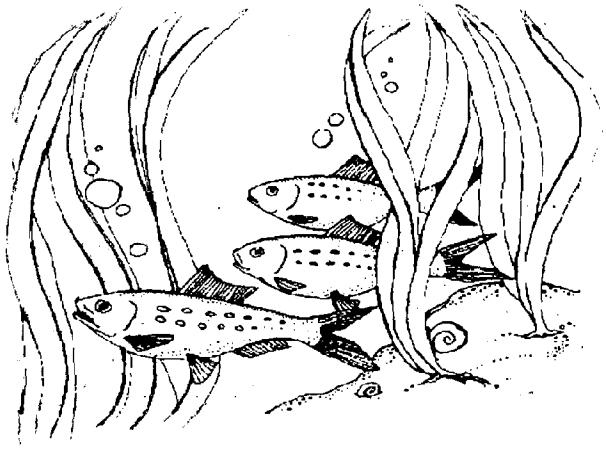
- identification of land uses that contribute to the nonpoint pollution problem;
- identification of critical coastal areas where additional management measures will be necessary to protect or restore coastal waters;
- identification of areas where additional management measures will be needed to deal with specific water quality problems; and
- requirements for administrative coordination with pertinent state, regional and local agencies.

The coastal nonpoint programs will serve as an update and expansion of the state nonpoint source management program developed under section 319 of the Clean Water Act. NOAA and EPA do not expect states to develop stand-alone coastal nonpoint programs, but rather expect that implementation of the coastal nonpoint program will be accomplished through changes to the approved state nonpoint source management program and the state CZM program developed under section 306 of the CZMA. All states and territories have EPA-approved nonpoint source management programs or portions of programs and are currently receiving section 319 grants to assist them in implementing the approved programs.

The state coastal nonpoint programs must be submitted to NOAA and EPA for approval within 30 months of the publication of the final management measure guidance. NOAA and EPA will jointly review the program, and within six months after submission of a complete program, will notify the state whether the program is approved or whether modifications to the program are necessary. States that fail to submit an approvable program within the congressional deadline face a reduction of Federal grant funds under the CZM and nonpoint source programs. The penalty provisions begin in FY 96 with a 10 percent reduction in funding under both programs, increasing to 15 percent in FY 97, 20 percent in FY 98 and 30 percent in FY99 and each fiscal year thereafter.

Geographic Scope

Congress also assigned NOAA the responsibility for reviewing existing state coastal zone boundaries, and recommending changes necessary for controlling nonpoint source pollution that impacts coastal waters. Using available information, NOAA is evaluating the impact of land use activities throughout coastal watersheds draining into state coastal waters. If the existing coastal zone boundary is found to be inadequate, NOAA will recommend how the inland boundary should be changed to meet the water quality goals of the 1990 Amendments. The state coastal nonpoint program must then include a proposal to modify the existing boundary to respond to NOAA's recommendation as the state determines is necessary.



Coastal Zone Enhancement Program

The 1990 CZMA Amendments created a Coastal Zone Enhancement Grants Program to "provide funding for development and submission for Federal approval of program changes that support attainment of one or more coastal zone enhancement objectives." Prior to the 1990 Amendments, the Federal government required each state to expend a portion of CZM funds on "activities that will result in significant improvement being made in achieving the coastal management objectives specified." Many of the projects funded as "significant improvements" addressed issues related to individual problems or localities, but few of these projects resulted in fundamental changes to the CZM program.

To promote more long-term changes to the state programs, Congress created a voluntary program that sought proposals from states for projects designed to create institutional and legal changes in each state's CZM program. The new program does not require states to provide matching funds.

Identifying Priority Issues

A first step in the process is the identification of each state's priority needs for improvement. Each state is required to submit a detailed assessment of their exisiting coastal program using public input and other resources. The assessments examine how states are addressing each of the enhancement objectives, how significant these issues are in the states and what possibilities exist for improvement. The assessments are prepared using public input and other resources. The will provide the factual basis for NOAA, in consultation with the states, to determine the priority needs for improvement of state CZM programs.

Once a state and NOAA reach agreement on the priority management issues, the second stage involves the development of a multi-year strategy. The strategy development process will identify specific program changes that the state will seek to achieve in the identified priority areas. The strategies must be approved by NOAA and will guide the development of the state's FY 1992 and subsequent year section 309 grant proposals. The states' strategies will be ranked to develop a weighting to determine the amount of funds available for funding projects in the future.

Criteria for Awarding Enhancements

NOAA issued proposed regulations for section 309 in October 1991, which provide the criteria and procedures for awarding coastal zone enhancement grants. The proposed regulations assume that a state has a NOAA approved assessment and strategy. NOAA is proposing to award section 309 funds by (1) weighted formula, and (2) individual review of projects of special merit. NOAA will annually determine the proportion of available funds to be allocated between these two methods. Under the weighted

formula approach, NOAA will establish state weighted formula funding targets, which will be the state base allocation determined by operation of the formula under section 306, multiplied by a weighting factor derived from NOAA's evaluation and ranking of the quality of the state's strategy.

NOAA proposes to award remaining section 309 funds, which are not awarded by the weighted formula approach, based on an annual review of projects of special merit. This proposed allocation process will allow each coastal state that has a NOAA approved assessment and strategy to pursue an enhancements program, while at the same time provide incentive for states to develop and submit more aggressive proposals which commit to make the greatest improvements toward the coastal zone enhancement objectives.

Review of Performance

The program evaluation process stands as a fundamental element of the CZMA. The 1990 CZMA Amendments reinforced the public participation component of the process. The amendments also added provisions to apply interim sanctions to bring state programs or estuarine reserves which are not adequately implementing programs into compliance. Prior to the the amendments, if a state was found not adhering to its approved program, the only sanction available to NOAA was withdrawal of Federal program approval.

The reauthorization also placed new notice and time period requirements on the evaluation process. These changes require: a 45 day notice for public meetings, written response to all written comments on the evaluation and completion of the final evaluation report within 120 days after the last public meeting held in the state.

Perhaps the most important amendment to the evaluation process was authorizing interim sanctions. In practice, problems that states or estuarine research reserves have with implementing their approved program tend to be with only one or two parts of the program. The interim sanction provisions allow OCRM to focus remedial actions, including directing grant funds, toward resolving problem areas.

NOAA is implementing the new procedural changes immediately and is revising its regulations to conform them to the new requirements. NOAA published proposed regulations for conducting reviews of performance under section 312 of the CZMA in the *Federal Register* on October 18, 1991.

In addition, because the procedural changes will increase workload associated with the evaluations, NOAA is proposing to conduct evaluations of state CZM and estuarine reserve programs at least once every three years, rather than at least once every two years as currently provided. NOAA recognizes that significant changes can occur in three years. Therefore, NOAA is proposing to provide for issue or problem specific evaluations which could be

scheduled between the full-scale evaluations. These more narrowly focused evaluations can be used to follow-up on potentially serious problems or issues identified in the most recent full-scale evaluation, or to evaluate evidence of potentially serious problems or issues that arise during the day-to-day monitoring of state performance of grant tasks.

NOAA proposed a process for invoking interim sanctions which will provide ample notice to the state and opportunity to comment on and rebut the finding of non-adherence on which the sanctions are based before any action is taken. Indicators of non-adherence will be provided to inform states of what NOAA expects and on what basis interim sanctions might be invoked.

Coordination with Other NOAA Programs

OCRM is working with NOAA's Coastal Ocean Program (COP) to ensure that science is directed to the needs of coastal management decisionmakers. During the biennium, OCRM played a lead role in COP's Resources Information Delivery Team (RID), which provides other COP teams the opportunity to distribute their information in a flexible, timely, problem-targeted, and friendly manner to a variety of users. RID, itself, provides material to the same clientele for determining realtime management decisions and strategies.

RID's accomplishments primarily focus on the development of a Coastal Ocean Management, Planning and Assessment System (COMPAS), a desk-top information system for improved decisionmaking. COMPAS brings a wide variety of data and information directly to the desk-tops of coastal resource managers. A COMPAS has been developed in Texas. This system will soon be completed in Florida, and another is planned for Oregon.

RID also developed a series of "synthesis documents" to coordinate all available technical information of particularly priority issues. The information is then repackaged to serve as a basis for management decisions, policy and legislation. The call for synthesis papers resulted in 50 proposals. As a result of an intensive review from state and Federal agency managers and academics, seven proposals were recognized as contributing to COP's overall goals. Four projects are planned for FY 92 funding. The projects are:

• *Methodology and Mechanisms for Management of Cumulative Coastal Environmental Impacts,* by Alison Reiser, Maine Law Institute, University of Maine;

• *Eutrophication and Phytoplankton Blooms: Bibliography and Review,* by Kenneth Hinga, University of Rhode Island;

• *An Assessment of the Techology and Success in Restoration, Enhancement, and Creation of Salt Marshes in the U.S.*, by Thomas Minello, National Marine Fisheries Service, Galveston, Texas; and

• *Synthesis of Summer Flounder Habitat Requirements for Resource Managers*, by Kenneth Able, Rutgers University.

Federal Consistency

The use of Federal consistency allows CZM programs to address the adverse impacts of Federal activities to coastal resources. Section 307 of the CZMA states that four types of Federal activities must be consistent with a state CZM program:

(1) direct Federal agency activities;
(2) federally licensed and permitted activities;
(3) Outer Continental Shelf (OCS) activities, development and production plans; and
(4) Federal financial assistance to state and local governments.

The 1990 amendments to Section 307 represent an important milestone in the states' authority to use the Federal consistency provisions. The amendments overturn the Supreme Court's 1984 decision in *Secretary of the Interior v. California*, making OCS oil and gas lease sales subject to the requirements of Section 307(c)(1). The new language also clarifies that all Federal agency activities, including OCS oil and gas lease sales and the designation of ocean dumping sites, whether in or outside of the coastal zone, are subject to the consistency requirements of Section 307(c)(1) of the CZMA if these activities affect natural resources, land uses or water uses in the coastal zone. The language codifies NOAA's existing regulations, which require that the geographic scope of Federal consistency review be based on the effect of a Federal activity on coastal zone uses and resources, not on the location of the activity.

In a conference report on the legislation, the House and Senate conferees clarified how a Federal agency should determine whether a specific Federal agency activity may affect a natural resource, land use, or water use in the coastal zone. The conferees noted that this determination "is to include effects in the coastal zone which the Federal agency may reasonably anticipate as a result of its action, including cumulative and secondary effects. Therefore, the term "affecting" is to be construed broadly, including direct effects which are caused by the activity and occur at the same time and place, and indirect effects which may be caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable."

A new provision added to the CZMA, Section 307(1)(B), authorizes the President to exempt a specific Federal project if the President determines that such an exemption is in the paramount interest of the U.S. This exemption can only arise after a Federal court has determined that the Federal agency activity is inconsistent with a state CZM program. The provision is based on similar exemption provisions in other environmental statutes, including the Clean Water Act and the Clean Air Act. The legislative history to the provision clarifies that the exemption cannot be applied to a class of Federal activities, only to a specific activity.

State Consistency Issues

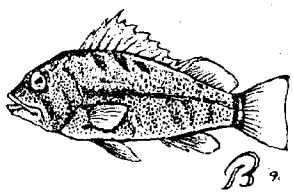
The following sections (1) highlight several important and emerging issues such as interstate consistency (one coastal state reviewing an activity in another state), implementation of Federal consistency since the 1990 amendments, and preemption; and (2) summarize the decisions issued by the Secretary of Commerce on appeals of Federal permit or license activities and OCS exploration plans. A list of all appeals filed with the Secretary of Commerce during the biennium and guidance on processing fees for consistency appeals are provided in the Appendix.

Lake Gaston

Lake Gaston is a reservoir astride the North Carolina-Virginia border. The Virginia Electric and Power Company (VEPCO) holds the Federal Energy Regulatory Commission (FERC) license that governs the dam's operations. The dam, which blocks the Roanoke River, is in North Carolina. In February 1991, VEPCO, on behalf of the City of Virginia Beach, filed a request with FERC to amend the Lake Gaston hydroelectric license to allow the city to withdraw up to 60 million gallons of water per day for water supply purposes. Construction for the proposed project is entirely within Virginia.

North Carolina sought NOAA's approval for review of the license amendment as an "unlisted activity" on grounds that the water withdrawal would affect the flow of water in the Roanoke River and the salinity gradient of Albemarle-Pamlico Sound. VEPCO had not provided a certification that the proposed amendment was consistent with the North Carolina CZM program. During the public comment period, VEPCO and the City of Virginia Beach argued against North Carolina's request. On May 2, 1991, NOAA determined that North Carolina did not need Federal permission to review the amendment as an unlisted activity because FERC licenses already were listed in North Carolina's program. NOAA also rejected a request from the City of Virginia Beach that the agency reconsider its decision. Based on NOAA's decision, North Carolina requested that VEPCO provide the state with a consistency determination.

VEPCO submitted a consistency determination on June 7, 1991 under protest, asserting in its determination that state review should take place under the regulations for the review of unlisted activities at 15 CFR § 930.54. In a September 9, 1991 letter, the CMP objected to VEPCO's consistency determination. The state found the project to be inconsistent with several enforceable policies and also noted several alternatives to the proposal. VEPCO then appealed the state's objection to the Secretary of Commerce. The appeal is currently under the Secretary's review.



Marine Mammal Protection Act Incidental Takings Permits

In April 1991, the Alaska Coastal Management Program (ACMP) submitted a routine program implementation (RPI) request to NOAA to add to its listing of federal licenses and permits certain approvals by the U.S. Fish and Wildlife Service (FWS) and NOAA's National Marine Fisheries Service (NMFS) under the Marine Mammal Protection Act (MMPA). Of particular interest to the ACMP are Letters of Authorization (LOA) for takes incidental to OCS activities. There is evidence that such activities can affect the distribution of marine mammals Alaska Natives rely on for subsistence. The ACMP discussed the listing with the NMFS Alaska Regional Office prior to submitting the request to NOAA. Five federally-approved state CZM programs listed MMPA permits when their programs were first approved: Washington, Hawaii, Northern Mariana Islands, Guam, and Alabama.

NMFS objected to the RPI request, arguing that the ACMP's discussions with NMFS regional staff did not constitute consultation as required by 15 CFR § 930.53(d). Instead, according to NMFS, the ACMP should have contacted NMFS headquarters since at least some MMPA permits are issued by headquarters. NMFS further argued that state regulation of marine mammals is pre-empted by the MMPA. NOAA denied the ACMP's listing request on grounds that Alaska inadequately described its consultation with NMFS.

OCS Lease Sale 135

In the first exercise of the restored right of states to review Outer Continental Shelf (OCS) lease sales for consistency, Louisiana objected to OCS Lease Sale 135, located off the Texas coast because the Department of the Interior (DOI) failed to provide adequate impact assistance to coastal communities in Louisiana. Louisiana contended in its May 14, 1991, denial that onshore support facilities for Lease Sale 135 would be located in Louisiana and that any oil spill could affect Louisiana coastal resources. The state maintained that if DOI provided an adequate impact assistance program, Lease Sale 135 would be consistent with the Louisiana CZM program. The Minerals Management Service determined that the lease sale was consistent to the maximum extent practicable with the enforceable policies of the Louisiana CZM program and proceeded with the sale.

Army Corps of Engineers Nationwide Permits Program

On April 10, 1991, the Army Corps of Engineers (Corps) published in the *Federal Register* a proposal to issue, reissue and modify the Nationwide Permit (NWP) Program. The notice provided a comment period of 60 days both for the revised NWP program and for the section 401 water quality certification that accompanied the program. Some individual Corps districts and divisions notified state coastal programs within their jurisdictions of the Corps' finding that the revised NWP program was consistent with the respective program's enforceable policies.

A number of states objected to the proposed revised program, in many cases to preserve their options given the compressed comment period. State comments fall primarily into four categories: objections to the abbreviated comment period; concerns that the Corps' Federal consistency determinations are incomplete; rejections of specific NWPs because the programs did not account for individual state conditions and coastal program requirements; and denial of the section 401 certification because the Corps' 60-day comment period is inconsistent with Federal Water Pollution Control Act (FWPCA) provisions for a one-year state review of water quality certifications, as well as on the substance of the section 401 certification.

The Corps published a final rule to issue, reissue, and modify the Nationwide Permit Program regulations in the *Federal Register* on November 22, 1991. The regulations took effect on January 21, 1992. Numerous states objected to the final rule for the reasons stated above.

Savannah Harbor Comprehensive Study and EIS

On June 3, 1991, the South Carolina Coastal Council (SCCC) denied — for a second time — consistency for the Savannah Harbor Comprehensive Study and Environmental Impact Statement (harbor study) submitted by the Army Corps of Engineers' Savannah District. An earlier version of the harbor study was also denied in 1987. The harbor study is the basis for a significant expansion of the Port of Savannah; the expansion involves activities in both Georgia and South Carolina. The Council's concerns center on three issues:

• *Back River Tide Gate and New Cut* — Constructed in the late 1960's, the tide gate and cut have, however, significantly changed the salinity gradient upstream, destroying freshwater wetlands in the Savannah River National Wildlife Refuge and other protected areas within South Carolina. Corps Headquarters recently agreed to remove the gate, but has not set a timetable for removal.

•*Modifications to Existing Spoil Disposal Sites* — The most significant spoil disposal area for the Savannah Harbor is in South Carolina. The Council believes the weir outfalls for the spoil areas should be redirected from the Wright River—which is relatively undegraded—to the Back or Savannah Rivers. The Corps had agreed to redirect the outfalls after 1988 negotiations with Council staff but has yet to do so.

• *Long Term Dredge Spoil Management* — The Council is concerned that there is insufficient capacity in existing disposal areas to support both routine maintenance disposal and construction-related disposal (e.g., the proposed Savannah Harbor widening and deepening projects). Although the Corps agreed to develop a long-term spoil management plan during 1988 negotiations with the SCCC, no plan has been developed.

Military Use of Coastal Airspace/State Coastal Airspace Policies

North Carolina is seeking a larger role in the designation and military use of special use airspace in the coastal zone. The state is primarily concerned with noise impacts on coastal residents, recreation sites, and wildlife from the low-level training flights occurring in the special use airspaces. The state has adopted coastal airspace use policies to be used to review military airspace use proposals through Federal consistency. These policies, however, are not yet part of the federally approved North Carolina CZM program.

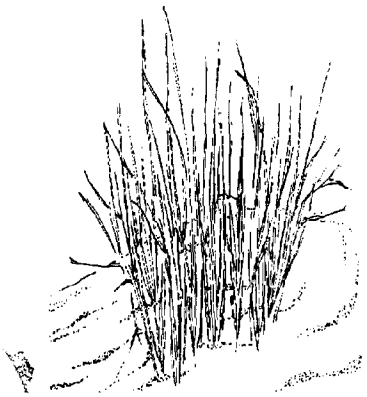
North Carolina OCS Exploration/Mobil Project

Mobil Oil Company plans to drill for natural gas 40 miles off North Carolina. North Carolina objected to Mobil's consistency certifications for a NPDES permit application filed with the Environmental Protection Agency and the proposed Plan of Exploration filed with the Minerals Management Service (MMS). Mobil appealed the objections to the Secretary of Commerce. Both appeals are under consideration. The State is concerned with the lack of scientific knowledge of the waters off Cape Hatteras and the impact OCS development activity will have on the recreation-oriented Outer Banks of North Carolina.

Mississippi River-Gulf Outlet Maintenance Dredging

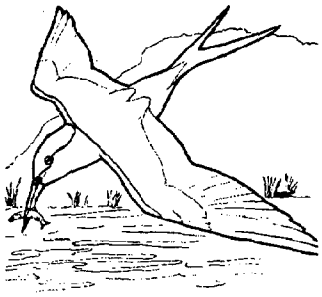
In 1990, the State of Louisiana found a proposed Army Corps of Engineers (Corps) maintenance dredging project on a portion of the Mississippi River-Gulf Outlet (MR-GO) project inconsistent with the beneficial use of dredge spoil materials policies of the state's coastal zone management program. The Corps then claimed that the maintenance dredging was not subject to Federal consistency requirements, but instead was part of a National Environmental Policy Act reviewed Federal development project initiated prior to program approval.

NOAA concurred with the state's arguments that the maintenance dredging was an ongoing project, not a Federal development project initiated prior to program approval, and therefore subject to consistency requirements. The Corps has ceased dredging operations on the portion of the project in dispute while the state works with the Louisiana Congressional delegation to provide additional funding for MR-GO and allow the "beneficial use" of dredged materials from the project. In the meantime, the Corps has established an in-house MR-GO Task Force to evaluate potential beneficial uses for spoil from the disputed maintenance dredging project.



Great Lakes Winter Navigation

The Army Corps of Engineers (Corps) operates the Soo Locks at Sault Ste. Marie, Michigan, for shipping between Lake Superior and Lake Huron. Currently, the Corps closes the locks on January 8 (plus or minus one week) according to weather and ice conditions. The Corps proposed that the locks remain open to January 31 plus or minus two weeks, but established no criteria other than "the reasonable needs of commerce" in determining when the locks should close. The Michigan Coastal Management Program (MCMP) objected to the proposal, maintaining that the decision to open and close the shipping season should be based, at least in part, on environmental criteria. The MCMP also objected to the Corps opening the locks early. In April 1991, the Corps published in the *Federal Register* proposed regulations to amend the Soo Locks operating regulations, and the Corps and the MCMP have had a series of meetings in an attempt to resolve this dispute.



Massachusetts Review of Section 404 and NPDES Permits in New Hampshire

The Town of Seabrook, New Hampshire, proposed a wastewater treatment facility and associated outfall. The project requires both section 404 and NPDES permits. Although the outfall lies entirely within New Hampshire's coastal zone, Massachusetts has sought to review both permits for consistency claiming that the outfall would affect the Massachusetts coastal zone. The Environmental Protection Agency supports the Massachusetts review; the Army Corps of Engineers opposes the state's position. OCRM has determined that the CZMA allows for such a review. Negotiations between the two states continue.

New Jersey-FEMA Dispute Over V-Zone Change

At a Sea Isle City (New Jersey) property owner's request, the Federal Emergency Management Agency agreed to move the V-zone seaward to allow the construction of a house on the property. The New Jersey Coastal Management Program objected, arguing that the change was inconsistent with provisions of the New Jersey program restricting development in high hazard areas. FEMA maintains the designation change does not affect the New Jersey coastal zone, as the state is free to impose more stringent restrictions than those associated with V- or A-zones.

The Federal consistency provisions provide an administrative appeal to the Secretary of Commerce (Secretary) from a consistency objection by a coastal state. In the case of a Federal license or permit, an Outer Continental Shelf (OCS) exploration or development plan and an application for Federal financial assistance, the applicant may request that the Secretary override the state's consistency objection if the activity is: consistent with the objectives of the CZMA or is otherwise necessary in the interest of national security [Section 307(c)(3)(A), (B), and (d)].

There are four elements at 15 CFR 930.121 that an appellant has to meet in order to satisfy the test "consistent with the objectives of the CZMA:"

(1) the activity furthers one or more of the competing national objectives or purposes contained in Sections 302 or 303 of the CZMA;

(2) when performed separately or when its cumulative effects are considered, it will not cause adverse effects on the natural resources of the coastal zone substantial enough to outweigh its contribution to the national interest;

(3) the activity will not violate any requirements of the Clean Air Act, as amended, or the Federal Water Pollution Control Act, as amended; and

(4) there is no reasonable alternative available (e.g., location, design, etc.) which would permit the activity to be conducted in a manner consistent with the management program.

Federal consistency regulations address the second test — "necessary in the national interest." The term "necessary in the interest of national security" describes a Federal license or permit activity, or a Federal assistance activity which, although inconsistent with a state's management program, is found by the Secretary to be permissible because of national defense or other national security interest would be significantly impaired if the activity were not permitted to go forward as proposed.

Secretarial Appeal Decisions

During the past two years, the Secretary received 64 requests for Secretarial overrides. The appeals mostly involved a few highly controversial oil and gas development projects on the Outer Continental Shelf (OCS) and a large number of shoreline development projects (see Appendix C). The Secretary issued several decisions on consistency appeals during the biennium. A summary of these decisions follows.

Amoco Production Company/State of Alaska

Amoco Production Company acquired an interest in 12 oil and gas leases in the Beaufort Sea. On September 2, 1988, Amoco submitted an exploration plan to the Minerals Management Service seeking permission to evaluate the commercial hydrocarbon potential by drilling up to two exploratory oil and gas wells a year, with a potential for drilling a maximum of fourteen wells. On March 6, 1989, the Alaska Division of Governmental Coordination (state) objected to Amoco's consistency certification claiming that the proposed plan was inconsistent with the state's 1986 Seasonal Drilling Restriction (SDR) Policy, which prohibited drilling below a threshold depth during the first half of the bowhead whale migration each fall.

On April 3, 1989, Amoco filed a notice of appeal from the state's objection to its consistency certification for the project. Amoco pleaded that the project should be approved because as consistent with the objectives and purposes of the CZMA, or was necessary in the interest of national security.

Amoco raised several threshold issues, including assertions that the state's objection was invalid and was based solely on a policy which was not part of the state's approved coastal management program (CMP) and that deference should be given to the Secretary of the Interior. The Deputy Secretary declined to decide the appeal solely on the issue of the state's 1986 SDR policy. The Deputy Secretary further found that the decisionmaker should consider *de novo* all relevant information submitted during the course of the appeal and, therefore, deference was not appropriate.

On the second statutory ground, the Deputy Secretary found that Amoco's proposed project did not significantly impair a national defense or other national security interest. However, Amoco was successful in satisfying all four elements of 15 CFR 930.121 and prevailed on the first statutory ground in that the project was consistent with the objectives or purposes of the CZMA. Therefore, although inconsistent with the state's CMP, Amoco's proposed drilling could be permitted by Federal agencies.

Chevron U.S.A., Inc./California Coastal Commission

Chevron applied to the Environmental Protection Agency (EPA) for an individual National Pollutant Discharge Elimination System (NPDES) permit to discharge drill muds, cuttings and other associated discharges for activities on Lease 0525, located twelve miles south of the City of Santa Barbara and fifteen miles west of the City of Ventura. EPA issued an NPDES permit to Chevron subject to consistency concurrence by the California Coastal Commission (CCC). Chevron next submitted the proposed exploration plan to the Minerals Management Service. Chevron proposed drilling up to five exploratory oil and gas wells. On June 9, 1988, the CCC objected to Chevron's consistency certifications for the proposed plan and the individual NPDES permit. Although the CCC found the individual NPDES permit consistent with the State's coastal management program (CMP), the Commission objected because the permit was "inextricably linked" to the proposed plan.

Chevron appealed under both statutory grounds: that an objected activity may be federally approved if it is consistent with the objectives and purposes of the CZMA or if it is necessary to national security. In Chevron's initial appeal notice, the company raised the threshold issue of whether the CCC could object to the individual NPDES permit on the ground that the permit is "inextricably linked" to the objected exploration plan. The Deputy Secretary determined that the CCC's objection to the NPDES permit was not valid because the objection did not describe how the permit was inconsistent with the state's CMP.

During the appeal, Chevron and the CCC raised five other threshold issues concerning: 1) the standard of review, 2) authority to consider the validity of the underlying state objection, 3) the timeliness of Chevron's appeal, 4) the authority of a state to review OCS air emissions and 5) incorporation of air emission standards into a state's federally approved coastal management program. In examining the standard of review, the Deputy Secretary found that:

- the Appellant has the burden of submitting evidence in support of its appeal and the burden of persuasion;.

- the decision is a de novo determination based upon the CZMA and implementing regulations;

- deference is inappropriate in the process as the decision maker considers all relevant information in arriving at a de novo determination; and

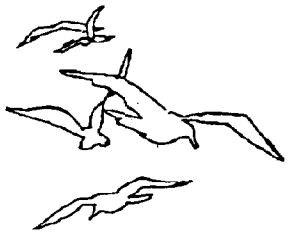
- while all information and materials are incorporated into the administrative record, such information is considered only as it is relevant to the statutory and regulatory criteria for deciding consistency appeals.

Concerning the remaining threshold issues, the Deputy Secretary made the following findings. While the decisionmaker reviews whether the state objection complies with the CZMA and its implementing regulations, questions concerning whether the state correctly interpreted and applied its state law should be deferred to a more appropriate forum. Chevron timely filed its supporting information and data within the required thirty day time period. A state does not act *ultra vires* in its authority under the CZMA in reviewing OCS air emissions for impacts on the land or water uses of the state's coastal zone. Based upon applicable regulations, a state may reference air emission standards in the CMP submission to NOAA.

The Deputy Secretary found that several reasonable alternatives available that would permit the project to continue in a manner consistent with the state's CMP and, therefore, did not satisfy the fourth element of the first statutory ground. As to the second statutory ground, the Deputy Secretary found that the proposed project would not significantly impair national defense or other national security interest. Because Chevron's proposed project did not meet the requirements for either of the two grounds set forth in the CZMA, the Deputy Secretary did not override the state objection. Thus, Federal agencies could not issue permits for the the project as proposed.

Michael P. Galgano/New York State

Mr. Michael P. Galgano owns a 42,000-square-foot residential parcel located in South Hampton, Suffolk County, New York. Galgano applied to the U.S. Army Corps of Engineers for a permit to install a bulkhead with backfill along the southern boundary of his property — a project that would involve the elimination of approximately 1,400 square feet of vegetated wetland. On June 10, 1988, the New York Department of State objected to Galgano's plan on the grounds that the project would result in the loss of valuable wetlands and fish and wildlife habitats and, consequently, was inconsistent with New York's coastal management plan.



On July 14, 1988, Galgano filed a notice of appeal from the state's objection, contending that his proposed activity could be federally approved as consistent with the objectives and purposes of the CZMA. Again, the appellant had to satisfy all four elements of 15 CFR 930.121 to prevail on the first statutory ground; that the project is consistent with the objectives or purposes of the CZMA. The Secretary determined that Galgano's proposed project failed to satisfy the second element in that the potential adverse effects upon the natural resources of the coastal zone by eliminating valuable habitat for wildlife, fish, and benthic communities were substantial enough to outweigh any limited contribution to the national interest. Because the second element of the first statutory test was not satisfied and Galgano did not plead the second test, the Secretary declined to override the state's objection.

Shickrey Anton/State of South Carolina

Mr. Shickrey Anton owns a 10 acre parcel of land, containing approximately 6.5 acres of wetlands, located in Hilton Head, Beaufort County, South Carolina. In 1989, Anton applied to the U.S. Army Corps of Engineers for a permit to fill approximately 0.76 acres of wetlands for commercial development. As mitigation, Anton subsequently proposed to preserve the remaining wetlands and to create 0.56 acres of wetlands elsewhere on the property.

The state objected to Anton's consistency certification on August 25, 1989, because the project was inconsistent with the South Carolina CZM program's prohibition of filling wetlands. As an alternative consistent with the state's CZM program, the state recommended the deletion of almost all fill and the construction of a bridge connecting high-ground portions of the property. On October 4, 1989, Anton appealed the state's objection.

During the course of the appeal, Anton raised two threshold issues on scope and standard of review and burden of proof. The Secretary declined to review the substantive validity of the state's objection in the appeals process. Concerning Anton's assertions that the state should bear the burden of proof,

the Secretary found that, based upon the regulations governing consistency appeals, the Appellant bears both the burden of proof and burden of persuasion once the state has objected to a consistency certification and described any existing alternatives.

In analyzing the second element, the Secretary found that the proposed filling of wetlands for commercial development would have an adverse effect upon the natural resources of the coastal zone substantial enough to outweigh its contribution to the national interest. Because Anton's the second element of the first statutory test was not satisfied and Galgano did not plead the second ground, the Secretary declined to override the state's objection.

Sucesión Alberto Bachman/Commonwealth of Puerto Rico

In 1987, Sucesión Alberto Bachman applied to the U.S. Army Corps of Engineers (Corps) for a permit to replace a swimmers' protection barrier in the waters adjacent to the only beach on Isla de Palominos, Puerto Rico. Specifically, the Sucesión proposed to replace existing steel drum buoys authorized under an earlier Corps permit with styrofoam buoys. In conjunction with that Federal permit application, the Sucesión submitted to the Corps for review of the Puerto Rico Planning Board (PRPB), a certification that the proposed activity was consistent with Puerto Rico's federally-approved CZM program. Also in 1987, the PRPB held a public hearing with the Sucesión's knowledge, which led to the adoption in January 1988 of an alternative to the Sucesión's proposed project: a smaller protected swimming area.

On February 16, 1988, the PRPB objected to Sucesión Alberto Bachman's consistency certification for the proposed project on the ground that the proposed protected swimming area was not in accordance with Puerto Rico's CZM program which encourages public access to beaches. In the objection letter, however, the PRPB did not discuss alternatives to the Sucesión's proposed project.

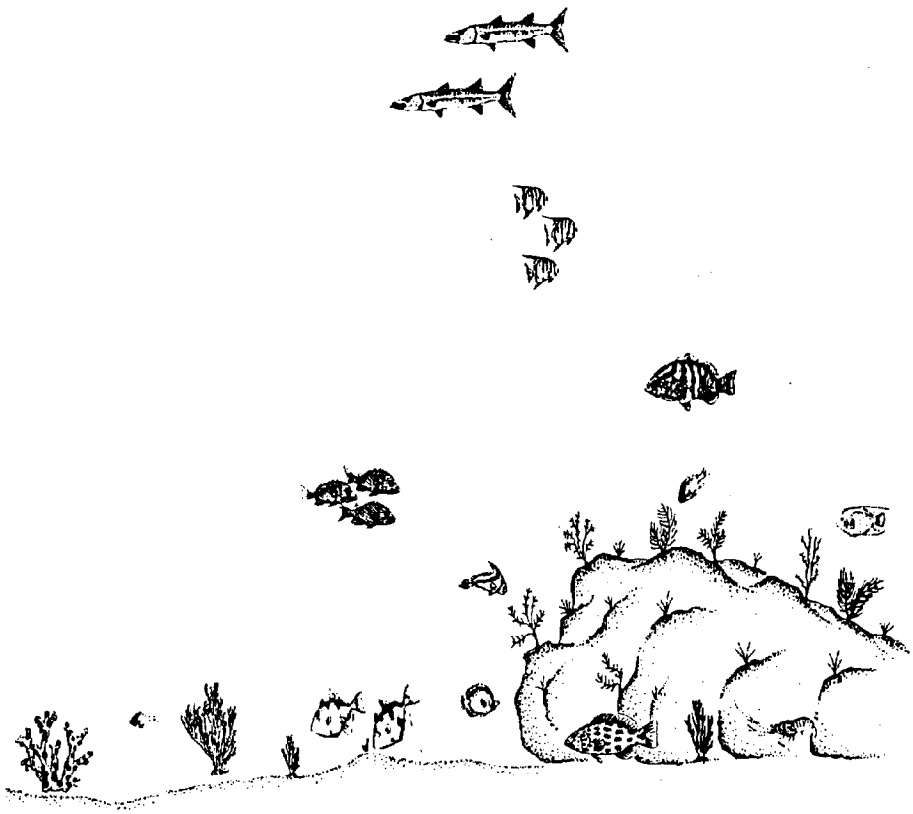
On March 18, 1988, the Sucesión filed a notice of appeal from the PRPB's objection. The Sucesión pleaded that the project should be approved because the plan was consistent with the objectives or purposes of the CZMA. The Secretary found the alternative implemented by Puerto Rico to be a reasonable, available alternative that would be consistent with Puerto Rico's CZM program. Because the fourth element of the first statutory test was not satisfied and the Sucesión did not plead the second ground, the Secretary declined to override the PRPB's objection.

José R. Pérez-Villamil/Commonwealth of Puerto Rico

Mr. José R. Pérez-Villamil is the owner of a 62-acre resort, known as Tamarindo Estates, on Culebra Island, Puerto Rico. The property comprises 1,800 feet of shoreline adjacent to Tamarindo Bay. To facilitate water access

at Tamarindo Estates, Pérez-Villamil proposed to construct a wooden pier 125 feet long with a 25 foot cross-pier at the end. On January 3, 1989, Pérez-Villamil applied to the U.S. Army Corps of Engineers (Corps) for a permit to construct a pier. In conjunction with that Federal permit application he also submitted to the Corps for review of the Puerto Rico Planning Board (PRPB), a certification that the proposed activity was consistent with Puerto Rico's CZM program. On July 24, 1989, the PRPB objected to Pérez-Villamil's consistency certification for the proposed project on the ground that the plan violates Puerto Rico's CZM program policies protecting sea turtle habitat. The PRPB did not recommend any alternatives to the proposed pier.

On August 16, 1989, Pérez-Villamil filed a notice of appeal with the Department of Commerce from the PRPB's objection to his consistency certification for the proposed project. Pérez-Villamil pleaded that his project should be approved because it was consistent with the objectives or purposes of the CZMA. In analyzing the second element, the Secretary found that the proposed pier would cause adverse effects upon the natural resources of the coastal zone substantial enough to outweigh its contribution to the national interest. Because Pérez-Villamil's proposed project failed to satisfy the requirements of the second element of the first statutory ground, and because he did not plead the second statutory ground, the Secretary declined to override the PRPB's objection.

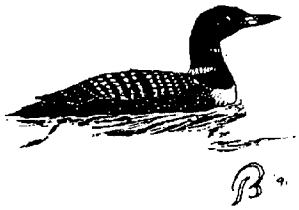


ALABAMA

Federal Approval Date:
September 25, 1979

Federal Funding FY90:
$593,000

Federal Funding FY91:
$593,000



I. Background

The Alabama Coastal Area Management Program (ACAMP) is based primarily on Act 534, "The Alabama Coastal Area Act of 1976," which mandates a comprehensive coastal management program and establishes the coastal zone boundary. The boundary encompasses all lands seaward of the 10-foot inland contour to the limit of the state's territorial waters, including coastal barrier islands. In 1982, the state legislature passed the "Alabama Environmental Management Act" which dissolved the Coastal Area Board and transferred its coastal management authorities to a newly created Department of Environmental Management (ADEM) and the Department of Economic and Community Affairs (ADECA). The Act consolidated state environmental permitting functions within ADEM.

As the lead agency, ADECA is responsible for the administrative and planning functions of the program. the ADEM has permitting authority for activities that directly affect the state's coastal zone and determines whether state and Federal actions that are not directly regulated are still consistent with the ACAMP.

II. Program Accomplishments

Citizens' Water Quality Monitoring Program — In 1991, under the supervision of ADEM and the Dauphin Island Sea Lab, 25 citizens' water quality monitoring stations were established as part of the Baywatch Program. The Sea Lab is responsible for education, quality assurance, and data management and dissemination. ADEM provides quality assurance/quality control. The Perdido Bay Citizens' Monitoring program has become part of the Baywatch Program. To date, the citizens' training phase has been completed.

Gilchrist v. ADEM — In the fall of 1991, the Alabama circuit court ruled in favor of ADEM, upholding the implementation of the Coastal Construction Control Line and its underlying methodology.

Program Visibility — ACAMP visibility increased during the biennium as a result of activities and initiatives that included location of ADEM and ADECA offices on the coast; the Baywatch Program; Coastweeks beach cleanups; the Adopt-A-Beach program; the Boaters Pledge program; and numerous news articles, press releases, television and radio programs.

Governor's Coastal Waters Initiative — In August 1990, Governor Hunt signed a Coastal Waters Initiative Executive Order to review the various coastal programs and develop a long-term coastal management plan. In response, ACAMP staff conducted public meetings, served as members of the Technical Advisory Committee, and developed a set of recommendations which may result in revision to the ACAMP.

Wetlands Mitigation Manual — In 1990, Dr. Judy Stout reviewed and evaluated the success of compensatory wetlands mitigation projects conducted in Alabama in recent years. Based on this study and a thorough literature review, Stout prepared a manual for ADEM which provides suggestions for planning, developing and monitoring restored and newly created wetlands in coastal Alabama.

III. Significant Program Changes

No program changes were submitted during the biennium.

IV. Evaluation Findings

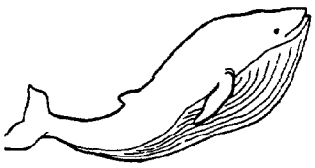
The final evaluation findings issued April 3, 1991 concluded that Alabama is adhering to its approved coastal management program. A major accomplishment was the relocation of the coastal program in ADEM from Montgomery to the Mobile Field Office and the establishment of an ADECA presence on the coast by locating a coastal planner in Baldwin County. Areas to be improved included: 1) increasing the visibility of the ACAMP and the opportunities for full public participation; 2) developing a long-term water quality and resources monitoring strategy which maximizes the use of data for management decisions; 3) a five-year plan to coordinate the provision of public access along the coast; and 4) monitoring and enforcement of the coastal program.

ALASKA

Federal Approval Date:
July 1979

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000



I. Background

The Alaska Coastal Management Program (ACMP) is based on the Alaska Coastal Management Act (ACMA) of 1977. The ACMA created the Alaska Coastal Policy Council (CPC), composed of six state agency heads, the director of the Division of Governmental Coordination (DGC), and nine local government representatives. DGC, a unit of the Office of the Governor, provides staff assistance to the CPC. Under the ACMP, local governments and specially organized coastal resource service areas develop locally specific district coastal management programs. The inland coastal zone boundary is based on biophysical relationships, and generally follows the 1,000 foot elevation contour. More refined boundaries are established during district program development.

A networked program, the ACMP relies on seven state agencies: the Departments of Commerce and Economic Development (DCED), Community and Regional Affairs (DCRA), Environmental Conservation (DEC), Fish and Game (DFG), Natural Resources (DNR), Transportation and Public Facilities (DTPF), and DGC. To insure consistency with coastal policies, the ACMP provides coordinated review of projects within the coastal zone through the coordinated consistency review process. The three resource agencies (DEC, DFG and DNR) then issue various state permits under these authorities.

II. Program Accomplishments

Resource Protection — An integral part of the ACMP, the Alaska Forest Resources and Practices Act (FPA), provides guidance for timber harvest activities on private and state lands, and serves as a standard for review for activities on Federal lands. Revisions to the FPA enacted in May 1990 provide the following: enhanced notification, review and enforcement procedures; increased emphasis on, and protection of, non-timber concerns such as fish and wildlife habitat and visual impacts; development and implementation of nonpoint source pollution plans for timber harvest activities; riparian buffers; and clarification of the interaction between the FPA and the ACMP regarding Federal consistency. The adoption of mandatory riparian buffers is a significant improvement over the old FPA.

Improved Government Operations — Under the coordinated permit review process of the ACMP, DGC must publish a list of permits which are categorically approved as consistent with the ACMP ("A" List), a list of permits generally consistent with the ACMP provided certain standard conditions are met ("B" List), and a list of permits subject to the full review process ("C" List). During the biennium, DGC led an effort to update and revise the A-B-C List. ACMP now updates the A-B-C List on an annual basis.

Improved Government Operations — ACMP coordinates and streamlines state review of all required project permits within the state's coastal boundary. This coordinated process means that all state permits for a project are reviewed at the same time, permits are issued quickly, and project applicants and Federal agencies have a single process for obtaining the necessary permits. In FY90, over 450 coastal projects were coordinated by DGC under the review system; under the new process, reviews were completed in an average of 38 days. The state resource agencies coordinated another 300 project reviews in FY90.

III. Significant Program Changes

During the biennium, Whittier, Skagway, Angoon, Craig, Kenai Peninsula Borough and the Aleutians West CRSA received approval for new or revised district coastal programs. Thirty-three out of thirty-four districts now have approved programs. In addition, four AMSA plans were approved for the Nushagak and Mulchatna Rivers; Mitchell, Hood and Chaik-Whitewater Bays; Port Graham - English Bay; and the Skagway River and Port. Statutory and regulatory changes to the ACMA and state forest practices act were also approved.

IV. Evaluation Findings

An evaluation site visit was conducted in September 1991. The findings were completed in January 1992 and concluded that the state is satisfactorily implementing the Alaska Coastal Management Program. Recommendations included: expanding the ACMP Working Group to include district representatives, improving monitoring and compliance activities, developing regulations to guide the ACMP petition process, and enhancing outreach efforts.

AMERICAN SAMOA

Federal Approval Date:
September 1980

Federal Funding FY90:
$476,000

Federal Funding FY91:
$476,000

I. Background

The American Samoa Coastal Management Program (ASCMP) is based on the Coastal Management Act of 1990, which was passed by the Fono (Legislature) and signed into law in December 1990. The Economic Development Planning Office (EDPO) is the lead agency. The coastal zone boundary encompasses all of the territory's land and water areas, including three Special Management Areas: Pago Pago Harbor, Nu'uuli and Leone pala. The villages retain control of 92 percent of the land and are governed by chiefs and councils. The EDPO is responsible for coordinating permitting actions through the Project Notification and Review System (PNRS).

II. Program Accomplishments

Wetlands Protection — The territory's few remaining wetlands, dominated by mangrove communities, are threatened by development primarily by filling for residential and commercial use. Recognizing a need for further wetlands protection, ASCMP enlisted contractual services to develop a wetlands management plan for the territory. The project included identification, classification, and mapping of wetlands, an economic-ecological assessment, definition of local and Federal regulatory authorities, and development of a comprehensive wetlands management program.

Permit Simplification — The Permit Notification and Review System (PNRS) became fully operational in 1988. The PNRS allows for an interagency review and conditioning of land-use permits through regular bimonthly meetings. To further streamline regulatory requirements, both the land-use and building permits have been combined through a joint application and linked to the Zoning Board, business license, and power and water approvals. PNRS also instituted an administrative process. In addition, the American Samoa judicial system reviewed three major ASCMP-related cases involving an appeal of a land-use permit denial, illegal fill in a wetland, and violation of a land-use condition.

Natural Resource Protection — Pago Pago Harbor was selected as the site of a pilot toxicity study, funded by the Department of Marine and Wildlife Resources, American Samoa Environmental Protection Agency and ASCMP. The pilot study showed that the inner harbor is badly contaminated and a public health advisory was issued. Once ASCMP secures funding, the program will begin Phase 2, health and additional field assessments.

Archeological Resource Protection — Using 306A funds, ASCMP established an archeological park, known as Tia Seu Lupe or star mound, at one of only eleven sites on the Tafuna plains (located on the edge of the last remaining stand of virgin lowland forest). This site was once used as a platform for the sport of netting pigeons and for important Samoan rituals.

Hazards Protection — To meet the Federal Emergency Management Agency requirement of implementing a strategy to mitigate the effects of coastal hazards, ASCMP and the Soil Conservation Service conducted a Landslide Hazard Mitigation Study. In addition, the program sponsored a landslide hazards workshop to provide training to other agencies on methods for reducing risks of landslides.

Natural Resource Protection — Rose Atoll National Wildlife Refuge has been used for many years as the Marine and Wildlife Awareness project field trip site. However, overpopulation of the introduced Polynesian rat has disturbed the balance of the atoll's ecosystem. The rats prey on seabirds, sea turtles, small mammals plant seedlings, thus destroying the value of the refuge. ASCMP, in conjunction with the Department of Marine & Wildlife Resources and the U.S. Fish and Wildlife Service, funded a rat eradication program for the atoll. The project appears to be a success, but requires additional monitoring and possible follow-up efforts.

Aerial Photo Update and Orthomapping — ASCMP, in conjunction with the Community Development Block Grant and the American Samoa Power Authority, contracted services for updated aerial photos of the territory, including, for the first time, the Manu'a Islands. High growth rate of the territory, especially Tutuila, necessitated the mapping effort. Aerial photos and orthophotomaps will assist ongoing planning efforts by agencies responsible for resource management and infrastructure and land use planning.

Public Awareness — ASCMP planned and successfully carried out activities for the annual "Coastweeks" celebration. For the fourth consecutive year, American Samoa participated in the national campaign to educate the public on the importance of coastal resources and sound coastal management and planning. ASCMP, inconjunction with the Department of Education, organized the annual Coastal Symposium. Interested students throughout the territory presented their research on topics which furthered their understanding of the island's natural resources.

In addition, the ASCMP, in cooperation with the Fagatele Bay National Marine Sanctuary, initiated a public education newsletter. Called "O Lau Samoa," the newsletter is published both in Samoan and English and distributed to island leaders, government agencies and science students throughout the territory. The public education newsletter continues as a forum for dialogue on the future of American Samoa's coastal resources.

In August 1991, ASCMP hosted the 1991 Pacific Basin Coastal Zone Management Conference. The theme of the 9th annual conference was "Creating a Futures Vision." The conference focused attention on the vast changes in store for insular Pacific and created a vision accommodating these changes. Approximately 100 participants from within the territory and around the Pacific attended the Conference, including OCRM Director Trudy Coxe and Coastal States Organization Chairperson Sarah Taylor.

III. Significant Program Changes

No program changes were submitted during the biennium.

IV. Evaluation Findings

Final evaluation findings issued September 10, 1991, indicated that the Territory of American Samoa is adhering to its approved program and is satisfactorily implementing the provisions of the program. The results of this evaluation indicated that the territory made tremendous progress in implementing the ASCMP. A significant accomplishment was the establishment of a fully operational, coordinated, and timely Project Notification and Review System (PNRS). However, the evaluation noted the following improvements are needed to ensure continued development and enhancement of the ASCMP: refinements to the PNRS, monitoring and enforcement of Land Use Permits, full legal support (Attorney General Office) of the PNRS, a pro-active leadership role in coastal issues, full implementation of Federal consistency and development of a comprehensive public awareness and information program.

CALIFORNIA

Federal Approval Date:
BCDC - February 1977
CCC - November 1977

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000

I. Background

The California Coastal Management Program (CCMP) is comprised of two segments: the San Francisco Bay segment, administered by the San Francisco Bay Conservation and Development Commission (BCDC), and the remainder of the coast, administered by the California Coastal Commission (CCC). The CCC is the lead agency for program administration under CZMA Section 306.

The CCC administers the California Coastal Act of 1976, as amended, which established a coastal permit program and required that all coastal cities and counties prepare local coastal programs. The coastal zone area governed by the Act is approximately 1,000 yards inland from the mean high tide line, or in areas of significant coastal resources inland up to five miles, and seaward to the limit of the territorial sea. The Act sets forth policies on public access, recreation, marine environment, land resources, development, and industrial development, and created a Coastal Commission responsible for ensuring that the coastal policies are met in the planning and regulatory processes.

BCDC operates under the McAteer-Petris Act and implements the Suisun Marsh Preservation Act. Proposed development involving placement of fill, dredging, or changes in shoreline use within the designated San Francisco Bay shoreline area require a BCDC permit. BCDC's jurisdiction extends inland generally 100 feet from marshes and tidal waters. In addition to the permit program, BCDC implements the San Francisco Bay Plan and special area plans developed in cooperation with local governments. BCDC adopts the special area plans as amendments to the Bay Plan; local governments adopt the plans as amendments to their general plans.

II. Program Accomplishments

Monitoring & Enforcement — The CCC developed a computer module to comprehensively record and update enforcement data. Benefits include: the flagging information such as deadlines and repeat violators; summaries of CCC staff caseloads; and production of detailed enforcement progress reports.

The CCC helped to organize and co-chair the Santa Monica Mountains Enforcement Task Force comprised of Federal, state and local agencies that regulate development along that portion of the California coast. The Task Force gives priority to the resolution of violations committed by "repeat offenders" and to cases where there is irreversible damage to resources of the Santa Monica Mountains, especially where beaches, wetlands and streams are affected. A notable accomplishment of the Task Force was the development of a handbook to familiarize the individual agencies with the statutory authority of the other agencies and to improve enforcement coordination.

In addition, the CCC developed procedures to guide the review of after-the-fact (ATF) permits to ensure that ATF recommendations are integrated into enforcement investigation and resolution. This work has helped to speed case referrals by CCC staff, improve coordination with the Attorney General's Office, and set case referral priorities for more timely and successful litigation.

Resource Management — In 1986, the U.S. Environmental Protection Agency (EPA) designated the San Francisco Bay/Delta Estuary Project (SFEP) under the National Estuary Program. The SFEP supplies effective and cooperative management of the Bay/Delta System. BCDC is currently represented on the Management Advisory Committee and many subcommittees including planning (co-chair), wetlands, land use, freshwater flows, contaminants, and waterway modification and dredging. In addition, BCDC, in cooperation with the Greenbelt Alliance and the University of California-Berkeley's Center for Environmental Design Research, was selected by the SFEP to develop a report on the impacts of land use on the estuary. BCDC continues to work closely with SFEP staff to address methods for assuring that the CCMP is consistent with BCDC's management program.

Grading and Restoration Techniques — An increasing number of proposed projects involving extensive grading, particularly in southern California, has threatened major impacts on water quality, wildlife habitat, sediment supply to beaches, and groundwater recharge. In response, the CCC completed a grading handbook that provides information to both developers and regulatory agencies on the best techniques available to reduce the amount of land form alteration associated with development in steep sloped areas.

Bay Commission Dredging Initiative — Over the past two years, BCDC played a major role in resolving major dredging and dredged material disposal issues in San Francisco Bay. BCDC occupies a major decisionmaking and staff role in the Long Term Management Strategy (LTMS), a coordinated state-Federal approach to manage regional dredging concerns. LTMS is a consensus based process involving EPA, the Army Corps of Engineers, the San Francisco Bay Regional Water Quality Control Board and BCDC to establish a regional program to manage and regulate dredging and the disposal of dredged materials in the Bay, ocean, Delta, and upland areas around the Bay. BCDC, as part of the work on upland disposal alternatives, will use a $40,000 grant from the San Francisco Estuary Project to prepare the first phase of a demonstration project involving the beneficial use of dredged material and an immediate action plan for the beneficial use of dredged material at Staten Island in the Delta. To update the Bay Plan dredging policies, pending completion of the LTMS in late 1994, BCDC is sponsoring hearings on staff recommended modifications to the dredging policies.

Public Access — In order to evaluate the effectiveness of survey techniques using aerial photographs and field topographic work, the CCC conducted a pilot project to determine the winter location of the mean high

tide line at two sample beaches. In addition to providing a better understanding of the utility of the study techniques, the project provided useful information on the effects of development on shoreline processes and assisted the CCC's efforts to resolve seawall and public access violations in pilot areas.

In the spring of 1991, the CCC revised and updated the California *Coastal Access Guide* for the first time since 1983. The new guide describes expanded areas of the California coast that are open to the public and explains in greater detail the rights and responsibilities of the public in their use of coastal resources. Another new feature is a listing of programs that the public can become involved in to improve beaches, such as coastal cleanups.

The CCC and State Coastal Conservancy also continued their ongoing efforts to solve a problem of surplus offers to dedicate public accessways. With growing fiscal constraints, local governments are reluctant to take over these newly offered accessways. As an alternative, the Joint Access Program is experimenting with having nonprofit organizations, such as the Surfrider Foundation, formally operate and manage the dedicated accessways.

Coastal Education and Public Involvement — The CCC continued its public outreach program to expand the public's knowledge of coastal and ocean issues. The primary method of getting organizations and individuals involved in coastal awareness is through the Adopt-A-Beach program, where local organizations commit to cleaning a beach for a year. Another successful program is the Coastal Cleanup Days. This program has consistently doubled in the past several years. Over 30,000 volunteers helped clean up the coastal litter on the September 1991 Coastal Cleanup Day. Cleanups were also held for the first time on inland waterways to highlight the importance of nonpoint source pollution issues in coastal areas.

Federal Consistency — The CCC completed a Federal consistency monitoring program to improve its procedures for monitoring mitigation measures on existing projects and developing criteria for improving new project reviews. The effort resulted in the design of monitoring forms, the expansion of the CCC's Federal consistency database, and the implementation of a monitoring status/tracking system to provide easy reference.

III. Significant Program Changes

During the biennium, NOAA approved changes to the California Coastal Act and the McAteer-Petris Act. NOAA also approved changes to BCDC's regulations regarding minor repairs and improvements, notice requirements, and program amendments, as well as the revised San Francisco Waterfront Total Design Plan.

IV. Evaluation Findings

The next section 312 evaluation is scheduled for late 1992.

CONNECTICUT

Federal Approval Date:
September 1980

Federal Funding FY90:
$767,000

Federal Funding FY91:
$767,000

I. Background

The Department of Environmental Protection serves as the lead agency for the Connecticut Coastal Management Programs (CCMP), created by the state's Coastal Area Management Act of 1979. The Department's Office of Long Island Sound Program (OLISP) administers the coastal regulatory and management program. At the state level, policies and standards of the CCMP are embodied in the permitting process for projects and activities subject to the Tidal Wetlands and Coastal Structures, Dredging and Filling statutes.

At the local level, coastal resource policies and standards are incorporated into the municipal coastal site plan review process on a project-by-project basis. The OLISP staff provide technical assistance and oversight, and maintain the right to intervene. Municipalities have the option to prepare long-range coastal management plans custom tailored to their communities. Of the 33 coastal towns that opted to prepare a voluntary municipal coastal program, 31 have completed the process which places project review decisions in a long-term planning context consistent with state coastal management goals. Of the two communities that have work outstanding, one is in the first phase of the process, while the other is in the final phase.

The CCMP applies to the inland boundary of the coastal municipalities. This includes an intensive management tier which extends landward to a 1,000-foot setback from the mean high water, the inland boundary of tidal wetlands, or the inland limit of the 100-year coastal flood zone, whichever is farthest inland. On the seaward side, the boundary overlays the state's jurisdiction in Long Island Sound.

II. Program Accomplishments

Wetlands Protection — CCMP incorporates 14 coastal resource categories with policies and standards for each which restrict allowable uses, depending upon the fragility of the natural resource. CCMP places special emphasis on protective efforts for tidal wetlands. Despite the stringent regulations, an average of 0.5 acres of tidal wetlands are lost to permitted activities in the state annually, excluding wetlands restored or created. Prior to the adoption of the Tidal Wetlands Act in 1969, the state experienced significant losses or impacts to tidal wetlands — 5,860 acres over a 55-year period comprising 25 percent of the state's tidal wetlands. Alterations are allowed only for water-dependent uses and public benefit projects in which no alternatives to wetland loss exists; in such cases project sponsors must minimize the loss to the fullest extent possible.

The CCMP aggressively pursued the restoration of emergent intertidal wetlands. Since 1982, the state restored approximately 900 acres of tidal wetland habitat. This effort consisted first of the systematic identification of

potential sites for restoration. The CCMP staff then worked with other state agencies and municipal staff to plan and implement restoration projects. The process often entailed the restoration of tidal flow by the replacement and manipulation of culverts, tide gates, weirs, and dams. The Coves and Embayments Act of 1986 and the creation of the Long Island Sound Clean Water Account provide funds for coastal design, construction and monitoring of embayment restoration projects.

Waterfront Development — In order to address and resolve issues unique to the state's navigable harbor areas, the CCMP adopted the Harbor Management Act of 1984. The Act gives coastal municipalities the opportunity to establish harbor management commissions and prepare harbor management plans. The state has approved six harbor management plans, with 11 other plans in various phases of development.

Permit Processing — During FY91, substantial efforts were made to streamline the processing of permits and to reduce the backlog of permit applications. Toward this goal, the CCMP created a new abbreviated Certificate of Permission review process to reduce the processing time of applications for small-scale, minor activities. Additionally, the new application form and corresponding detailed instructions were developed for larger regular permit applications. These efforts proved effective in reducing the number of incomplete applications, as well as applications for projects which are clearly inconsistent with state policies.

Public Access — Public access is a water-dependent use in Connecticut by statutory definition. The aggressive enforcement of the CCMP's water-dependent use standards significantly increased public access opportunities. Since 1980, nearly 50,000 linear feet, or more than 9.4 miles, of new public access has been made available (over 9,000 feet in fiscal years 1990 and 1991) by means other than land acquisition. Public access grew through the review of major waterfront development proposals leading to the construction of walkways, waterfront parks, easements or other agreements. This growth is significant given that approximately 80 percent of the coast consists of rocky shorefront, tidal wetlands, or bulkheaded urban waterfront which makes the Long Island Sound difficult to reach. During FY90 and FY91, special public access grants and studies have been completed in the towns of Groton, New London, Stamford, East Lyme, and Groton City. Stratford completed a municipal coastal program grant and special projects and studies are near completion in Essex and West Haven.

III. Significant Program Changes

There were no significant changes to the program during the biennium.

IV. Evaluation Findings

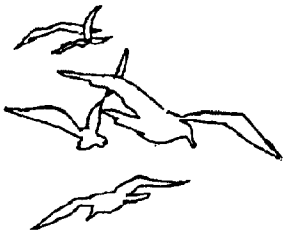
The next Section 312 evaluation is scheduled for 1993.

DELAWARE

Federal Approval Date:
August 1979

Federal Funding FY90:
$571,000

Federal Funding FY91:
$571,000



I. Background

The Delaware Department of Natural Resources and Environmental Control (DNREC) implements the Delaware Coastal Management Program (DCMP) under networked authorities, including the Coastal Zone Act, the Beach Preservation Act, and various water quality and tidal wetlands protection programs. The Division of Soil and Water houses the DCMP. The entire state has been designated as the coastal zone; the Delaware Bay and ocean coasts, however, receive special zoning protections from industrial development. Programs to address issues in the Delaware Bay and the Delaware Inland Bays are being developed under EPA's National Estuary Program; DNREC-wide programs such as the Inland Bays Recovery Initiative focus on the Inland Bays as well.

II. Program Accomplishments

Natural Resource Protection — The DCMP continued to take an active role in developing initiatives to address a range of issues affecting the state's coastal zone. Most significant are DCMP efforts to integrate a number of related department functions to comprehensively address water quality problems caused by nonpoint source pollution. The nonpoint source threat is particularly severe in the Inland Bays, where the DCMP developed the Inland Bays Recovery Initiative, a series of measures including alternative shoreline stabilization projects, enforcement sweeps, tree plantings, and demonstration projects such as composting sheds for poultry farmers, all designed to raise community awareness while addressing immediate problems.

Wetlands Protection — Through the coastal program, DNREC acted to improve protection of the state's freshwater and tidal wetlands. The DCMP recently completed a program to more effectively evaluate and map existing freshwater wetlands.

Under the FY91 award, DCMP launched a new initiative to restore values to degraded marshes along the Christina River near Wilmington. Adjacent to industrial urban areas, these marshes could provide important stormwater storage, water quality, and habitat values, even if the marshes cannot be restored to pristine tidal wetlands. DCMP began to characterize the most suitable areas for restoration and develop a 20-year plan to restore key marshes. Finally, DCMP worked closely with state's nonpoint source programs and efforts, such as the Inland Bays Estuary Program to develop a coordinated, watershed approach to improving coastal water quality.

The FY90 grant represented a transitional period for the DCMP. The program shifted from the Secretary's office to the Division of Soil and Water, which houses a number of related programs. The state assigned new staff to administer the program and to begin redefining the DCMP to focus more narrowly on specific coastal issues. Under this award, the DCMP concluded

work on a number of long-term projects related to tidal marsh management and launched new projects in erosion and sediment control and monitoring community package treatment systems.

In FY91, the DCMP began an extensive program to restore tidal wetlands along the Christina River and expanded public information programs (see discussion under "Wetlands Protection"), began development of a comprehensive state management plan for tidal wetlands, and continued efforts in erosion and sediment control.

III. Significant Program Changes

DCMP intends to submit a program change to incorporate the state's new erosion and sediment control legislation into the program.

IV. Evaluation Findings

The final evaluation findings issued September 8, 1989, show DNREC is implementing the essential elements of the DCMP. Notable achievements are the state's freshwater wetlands protection efforts, the Delaware Environmental Legacy report, the proposed storm water management program, and the Inland Bays marina moratorium and regulation development. Recommendations included improved enforcement of the state's erosion and sedimentation law, better internal coordination, and more clearly defined Coastal Zone Act regulations.

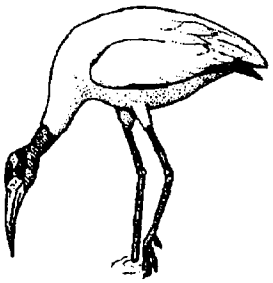
OCRM conducted an evaluation site visit in January 1992, and will issue final evaluation findings in the summer of 1992.

FLORIDA

Federal Approval Date:
September 1981

Federal Funding FY90:
$2,048,999

Federal Funding FY91:
$2,014,000



I. Background

The entire state is included in Florida's coastal zone. The Florida Coastal Management Program (FCMP) is based on 27 state laws and the resulting implementing regulations which are administered by 16 agencies. The Department of Environmental Regulation's (DER) Office of Coastal Management (OCM) administers the FCMP. The Governor's Office of Planning and Budget (OPB) assists DER with Federal consistency reviews.

Day-to-day program administration rests primarily with three agencies which administer key state coastal management programs: DER, the Department of Natural Resources (DNR), and the Department of Community Affairs (DCA). These three agencies operate under a procedural memorandum of understanding, signed in 1981 and recently updated, which formalizes their working relationship and ensures a coordinated state approach to coastal management. The Interagency Management Committee (IMC), which is comprised of the heads of all major FCMP agencies and the Governor's Citizen Advisory Committee, coordinate state CZM efforts.

II. Program Accomplishments

During FY90 and FY91, the state concentrated CMP efforts on acquiring scientific and technical information to improve the program's information base on the water quality of designated estuaries and surface water areas. The state completed a state-wide contaminant survey expected to fill significant information gaps in Florida's assessment of coastal water pollution.

The state is in the final phase of a three year river basin project (Myakka River Basin Study) intended to facilitate effective special area management planning in local and state programs and to provide the basis for mutually supportive actions between local land use, environmental protection and storm water management programs with state administrative efforts. This project is expected to serve as a prototype for similar efforts in other watersheds throughout the state.

The state also undertook a project to coordinate the activities of the surface water improvement and management program covering many aquatic preserve plans and local government comprehensive plans. The project aims to resolve conflicting state policies concerning coastal land and water uses that directly and significantly impact the coast.

The state undertook research projects to support interim beachfront post disaster redevelopment planning for use by the Division of Beaches and Shores in permitting activities while the state's Beach Management Plan is formulated. This project will also develop the data base necessary for integrating post disaster redevelopment considerations into the Comprehensive Beach Management Plan.

Florida also conducted an island assessment to gather specific standardized of information about the islands, as a foundation for a focused evaluation of the strengths and weaknesses of existing regulatory and management programs.

Research efforts also continued in determining the impacts of development activities on the state's threatened or endangered marine species, for example the effects of artificial lighting on sea turtle reproduction.

III. Program Changes

During the biennium, the Florida DER administered the coastal program. After extensive discussions with state agency heads, the Governor assigned all responsibility for the FCMP to the Lieutenant Governor, with active management responsibility for the program delegated to the Florida Department of Community Affairs (DCA). Legislation has recently been enacted formally transferring the program from DER to DCA.

The Coastal Resources Interagency Management Committee (IMC), which coordinates the activities of the FCMP, recently adopted a work program that provides a foundation for the development of a three year action plan. This plan will identify and prioritize coastal issues and serve as a basis for future coastal management grants in Florida.

IV. Evaluation Findings

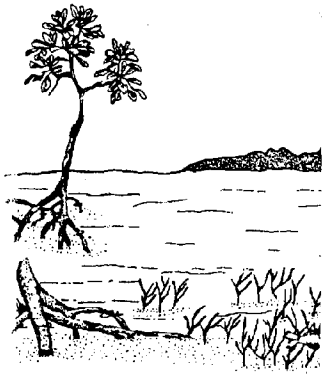
OCRM conducted a 312 evaluation of the FCMP during December 1991. The major areas of focus included: the leadership and policy direction of the FCMP, the role and focus of the IMC, and the ability of the IMC to serve as a central coordinating, policy setting and conflict resolution mechanism for the FCMP on state-wide coastal issues. Findings are scheduled for release in April 1992.

TERRITORY OF GUAM

Federal Approval Date:
August 1979

Federal Funding FY90:
$480,000

Federal Funding FY91:
$480,000



I. Background

The Guam Coastal Management Program (GCMP) functions as a networked program with the Bureau of Planning acting as the lead agency. The entire island and the territorial waters are included in the coastal zone. The management of coastal resources is governed by coastal policies and authorities set forth in Executive Order Nos. 78-20, 21, 13, 37; the Comprehensive Planning Enabling Legislation; and the Territorial Seashore Protection Act. Land use decisions are made by the seven member Territorial Land Use Commission (TLUC), which is appointed by the Governor; the Department of Land Management acts as staff to the TLUC.

In 1990, Executive Order No. 90-09 established the Development Review Committee (DRC), formerly the Subdivision and Development Review Committee, which provides an intergovernmental review of all projects submitted to the TLUC. All other coastal resource management decisions are made by the remaining networked territorial agencies: Guam Environmental Protection Agency, Public Utility Agency of Guam, and the Departments of Agriculture, Public Works, Parks and Recreation, Commerce, and Public Health and Social Services.

II. Program Accomplishments

Comprehensive Land Use Planning — Guam is developing a comprehensive Master Plan, which will include elements such as land use, community design, and conservation and development policies. The GCMP is assisting in the master planning effort, and is developing the Geographic Information System mapping and data base system. Digitally produced information will include lot lines, topography, limestone forest boundaries, and seashore reserve. Data base information will provide zoning, land-use, lot size, infrastructure availability and endangered species or habitat information.

Wetlands — In FY90, the GCMP coordinated an intergovernmental task force on wetlands education. The task force educated decisionmakers and the public on the current status of Guam's wetlands and the applicable federal and local wetlands laws. As part of this program, the GCMP published a public information pamphlet on wetlands, as well as a guidebook for decision makers which analyzed the current law and made recommendations for model legislation. The model legislation is currently under consideration by the Guam legislature for adoption.

III. Significant Program Changes

During the report period, the GCMP incorporated twenty laws and fifteen executive orders into the GCMP as routine program implementations. The program changes include modifications to the zoning law, historic preservation concerns, amendments to endangered species and game and fish laws,

adoption of U.S. Fish and Wildlife Service National Wetlands Inventory Maps, and increased public land management. In addition, TLUC set new requirements for EIAs on all applications for zone changes or variance requests, and the DRC's role expanded to provide inter-governmental review of all TLUC decisions.

IV. Evaluation Findings

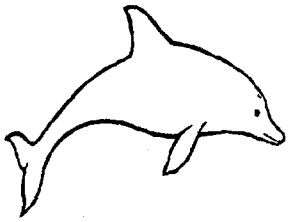
The final evaluation findings issued September 12, 1990, indicated that the territory was implementing and adhering to the provisions of the approved CMP. Accomplishments of the GCMP included coordinating the GovGuam task force to develop a recreational water use plan and developing a comprehensive training manual for Department of Public Works building inspectors. Recommendations included revising regulations to provide stricter requirements for issuing variances, establishing more stringent standards for reconsideration of permit applications, and improving enforcement of TLUC permit conditions.

HAWAII

Federal Approval Date:
September 1978

Federal Funding FY90:
$715,000

Federal Funding FY91:
$715,000



I. Background

The Hawaii Coastal Zone Management Program (HCZMP) depends primarily on statutory provisions that direct state agencies and county governments to conductregulatory and non-regulatory activities in compliance with the coastal policies established in the Hawaii Revised Statutes. The Office of State Planning (OSP) is the lead agency for the HCZMP and receives advice on policy making and program implementation from the Statewide Advisory Committee.

II. Program Accomplishments

Hawaii Coastal Zone Management Assessment — In response to a verbal legislative mandate, the OSP completed an assessment of the effectiveness of the HCZMP. The findings were used in developing options for improving the program. The effort involved extensive public participation. The result was a report, *Recommendations for Improving the Hawaii Coastal Zone Management Program*, submitted to the Governor and the Legislature. In addition, HCZMP submitted a bill to the Legislature to implement the recommendations of the report.

Hazards Protection — In the third year of a multi-year statewide beach management program, Hawaii conducted two projects. The City and County of Honolulu Department of Land Utilization completed the *1991 Oahu Shoreline Management Plan* which explored alternative regulatory and nonregulatory strategies for preserving Oahu beaches threatened with loss through erosion. The plan also formulated a general and beach-specific plan for preserving these natural resources. The second project was an analysis of aerial photographs to determine historical changes in the shoreline position at selected beaches, covering 66 miles of sand shoreline. The resulting erosion/accretion history report, entitled *Aerial Photograph Analysis of Coastal Erosion on the Islands of Kauai, Molokai, Lanai, Maui and Hawaii*, will aid in predicting future coastal erosion trends, developing beach management plans and enhancing regulatory decisions on shoreline area activities.

Natural Resource Protection — Phase II, an expansion on Phase I of the *Hawaii Fishpond Study: Islands of Oahu, Molokai and Hawaii* inventoried and assessed the historic coastal fishponds on the Islands of Hawaii, Maui, Lanai, and Kauai. The study assessed fishponds for cultural and historical values, as well as aquacultural, mariculture, and recreational activities. The study also outlined the environmental permit and review requirements and analyzed the current process for leasing state-owned fishponds, with the intent of suggesting possible approaches to encourage fishpond utilization. The results of the study will form a foundation for improving land and water use policy planning by providing information that identifies acceptable alternative uses of the fishponds.

Natural Resource Protection — Coastal view studies were completed for all counties. The studies give the counties a systematic approach to preserving and protecting valuable scenic resources in deciding proposals for development in the nearshore areas.

III. Significant Program Changes

No program changes were submitted during the biennium.

IV. Evaluation Findings

The final evaluation findings issued in April 1991, indicated that the State of Hawaii is adhering to its approved coastal zone management program and is making progress in implementing the provisions of its approved coastal zone management program. The most significant issues to be addressed are: examining ways to improve County monitoring and enforcement of SMA permits and conditions, continuing public education of the HCZMP by hosting periodic workshops with state and county officials, and using existing CZM newsletters to publicize coastal management issues and the needs and benefits of the HCZMP and thereby enhance public information and public perception.

LOUISIANA

Federal Approval Date:
August 1, 1980

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000

I. Background

The Louisiana Coastal Resources Program (LCRP) is based on the Louisiana State and Local Resources Management Act of 1978 and implemented by the Department of Natural Resources/Coastal Management Division (DNR/CMD). The coastal zone boundary encompasses all or part of 19 parishes (roughly 8.5 million acres) and extends to the limit of state waters. The Act established a comprehensive regulatory program — the Coastal Use Permit program administered by DNR/CMD — through which the state directly regulates any use or activity within the coastal zone that directly and significantly impacts coastal waters. Parishes are authorized but not required to develop Local Coastal Programs (LCP) and if an LCP is approved by DNR/CMD, the Parish may then regulate uses of local concern. DNR/CMD has designated two special management areas: the Louisiana Offshore Oil Port and the Marsh Island Wildlife Refuge.

II. Program Accomplishments

Natural Resource Protection: Beneficial Use of Dredge Material — The state looses between 30 to 40 square miles of coastal wetlands annually. The lack of sediment reaching natural wetlands in the delta plays a significant role in this process. However, a tremendous amount of sediment is dredged from navigation channels and disposed of in uplands or ocean disposal sites, where the sediment does not benefit wetlands. Consequently, one measure to curb the loss of coastal wetlands is to use non-contaminated sediment that is dredged as part of navigation or other projects to protect, restore or create wetlands or stabilize navigation channels to prevent additional wetland erosion. The state passed new legislation which strengthens existing coastal use guidelines by requiring mitigation and the beneficial use of dredge materials for projects over a specific threshold amount. The state has also used Federal consistency authority to encourage the Corps of Engineers to incorporate the beneficial use of dredge material into the design of projects. The State and the Corps have begun to cooperate more closely in the advanced planning of dredging activities to identify areas where beneficial use is possible.

Permit Simplification — The state developed and incorporated into the coastal program two new general permits—General Permits #1 and #4—to expedite oil and gas activities, minimize coastal wetlands losses, and increase public safety. General permit #1 allows for the construction of oil and gas pipelines and flowlines along existing oil field transportation routes (spoil banks, board roads) with a minimal amount of wetlands loss. General permit #4 provides for the removal of abandoned pipelines in wetlands and waterways with a minimal amount of environmental disturbance. The permits saved oil companies significant time and expense, reduced the average wetlands area altered per permit, and increased public safety by reducing the chances of hitting exposed pipelines.

Review and Evaluation of Enforceable Policies — Using CZM funds, the Coastal Management Division conducted a major review and evaluation of the Coastal Use Guidelines (the state's enforceable policies) for the first time in 10 years. The state developed draft revised guidelines. Generally, the revisions provided more environmental protection, more predictability to the regulated community, and better coordination between the coastal management and coastal restoration programs. The revised guidelines were published for public comment; the state is now reviewing comments.

Wetlands Resource Protection - Mitigation Policy — With the passage of Act 1040—Wetlands Mitigation legislation— the state used CZM funds to refine policy, and develop final rules and regulations for wetlands mitigation, such as requirements for wetlands restoration, enhancement and creation to offset unavoidable adverse impacts to wetlands resulting from permitted activities. The state used CZM funds to conduct a mitigation costs analysis, a study of the effectiveness of mitigation projects, and a study to develop and implement a plan to ensures full monitoring of all required mitigation. The cost analysis investigated mitigation costs for small permitted impacts and how these costs could be used in mitigation banks. The CMD is also conducting file and field studies to review the types of as well as the degree of implementation of past mitigation projects required as a permit conditions. More importantly, these studies form a base for developing criteria and evaluating the success of these and future mitigation projects. These studies also provide data needed to refine the state's wetlands mitigation policy and to prepare draft rules and regulations for Act 1040, efforts also supported by CZM funds.

III. Significant Program Changes

State Wetlands Restoration Program — In April 1989, the Louisiana Legislature passed Act 6, creating the Wetlands Conservation and Restoration Authority and establishing a Wetlands Conservation and Restoration Trust Fund to support restoration projects. In April 1990 and 1991, the Wetlands Authority submitted and the legislature passed priority lists of restoration and conservation projects. Many of the wetlands projects initiated in 1990 and 1991 depended on the state restoration trust fund. The trust fund contained roughly $5 million in FY90 and $26 million in FY91. Final rules and regulations for the restoration program are being developed by the Office of Coastal Restoration and Management. The state will submit the program for incorporation into the LCMP when the final rules are adopted.

State Mitigation Legislation — In July 1990, the state legislature passed Act 1040, a coast-wide Wetlands Mitigation Law. The legislation requires compensatory mitigation for any permitted development activity impacting coastal wetlands. The legislation also provides for mitigation banks, and includes exemptions from the mitigation requirements for certain activities of overriding public interest. The Office of Coastal Restoration and Management is developing draft rules and regulations for the legislation and will submit the mitigation act for incorporation into LCRMP at that time.

Beneficial Use Legislation — In July 1991 the Louisiana Legislature passed Act 637, requiring the Secretary of the Department of Natural Resources to insure the beneficial use of dredge or fill material for dredging activities over 500,000 cubic yards. The legislation mandates that the DNR Secretary require companies dredging more than 500,000 cubic yards of material to use the fill for wetland protection, restoration, enhancement or creation in accordance with a long term management strategy to be developed for each waterway. The Office of Coastal Restoration and Management is developing draft rules and regulations for the legislation.

St. Tammary Parish LCP — The St. Tammary Parish completed a coastal program and submitted the plan and ordinance to NOAA for approval as a Routine Program Implementation in 1991. NOAA remanded the LCP to the state with a request for additional information to address public comments, as well as NOAA concerns. The state and Parish are addressing NOAA's concerns and expect to resubmit the LCP as a program change in 1992.

General Permits #1 and #4 were officially incorporated into the LCRMP in 1991. These permits minimize adverse inputs to wetlands while expediting oil and gas activities.

Act 408 (1984) and Act 662 (1989), submitted to OCRM in February 1991, were not approved for incorporation. These Acts, respectively, abolished the Louisiana Coastal Commission, replacing it with the Louisiana Coastal Advisory Council, and then abolished the Coastal Advisory Council. OCRM requested that the state submit additional information describing how it will provide ongoing public participation in program implementation, especially the permitting process and other decisionmaking. The state must clarify its position before OCRM will reconsider the program changes.

IV. Evaluation Findings

Final evaluation findings issued July 22, 1991 indicated the state was implementing and enforcing the essential elements of the approved program. The findings also indicated that improvements were needed in program monitoring and enforcement; technical assistance to applicants; public participation and input into the regulatory/management program; incorporating program changes into the approved management program; developing a constituency for coastal management; making better use of local coastal programs; and completing outstanding special area management plans. Accomplishments included continued success in using the geologic review process, developing general permits #1 and #4, and developing the state's coastal wetlands restoration program.

MAINE

Federal Approval Date:
September 1978

Federal Funding FY90:
$1,538,000

Federal Funding FY91:
$1,538,000

I. Background

The State Planning Office (SPO) serves as the lead state agency for the Maine Coastal Management Program (MeCMP). A network of 13 state laws that are jointly administered by state and local governments comprise the MeCMP; the Maine Department of Environmental Protection (DEP) is the primary regulatory agency for most of these laws. The state's coastal boundary includes the inland line of all coastal towns and all coastal islands. The state is now addressing the major coastal issues of growth management, water quality, public access and ocean resources.

II. Program Accomplishments

Water Quality — In April 1990, Casco Bay became the fifth waterbody in New England to be designated under the National Estuary Program (NEP). As an NEP, Casco Bay qualifies for Federal assessment and planning funds over a five-year period. The designation solidifies the partnership involving Federal, state and local governments, bay users, marine industries, businesses, environmental groups and private citizens. A Casco Bay Management Committee was formed to oversee the program and to oversee the development of a Comprehensive Conservation Management Plan for the Bay. The MeCMP is represented on the management committee.

A new challenge for the Casco Bay Management team is to address the multitude of issues related to the wrath of Hurricane Bob which struck the Maine Coast in August 1991. The hurricane sent millions of gallons of raw sewage, sediment, metals and other pollutants, into the bay and coastal waters. This severe impact on the water quality and wildlife in Casco Bay could change the health of Casco Bay. In addition, the MeCMP provided technical assistanceto assist state and local officials and the public in understanding the importance of managing estuaries. Efforts included *The Estuary Book*, a coastal water quality primer and guide to promoting understanding and improving regional management of Maine's Estuaries and Embayments, and the *Estuary Profile Series*, which profile 19 of Maine's important estuaries and is designed to help towns with regional estuary planning.

Managing Maine's Marine Waters — The MeCMP completed a marine policy report entitled, *Policy Options for Maine's Marine Waters*. The report recommended establishing a Marine and Coastal Resources Task Force, now created, which serves in an advisory capacity to state agencies, provides a forum for consensus building on key marine and coastal issues and develops the strategy plan for the state's marine waters.

Managing Interstate Waterbodies — The state successfully initiated the Gulf of Maine Program in 1988. The program is a cooperative interstate initiative, involving three states, Maine, Massachusetts and New Hampshire,

and two provinces, New Brunswick and Nova Scotia. Since inception, the program has proven successful. Accomplishments to date include: a comprehensive report on the state of the Gulf resources; a signed international agreement by the three governors and two premiers; an action plan to address the management issues relative to the restoration and future management of the Gulf; an analysis of the legal framework for managing the resources in and around the Gulf; a bi-monthly newsletter, *Turning the Tide*; and *Gulf Links*, a resource guide to coastal organizations in the Gulf of Maine region.

Local Assistance — The MeCMP published two guidebooks to train and assist local officials in understanding the state's resource protection laws and to provide code enforcement officers with a basic tool to identify and delineate Maine wetlands. These documents, entitled "Maine Wetlands and their Boundaries," and "Municipal Code Enforcement Officers Training Manual," provide valuable information and training guidance for local officials regarding wetlands identification, delineation of wetlands boundaries and administration and enforcement of the Mandatory Shoreland Zoning law, as well as other wetlands protection rules and ordinances.

Coastal Development — Under the auspices of the Comprehensive Planning and Land Use Regulation Act of 1988, municipalities are required to develop growth management plans and implementation plans containing appropriate zoning ordinances that must be approved by state agencies and the appropriate regional councils before adoption. The law requires that all plans be consistent with the goals and policies of the MeCMP. To date, 127 towns have completed plans and 57 have been adopted by towns. Although the legislature in a budget cutting measure removed the mandate for comprehensive planning, it is possible that this action will be rescinded in the near future.

Identifying Priority Issues — Maine initiated a comprehensive approach to assessing the eight coastal zone enhancement issues identified under section 309 of the Coastal Zone Act Reauthorization Amendments of 1990. In May 1991, the MeCMP surveyed coastal residents and concerned groups to determine the most important natural resource management issues on the coast. Respondents to the survey indicated strong concern for water pollution, coastal wetlands and cumulative and secondary impacts of development. In assessing the eight issues, the state cited accomplishments, problems and noted some possible options for improvement.

IV. Evaluation Findings

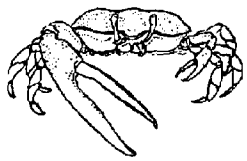
The next evaluation of the MeCMP is scheduled for September 1992.

MARYLAND

Federal Approval Date:
September 1978

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000



I. Background

The Maryland Coastal Zone Management Program (MCZMP) networks existing state laws and authorities. Implementation is accomplished through Memoranda of Understanding between the Department of Natural Resources (DNR), the lead agency, and other state agencies. Within DNR, the Coastal Resources Division (CRD) coordinates and monitors the MCZMP. In response to Section 312 evaluation findings, the DNR established a Coastal Resources Coordination Committee to formalize policy and program coordination within the MCZMP.

The program's coastal zone boundary includes the 16 coastal counties and Baltimore City. Maryland also controls development in a critical area 1,000 feet landward from all tidally influenced waters through the Chesapeake Bay Critical Areas Law and Commission. The Critical Area law and criteria were incorporated by amendment into the MCZMP on July 27, 1987. All of the local coastal communities developed land use plans for the critical area as mandated by the Critical Areas legislation.

II. Program Accomplishments

Natural Resource Protection — The Maryland Environmental Trust (MET) continues to secure conservation easements along the Chesapeake Bay and Bay tributaries. Private landowners donate the development rights of their land to the MET in exchange for financial benefits. The landowners retain all other rights and privileges. The state recently focused on the development of local land trusts.

Wetlands Protection — DNR played an active role in developing the new state non-tidal wetland law, which incorporates the no-net-loss concept. The program aims to attain a no-net-loss of non-tidal wetland acreage and function and to strive for a net resource gain. The law provides the DNR with strict permitting, mitigation, and comprehensive watershed planning authority. The law also mandates a Nontidal Wetlands Compensation Fund for creation, restoration, and enhancement of non-tidal wetlands. This law will soon be submitted to OCRM for incorporation into the MCZMP.

Public Access — The CRD continued to effectively use CZMA Section 306A low-cost construction funds. Using CZM funds, Maryland, Virginia, Pennsylvania, and the District of Columbia developed a Chesapeake Bay access and land preservation plan. This project resulted in a series of overlay maps depicting all public access locations, areas where additional access is needed, and ecologically sensitive areas in need of protection.

The State developed a comprehensive plan for the establishment of a Greenway network for the Patapsco River watershed. The goal is to improve

water quality, expand and enhance wildlife habitat, and develop improved non-impact recreation areas.

III. Significant Program Changes

The state will submit a revised program document, which will include statutes protecting Chesapeake Bay from oil and gas development, the new non-tidal wetland law, and other changes to MCZMP laws.

IV. Evaluation Findings

Final evaluation findings issued October 11, 1991, indicated that the state is adhering to its approved coastal program and that the CRD is adhering to the terms and conditions of its financial assistance awards. Accomplishments of the program included the approval of all 60 local Chesapeake Bay Critical Areas Protection Programs; the state's Conservation Easement Program; implementation of the Non-Tidal Wetland law; improving technical assistance to local governments; establishing the non-structural shore erosion control program;, and implementing the Chesapeake Bay Agreement. Recommendations include: improving monitoring of state agency and local government activities; improving public education; developing a policy/leadership development entity to address growth management and improvement; coordinate among the various programs; redefining the role of the Coastal Resources Advisory Committee; and submitting various program changes.

MASSACHUSETTS

Federal Approval Date:
April 197

Federal Funding FY88:
$1,181,000

Federal Funding FY89:
$1,180,000

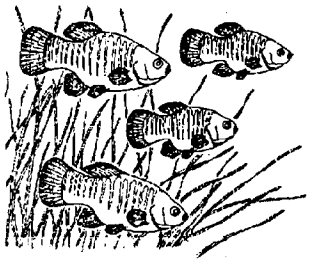
I. Background

The legal framework for the Massachusetts Coastal Zone Management Program (MCZMP) rests in the Act Relative to the Protection of the Massachusetts Coastline passed in 1983. The program encompasses 27 policies which serve as guides for implementing the authorities of the program. Other key laws of the program include the Wetlands Protection Act, the Wetlands Restriction Act and the Ocean Sanctuaries Act. The lead agency for the MCZMP is the Executive Office of Environmental Affairs (EOEA); EOEA's Office of Coastal Zone Management is charged with day-to-day administration of the MCZMP. The coastal zone boundary extends 100 feet inland to specified major roads, rail lines, or other visible right-of-ways which can be located up to one-half mile from coastal waters or salt marshes, and embraces all of Cape Cod, Martha's Vineyard, and Nantucket. Major coastal issues include public access, coastal erosion, nonpoint source pollution and critical area planning.

II. Program Accomplishments

Natural Resource Protection — During the biennium, three additional Areas of Critical Environmental Concern (ACECs) were designated, insuring special protection of the coastal resources. A higher level of review, including higher performance standards, is required for activities in and affecting these ACEC sites. To date, the state has designated 13 ACECs. In addition, the Secretary of Environmental Affairs approved program guidelines developed by MCZMP staff that direct the development of ACEC Resource Management Plans. These plans will be created by those communities with ACECs and will aid EOEA agencies in making permitting decisions. Currently, permitting the construction of private, non-commercial structures below the mean low water mark requires consistency with an ACEC Resource Management Plan; however, the MCZMP plans to significantly expand the regulatory implementation of the program.

Chapter 91 Regulations — Final regulations pursuant to Chapter 91 of the Public Waterfront Act were promulgated in the Fall of 1990. This 124-year-old Public Waterfront Act is the oldest such act in the U.S. and protects and manages the commonwealth's coastal and inland waters. The regulations apply to anyone who plans to build on, dredge, or fill a tideland area. The regulations provide priority use for water dependent uses and require non-water dependent uses to be set back from the water's edge (250 feet), to be limited in height (55 feet) and density, and to include uses given to the general public. The Act also promotes public access along the water's edge by requiring walkways and other spaces for year-round public enjoyment.



Harbor Planning Regulations — MCZMP published Harbor Planning Regulations in the Fall of 1990 in conjunction with Chapter 91 Regulations. These regulations provided the framework for a state and local partnership in the environmentally sound management of the Massachusetts coastline.

National Estuary Program — The previously designated Buzzards Bay and the more recently designated Massachusetts Bay are the two national estuaries of significance in Massachusetts. During the report period, the Buzzards Bay program completed a Comprehensive Conservation Management Plan (CCMP), which was approved by the Governor of Massachusetts in September 1991. The CCMP includes management recommendations which involve cooperation among Federal, state and local governments, as well as private industry. The CCMP provides overall guidance for local governments on implementing strategies and actions that will protect the water quality and living resources of Buzzards Bay. This CCMP was the first completed and approved under the National Estuary Program (NEP).

The Massachusetts Bay Program was formed and in operation prior to designation under the NEP. The NEP status solidifies the Bay program and provides funding for the program over the next five years. Along with the Management, Technical and other committees required under the NEP program, the state established a Baywide Committee for the Massachusetts Bay Program. The Baywide Committee, an official multi-town, bay-based management group, is considering a pact similar to the Buzzards Bay Action Committee. The CCMP for Massachusetts Bay is scheduled for completion within five years. Local governments and environmental groups rallied considerable support and participation for the Massachusetts Bay Program.

Coastal Hazards — During the report period, two major coastal storms struck the New England coast. In August 1991, Hurricane Bob hit the New England coast, causing several injuries, deaths and severe damage to coastal property and resources. Massachusetts was the New England state most heavily impacted by Hurricane Bob because the storm path paralleled the shoreline, crossing land at the base of Cape Cod. In October 1991, a severe northeaster storm struck the New England coast, again causing considerable damage to lives, property and coastal resources. Almost every coastal community in Massachusetts reported significant damage from one of these two storms. Areas that experienced the most destruction were barrier beaches and flood plains, particularly in the velocity zones. The two storms also forced most of the state's shell fishing areas to close, some indefinitely.

The MCZMP staff played a vital role in developing a commonwealth storm policy that calls for strict adherence to existing state environmental laws and building codes prohibiting installation of septic systems in areas vulnerable to storm surge flooding on barrier beaches where it is not possible to design and operate safely. (A velocity zone is that area of the flood plain where structural damage is expected from greater than three-foot wave turbulence and elevated sea levels as the storm moves on shore.) Most of the structures affected by the storm policy were constructed prior to enactment of the state's Title 5 Sanitary Code and Wetlands Protection Act, designed to prevent widespread coastal water pollution caused by inappropriately placed septic systems and structures. The storm policy only affects homes in violation of current state laws for public health and environmental protection.

Gulfwatch — An important accomplishment for FY91 was the initiation of a pilot environmental monitoring program called Gulfwatch. Modeled after the Federal Musselwatch program, each jurisdiction in Gulfwatch maintained and sampled caged mussels at two sites in local coastal waters. The Maine Department of Environmental Protection analyzed tissue for metals and Environment Canada completed the analyses of organic material. The program will continue in FY92.

Proposed Stellwagen Bank National Marine Sanctuary — The MCZMP continues to play an important role in the designation of the Stellwagen Bank as a National Marine Sanctuary. Since the designation of MCZMP as a "coordinating agency" by NOAA, MCZMP staff assisted in the preparation of the Environmental Impact Statement/Management Plan (EIS/MP) and in efforts to educate commercial fishermen, the fishing industry and commercial and recreational users of Stellwagen Bank about the effects of sanctuary designation. MCZMP's coordination on the sanctuary proposal was the first time any state CZM program participated to such a degree in the sanctuary designation process.

Gulf of Maine Protection — Massachusetts participates in an innovative cooperative program to protect the Gulf of Maine system. The governors of Massachusetts, New Hampshire and Maine and the premiers of the Canadian Provinces of New Brunswick and Nova Scotia signed an agreement in December 1989 committing the jurisdictions to working together in maintaining and improving the environmental integrity of the Gulf of Maine. The Secretary of Environmental Affairs and the MCZMP Director represent Massachusetts on the Gulf of Maine Council on the Marine Environment.

III. Significant Program Changes

During the report period, NOAA approved MCZMP's designation of three new ACECs as routine program implementation (RPI). The regulations for designation of ACECs were revised and approved as RPIs.

IV. Evaluation Findings

Final evaluation findings, issued on November 15, 1991, cited some major accomplishments along with recommendations for improvement. NOAA commended the MCZMP for leadership in addressing coastal issues, such as the promulgation of the Chapter 91 regulations, completing harbor management planning regulations, passage of the Cape Cod Commission Act, and providing technical assistance to municipalities on a host of coastal and related issues. Areas where the state could improve performance included reducing the backlog of permit applications and institutionalizing the regional coordinator positions to ensure continued high performance and support in providing much needed technical assistance to municipalities.

MICHIGAN

Federal Approval Date:
August 1978

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000

I. Background

The Michigan Coastal Management Program (MCMP) was approved in August 1978 with the Department of Natural Resources (DNR) as the lead state agency for coastal management. The DNR's Land and Water Management Division (LWMD) handles administration and management of the MCMP, guided by the Shorelands Protection an Management Act; the Great Lakes Submerged Lands Act; the Sand Dunes Protection and Management Act; the Goemaere-Anderson Wetlands Protection Act; the Inland Lakes and Streams Act; and the Michigan Environmental Protection Act.

The MCMP's lakeward coastal boundary is the jurisdictional border shared with Canada's Province of Ontario and the states of Minnesota, Wisconsin, Illinois, Indiana, and Ohio. The landward coastal boundary extends inland to include resources that affect the coastal zone and significant coastal features such as sand dunes, wetlands, and coastal lakes. The Michigan coastline is geographically unique, featuring two large peninsulas and touching four of the five Great Lakes.

II. Program Accomplishments

Wetlands protection — DNR set a goal to create 500,000 acres of wetlands by the year 2000, including 150,000 acres of coastal wetlands. To support this goal, MCMP funded a Great Lakes Wetland Restoration Plan for rehabilitating wetlands damaged by natural and human impacts and restoring wetlands converted to other uses. The plan addresses the engineering, biological, and economic requirements necessary to restore the Great Lakes wetlands.

Growth management — MCMP assisted communities in addressing growth management concerns, as large increases in growth pose additional threats to the natural resources. MCMP funded a demonstration project implementing a Transfer Development Rights and Purchase of Development Rights program to protect prime agricultural lands from increased development pressure. In addition, MCMP funded and served on several committees that are preparing an integrated Growth Management Plan. MCMP funds were also used for the preparation of a Community Planning Handbook to provide local communities with tools and techniques for guiding community change. Sand Dunes Protection and Management Act: In July 1989, after years of effort, the state legislature passed amendments to the Sand Dunes Protection and Management Act aimed at managing non-mining activities in Michigan sand dunes. This Act represents a tremendous accomplishment for the DNR in its efforts to protect fragile natural resources, such as sand dunes. In addition to processing permits, the MCMP staff have worked with communities interested in developing an ordinance to assume regulatory control.

Marina permitting program — To address the high demand for marinas and the direct and cumulative impacts of this use on natural resources, the MCMP supported a policy on limiting marina development to upland sites and improving the marina renewal program.

As Great Lakes water levels decline, more permits for dredging are submitted to the DNR. The DNR staff hired an additional staff person to review marina applications and marina design plans, process permits and trespass litigation cases. To maintain a viable marina permitting program, the DNR is conducting more aerial flights over drowned river mouths to determine permit compliance.

Underwater archaeology — The MCMP implemented the amendments to the Aboriginal Records and Antiquities Act, commonly referred to as the "Underwater Salvage Act." The amendments formally create the Underwater Preserve Committee, provide expanded authority under which a permit may be issued, and establish criteria under which a permit may be issued for salvage or exploration within a bottomland preserve. To date, eight areas have been designated as underwater preserves.

Rules for Shoreland Protection and Management Act — The MCMP drafted amendments to the rules under the Shorelands Protection and Management Act. The package sent to the Natural Resources Commission and adopted in May 1992 represented significant staff effort and will result in greater protection of areas covered under the statue. The proposed rules include doubling the setback for large structures; requiring that most small structures be readily moveable; clarifying the definition of a readily moveable structure; establishing a recession rate update procedure; adding several communities as flood risk areas, and adding 15 feet to setback requirements.

III. Significant Program Changes

The Michigan Coastal Management Program received approval for the following routine program implementations (described under "program accomplishments"):

- amendments to the Sand Dunes Protection and Management Act

- amendments to the Underwater Salvage Act, including the designation of four Bottomland Preserves (Manitou Passage, Sanilac Shores, Whitefish Point, and Huron County Thumb Area).

IV. Evaluation Findings

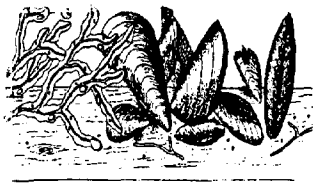
The last evaluation site visit was conducted in July 1990, and the findings were published in January 1992. The findings cited accomplishments of the state in protecting sand dunes, managing marinas, implementing the underwater archaeology program, and drafting rules for the Shorelands Protection and Management Act.

MISSISSIPPI

Federal Approval Date:
September 1980

Federal Funding FY90
$539,000

Federal Funding FY91:
$539,000



I. Background

The Mississippi Coastal Program (MCP) is based in large part on the Mississippi Coastal Wetlands Protection Law and legislation passed by the Mississippi Legislature giving Mississippi Marine Resource Council, and its predecessor the Mississippi Department of Wildlife, Fisheries and Parks (MDWFP) board responsibility to manage the state's coastal resources. Mississippi coastal zone is comprised of the three coastal counties and all tidally influenced coastal waters.

The Bureau of Marine Resources (BMR) which is an arm of the MDWFP is the lead coastal program agency and is responsible for administering the networked coastal program. Collectively, the "coastal program" agencies, which include the BMR, the Mississippi Office of Pollution Control, the Mississippi Bureau of Land and Water Resources and the Mississippi Department of Archives and History are responsible for reviewing activities that affect the coastal area and evaluating projects to insure their consistency with the MCP. One of the major components of the MCP are areas designated as Special Management Areas (SMA). The SMA's include industrial and port areas, urban waterfronts and shorefront access areas. The Port of Pascagoula Special Management Area is an example of and active ongoing industrial effort of the MCP.

II. Program Accomplishments

Wetlands Protection — The State used coastal zone management funds to develop wetland mitigation guidelines for wetland permitting. The guidelines cover sequenced decisionmaking and compensatory mitigation projects to offset adverse impacts from permitted activities. The guidelines are similar to those employed by EPA and the Corps of Engineers, but are more comprehensive. The state is also developing standards for evaluating the success of wetland compensatory mitigation with CZM funding. Finally, the BMR used CZM funds to develop a Citizens Guide to Protecting Wetlands in Mississippi. The Guide explains wetlands definitions, wetlands values, state and federal laws regulating wetlands and the permitting process. The Guide also describes proactive roles that the public can play in permitted and unpermitted activities, and assistance in enforcing state and federal laws.

Aquaculture Guidelines — The state used Federal CZM funds to develop state aquaculture guidelines. Private interests in the state proposed a significant pen-net aquaculture project for the Mississippi Sound. Using CZM funds, the BMR conducted studies and drafted proposed aquaculture guidelines to address this new coastal use. The guidelines were issued for public comment; the state is currently reviewing the comments.

Marine Debris — The Mississippi Marine Litter Act was incorporated into the MCP in January 1990. The Act prohibits the introduction or disposal

of any plastic, paper, metal or any other garbage or debris into coastal waters by any person or vessel. The Act originally established penalties up to $10,000, but has been amended to increase the fines as well as provide for a community service penalty. The Bureau used CZM funds for marine litter enforcement and to monitor and analyze marine debris and disposal efforts at selected marinas and boat launch facilities. During FY91, the BMR efforts relating to marine debris included contractual assistance for the public information and outreach, and for the implementation of a Gulfwide Boaters Pledge program.

Public Safety — The BMR used CZM funds to conduct a Derelict Structure Survey during FY91. The study located, described and mapped numerous derelict coastal structures, such as dilapidated piers, piling, sunken vessels, broken drain structures and other structures that may be of danger to the coastal user for future remedial action. The study contained costs estimates for removal of the structures. Coupled with the survey was a legal brief pertaining to the responsibilities and authorities of the state, city and county for possible derelict structure removal.

Public Access — The state continues to provide Low Cost Construction funds (Section 306A) to local entities for increased access to coastal waters. Section 306A funds amounting to $218,000 which was matched by the local units of governments enabled the state to build five access projects in the coastal area. Each project provided access for the handicapped.

The BMR used CZM funds for the development and publication of Non-Industrial Construction Standards for water access and shoreline protection facilities. These standards are distributed to the general public upon request as well as to the marine contractors as examples for acceptable marine construction techniques.

Public Education — The state has historically funded a number of public education efforts including public outreach at marine educational facilities, publication, and newsletters. During FY91 the last of a series of twelve units entitled The Marine Discovery Series booklets written for the middle grade year students was published. The latest booklets focused on dolphins and another on coastal tides.

The bi-monthly newsletter, *Mississippi Soundings*, written and distributed by the Bureau, is also supported by CZM funds. The two coastal marine museums, the Maritime and Seafood Museum in Biloxi and the floating converted shrimp boat, the Scranton, in Pascagoula also received CZM funds to support there efforts. CZM funds have been used to build and enhance marine craft seafood industry exhibits, as well as to support the two museum's aggressive educational outreach programs. The most recent educational efforts for FY91 is a wetlands interpretative center at a coastal state park.

III. Significant Program Changes

The provisions of the Marine Debris Act and the ensuing guidelines for marine litter control was the only program change made during the report period. The Marine Litter Act requires trash receptacles be placed at marinas and boat launch facilities and has a severe dollar and community service fine for penalties and violations.

IV. Evaluation Findings

Final evaluation findings issued October 8, 1990, indicated that the Bureau and the Department of Wildlife Fisheries and Parks should coordinate more closely in their common management responsibilities as well as reviewing coordination efforts with other state agencies and state institutions supporting coastal management. The evaluation recommended more active roles for the Bureau in coastal hazards management and that of nearshore water quality improvement. The lack of a comprehensive habitat management study was mentioned as well as the desire to address the numerous derelict structures. The need for uniform construction standards was also part of the evaluation recommendations as observed from the array of different methods, weights and specifications of coastal construction. The evaluation noted coastal program achievements by the passage of the Marine Litter Act and the incorporation of the Act and ensuing regulations into the MCP. The public education efforts and information programs were positively cited as was the improvements to public access through the low cost construction program.

NEW HAMPSHIRE

Federal Approval Date:
June 1982
(Ocean/Harbor Segment)
September, 1988
(Great Bay Segment)

Federal Funding FY90:
$500,000

Federal Funding FY91:
$500,000

I. Background

The Office of State Planning functions as the lead agency for the New Hampshire Coastal Program (NHCP). The NHCP was completed in two phases. The Ocean and Harbor Segment was approved in 1982 and covers the Atlantic coast from Seabrook to the Portsmouth Harbor line. The Great Bay Segment, approved in 1988, expanded the program to cover all areas under tidal influence, including the lands that border Great Bay, Little Bay and several tidal estuarine rivers and wetlands. The New Hampshire coastline includes 150 miles of tidal shoreline (1 miles along the Atlantic, 132 miles along estuaries) and 7,500 acres of saltmarsh.

The NHCP is based on a series of state laws and regulations administered by state agencies, boards and commissions. The interagency Council on Resources and Development, comprised of several key state agencies, coordinates state policies and resolves interagency conflicts.

New Hampshire's inland CZM boundary along the Atlantic coast sits 1,000 feet inland from the mean high water mark. In the Great Bay Segment, the boundary is defined by features, such as roads and railroads generally more than 1,000 feet from the shoreline or by the Wetlands Board jurisdiction, whichever is further. The seaward boundary includes all coastal waters within the limits of the state's jurisdiction.

II. Program Accomplishments

Community Activities — The NHCP assisted the development of community projects including the Exeter Open Space Plan and the Squamscott River Resource Inventory, done for the Town of Exeter by the Rockingham Planning Commission (RPC). A second project for Exeter had the RPC providing technical assistance by revising and updating the town's land use regulations for the protection of coastal resources. The Town of Rye initiated an intermunicipal watershed planning study with the City of Portsmouth with the goal of developing a comprehensive watershed management plan. Also during the biennium, an important land acquisition of a 271-acre parcel abutting the tidal Bellamy River was made possible through two subsequent grants to the Strafford County Conservation District, in cooperation with funding from several other sources.

Protection from Oil Spills — The NHCP participated in a cooperative oil spill protection project between the state's Department of Environmental Services and the Mechanical Engineering Department at the University of New Hampshire (UNH). The project calculated the optimum procedures for using protective booms to shield high priority resource areas in Great Bay in the event of a oil spill near the Piscataqua River terminal area.

Natural Resources Protection — Through the NHCP, the state awarded several grants to the Jackson Estuarine Laboratory and nonprofit conservation organizations for surveying state resources. For example, the Great Bay Trust conducted a survey of migratory shorebirds in the estuary while the Audubon Society of New Hampshire studied the status of endangered bird species (osprey, northern harrier, upland sandpiper, common tern, and piping plover) along New Hampshire's coast. The Natural Conservancy received a planning grant and a subsequent acquisition grant to define and protect the seacoast's most important natural areas. UNH's Jackson Estuarine Laboratory conducted bathymetric surveys of Great and Little Bays, and delineated saltmarsh boundaries within the tidal estuary.

Coastal Water Quality — Responding to the new program direction of the 1990 Coastal Zone Management Act Reauthorization, the NHCP commissioned the Rockingham Planning Commission to conduct an inventory and prepare a map of the coastal nonpoint pollution sources within the region, using a Geographic Information System. This project complements a similar project undertaken with non-NHCP funding by the Strafford Regional Planning Commission, which results in complete coverage of New Hampshire coastal program area.

Seacoast Science Center — The NHCP supported the development of the new Seacoast Science Center at Odiorne Point State Park in Rye. The NHCP provided funding for the design of the new building, the design of exhibits inside the building and construction of the first of the sea tank exhibits. The project serves as an outstanding example of cooperation among private and public entities in providing a needed facility for educational and interpretation of New Hampshire's invaluable coastal resources.

III. Significant Program Changes

NHCP submitted no major program changes to NOAA during the report period.

IV. Evaluation Findings

Final evaluation findings were signed on December 7, 1990. Noteworthy accomplishments included the following: continuing commitment to preservation of wetlands in the State's coastal waters; cooperation between the NHCP and the Great Bay National Estuarine Research Reserve; providing assistance to state and local agencies to enhance recreational opportunities and improve public access to tidal waters; and funding for technical assistance which helps to improve local ordinances and regulations. Areas targeted for improvements included budget and resources, program visibility, technical assistance, long-range dredging plans, cumulative impacts, and harbor management planning.

NEW JERSEY

Federal Approval Date:
September 1980
(Consolidated Program)

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000

I. Background

The New Jersey Coastal Management Program (NJCMP) is administered by the Office of Regulatory Policy (ORP) in the Department of Environmental Protection and Energy. The following core laws form the basis for regulatory control: the Coastal Area Facility Review Act (CAFRA), the Wetlands Act of 1970, the Waterfront Development Law, and the Riparian statutes. The NJCMP combines regulatory responsibilities with a coastal land-use planning function. Through time the ORP's overall mission has expanded to include the regulation of inland freshwater wetlands and construction in floodplain areas of state tributaries, placing it in a unique position to protect watershed systems and the coastal zone.

The coastal boundary extends (1) from the New York border to the Raritan Bay landward up to the first road or property line from mean high water, (2) from the Raritan Bay south along the Atlantic shoreline up to the Delaware Memorial Bridge varying from one-half to 24 miles inland (1,376 square miles of land area), (3) north along the Delaware River to Trenton landward to the first road inclusive of all coastal wetlands, and (4) a 31-mile square area in the northeast corner of the state bordering the Hudson River under the jurisdiction of the Hackensack Meadowlands Development Commission, the state's designated body responsible for implementing the NJCMP in the Meadowlands.

II. Program Accomplishments

Wetlands — In 1990, the NJCMP's wetlands enforcement program was enhanced with the hiring of a program-wide wetlands coordinator. A generic mitigation form was initiated and is working well. Legal challenges resulted in changes to the mitigation ratios for the enhancement of wetlands (7:1), but left the creation ratio intact (2:1).

Coastal Hazards — The Department provided funding appropriated by the legislature for certain construction activities to correct shore protection problems. Using cost/benefit ratios for engineering alternatives, the Shore Protection Master Plan assists in the identification and ranking of shore protection projects. All of those projects identified in the 1981 plan with a cost/benefit ratio greater than 1.00 have been completed. One of the projects was the maintenance program for engineering structures between Sandy Hook and Lang Branch, while another project involved beach fill at Ocean City.

There is no event more effective than a storm or hurricane to highlight the shore's vulnerability. In the wake of a hurricane and a severe northeaster in 1991, and in light of the dynamic nature of the shoreline, plans are underway to revise and update the state's Shore Protection Master Plan.

Public Access — A manual on *Waterfront Public Access: Design Guidelines* was completed in 1990. The publication provides an overall direction and details planning and design considerations for public access in general. A Beach Access Booklet, Marina Siting and Design Handbook, and Survey on Beaches Accessible to the Disabled are examples of publications designed to increase the accessibility of the waterfront.

Waterfront Development — In August 1990, the DEP completed a management document entitled "Rules on Coastal Management." The document updates the rules on Coastal Zone Management (CZM), summarizes the amendments to CZM rules since 1982, and presents data sources for special area identification.

Water Quality — The DEP completed a project which mapped certain areas along the Atlantic coast to determine the shellfish resources that would be affected by marina development. The project also mapped submerged vegetation, shellfish beds, and Category I waters which when overlaid on existing maps identified locations where marina development would be deleterious to existing resources.

III. Significant Program Changes

Effective July 15, 1991, the Commissioner of the Department of Environmental Protection and Energy reorganized that agency to fully integrate the various programs for greater effectiveness in protecting the environment. The reorganization created an Assistant Commissioner for Environmental Regulation. An Office of Permit Information and Assistance was established to improve the permit administration process. The Office of Regulatory Policy was established to focus on oversight of regulations and plans that form a substantive basis for regulatory decisions. This new office included the Bureau of Water Quality Planning, formerly in the Division of Water Resources, and the Planning Element, formerly in the Division of Coastal Resources. A number of minor changes have been documented and are being presented as routine program implementations. These RPI's will complete the program change process.

IV. Evaluation Findings

A Section 312 site visit was conducted in September 1991, and the final findings from this evaluation were published on December 20, 1991. The findings cited some major accomplishments such as the reorganization of the DEP to deliver more effective and efficient services to the public, the assistance given to local coastal residents in dune protection, and assistance provided by the coastal program in the development of a state redevelopment plan. Areas where the state could improve its program included: resolution of the small development exemption in CAFRA; simplification of state environmental laws and regulations; and improvements in enforcement and processing of violations.

NEW YORK

Federal Approval Date:
September 1982

Federal Funding FY90:
$2,014,000

Federal Funding FY91:
$2,014,000

I. Background

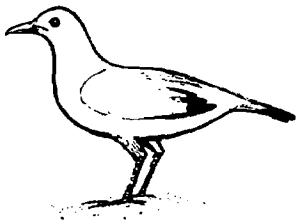
The Department of State (DOS), through its Division of Coastal Resources and Waterfront Revitalization, administers the New York Coastal Management Program (NYCMP) and coordinates state activities and programs essential to the program's implementation. The NYCMP is based on a number of state laws, but primarily on the Waterfront Revitalization and Coastal Resources Act (WRCRA), the State Environmental Quality Review Act (SEQRA), the Coastal Erosion Hazards Areas Act (CEHAA), and the Freshwater and Tidal Wetlands Acts.

The WRCRA provided the legal authority to establish a coastal program in the state, with coastal policies, a coastal boundary, state consistency requirements, and a coordination process. The law also provided local governments with the option to establish local waterfront revitalization programs which address local needs and objectives in accordance with the state CMP policies. The SEQRA is the principal mechanism by which state agency actions are coordinated relative to the NYCMP. The CEHAA provides for uniform setback requirements in coastal high hazard areas. The SEQRA, CEHAA, and the Freshwater Wetlands and Tidal Wetlands Act are administered by the Department of Environmental Conservation.

Generally, the coastal boundary is 1,000 feet from the shoreline, but includes areas of particular concern which can extend the boundary up to 10,000 feet. In urbanized areas and other developed locations along the coast, the boundary is approximately 500 feet from the shoreline. For purposes of management, New York can be divided into the following distinct coastal regions: Great Lakes, St. Lawrence River, Hudson River estuary, New York City (with an approved Waterfront Revitalization Program), and Long Island.

II. Program Accomplishments

Governor's Task Force on Coastal Resources — The report of the Governor's Task Force was forwarded to the Governor in November, 1991. The report included over 90 recommendations for dealing with actual and anticipated coastal concerns. The report also identified existing and potential funding sources for the recommended programs or activities.



Wetlands — The Department of State designated significant coastal fish and wildlife habitats on Long Island, the Hudson River and the Great Lakes; the Federal government approved the designations. Habitats in New York City and the St. Lawrence River will be designated in 1992. State consistency provisions apply to all designated habitats and provide a greater degree of protection. Once the Federal government approves the designations, the habitats are further protected under the Federal consistency provisions of the CZMA.

During the 1991 legislative session, state officials unsuccessfully introduced a bill to amend the state's 12.4 acre threshold for freshwater wetlands to one acre. The state does, however, regulate wetlands of less that 12.4 acres deemed of "unusual local importance."

Public Access — A draft state open space conservation plan was recently completed. Working with nine regional advisory committees, established by 1990 legislation, important open space areas have been identified. The interpretation of the data analyzed indicated that efforts should be focused on a limited number of areas within the state. It has been recognized that special priority should be given to conserving critical open space systems, such as those within the coastal area.

Water Quality — DOS has taken several steps to address water quality issues. All projects for which consistency determinations are required must demonstrate runoff control capability. BMPs have been incorporated into LWRPs and local land use regulations. DOS sponsored a study by the Long Island Regional Planning Board to develop analysis of relationships between land use and water quality. Two stream beds typical of those flowing into the bays of the Long Island coast were selected for this study.

Coastal Hazards — DOS, in conjunction with the Long Island Regional Planning Board and the New York Planning Board, is in the process of designing an erosion monitoring program for the South Shore of Long Island. In accordance with the Coastal Erosion Hazards Act, the required coastal erosion hazard area maps have been filed with all but four municipalities. The four remaining municipalities have opted to base decisions upon a study commissioned by the Fire Island National Seashore.

III. Significant Program Changes

Additional Local Waterfront Revitalization Programs have received Federal approval as Routine Program Implementations during the reporting period. Those are: the Towns of Morristown, Waddington, the Villages of Head of the Harbor, Nissequogue, Tivoli, Morristown, Lewiston, and the Cities of Rye, Rochester. Significant fish and wildlife habitat designation was extended to certain portions of the following counties on the Great Lakes: Chautuaqua, Cattaraugus, Erie, Niagara, Orleans, Monroe, Wayne, Cayuga, and Oswego.

IV. Evaluation Findings

Final evaluation findings of the NYCMP, issued in October 1991, identified 10 major accomplishments and 12 sets of findings and recommendations. The findings and recommendations dealt with minor improvements in the following areas: Tidal and Freshwater Wetlands, Coastal Erosion and Hazards, Local Programs, Program Strategy, State Consistency, Education, Water Quality, SAMPS, Riparian Rights, and Public Access.

NORTH CAROLINA

Federal Approval Date:
September 1978

Federal Funding FY90:
$1,508,000*

Federal Funding FY91:
$1,508,000

I. Background

The North Carolina Coastal Management Program (NCCMP) is based primarily on the state Coastal Area Management Act (CAMA) and the Dredge and Fill Act, although other state laws are also networked into the NCCMP. A state Executive Order requires all state agency actions to be consistent (to the maximum extent possible) with the goals and policies of the NCCMP. The program's coastal zone boundary extends to 20 coastal counties.

The lead agency is the Division of Coastal Management within the Department of Environment, Health and Natural Resources. A Governor-appointed Coastal Resources Commission (CRC) adopts rules and policies while the division administers the program. Development activities within Areas of Environmental Concern (AECs) require a CAMA permit. CAMA requires the coastal counties to develop land use plans which are used in making permit decisions and consistency determinations. Other major components of the NCCMP include natural area acquisition and management, and a public access program which provides funds to local governments for the acquisition and construction of beach and water access projects.

II. Program Accomplishments

Natural Resource Protection — The state has increased its ownership of the ecologically significant Buxton Woods Maritime Forest to almost 500 acres. Currently, the state is seeking to purchase additional acres of this unique coastal resource with both state and Federal funds. In addition, the state completed a management plan for Permuda Island. The state purchased the ecologically significant 50 acre island in 1987 to include in the North Carolina Coastal Reserve.

Hazards Protection — North Carolina reaffirmed its ocean shoreline policy that bans hard erosion-control structures and continues to implement its ocean setback requirements for structures. An additional $1,500,000 was Congressionally appropriated in FY90 for the purchase of Buxton Woods)

Public Access — The state continues to use section 306A funds for its highly successful coastal access program. Recently the State has been focusing on providing water access to inland waterfront communities (in addition to estuarine and oceanfront access). Five riverine access projects were funded during the biennium.

Revised Program Document — The state is nearing completion of its revised program document.

State Airspace and Military Rules — North Carolina is concerned with the cumulative effect of increasing military activity in the state's coastal zone. Concerns center on the effects of low level military training flights. The state developed state airspace policies and intends to submit the policies to NOAA for incorporation into the NCCMP.

III. Significant Program Changes

NOAA approved amendments to two local land use plans opposing the siting of petro-chemical energy facilities.

IV. Evaluation Findings

The final evaluation findings issued November 1, 1991, indicate that the state is adhering to its approved coastal program and that the DCM is adhering to the terms and conditions of its financial assistance awards. Program accomplishments to the NCCMP included improvements to its Federal consistency computer tracking system, providing public access through section 306 and the Governor's Coastal Initiative, continued acquisition of Buxton Woods, and expanded nursery area protection to include primary nursery areas. Areas identified for improvement include inland improving communication among DCM's district offices, more training for local permit officers, ensuring that the CRC is acting in the public interest, providing for full public participation at CRC meetings, and improving communication and coordination between DCM and the Albemarle Pamlico Estuary Study.

THE NORTHERN MARIANA ISLANDS

Federal Approval Date:
September 1980

Federal Funding FY90:
$487,000

Federal Funding FY91:
CNMI did not apply for FY91 funds

I. Background

The Northern Mariana Islands Coastal Resources Management Program (CRMP) was originally established by Executive Order. In 1983, the commonwealth enacted the Coastal Resources Management Act and codified the CRMP policies and use priorities in statutes and regulations. The CRMP is administered by the Coastal Resources Management Office (CRMO) in the Office of the Governor. Permit decisions are made by the CRMO and six other commonwealth agencies: the Departments of Natural Resources, Public Works, and Commerce and Labor, the Division of Environmental Quality, the Historic Preservation Office, and the Commonwealth Utilities Corporation. The coastal zone is comprised of the land area of the 14 islands and the territorial waters. The CRMP regulations set up a two-tiered permit program. Activities occurring within the four areas of particular concern (APCs) — shoreline, lagoon and reef, wetlands and mangrove, and port and industrial — require a permit. Outside the APCs, only activities deemed "major sitings" require a permit.

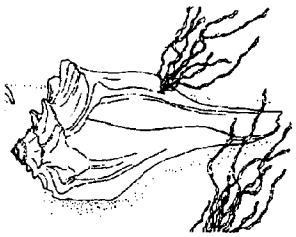
II. Program Accomplishments

Wetlands — In FY90, the CRMO finalized the Saipan Comprehensive Wetlands Management Plan. This plan updates existing wetlands maps, and provides a plan to address avoidance or minimization of loss, mitigation, island-wide classification and prioritization, and strategies for wetland protection and preservation. Using the Wetlands Management Plan, the CRMO concentrated on educating developers, CNMI agency officials, school children and the general public regarding the use and importance of wetlands through public education spots on radio and television, articles in the newspapers and the CRMO's publication, *Coastal Views*. The plan will be the basis for revisions to the wetlands APC maps.

Indigenous Vegetation — The loss of native plants and trees in Saipan presents a problem from an ecological, aesthetic, and erosion control standpoint. In FY90, the CRMO completed a pictorial guide for the indigenous vegetation of Saipan, which serves as an educational tool for the general public, school children and tourists about the types and importance of native vegetation.

III. Significant Program Changes

In January 1991, the CRMO incorporated its updated regulations which improve the permit process and address local development conditions. Major revisions dealt with height and density setback requirements; provided for view corridors and mitigation measures for higher buildings; and replaced cumbersome variance and appeal procedures. Major siting guidelines were codified within the regulations, thereby establishing enforceable policies. The CRMO also incorporated Public Law 7-3, which added the Commonwealth Utilities Corporation (CUC) as a CRM Agency.



IV. Evaluation Findings

Final evaluation findings issued February 26, 1992 indicate that the CNMI is not fully adhering to its approved coastal management program. Accomplishments of the CRMO included developing management plans for wetlands and groundwater, and producing a shoreline and outdoor recreation plan. Mandatory recommendations that must be met to bring the CRMO back into full adherence included: improving CRMO coordination as the lead agency in the permit review process, adhering to the approved CRMP decisionmaking process and policies, restoring the permit appeals process, and increasing monitoring and enforcement capabilities. The CNMI is using local funds to operate the CRMO for FY91, and therefore, did not apply for an FY91 award.

OREGON

Federal Approval Date:
May 1977

Federal Funding FY90:
$868,000

Federal Funding FY91:
$868,000

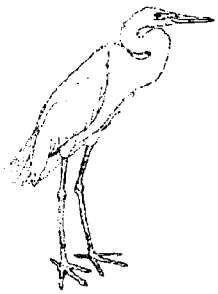
I. Background

The Oregon Coastal Management Program (OCMP) is part of the statewide program for coordinated land use planning. The OCMP is a networked program that is based on the Oregon Land Use Planning Act (Act), regulations for the 19 statewide planning goals, 41 comprehensive local coastal management plans, and statutes and rules for the networked agencies. The Act established the Land Conservation and Development Commission (LCDC) and its staff, the Department of Land Conservation and Development (DLCD), as the lead agency for coastal management. LCDC has the authority to adopt goals and guidelines to provide direction for the OCMP and the comprehensive local coastal management plans. Together with LCDC, the state implements the OCMP through the coordinated responsibilities of several state agencies. Principal agencies assisting LCDC are the Division of State Lands (DSL), and the Oregon Departments of Fish and Wildlife, Transportation, Energy, Agriculture, and Environmental Quality. The coastal zone boundary is the watershed from the crest of the coastal mountain range to the three-mile jurisdictional boundary, and includes all coastal counties.

II. Program Accomplishments

Public Access — Through the acquisition of properties, and several small-scale Section 306A public access projects, DLCD is maintaining its strong commitment to increase public access throughout the coastal zone. Section 306A funding has been a prime catalyst for many joint state/local public access efforts. One major accomplishment was the publishing and wide distribution of a Section 306A "Field Guide," which presented a photograph, map, and descriptive text for each Section 306A project. In a cooperative effort with the Parks and Recreation Department (PRD), DLCD developed a detailed inventory of over 1,000 public access sites along Oregon's coast. Finally, DLCD and PRD developed a standard logo sign to identify coastal public access points.

Waterfront Development — DLCD used coastal management funding to support the development and publication of a waterfront development guidebook. The guidebook is aimed at small cities and towns and is designed to assist in the redevolpment and revitalization of their waterfront areas.



Forest Practices — During this reporting period, the state incorporated a revised Forest Practices Act and related rules into the OCMP. The revised authorities provide for improved forestry management and protection of natural resources. Some of the requirements of the revised FPA include: 1.) inventories of significant natural resources and the adoption of rules to protect inventoried resources threatened by forest practices; 2.) overall maintenance of air quality, water resources, soil productivity, and fish and wildlife, and 3.) written plans for operations within 100 feet of Class I streams, or within 300 feet of resource sites specified in the inventories.

Ocean Planning — As directed by the Oregon Legislature and with largely state resources, DLCD coordinated the work of the inter-agency, ocean user Oregon Ocean Resource Management Task Force. A plan for ocean resource management has been prepared and adopted by the state. Oregon's Ocean Plan emphasizes stewardship of ocean resources and protection of marine habitats and establishes a policy framework for addressing ocean management issues. DLCD is proceeding to coordinate the work of a permanent Ocean Policy Advisory Council and develop a more detailed plan and implementing program for the state's territorial sea.

III. Significant Program Changes

Significant program changes during the reporting period include: (1) Senate Bill 3 -Wetlands Conservation; (2) House Bill 3396 - Forest Practices Act; and (3) Coos County Comprehensive Plan.

IV. Evaluation Findings

The final evaluation findings issued in November 1990, indicate that the state is successfully implementing and enforcing its federally-approved OCMP. DLCD is taking a leadership role in coastal issues, coordinating with other State agencies, and assuring the opportunity for full participation by the public and other interested parties. Recommendations included: enhancing technical assistance to local governments; supporting buffer requirements for Class II streams under the state's forest practices program; improving enforcement efforts; and continuing efforts to insure submittal of program changes.

PENNSYLVANIA

Federal Approval Date:
September 1980

Federal Funding FY90:
$732,000

Federal Funding FY91:
$732,000

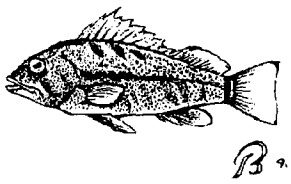
I. Background

The Pennsylvania Coastal Zone Management Program (PCZMP) consists of two coastal zones: 63 miles along Lake Erie in the extreme northwest corner of the commonwealth, and 57 miles along the Delaware River in the extreme southeastern section of the state. The major coastal management issues contained in the PCZMP's program document are: coastal hazards; dredging and spoil disposal; fisheries management; wetlands; public access for recreation; historic sites and structures; port activities; energy facility siting; intergovernmental coordination; and public involvement. The regulatory aspects of the program focus on several state laws: the Dam Safety and Encroachment Act, Floodplain Management Act, Bluff Recession and Setback Act, Clean Streams Act, and the Air Pollution Control Act.

The Department of Environmental Resources (DER) is the lead state agency for implementing, administering, and enforcing the PCZMP. The Division of Coastal Zone Management (DCZM) is responsible for monitoring and evaluating activities related to coastal zone management and ensuring compliance with the program's enforceable policies. An Executive Order provides the basis for state agency compliance with enforceable policies.

II. Program Accomplishments

Enforcement Initiative — DCZM joined with EPA and the Philadelphia District of the Corps of Engineers in Fall 1989 to undertake the Delaware Estuary Enforcement Program (DEEP), which protects coastal wetlands. DEEP integrates state and Federal enforcement efforts to restore or mitigate the wetlands loss in the Delaware Estuary Coastal Zone (DECZ). On a smaller scale, a similar project was undertaken in the Lake Erie coastal zone in Spring 1990, involving several of DER's bureaus, the Erie County Conservation District, and the U.S. Fish and Wildlife Service. Many wetland violations are in the enforcement mode. Also, since the PCMP monitors coastal wetland changes yearly, new sites are added to the enforcement initiative.



Zebra Mussel Initiative — An emerging concern in the Lake Erie coastal area is the growing zebra mussel population. This new exotic species has the potential to seriously disrupt recreational boating, water withdrawals and the ecology of the Great Lakes. These initiative activities are ongoing. The DZCM developed and distributed informational material (poster and fact sheet) across the state to educate and solicit the public's help in addressing the impacts of the zebra mussel influx. The DZCM also prepared and presented a zebra mussel display (text and pictures) at the three public events in the state.

Beach contamination study and monitoring — The closure of the beaches at Presque Isle State Park due to high indicator bacteria counts has been a concern to the public, local and state officials. For three years, the Erie County Department of Health, through partial support by the DCZM, con-

ducted a study to determine the causes of high fecal coliform bacteria counts at bathing beaches in Presque Isle State Park. The major findings and recommendations included: evaluating the feasibility of using wave heights and weather conditions as beach closing criteria, prohibiting the feeding of gulls on the beaches, monitoring the impacts that segmented breakwaters have on fecal coliform contamination on the beaches, reducing nonpoint sources of contamination, and increasing public education efforts.

Delaware Estuary Program (DELEP) — PCZMP is an active participant in the DELEP with DCZM staff serving in key positions on the Management and Local Government Committees and as Pennsylvania's DELEP State Program Coordinator. Representation of the DCZM on the DELEP program committees ensures close integration and coordination of the two programs.

Erie Harbor Improvement Council — In 1989 the Erie Harbor Improvement Council was created at the request of the Erie County Executive and the Mayor of the City of Erie to address concerns over increasing waterfront development pressures, water quality in Presque Isle Bay, and conflicts between recreational and commercial use of the water. During the tenure of the Council, the DCZM actively participated to ensure that coastal issues were addressed and to provide the Council with information relevant to PCZMP's policies and activities. With the designation of Presque Isle Bay as an International Joint Commission "Area of Concern" the Council has been disbanded.

III. Significant Program Changes

No significant program changes were submitted to NOAA during the biennium.

IV. Evaluation Findings

An evaluation site visit was conducted in September 1990. The findings were published in August 1991. The PCZMP has made numerous program accomplishments, some of which are sited above. The recommendations for improving the PCZMP included: increasing the current staffing level dedicated to Bluff Recession and Setback Act (BRSA), evaluating the degree to which bluff destabilization practices are occurring and consider amending the BRSA to include regulating the removal of vegetation from the bluff face; playing a stronger role with respect to reviewing and commenting on wetland permit applications in the Lake Erie and Delaware Estuary coastal zones, identifying ways to supplement the activities of existing staff with respect to permit application reviews and compliance inspections; exerting stronger leadership with respect to state-wide coastal resource priorities and local assistance project selection; continue and expand upon its efforts to educate the public and local officials on coastal issues, and facilitate the development of a long-range maintenance dredging plan.

PUERTO RICO

Federal Approval Date:
September 1978

Federal Funding FY90:
$1,134,000

Federal Funding FY91:
$1,134,000

I. Background

The commonwealth developed the Puerto Rico Coastal Management Program (PRCMP) to manage the significant land and water activities that take place in terrritorial waters and on land extending approximately 1,000 meters inland from mean high tide. The Department of Natural Resources (DNR) and Planning Board (PB) are the primary planning and permitting agencies in the Puerto Rico coastal zone. The Coastal Management Office (CMO) within DNR administers and coordinates PRCMP. DNR responsibilities include: granting mining concessions; issuing permits to drill wells and franchises for the use of surface and ground waters; administering the maritime zone, coastal waters, and submerged lands; managing forest resources; and regulating sand extraction, recreational vessels, hunting, and fishing.

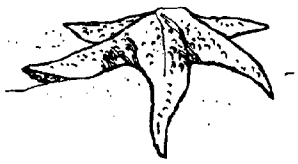
The PB is part of the Office of the Governor and holds broad regulatory power and responsibility for land use planning in Puerto Rico, including control over all uses in publicly owned land along the shorefront inland of the maritime zone. PB exercises authority through a set of planning regulations that cover subdivisions, residential and agricultural uses, industrial projects, commercial centers, and hotels.

To aid in implementing the PRCMP, the Environmental Quality Board (EQB) prepares and reviews environmental impact statements and adopts standards for pollution controls through EQB regulations. Also, the Regulation and Permits Administration implements planning regulations by issuing building and occupancy permits and authorizing minor zoning changes.

II. Program Accomplishments

Natural Reserves — The PB and DNR have made notable progress in designating 18 of the 28 territory's natural reserves. The PB formally designated the Cartagena Lagoon Natural Reserve in January 1990. DNR prepared designation documents for the Cuevo del Indio, Cano Tiburones, and Cibuco Swamp Natural Reserves and a management plan for the Cordillera Reef Natural Reserve during the biennium.

M/V "A. Regina" Court Order — In August 1990, a court order required removing the vessel "A. Regina," grounded on a coral reef in the Mona/Monito Natural Reserve. DNR received $1.145 million in damages, $895,000 to manage the reserve and the remainder for research vessels.



Hazard Mitigation — During the biennium, Puerto Rico made several accomplishments in natural hazards mitigation. The commonwealth used SLOSH model data generated by the PRCMP in preparing hurricane evacuation plans for the San Juan Metropolitan Area. Notably, during Hurricane Hugo in 1989, no deaths occurred in areas evacuated according to the draft plans. The PRCMP sponsored annual hurricane conferences and natural

hazard workshops to encourage the exchange of information among experts and to inform the public and public officials about hurricane preparedness and other natural hazards. The PRCMP played a major role in preparing the §409 Puerto Rico Natural Hazard Mitigation Plan and the Puerto Rico Administrative Plan in 1990. Pursuant to the §409 plan and flood hazard mitigation plans prepared with CZM funds during the 1980s, Puerto Rico relocated 1,300 families from high hazard areas during the biennium.

Maritime Zone Delimitation — The PRCMP surveyed and mapped the maritime zone in the Pinones Special Planning Area and on the island of Culebra during the biennium. After the territory resolves disputed areas, the maps will be formally adopted.

Natural Heritage Program — In August 1988, the Puerto Rico established the Natural Heritage Program as part of the DNR to prioritize sensitive natural areas in private and public ownership and apply mechanisms for acquisition and protection. The Program secured protection for several critical habitats through donations, conservation easements, long-term management leases, and the transfer of development rights.

III. Significant Program Changes

In September 1991, the following changes were formally incorporated into the PRCMP: 1) the Natural Heritage Program Act, 2) the Executive Order establishing the Earthquake Safety Commission, 3) the Natural Hazard Mitigation Planning Program, and 4) the designation of the Vieques Bioluminescent Bays and Laguna Cartegena Natural Reserves.

IV. Evaluation Findings

In the program evaluation findings issued in July 1991, NOAA noted accomplishments in environmental education; the designation and management of natural reserves; hurricane research, planning, and evacuation; and the permanent relocation of families out of floodable areas. NOAA concluded, however, that the commonwealth is not fully adhering to all of the provisions of the PRCMP and the underlying requirements of the CZMA. Problems exist in the core areas of permitting, monitoring and enforcement, Special Planning Areas, and maritime zone regulation. The PRCMP is currently responding to a set of written specifications and a schedule of actions to bring the program back into full adherence.

RHODE ISLAND

Federal Approval Date:
May 1978

Federal Funding FY90:
$606,000

Federal Funding FY91:
$606,000

I. Background

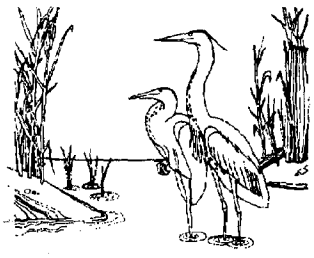
The Rhode Island Coastal Program (RICP) is based on the Coastal Resources Management Act of 1971, which created the Coastal Resources Management Council (CRMC). The CRMC administers Rhode Island's coastal program. The CRMC regulates development in the coastal waters, 200 feet inland from a coastal feature (i.e., wetlands and bluffs) and certain coastal uses throughout the state, since the coastal boundary extends through the entire state. The CRMC created Special Area Management Plans for the Salt Ponds area, Providence Harbor and Narrow River. Twenty-one coastal local governments participate in the program on a voluntary basis, developing harbor management plans and using section 306A funds to construct specific low-cost construction projects.

II. Program Accomplishments

Harbor Management — Twenty-one coastal communities are currently developing harbor management plans and comprehensive community plans. One-third of the coastal towns completed harbor management plans; the remaining communities are in various stages of plan development.

Public Access — Since FY88, the state utilized CZM funds to assist towns in signing, developing and maintaining the 160 CRMC designated rights-of-way. Five towns participated in the initial program which developed eight sites. In FY91, CRMC supported development of a statewide Coastal Access Guide, which not only identified all access points to the shore, but also detailed the condition of each site and the associated facilities (i.e., parking, sanitary facilities).

Water Quality — In a permit program, CRMC regulates nonpoint sources of water pollution by requiring setbacks of development and septic systems, preserving natural buffer zones, requiring settling ponds, and other mechanisms. During this period, CRMC joined the Executive Committee of the Narragansett Bay Project and actively participated in developing the draft Comprehensive Coastal Management Plan (CCMP) for Narragansett Bay.



Permit Simplification — To process permit applications in an effective, expeditious manner, CRMC established minimum information requirements for Assent (permit) applications. These requirements facilitate the review of the application by CRMC staff to determine if the proposed activity conforms with the RICP.

Administrative Fines and Fees — The CRMC continued to increase fines and fees over the last two years as a means of deterring violations. The state now charges violators for the costs associated with enforcement actions, including staff time.

Improved Government Operations — The CRMC continued to increase enforcement efforts through administrative actions, including follow-up of every cease and desist order and notice of violations, registering cease and desist orders as liens, and charging violators for the time required to investigate the violation and develop remedial conditions. CRMC publication of violators names in local newspapers serves as an additional deterrent to violators. The CRMC staff reorganized into four teams each assigned to specific geographic regions of the state. This restructuring improved the efficiency of processing and reviewing applications received by the CRMC and facilitated regular "follow-up" on previously permitted activities, ensuring compliance with the terms and conditions of the CRMC Assent.

Hazards Protection — In 1988, the CRMC adopted regulations which established post hurricane and storm permitting procedures. The regulations include authority to impose a 30-day moratorium to assess damages, determine changes in natural features, and identify mitigation opportunities. CRMC effectively implemented these emergency procedures during two major storm events that struck the state's coast in the latter half of 1991.

Section 309 — In FY91, CRMC participated in the new Coastal Zone Enhancement Program by developing an Assessment of the Rhode Island CRMP which identified priority needs for improvement. In conjunction with this effort, the CRMC undertook two tasks to develop program changes in the areas of public access and cumulative and secondary impacts. To enhance public access, CRMC enacted legislation to require municipalities to obtain CRMC approval prior to abandonment of designated rights-of-ways. For cumulative and secondary impact enhancement, the CRMC adopted new stormwater regulations that utilize best management practice standards to control nonpoint source pollution problems associated with stormwater runoff.

III. Significant Program Changes

NOAA approved routine program implementation changes in 1990 and 1991, including numerous changes to the CRMC's Administrative Procedures Act," and "Rules and Regulations."

IV. Evaluation Findings

The next Section 312 evaluation is scheduled for June 1992.

SOUTH CAROLINA

Federal Approval Date:
September 1979

Federal Funding FY90:
$1,334,000

Federal Funding FY91:
$1,334,000

I. Background

The South Carolina Coastal Council (SCCC) directs the state's coastal program. Fourteen appointed members make up the SCCC, which is divided into specialized committees that make recommendations to the Council. The SCCC derives authority from the South Carolina Coastal Management Act (SCCMA) of 1977. The coastal zone encompasses eight counties that contain "critical areas" — tidelands, coastal waters, and coastal waters. The SCCC claims direct permitting authority for activities in the critical areas, as well as certification authority in the eight coastal counties outside the critical area through consistency reviews of direct Federal actions, Federal permits and state agency actions and permits.

II. Program Accomplishments

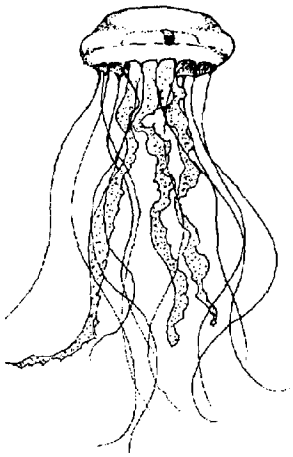
Hazards Protection — South Carolina continued to implement the Beachfront Management Act. The state amended the Act in 1990 to clarify provisions that proved difficult to implement in Hurricane Hugo's aftermath and to provide a special permit process to allow property owners to build structures seaward of the Coastal Council's baseline in limited circumstances.

A central issue in the Act's implementation has been whether the Council's regulation of the beach critical area could result in an unconstitutional "taking." Although the Act was upheld in the courts in South Carolina to date, it now faces a test in the U.S. Supreme Court in *Lucas v. South Carolina Coastal Council.* The Court's decision, due in July 1992, could hold broad implications for all land use regulatory programs.

Water Quality — South Carolina's coastal waters face threats from nonpoint source pollution and stormwater runoff. Over the past two years, the SCCC refined a series of management programs to improve coastal water quality. These programs include comprehensive storm water regulations, dock master plans for new developments, and revisions for marina permitting and operating regulations.

Wetlands — South Carolina continues as a leader in using the Federal consistency provisions to protect freshwater wetlands in the eight coastal counties. In contrast to other coastal states, South Carolina refused to certify the U.S. Army Corps of Engineers' (Corps) nationwide permit #26, allowing the SCCC to review even small proposed wetlands alterations for consistency under SCCC's wetland protection standards.

Natural Resource Protection — In the fall of 1990, the SCCC launched a major initiative to maintain and improve the quality of the Charleston Harbor estuary. This multi-year, special area management plan will yield a comprehensive plan for the region that will address a range of resource issues from nonpoint source pollution controls to improved public access.



During FY 91, the SCCC completed the Ashley River Special Area Management Plan, continued to define the beach profiling methodology, and revamped enforcement procedures. In addition, the SCCC developed an enforcement agreement with the Corps that will allow the SCCC to assist the Corps with monitoring and enforcement in the coastal zone, to include civil penalties assessed by the SCCC for violations of state consistency conditions. Finally, the SCCC is incorporating local beach management plans into the state beach management plan and is implementing revised stormwater guidelines, including new requirements for bridges and golf courses.

III. Significant Program Changes

The state is developing a routine program implementation change request to incorporate the amendments to the 1990 Beachfront Management Act. The 1988 Beach Management Act constituted a program amendment.

IV. Evaluation Findings

Final evaluation findings issued in April 1991 found the SCCC was adhering to the requirements of the South Carolina Coastal Management Program. The evaluation noted South Carolina's use of consistency and its leadership in areas such as beach management and storm water regulation. The evaluation also found a need to improve enforcement and monitoring.

VIRGINIA

Federal Approval Date:
September 1986

Federal Funding FY90:
$1,859,000

Federal Funding FY91:
$1,859,000

I. Background

The Virginia Coastal Resources Management Program (VCRMP) networks existing state laws and authorities and is implemented through monitoring and coordinating with state agencies and local governments. The Virginia Council on the Environment (COE) is the lead agency. However, the state recently passed legislation that will merge the COE and several other environmental programs into a new Department of Environmental Quality. It is unclear at this point where the lead CZM agency will be housed. This issue was addressed in the Section 312 evaluation held in April 1992. The program's coastal zone boundary includes the 29 counties which border tidal waters and 15 separate cities.

II. Program Accomplishments

Water Quality — The Virginia Chesapeake Bay Preservation Act of 1988 (CBPA) requires local governments to incorporate water quality protection measures into land use plans and ordinances. The CBPA also created a new Chesapeake Bay Local Assistance Department (CBLAD) and Board (CBLAB). The CBLAD promulgated criteria to be used by localities in complying with the CBPA. All tidewater cities and all but two counties and a majority of towns designated preservation areas and adopted performance criteria for those areas. However, enforceability issues may prevent the incorporation of the CBPA into Virginia's Coastal Program.

CBLAB established a permanent 75-site citizen monitoring program to provide water quality baseline data for Chesapeake Bay Program managers, scientists and researchers, and the State Water Control Board and other state agencies. This effort resulted from several years of section 309 interstate and section 306 funding under the CZMA.

The state conducted a sampling and analysis of soils from eroding shorelines and found that the nutrient contribution from this source to the Bay is significant. A follow-up study concluded that stabilizing eroding shorelines adjacent to active farms and wooded lots is particularly important because these soils contain large amounts of nitrogen.

CBLAB will soon submit a program change that incorporates 1988 amendments to the Erosion and Sediment Control Law and 1990 Erosion and Sediment Control Regulations into the existing non-point source water pollution control regulatory program of the VCRMP. The law and regulations aim to more effectively control soil erosion, sediment channels, waters,and other natural resources of Virginia.

Hazards Protection — The state developed an enforceable barrier island policy that addresses cumulative and secondary impacts. The state plans to submit the policy to NOAA for incorporation into the VCRMP.

Improved Government Operations — Local governments consistently utilize the local environmental planning assistance component of COE. This program provides an environmental review of specific development projects for local governments which lack the necessary personnel or expertise.

Public Access — Using CZM funds, Virginia, Maryland, Pennsylvania, and the District of Columbia completed a comprehensive guide to public access for the entire Chesapeake Bay watershed. This effort marks an important first step in meeting the public access goals of the 1987 Chesapeake Bay Agreement.

Habitat Protection — The COE completed a three year regional inventory of rare species and communities in York and James City counties and the City of Williamsburg. The inventory identified 25 natural areas ranging in size from 70 to more than 5,000 acres. Protection measures are now being developed for those areas.

III. Significant Program Changes

No significant program changes were submitted during the biennium. As noted above, several changes will be submitted in 1992.

IV. Evaluation Findings

Final evaluation findings issued June 29, 1990, indicated that the state is adhering to the approved coastal program and that the COE is adhering to the terms and conditions of its financial assistance awards. Accomplishments of the program included the local planning assistance program which provides direct technical assistance to localities in reviewing specific large development projects, as well as revising and drafting comprehensive plans to facilitate compliance with the VCRMP policies. Recommendations included: a stronger focus on identifying and prioritizing coastal management issues that cut across state agency lines and prioritizing funding; improved enforcement of the Virginia Tidal Wetlands Act; greater compliance with the Federal consistency provisions; and development of a barrier island policy that addresses cumulative and secondary impacts. A 312 evaluation site visit took place in April 1992. Final findings will be issued in the fall of 1992.

VIRGIN ISLANDS

Federal Approval Date:
June 1979

Federal Funding FY90:
$490,000

Federal Funding FY91:
$490,000

I. Background

The Virgin Islands Coastal Zone Management Act (VICZMA) of 1978 established a comprehensive coastal zone management program (VICZMP) designed to manage all development activities in the Virgin Islands coastal zone, including the islands of St. Thomas, St. John, and St. Croix, all offshore islands and cays, and the territorial sea. The VICZMP directly manages all development activities on the offshore islands and cays and in the first tier -a relatively narrow coastal strip on the three major islands -through the use of a comprehensive system of major and minor CZM permits. A separate set of laws and permits control activities within the second tier, which includes the interiors of the three major islands.

The Department of Planning and Natural Resources (DPNR) is the lead agency for administering the VICZMP. The Commissioner of the DPNR directs the activities of the VICZMP, approves or denies all earth change permits and minor CZM permits, and takes all enforcement actions arising from the implementation of the major and minor CZM permits. DPNR also processes all the building, plumbing and electrical permits. Major permits are issued by five-member CZM committees appointed by the Governor for each island. The three committees constitute the Coastal Zone Management Commission, which is empowered to promulgate rules and regulations and to provide policy direction and leadership in coastal management issues.

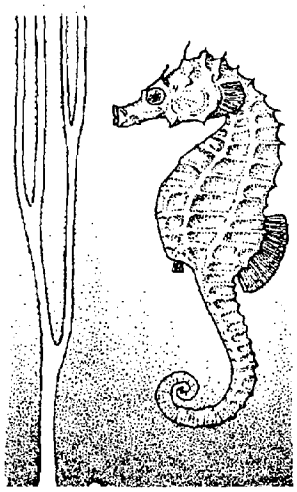
II. Program Accomplishments

Post-Hurricane Hugo Assistance — DPNR staff provided invaluable assistance to the community in the wake of Hurricane Hugo. DPNR provided tarps for temporary roofing, streamlined the permits process for reconstruction, and held workshops with developers, contractors, and architects to assist the community with rebuilding efforts.

Technical Assistance— The VICZMP improved technical assistance to the public regarding permit requirements on proposed development applications. VICZMP sponsors pre-application meetings regularly to facilitate permit processing.

The Mooring Law and Regulations — The VICZMP prepared amendments to the pre-existing mooring law which were enacted as "The Mooring and Anchoring of Vessels and Houseboats Act of 1990."

The Post-Hurricane Hugo Assessment, Recovery, and Territorial Park System Study — In cooperation with Island Resources Foundation (IRF), Woods Hole Oceanographic Institute, and various local and federal agencies, the VICZMP: (1) completed a resources damage and recovery assessment, and (2) proposed restoration and management measures that could be taken at



over 30 coastal sites throughout the Virgin Islands. The sites selected were existing public recreational and natural areas, as well as privately owned coastal sites with potential for inclusion in the Territorial Park System (TPS). In addition to the extensive assessment and recovery information, the report includes information on land acquisition and facilities development costs for each of the sites. The assessment presents a set of acquisition alternatives for large and small parks and preservation sites.

Revisions of the Major and Minor Permits Application Forms — The VICZMP conducted a major review and overhaul of the CZM permits process during the biennium. One of the more important outcomes was the revision of the major and minor CZM permits application packages. The packages now include a checklist of all the information required to complete an application. The major permits form provides basic guidance on the Environmental Assessment Report required for major permits. The application forms are now uniform throughout the Virgin Islands.

III. Significant Program Changes

In July 1991, the following program changes were formally incorporated into the VICZMP:

1) the Government Reorganization and Consolidation Act of 1987;
2) the 1987 Executive Order Organizing the DPNR;
3) the 1988 regulations entitled "Administrative Assessment of Civil Fines and Penalties"; and
4) the 1990 Mooring and Anchoring of Vessels and Houseboats Act.

IV. Evaluation Findings

The final evaluation findings issued in January 1992 concluded that the Virgin Islands is adhering to its approved coastal management program. Accomplishments cited include (1) the technical assistance provided by the VICZMP in the wake of Hurricane Hugo and in general to permit applicants, specifically to the public, and (2) the implementation of a civil fine system which improved monitoring and enforcement. However, deficiencies were noted in staffing and training; ineffective authorities in the second tier; monitoring and enforcement; and the failure to formally designate and adopt management plans for the eighteen Areas of Particular Concern.

WASHINGTON

Federal Approval Date:
June 1976

Federal Funding FY90:
$1,950,000

Federal Funding FY91:
$1,950,000

I. Background

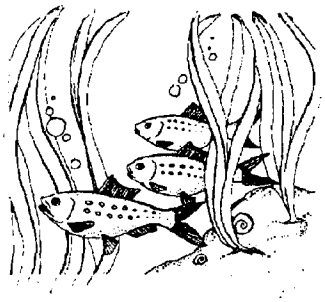
Washington stands as the first state to receive Federal approval of a CZM program. The Washington Coastal Zone Management Program (WCZMP) is based on the state's Shoreline Management Act (SMA) of 1971, which established broad guidelines for the protection and management of all state marine waters, and designated lakes, streams and wetlands. The WCZMP is a networked program involving state agencies, 15 counties, and 36 cities, with the Department of Ecology (Ecology) acting as the lead agency.

The Washington State Departments of Natural Resources, Fish, Game, Highways, Parks and Recreation, Archaeology and Historic Preservation, and Emergency Services support and participate in the implementation of the WCZMP. Local actions follow locally-developed, state-approved, city and county Shoreline Master Programs (SMP). The coastal zone boundary embodies a two-tier approach based on two management regimes. The first tier, a resource boundary area of permit authority under the SMA, includes all state marine waters and the associated wetlands. The second tier, a planning and administrative initiative, is composed of the region inland from the first tier to the crest of the coastal range and includes all 15 coastal counties.

II. Program Accomplishments

Wetlands Protection — During the biennium, Ecology played an active role in management and protection of wetlands by providing extensive local technical assistance, publishing technical guidance material, sponsoring numerous workshops, funding studies, developing an inventory guidebook, reviewing wetlands preservation nomination, continuing a strong education program, and drafting local wetlands policies and ordinances, as well as statewide policies and standards. The Governor also strengthened wetlands protection by signing executive orders to protect wetlands.

Technical Assistance — Ecology published the *Shoreline Management Guidebook*, which combines three separate publications: the *Shoreline Master Program Handbook, Shoreline Administrator Manual*, and *Urban Waterfront Policy Analysis Addenda*. The guidebook containing detailed information and examples of SMP implementation activities, jurisdiction determinations, and permitting, has become an invaluable tool for the shoreline administrators. The guidebook is a living document continually improved with input from shoreline administrators.



Coastal Hazards — Ecology developed a sea level rise response program initiated by conducting a scoping study and establishing an interagency task force. The Sea Level Rise Study Project formed the nucleus of the global warming component in the state's Environment 2010 project. The program activities included conferences and workshops, technical and policy studies, and public information efforts.

Public Access — Ecology contributed to public access, public education, and shoreland acquisition through the 306A program of the CZMA. Projects funded included floats, docks, boat ramps, footbridges, boardwalk, stairways to beaches, waterfront pathways, and, shoreline acquisitions.

Watershed Management Planning — Ecology took a lead role in controlling nonpoint source pollution from watersheds, initially with the goal of protecting shellfish resources. In addition to technical assistance, Ecology administered grants to local governments for watershed management projects. Ecology published technical reports, sponsored workshops, and, drafted legislation for local funding of programs.

III. Significant Program Changes

No significant program changes were submitted to NOAA during the biennium.

IV. Evaluation Findings

Final evaluation findings issued on March 27, 1991, indicated that the state is adhering to the approved program and is satisfactorily implementing the provisions of its approved coastal management program. The evaluation also indicated that areas of the WCZMP need continued development and enhancement. Specifically, Ecology should: survey all SMPs to determine which require updating and develop a strategy to work with local governments to amend these SMPs; conduct a demonstration project to investigate possible alternatives to simplify the coastal permit process; develop standard requirements for 306A signage; and enhance the shoreline permit monitoring and enforcement program by instituting regular surveillance monitoring and evaluations of local enforcement.

WISCONSIN

Federal Approval Date:
May 1978

Federal Funding FY90:
$833,000

Federal Funding FY91:
$833,000

I. Background

The Wisconsin coastline spans 820 miles in three major coastal stretches bordering Lake Michigan, Green Bay, and Lake Superior. Forty-three percent of the state's population lives in the 15 counties adjacent to these bodies of water. The Wisconsin Coastal Management Program (WCMP) seeks to preserve, protect, develop and, where possible, to restore or enhance the resources of Wisconsin's coast. To facilitate planning and the implementation of the WCMP, the state identified eight issues covering a broad spectrum of concerns precipitated by severe erosion, polluted waters and limited recreational access. Specific areas of concern are coastal water and air quality, coastal natural areas, community development, economic development, governmental relationships, public involvement, and coastal energy impacts.

The Department of Administration serves as the lead agency for the coastal management program, with staff support from the Coastal Management Section. The Wisconsin Coastal Management Council (WCMC), created by Executive Order, provides policy guidance for implementing the WCMP. WCMC recommends the program's policies and direction, as well as advising the Governor on coastal matters. Since 1980, the Council has included legislators and representatives of state agencies, local governments, tribal governments and interested citizens.

The 33 regulatory responsibilities fall primarily to the Department of Natural Resources (lake bed activities, water quality, and fish/game management), the Department of Transportation (harbor assistance), the Public Service Commission (power plant and transmission line siting), and counties (shoreland zoning). The 15 coastal counties define the landward boundary.

II. Program Accomplishments

Wetlands Protection — The DNR promulgated water quality standards for wetlands to more effectively implement Section 401 of the Clean Water Act and to expand state jurisdiction over wetlands. DNR cooperated with the Environmental Protection Agency and U.S. Fish and Wildlife Service in a Special Wetlands Inventory for Green Bay, a predecessor to a Special Area Management Plan and an advanced 404(c) for the area.

Nonpoint Source Abatement — The Wisconsin Senate passed a comprehensive package which includes the initiation of all priority watershed planning projects by the year 2000, a construction site erosion provision, unexclusion of live stock from streams provisions, and a bad actor provision.

III. Significant Program Changes

No program changes were submitted during FY 90 or FY 91.

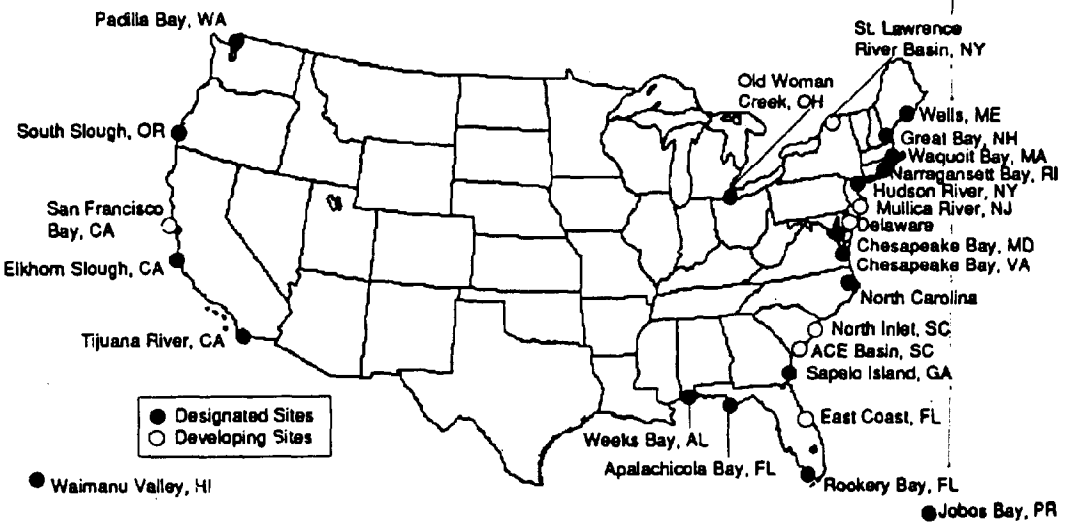
IV. Evaluation Findings

Final evaluation findings for the period October 1987 through June 1990, were signed March 28, 1991. Those findings found that the state was minimally adhering to its program. The findings made recommendations to support of the implementation of the core authorities; development of a major program strategy; increase in interagency review of Federal consistency issues; and submission of program changes.

NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

The National Estuarine Research Reserve System (NERRS) is a Federal-state cooperative venture designed to protect estuarine land and water resources for use as natural field laboratories. Authorized by section 315 of the Coastal Zone Management Act (CZMA), the NERRS focuses on the protection and management of estuarine land and water resources, including wetlands and watersheds, through environmental education and interpretation, monitoring and research. OCRM's Sanctuaries and Reserves Division administers the NERRS at the Federal level.

Presently, there are 19 designated reserves in 17 states. These reserves protect nearly 300,000 acres of estuarine lands, wetlands and waters. Over 550,000 acres will be protected by 1995. The reserve-by-reserve summaries which follow this section explain in detail the activities undertaken by the 19 reserves during the biennium and what the reserves accomplished.



The newest reserve is the Cheapeake Bay National Estuarine Research Reserve in Virginia, designated in May 1991. The reserve is composed of four sites in the York River Basin, a major tributary of the Chesapeake Bay. These sites include: the Goodwin Islands, located at the mouth of the York River in the southeastern portion of Mobjack Bay; the Catlett Islands, 19 nautical miles from the mouth of the York River; Taskinas Creek, located on the south shore of the York River approximately 25 miles upstream from the river's mouth; and Sweet Hall Marsh on the Pamunkey River.

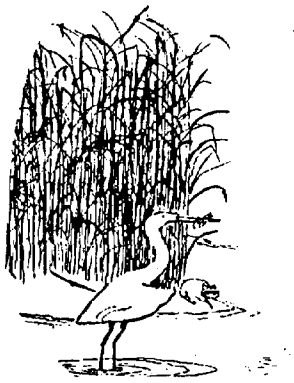
NOAA also approved the expansion of two existing reserves during the biennium. These expansions place another 6,000 acres in the NERRS. The expansions included the addition of the Masonboro Island component to the North Carolina reserve and the addition of Jug Bay and Otter Point sites to the Chesapeake Bay reserve in Maryland.

NOAA also assisted the State of South Carolina in designating its first National Estuarine Research Reserve, in cooperation with the Nature Conservancy, Ducks Unlimited, the South Carolina Department of Wildlife and the U.S. Fish and Wildlife Service. In September 1991, NOAA awarded a $700,000 grant to the South Carolina Coastal Council to help establish 151,000 acres of wetlands as one of the Nation's largest estuarine reserves. NOAA Under Secretary John A. Knauss awarded the grant to Council Chairman Wes Jones at a ceremony on Mary's Island at the Ducks Unlimited Retreat. Senator Ernest F. Hollings (D-SC) also attended the ceremony. The proposed reserve is located in the Ashepoo, Combahee and Edisto (ACE) Basin, which is about 45 miles south of Charleston, South Carolina.

NOAA approved South Carolina's Final Environmental Impact Statement and Draft Management Plan, required by law for the reserve, which allowed the state to use Federal funds to acquire land for the reserve. NOAA provided additional funding for a final management plan in December 1991. The plan will include detailed administration, education, research, monitoring, enforcement, acquisition and facility plans. After NOAA reviews the plan, the site will be formally designated as the ACE Basin National Estuarine Research Reserve.

During the biennium, OCRM worked with states on the designation of five additional sites as National Estuarine Research Reserves. These sites, described below, encompass approximately 50,000 acres.

* **St. Lawrence River, New York** — The St. Lawrence River-Eastern Ontario Commission received a $10,000 site selection grant to examine areas along the St. Lawrence River for possible inclusion in the NERRS. A site selection task force was formed with representatives of various New York state agencies. Base maps for the area have been completed and resource overlay maps are in preparation. In March 1991, the data collection phase was completed. The final report was approved by OCRM and the state must submit the Governor's nomination package before proceeding with development of a draft environmental impact statement.



* **Delaware Bay, Delaware** — On February 28, 1990, Delaware Governor Castle submitted a package proposing the Delaware National Estuarine Research Reserve. The proposed reserve encompasses two components: Lower St. Jones River and the Upper Blackbird Creek. NOAA approved the proposed sites in May 1990, and the Department of Natural Resources and Environment Control received $50,000 for the preparation of a draft environmental impact statement and management plan.

Public hearings for this document took place in September 1991. Comments will be incorporated into the final environmental impact statement/management plan, which is scheduled to be released in June 1992.

* **North Inlet-Winyah Bay, South Carolina** — In January 1990, a 9,000-acre area of uplands, open water, marshlands and islands was proposed by the Governor of South Carolina for the North Inlet-Winyah Bay NERR. The site is located in Georgetown County and is owned by the Belle W. Baruch Foundation. The foundation set aside the lands in perpetuity for conservation purposes and holds an agreement with the Belle W. Baruch Institute for Marine Biology and Coastal Research of the University of South Carolina to manage the lands for research and education purposes. A *Federal Register* notice was published in November 1991, and a public hearing took place to solicit comments on the draft environmental impact statement/management plan for the site. Comments will be incorporated into the final environmental impact statement/ management plan. Site designation is planned for 1992.

* **San Francisco Bay, California** — In the fall of 1991, OCRM received a preliminary draft site nomination document for the proposed San Francisco Bay NERR. The document is under review by OCRM and the proposed reserve's Site Selection Committee. The committee met with OCRM staff during February 1992, to discuss upcoming public hearings concerning site selection. The hearings are planned for late March or early April 1992. Following the hearings, the document will be reviewed based on comments received from NOAA and the public. The final site selection document will then be sent to the Governor of California for approval. If approved, the Governor will forward the site selection package and a nomination letter to NOAA for final clearance. Once site selection has been completed, the committee will prepare a draft environmental impact statement/management plan for the approved site.

* **East Florida** — The Florida Department of Natural Resources' Bureau of Sanctuaries and Research Reserves (BSRR) received a site selection grant for the purpose of investigating areas along the east coast of Florida suitable for designatiton as a National Estuarine Research Reserve. BSRR staff are collecting data and visiting sites and will submit a nomination report to OCRM in June 1992. Sites

identified as strong candidates include the Indian River Lagoon region in central Florida and areas near the mouth of the St. Johns River in northern Florida.

OCRM is also reviewing a proposed southward boundary expansion of the Rookery Bay, Florida, reserve. The proposal incorporates approximately 46,000 acres of wetlands and coastal waters into the existing 8,400-acre Reserve.

A goal of the NERRS Program is to have all 13 of the Nation's biogeographic coastal regions represented, including the Great Lakes. Selected by OCRM to reflect regional variations in the coastal zone, the biogeographic classification scheme ensures that the NERRS includes at least one site from each region. The biogeographic regions are divided into 27 subregions. Currently, 11 subregions are not yet represented in the System. These include: Acadian (Northern Gulf of Maine); Carolinian (East Florida); Louisianian (Mississippi Delta); Louisianian (Western Gulf); Columbian (Washington Coast); Great Lakes (Lake Superior, Lake Michigan, Lake Huron and Lake Ontario); Fjord (Southern Alaska); Sub-Arctic (Aleutian Islands); Sub-Arctic (Northern Alaska); Insular (Western Pacific Islands); and Insular (South Pacific Islands).

By the year 2000, NOAA will be close to completing the major biogeographic components of the national system. NOAA is committed to completing the reserve system, maintaining and strengthening its ongoing partnership with the states, their agencies, and research and educational institutions. In addition, NOAA is committed to:

- working with the states to acquire and protect estuarine lands and waters,

- achieving greater public outreach through a network of over 40 reserves and National Marine Sanctuaries,

- continuing a policy of integrating the activities of the National Marine Sanctuary Program and the NERRS,

- continuing to develop the reserves as platforms for research,

- improving the integration of NOAA's scientific capabilities with the estuarine research and marine sanctuary field sites, and

- providing coastal decisionmakers with scientifically-based answers to resource management questions.

Over the past 19 years, the NERRS matured rapidly; lands were acquired, on-site staff hired, facilities constructed, and programs implemented. NOAA is committed to ensuring, with the states, that the Nation's reserves are fully equipped, fully staffed, and have appropriate facilities. A fully operational NERR has five characteristics:

- high quality, representative natural resources, including land,

- people to manage, research, monitor, educate, and protect, adequate facilities and equipment to operate the site, regulatory and non-regulatory protection measures, and

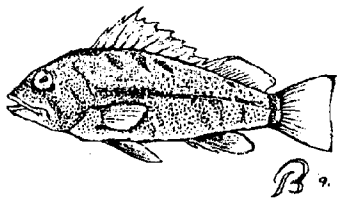
- an agreed upon framework for management which includes NOAA-wide participation.

The primary goal of the NERRS research program is to support high quality studies that significantly contribute to our understanding of both the existing and evolving functional ecology of the various ecosystems encompassed within these 19 sites. To accomplish this task, the Sanctuaries and Reserves Division recently began to develop a well-coordinated, nationally focused research and monitoring program at NERRS sites.

Research

In FY 92, the NERRS program will support approximately 12 to 15 applied research projects. Implemented in 1985, the program focuses on management-related research to enhance the understanding of estuarine environments, provide information necessary to enhance coastal and estuarine resource management decisionmaking and improve public understand of estuaries and estuarine management issues. SRD is readdressing NERRS research priorities to focus (for a two-year period) a research budget on areas of importance to coastal management decision making, such as habitat restoration, preservation and nonpoint source pollution.

During the biennium, SRD initiated a comprehensive listing of all research conducted at each of the reserve sites. The final synthesis document will incorporate all federally funded and non-funded research and the titles, dates, principal investigators and funding agency, for each research project, as well as list all publications arising from research conducted at the sites. Once completed, the master synthesis document will be available to each site, the scientific community, individual investigators, and the public. This document focuses on SRD national research priorities, provide background data for future research proposals, and illustrate the importance of the NERRS.



Much of the information generated by past projects has been used by various planning and management entities. For example, information from eelgrass projects is being used to reexamine and change the current methodologies employed in eelgrass transplantation and mitigation projects. Water quality and habitat studies conducted in the Tijuana River NERR are being used by local planning and regulatory agencies to assess future transportation, development, and drainage plans affecting the area. Watershed and habitat studies conducted in the Waquoit Bay NERR have been used by local planners to support further studies on a broader scale funded through a multi-agency, intergovernmental effort by NOAA, the National Science Foundation, and the U.S. Environmental Protection Agency, the State of Massachusetts, and the Cape Cod Planning and Economic Development Commission.

SRD supports its non-competitive Phased Monitoring Program at each NERRS site in order to foster understanding of long-term trends in estuarine resources and to provide additional baseline data for the various sites. The key elements of this program are:

- ecological characterizations to build an accurate baseline of information on the sites' most important resources,

- preparation of site profiles that describe the resources, management issues, and long-term plans for monitoring, and

- the implementation of a monitoring program that will provide long-term data on key resources, regularly analyze and publish findings, and provide a mechanism to evaluate program effectiveness in addressing the long-term needs of estuarine resource management.

Monitoring

This long-term monitoring program will provide a data base which will generate new hypotheses concerning coastal management issues and will track the quality and health of the Nation's coastal ecosystems.

The NERRS education effort is building a strong, centralized information program. At the same time, the program encourages site-specific individuality. Several general guidelines have been established to set uniformed standards of excellence, allow for the needs of the sites and variety of estuarine habitats, and establish system identity. Headquarter's education efforts focused on strengthening a national NERRS identity, whereas individual reserves continued to develop educational materials and programs to promote awareness of estuarine resources and to provide opportunities for public understanding of the need to preserve, protect and utilize these significant natural resources.

The 19 sites approached the role of education in different ways. Some sites, such as Waquoit Bay in Massachusetts and Old Woman Creek in Ohio, concentrated on educating the decisionmakers, enabling them to make wise choices for the future of vanishing estuarine habitats. Tijuana River NERR on the Mexican border in California and Jobos Bay in Puerto Rico emphasized bilingual environmental education to meet the needs of the Hispanic population. In Collier County, Florida, Rookery Bay's open water habitat allowed visiting school groups to participate in plankton tows and water sampling in the mangrove-filled bay. Up the coast, estuarine educators visited the schools. Due to the lack of local funding for school field trips, the staff at the Apalachicola Bay NERR took education programs to classrooms in an eight-county region.

For the first time, education grants funded completely by NOAA have been awarded to programs that benefit the entire NERRS. In 1991, SRD funded three such grants. Great Bay NERR sponsored 40 elementary schools affiliated with sites from around the country to participate in National Geographic Society's Kids Network. The schools tested local water supplies and shared the findings via telecommunications with over 250 schools from around the world. South Slough NERR in Oregon produced a brochure on the NERRS with specific site descriptions. The brochure will be used throughout the NERRS to answer the increasing number of public inquiries regarding estuarine reserves.

In addition, the annual National Estuarine Research Reserve Association workshop was funded as a forum for estuarine managers, researchers and educators to come together to discuss progress, problems and strategies for better management of these valuable resources. With continued local support and increased national awareness, the NERRS can look forward to providing educational leadership in marine conservation and habitat protection.

APALACHICOLA
Florida

Designated: 1979

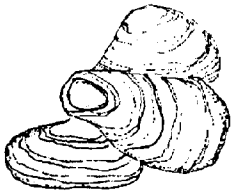
Biogeographic Region: Louisianan

Size: 193,758 acres

Acquisition Status: 89.5% complete

Federal Funding FY90: $140,752

Federal Funding FY91: $223,587



I. Background

Located in northwest Florida, approximately 90 miles southwest of Tallahassee, the reserve is the largest of the 19 existing National Estuarine Research Reserves. The reserve encompases two barrier islands and a portion of a third, portions of the Apalachicola River and adjoining uplands, and Apalachicola Bay. Managed by the Florida Department of Natural Resources, the reserve also includes a 12,358 acre National Wildlife Refuge on St. Vincent Island, the 2,300 acre Cape St. George State Reserve, and 1,883 acre state park on the eastern tip of St. George Island. Surrounding habitats include salt water marshes, swamp forests, barrier sand beaches, upland forests, and open waters of the bay and river.

As home to over 300 species of birds present permanently or seasonally, the reserve is one of the most important bird habitats in the southeastern U.S. Also supported 180 species of fish and over 1,300 species of plants, 103 of which are threatened or endangered, including the Ogeechee Tupelo tree. The local economy also depends on the reserve. Over 65 percent of the residents earn their living from the natural resources of the area, primarily through the commercial seafood industry. Ten percent of the nation's oysters and 90 percent of Florida's oysters are harvested from Apalachicola Bay.

II. Program Accomplishments

Reserve staff worked closely with other state and Federal agencies in the management of the site. Management concerns include protection of native American artifacts, natural resources and endangered species, while providing for continued traditional uses such as commercial and recreational fishing. For example, colonial migratory shorebird nest protection programs helped increase the number of nesting pairs of the threatened least tern from 100 in 1985 to over 800 in 1991.

The reserve headquarters facility opened in 1984 with office space, a conference room and library, a research-teaching laboratory and an auditorium. Additional laboratory and office space was added in 1991. The facility serves as the focal point for the reserve's education and research programs.

III. Research and Monitoring Programs

Research focused on many resource management issues of the Apalachicola estuary. Three main in-house projects include: red fish population dynamics, colonial and migratory bird nest protection, and sea turtle monitoring and nest protection. An overall monitoring program plan is under development which includes future baseline data collection. The reserve has an onsite research staff including a research coordinator and a technician. Support capabilities offered to visiting scientists encompass vessels, laboratory facilities and the Marshall Field House on Cape St. George suitable for

extended field observations. Current priorities are focusing on the freshwater needs of the bay, due to proposed upstream diversions of water resources.

IV. Education Program

The reserve closely links research and education programs. The education program provided an outlet for research information to reach audiences that ranged from pre-school children to senior citizen. Dissemination of information was accomplished through presentations, publications, supplemental school curriculum units, audio-visual programs, field trips and college classes. Two successful education programs, Project Estuary and Estuarine Pathways, are carried out through 15 county school systems in the north Florida area. Education staff include an education coordinator, a program assistant and a video technician. The reserve also produced two educational videos for use in conjunction with Project Estuary. Adult education efforts include educational seminars for commercial oystermen as part of yearly licensing requirements and a monthly guest lecture series.

V. Evaluations

No evaluations were conducted during FY 90 or FY 91.

CHESAPEAKE BAY
Maryland

Designated: 1985; 1990

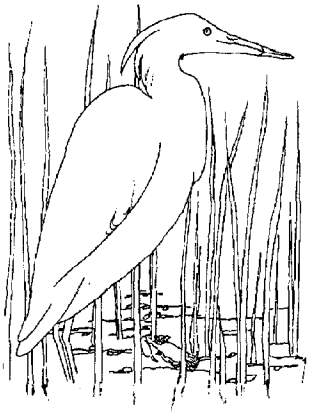
Biogeographic Region: Virginian

Size: 4,820 acres

Acquisition Status: 98% complete

Federal Funding FY90: $176,225

Federal Funding FY91: $201,135



I. Background

Managed by the Maryland Department of Natural Resources, the Chesapeake Bay National Estuarine Research Reserve (CBNERR-MD) consists of the following three components: Monie Bay, which is located within the Deal Island Wildlife Management Area in Somerset County, approximately 50 miles southwest of Ocean City, Maryland; Otter Point Creek, located 17 miles northeast of Baltimore in Harford County on the upper western shore of the Bay; and Jug Bay, located 20 miles southeast of Washington, D.C., on the Patuxent River, a western shore tributary of the Bay.

The 3,400 acre Monie Bay component is relatively pristine and isolated. The site is comprised of tidal creeks, open estuarine waters, salt marshes and pine forests . Monie Bay is a haven for resident and migratory bird populations, including herons, egrets and ibises and a wide variety of waterfowl species. Important aquatic populations, such as blue crabs, white perch, oysters and blue fish, are also found in Monie Bay. The Otter Point Creek component includes 700 acres of tidal freshwater marsh, two ponds, open water and uplands. With approximately 400 acres of wetland, this component is one of the few large freshwater tidal marshes in the Chesapeake Bay region that remains in a comparatively natural, undisturbed site. The Jug Bay component covers 700 acres, 250 of which are a broad shallow embayment of the Patuxent River. This component contains one of the largest stands of wild rice on the East Coast, provides healthy spawning habitat for striped bass, and serves as a haven for over a hundred bird species.

II. Program Accomplishments

The CBNERR-MD continues to make remarkable progress. In 1990, Otter Point Creek and Jug Bay were designated as components of the Reserve. These designations resulted from coordination between Federal, state and county governments, private organizations, such as the Izaak Walton League, and a host of private individuals. The state and local governments currently work together to design plans and specifications for expansion of the visitor's facility at Jug Bay and preliminary design of the CBNERR-MD visitors center at Otter Point Creek.

A Volunteer Coordinator was hired to review the volunteer work log at Jug Bay, refine the qualifications for volunteers regarding the tasks performed, and develop a brochure and handbook for orientation of new volunteer recruits. The coorination works with the education/site manager at the Otter Point Creek component to develop volunteer criteria for the entire CBNERR-MD.

Other accomplishments include: posting entrance signs which identify the CBNERR-MD components; posting boundary signs at each component; clearing trails at Otter Point Creek and publishing a quarterly newsletter.

III. Research and Monitoring Programs

A study of habitat alteration in the tidal freshwater wetlands of Otter Point Creek is being conducted by Dr. Grace Brush of Johns Hopkins University. In addition, Dr. Greg Ruiz of the Smithsonian Environmental Research Center is conducting research at all components to determine whether the copepod *Mytilicola porrectus* is an exotic parasite species introduced to the Chesapeake Bay. The CBNERR-MD also utilizes student interns to research and monitor land use change and environmental data; this data will be incorporated into a site profile characterization and will eventually be published.

IV. Education Program

Current reserve activities included adult field lectures, discovery programs for children, marsh monitoring studies, guided nature hikes, schedule school trips, and canoe trips. In addition, staff are currently involved with the NERRS Kids Network Program. The staff works with four Maryland teachers who are incorporating a Kids Network program into their existing lessons plans.

Reserve staff currently work with: The Friends of Jug Bay, Inc.; Jug Bay Wetlands Sanctuary; Patuxent River Park; Harford Glen, Resource Conservation Service and other State programs; and the Izaak Walton League of America. The result of this reserve-wide cooperative effort will be the presentation of estuarine education workshops for educators and the preparation and distribution of a teachers' guide.

V. Evaluations

Final evaluation findings issued in September 1990 concluded that the Maryland Department of Natural Resources must fill the vacancy of reserve manager as soon as possible to maintain the positive progress of the program. The position was filled in March 1991. The findings also determined that an education/site manager should be hired for the Otter Point Creek component to create a presence. This manager is in place Harford Glen, an environmental education facility.

CHESAPEAKE BAY
Virginia

Designated: 1991

Biogeographic Region: Virginian

Size: 4,434 acres

Acquisition Status: York River Component — 90% complete

Federal Funding FY90: $100,120

Federal Funding FY91: $184,861

I. Background

Designated in June 1991, the York River component of the Chesapeake Bay National Estuarine Research Reserve-Virginia (CBNERR-VA) encomposes four sites in the York River Basin, a major sub-estuary to lower Chesapeake Bay, and is managed by the Virginia Institute of Marine Science of the College of William and Mary. The sites include: the Goodwin Islands, which are located at the mouth of the York River in the southeastern portion of Mobjack Bay; the Catlett Islands, which are 19 nautical miles from the mouth of the York River; Taskinas Creek, which is located on the south shore of the York River approximately 25 miles upstream from the river's mouth; and Sweet Hall Marsh, which is located on the Pamunkey River. The Pamunkey River converges with the Mattaponi River to form the York River, approximately 37 nautical miles from the mouth of the York.

The Goodwin Islands which represent polyhaline salinity conditions, consist of an archipelago of marsh islands with submerged vegetation beds, oyster reefs, and shallow open estuarine waters. This 1,607-acre island complex owned by the College of William and Mary is separated from the mainland by a thoroughfare. The Catlett Islands, a 910-acre island complex, consists of parallel ridges of forested wetlands surrounded by extensive salt marshes along with adjacent shallow bottoms and water areas where aquatic vegetation once flourished. The Catlett Islands are privately owned and are incorporated into the CBNERR-VA by conservation easements and management agreements. Taskinas Creek is a 525-acre transition zone to the York River. The site consists of a tidal creek with fringing marshes that range from brackish to freshwater dominated communities. Much of the creek's watershed is undeveloped aand lies within the boundaries of the York River State Park. The site was incorporated into the reserve under a Memorandum of Understanding between the Virginia Department of Conservation and Recreation and the Virginia Institute of Marine Science. Sweet Hall Marsh occupies a broad meander of the Pamunkey River, considered to be one of the most pristine rivers on the east coast. The 1,400 acre site consists of an extensive tidal freshwater marsh with adjacent nontidal bottomland forest on the mainland side and shallow flats on the seaward side. The site is incorporated into the reserve by management agreements.

II. Program Accomplishments

During the biennium, the draft and final management plans and environmental impact statements were developed for the reserve. In addition, the reserve acquired key land and water areas. An office with a fulltime staff of five and an active volunteer program were established in FY91. Joint Sea Grant and SRD/OCRM funding supported site evaluation for the Rappahannock River and Potomac River components.

III. Research and Monitoring Programs

CBNERR-VA initiated general baseline studies of flora, fauna, water quality, physical and geological processes. In addition, many of the Chesapeake Bay Program research priorities were addressed at the reserve, including living resources and nutrients. A study at the Taskinas Creek site which investigated nutrient partitioning at the marsh/upland interface of a small, unimpacted bottomland hardwood forest was completed, and a quantitative assessment of marsh community development in relation to sea level at all four sites entered its second year.

IV. Education Program

The reserve offered various education programs, including ecology hikes and canoe trips to stimulate public interest in the Chesapeake Bay. Special programs including Estuaries Day and periodic beach clean-ups were also offered. Teacher training and curriculum development are in progress. Numerous programs are available at the York River State Park, including interpretive displays and exhibits and self-guided trails.

V. Evaluation

No evaluations were conducted during FY 90 or FY 91.

ELKHORN SLOUGH
California

Designated: 1980

Biogeographic Region: Central California

Size: 1,385 acres

Acquisition Status: Approximately 92% complete

Federal Funding FY90: $120,000

Federal Funding FY91: $153,850

I. Background

The reserve is located on the central California coast roughly halfway between the cities of Santa Cruz and Monterey. One of the few relatively undisturbed seasonal estuaries in central Monterey Bay, the Elkhorn Slough reserve encompasses salt marsh, grasslands, oak woodlands, freshwater ponds and maritime chaparral. Hundreds of species of invertebrates, fishes and birds are found at the reserve, which is also home to several endangered species, including the California brown pelican and American peregrine falcon. Resident marine mammals at the slough include harbor seals, sea lions and sea otters. Managed by the California Department of Fish and Game, the Elkhorn Slough NERR is one of nine sites in California that comprise the California Wildlands Program (CWP). The CWP was established to recognize the interpretive value of wetlands and other habitat-rich environs to non-consumptive users of the area. The CWP has hired two state interpretive naturalists for the reserve. A Reserve Advisory Committee assists the on-site manager with decisions regarding research and education programs, and facility and maintenance operations, as well as resource protection and general policy.

II. Program Accomplishments

The California Wildlife Foundation, a statewide nonprofit foundation, adopted as one of its highest priorities the project of raising funds for the construction of the administration/volunteer building at the reserve. In addition, two plant restoration projects were initiated at the reserve. The first was to begin eradication of the toxic week poison hemlock. The process involves repeated mowing of the affected areas and then planting annual grasses to displace the invasive hemlock. The second project is the removal of eucalyptus trees and planting native coast live oak. Approximately 10 acres have been converted, with approximately 40 more acres planned for construction.

Numerous special events were offered to the public during the biennium including the annual Estuaries Day celebration, Mother's Day events, Bird Day, art openings, book signings by local authors, Halloween parties, and an Oak Day celebration. The reserve continues to nurture the support of the community by providing educational events.

III. Research and Monitoring Programs

The reserve hired a research coordinator to oversee the research and monitoring programs on the area. Elkhorn Slough is studied by a diverse group of researchers, and funded by a range of agencies. Studies on the reserve are conducted by senior scientists as well as graduate and undergraduate students from Moss Landing Marine Laboratories, Stanford's Hopkins Marine Station, the University of California at Santa Cruz and Berkeley. The reserve staff, along with The Elkhorn Slough Foundation and Volunteer

program, conducts research projects directly associated with management decisions, maintains several monitoring programs, and assists local high school students in science projects. An on site weather station provides weather data to researchers.

Currently, research is being funded by NOAA competitive grants, a NOAA monitoring grant, the EPA, State Mussel Watch, and a variety of student grants. The following are current research projects in Elkhorn Slough: shark migration and feeding; eelgrass restoration, growth models, and genetic diversity; harbor seal population dynamics and feeding; effects of bird and fish feeding on benthic invertebrate populations; eelgrass effects on water flow patterns; coastal bird counts; long term changes in fish populations; mapping with aerial photography; results of large scale erosion problems; cattle grazing on salt marshes; restoration of native oaks; removal of exotic eucalyptus and poison hemlock; and long term water monitoring. Researchers are currently working to publish six scientific papers on long term changes in Elkhorn Slough habitats and organism abundances. Research information is passed on to managers and politicians at local, regional and international conferences, through scientific publications, and by disseminating the Elkhorn Slough Bibliography. The Elkhorn Slough management plan and the local coastal plan are based in part on NOAA funded research.

IV. Education Program

The education program has continued to expand and annually serves approximately 7,000 school children that come to the area on field trips. Four teacher workshops were conducted in 1990 and five were conducted in 1991. Teacher workshops prepare teachers to lead field trips to the reserve. Over 800 teachers from a three county area participated in the workshops. Another class of volunteers were trained in 1990 and join a force of over 100 volunteers that donated over 8,000 hours of their time to the reserve during the last biennium. Volunteers lead nature walks, staff the visitor center and bookstore, help with computer operations, provide maintenance, and generally assist in all aspects of reserve operation. The dedicated volunteer force makes it possible to accommodate over 40,000 visitors each year.

V. Evaluations

No evaluations were conducted during the biennium. The next evaluation of the reserve was scheduled for May 1992.

GREAT BAY
New Hampshire

Designated: 1989

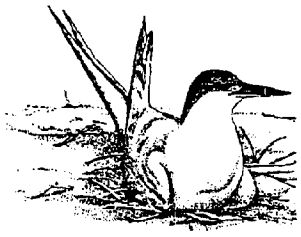
Biogeographic Region: Acadian

Size: 4,500 acres

Acquisition Status: 90% complete

Federal Funding FY90: $264,000

Federal Funding FY91: $229,000



I. Background

The Great Bay estuary extends 15 miles from the coast at New Castle, New Hampshire, to the upper Great Bay in southeastern New Hampshire. The reserve includes approximately 4,500 acres of tidal waters and mudflats and approximately 48 miles of shoreline. Five hundred fifty acres of upland within the boundary represent the range of different resources/environments in the estuary, including salt marsh, tidal creeks, islands, woodlands, and open fields. The water area includes all of Great Bay, the small channel from the Winnicut River, and large ones from the Squamscott and Lamprey Rivers, which meet in the center of the bay to form a channel which connects to Little Bay at Adams Point.

The Great Bay estuary derives its freshwater inflow from these rivers. Approximately one-half of Great Bay is exposed at low tide with most of the intertidal being mudflat. The bay is typical of northern New England estuaries in hosting a variety of marine plant communities. Eighteen rare or endangered plant species have been identified within the reserve, as well as five rare or endangered animal species. The New Hampshire Department of Fish and Game manages the reserve.

II. Program Accomplishments

The draft and final management plans and environmental impact statements have been prepared for the reserve. In addition, the reserve acquired key land and water areas, primarily through conservation easement. Also, 36 acres of prime eagle habitat were acquired through easement and purchase. A fulltime office was established in FY90, and plans are underway for the construction of an interpretive center and trail system at the Depot Road site. The reserve is also involved in establishing a 1,100-acre National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service, at the site of the former Pease Air Force Base.

III. Research and Monitoring Programs

Monthly and bi-monthly monitoring of the water column and weather conditions at the site are being conducted by the Jackson Estuarine Laboratory (JEL), which is managed by the University of New Hampshire (UNH) and partially funded through NOAA. The *Great Bay Site Profile* was completed by JEL in FY91, providing an overview of the Great Bay estuary system and will serve as a baseline for future research activities.

A citizen's monitoring program, Great Bay Watch, was organized by the UNH Sea Grant program and provided additional water quality data. In connection with the reserve and the Audubon Society of New Hampshire, the Watch will expand to include seasonal waterfowl data. A complete plant inventory has also been completed for the Depot Road site.

IV. Education Program

Area schools, the UNH, local conservation groups, and traditional users of the Bay have viewed the area as an ideal, informal classroom over the years. Through Sea Grant's Great Bay Living Lab and the Math and Science Program, as well as reserve sponsored teacher training programs, educators and students are exposed to estuarine issues.

The reserve is expanding its educational efforts by providing slide shows, tours, and lectures. An educational display with photographs of the bay is available for public use. Several new publications have been produced including a brochure and map, a children's guide to the bay, entitled "Treasures," and a bird checklist.

In FY91, the reserve initiated the first systemwide educational program called "What's In Our Water?" The program is part of the Kids Network which was developed by the National Geographic Society. In addition, the reserve completed an environmental awareness and volunteerism survey.

V. Evaluations

No evaluations were conducting during FY90 or FY91.

HUDSON RIVER
New York

Designated: 1982

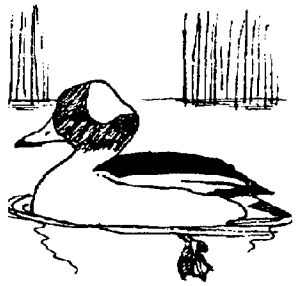
Biogeographic Region: Virginian

Size: 4,500 acres

Acquisition Status: 95% complete

Federal Funding FY90: $290,000

Federal Funding FY91: $83,880



I. Background

The Hudson River estuary extends 152 miles from the southern tip of Manhattan north to the Federal Dam at Troy NY. The reserve's four sites span 100 miles and represent the wide range of conditions and habitats present in the estuary. Piermont Marsh is a brackish tidal wetland comprised of emergent vegetation and shallows bordering the Tappan Zee, 25 river miles north of Manhattan (RM 25). Iona Island (RM 43) includes slightly brackish tidal marsh and rocky, forested uplands. The Tivoli Bays (RM 100) is the largest freshwater tidal wetland complex on the Hudson surrounded by forest. Stockport Flats (RM 125) is a mosaic of mudflats, subtidal shallows, emergent freshwater tidal marshes, and vegetated dredge spoil islands. The reserve is managed by the New York State Department of Environmental Conservation, in cooperation with several other state agencies represented on the Reserve's Steering Committee.

Tidal freshwater wetlands are the reserve's most unusual habitat. Emergent marshes and submerged shallows fuel the estuarine detrital food chain, and provide habitat for fish, turtles, crustaceans, waterfowl and wading birds. The reserve's shallows also serve as spawning and nursery grounds for many species of fish.

II. Program Accomplishments

During FY90 and FY91, plans were developed for a major interpretive, research and educational center at Iona Island. This facility will complement existing reserve research research facilities at the Tivoli Bays, and will include interpretive exhibits, laboratories, classrooms, libraries and scientific collections, office space, a theater, and a Hudson River gallery. Deepwater dockage and living quarters for visiting researchers and educators will be developed during a later phase. Major progress was made in completing a revised draft management plan during this biennium. Finally, a permanent research coordinator position was established, raising the number of fulltime reserve staff to three.

III. Research and Monitoring Programs

The reserve sites represent the broad range of salinity regimes found in the estuary, as well as the wide gradient of watershed development densities, and provide many excellent opportunities for research related to coastal management issues. The reserve's research and monitoring programs were substantially expanded during the biennium.

Phase one of the reserve's water quality monitoring program was initiated with the monthly collection and analysis of tidal and tributary water from all four reserve sites. This study will continue until May 1992, and may be extended indefinitely in order to monitor water quality changes associated with watershed alterations and nonpoint source pollution. A multi-institution,

coordinated research effort was undertaken to quantify atmospheric, tidal and surface water inputs at the Tivoli Bays to better understand watershed impacts on estuarine areas. Associated studies have examined chemical and sediment inputs to sites, and related these to land use patterns within the watershed.

Accurate, long scale vegetation maps of the four reserve sites were developed using new aerial photographs. These maps serve as a valuable tool for detecting past and future changes in the plant communities, sedimentation accumulation impacts, and erosion at the Reserve sites. They also enable researchers to accurately identify field sites suited to specific research needs.

Membership on the reserve's Research Advisory Committee was expanded to embrace new areas of expertise. The Committee guides the reserve in planning and implementation of a long-term research and environmental monitoring program, designed to identify long-term trends and provide information to coastal managers.

The reserve sponsored 17 research fellowship projects on estuarine ecology, including physical, biological and chemical characterizations, studies of ecosystem processes, and investigations of exchanges between wetlands and the main stem of the Hudson.

IV. Education Program

The reserve conducted nearly one hundred tidal wetland field programs for the general public and elementary, secondary and high school students. Demonstrations and activities illustrating estuarine processes, career days, seminars and lectures on a wide variety of Hudson River topics were also presented.

The reserve launched phase one of a comprehensive teacher training program. A variety of workshops were offered, including several in cooperation with the Bank Street Collect of Education and a regional consortium of environmental education providers in the mid-Hudson Valley. Supplementary informational and educational materials were developed for participants.

The reserve produced and distributed a "Boater's Guide to the Hudson River Estuary," which introduces recreational boaters to the wetland communities of the tidal Hudson and ways boaters can promote higher water and habitat quality in the river.

V. Evaluations

No evaluations were conducted during the biennium. The next evaluation was scheduled May 1992.

JOBOS BAY
Puerto Rico

Designated: 1981

Biogeographic Region: West Indian

Size: 2,800 acres

Acquisition Status: 100% complete

Federal Funding FY90: $70,000

Federal Funding FY91: $70,000

I. Background

Located on the southern coastal plain of the island of Puerto Rico, the reserve is divided into three units for management purposes: Mar Negro, characterized by fringe mangrove forest, which protects the shoreline and lagoons and channels; Cayos Caribes, a chain of 17 tear-shaped islets; and Seagrass Beds/Punta Colchones. Fifty West Indian manatees have believed to be Puerto Rico's second largest manatee population, forage within Jobos Bay and the Mar Negro and Caribes Islets areas of the reserve. Sea turtles are often found in the seagrass beds of Jobos Bay. The Puerto Rico Department of Natural Resources manages the site.

II. Program Accomplishments

Reserve staff have developed extensive onsite interpretive programs over the past two years. In addition, the reserve offers an outreach program for the island to increase public awareness and appreciation of coastal and estuarine resources. The bay is the focal point of estuarine education for the local school systems. The reserve served as a catalyst for the Department of Natural Resources to develop management plans for their forestry reserve system. In addition, the DNR entered into a cooperative agreement with the Sea Grant College at the University of Puerto Rico to pursue joint education and research activities at Jobos Bay.

III. Research and Monitoring Programs

Development of a research and education facility is in the design phase. Construction is expected to begin in 1992.

IV. Education Program

The reserve's education program focuses on the natural integrity of the Bay and the importance of the estuarine habitat to Puerto Rico. Programs designed to reach local communities, schools, and the general public incorporate special slide shows, tours, lecture series, outreach programs, interpretive exhibits, and library services.

V. Evaluations

No evaluations were conducted during the biennium. The next evaluation site visit was scheduled for March 1992.

NARRAGANSETT BAY
Rhode Island

Designated: 1980

Biogeographic Region: Virginian

Size: 9,800 acres

Acquisition Status: 100% complete

Federal Funding FY90: $302,000

Federal Funding FY91: $125,726

I. Background

Located in the geographic center of Narragansett Bay, twelve miles from Newport RI, the reserve spans of 1,035 acres of land on Prudence, Patience, and Hope Islands, and 1,591 acres of water adjoining the islands out to the 18-foot isobath. The islands contain diverse aquatic and terrestrial habitats and are nesting sites for numerous species of birds. Soft-shell clams, quahogs, lobster, striped bass, black-back flounder and sea trout live in the reserve's tidal deepwater. During the winter, harbor seals occasionally use the reserve's exposed offshore rocks as haulout and resting sites. An extensive trail system reaches the major ecological features of the reserve. The site is managed by the Rhode Island Department of Environmental Management.

II. Program Accomplishments

The reserve expanded its boundaries to incorporate two additional properties in 1991 on Prudence Island. These properties, known as Barre and Little, total 107 acres. The additions may lead to a greenways project connecting the reserve to an abandoned state park on nearby Prudence Island. Negotiations are underway to incorporate the state park into the reserve. If expanded, the park will prove an ideal location for a reserve visitor's facility.

A site visit to Prudence Island took place in October 1991 with representatives from the state's Department of Environmental Management and NOAA, and a large contingent of interest groups. The group explored issues of reserve operations and management, education and research opportunities, and boundary expansion.

III. Research and Monitoring Programs

The reserve research program focuses on the salt marshes and aquatic habitats of the reserve. A new long-term atmospheric monitoring effort supplements a water quality program designed to characterize, detect change, and assess trends in marine water quality.

IV. Education Program

Interpretive programs continue at the Prudence Island site supported by seasonal naturalists. Several brochures are being produced such as a boater's guide to Prudence Island and a brochure explaining the reserve's role in research, education and resource protection. A lyme disease awareness program is in development.

V. Evaluations

No evaluations were conducted during FY90 and FY91.

NORTH CAROLINA

Designated: 1982 and 1991

Biogeographic Region: Virginian/ Carolinian

Size: 9,800 acres

Acquisition Status: 95% complete

Federal Funding FY90: $89,120

Federal Funding FY91: $1,120,000

I. Background

The North Carolina National Estuarine Research Reserve (NCNERR), which is managed by the state's Department of Environment, Health and Natural Resources, includes four sites along the North Carolina coast: Zeke's Island in New Hanover and Brunswick Counties; Rachel Carson in Carteret County; Currituck Banks in Currituck County; and Masonboro Island in New Hanover County.

The Zeke's Island component encompasses approximately 1,165 acres of upland, intertidal and shallow water areas. The Rachel Carson site includes 2,625 acres of upland area, marshes, intertidal flats, tidal creeks, and shallow estuarine waters. The Currituck Banks component covers 964 acres of beach, dunes, maritime forest, marshes and flats, sound-side islands and a portion of Currituck Sound. Finally, the Masonboro Island component includes 5,046 acres of salt marshes, maritime forests, dunes, grassy flats, shrub thickets, eel grass beds, and mud and sand flats.

II. Program Accomplishments

The final component of the NCNERR, Masonboro Island, was designated in January 1991. The NCNERR program made remarkable progress since providing state funds for two fulltime positions — a reserve manager and research coordinator. These positions are located at the University of North Carolina's Center for Marine Research in Wilmington. In addition, the reserve hired an eduation coordinator, who utilizes space rented from the North Carolina Maritime Museum in Beaufort, North Carolina. The education coordinator develops and coordinates educational programs for the reserve and manages the Rachel Carson component.

III. Research and Monitoring Programs

Since the relocation of the reserve offices at the Center for Marine Research and the hiring of a fulltime research coordinator, the NCNERR research and monitoring programs have taken shape and direction. Although previous research focused on the Rachel Carson component, research efforts expanded to include other components. The reserve submitted several proposals to NOAA for research funding consideration.

An intern and graduate student were hired to gather baseline information on physical and biological aspects of the Masonboro Island and Zeke's Island components for the NCNERR monitoring program.

IV. Education Program

The new education coordinator coordinates education programs and plans to establish an identity for the reserve's components. Teacher work-

shops for *Project Estuary*, an estuarine curriculum for middle grades, continue to gain popularity and support. Dr. Gail Jones of the University of North Carolina at Chapel Hill will prepare a smiliar curriculum for elementary children.

V. Evaluations

No evaluations were conducted during FY90 and FY91.

OLD WOMAN CREEK
Ohio

Designated: 1980

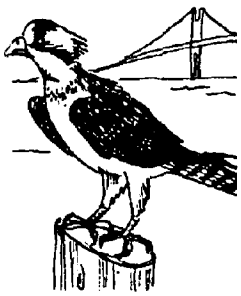
Biogeographic Region: Great Lakes

Size: 571 acres

Acquisition Status: 100% complete

Federal Funding FY90: $98,675

Federal Funding FY91: $90,000



I. Background

The smallest reserve in the NERR System, Old Woman Creek (OWC) huddles in a drowned stream mouth that drains into Lake Erie, representing a typical Great Lakes-freshwater estuary. Within the reserve, which is managed by the Ohio Department of Natural Resources (ODNR), several aquatic and terrestrial habitat types have been identified, including open water, barrier beach, remnant embayment marshes, mudflats, oak-hickory upland hardwood forests, and a swamp forest.

Hundreds of species of algae, vascular plants, invertebrates, mammals, fishes, and birds inhabits the reserve. Several are threatened, endangered, or species of special concern, including the American bald eagle, sharp-shinned hawk eastern foxsnake, and the spotted turtle. The reserve also serves as an important nursery and spawning area for Lake Erie forage and sport fish.

II. Program Accomplishments

In October 1989, the reserve hosted a two-day conference on "Priorities for Great Lakes Coastal Wetlands Research," for 75 invited wetland scientists and decisionmakers from the U.S. and Canada. The conference reviewed the information base on Great Lakes and coastal wetlands and developed research priorities for future studies. Conference proceedings have been published and distributed.

In addition, the reserve also hosted a week-long Wetlands Delineation Training Course for the U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers. During 1989 and 1991, the reserve also taught a two-hour graduate course entitled "The Ecology of Lake Erie Wetlands" in conjunction with Bowling Green State University.

During the biennium, the reserve received a NOAA grant and a donation from a private foundation to fund an archaeology exhibit which depicts the chronology of American Indian occupation of the Old Woman Creek estuary and emphasizes the importance of natural resources to Indian survival.

The reserve also initiated a cooperation project with the National Aeronautics and Space Administration's Lewis Research Center to develop materials and activities for teachers who incorporate remote sensing techniques into educational programs. The Old Woman Creek reserve was designated as a demonstration area by the Agricultural Stabilization and Conservation Service and ODNR for determining the impact of selected watershed management practices on improving both surface and subsurface water quality. The reserve monitoring program is an integral part of this project.

A NOAA grant also funded a spill response plan for the Old Woman Creek reserve and watershed. Finally, the reserve hosted the Great Lakes

Creek reserve and watershed. Finally, the reserve hosted the Great Lakes Algal Foray, which brought together researchers from Canada and the Great Lakes states.

III. Research and Monitoring Program

The reserve sponsored 15 research projects; nine were completed and 28 research articles were published. Research topics included: comparative ecosystem studies between Old Woman Creek and other Great Lakes coastal wetlands; interactions between different communities, relationships between sediments, chemistry and hydrology; bioaccumulation of toxic metals in the food web; impact of exotic species on the Lake Erie fishery; the use of "biomarkers" for determining aquatic ecosystem health; and coastal wetland phytoplankton dynamics. Several of these studies were conducted in cooperation with the U.S. Fish and Wildlife Service, EPA, and U.S. Department of Agriculture staff from Ohio, Pennsylvania, Kentucky, Michigan and New Zealand.

The long-range goal of the Old Woman Creek research program is to develop a comprehensive understanding of the freshwater estuarine ecosystem. Old Woman Creek studies seek to determine the extent that freshwater estuaries and Great Lakes coastal marshes perform functions similar to their marine counterparts. A watershed-wide water quality monitoring program began at the reserve in 1980 to provide basic temporal information about the water chemistry and biology of Old Woman Creek, its estuary and the adjacent portion of Lake Erie. During this biennium, monitoring expanded to survey the estuarine macroinvertebrate and microinvertebrate communities.

IV. Education Program

During the biennium, more than 50,000 people from 41 states and 19 foreign countries visited the reserve and/or participated in educational programs, workshops, and classes. The reserve's education program provides an array of public programs that increase public awareness of estuary ecosystems and coastal zone management. Program components include guided nature walks, school classes, teacher training programs, ecology workshops, natural history lecture series, environmental curriculum development, and interpretive materials such as brochures, posters, and slide talks.

V. Evaluations

A section 312 evaluation was conducted in June 1991. Final evaluation findings noted the continued high quality of reserve activities. Based in part on these findings, the Ohio Department of Natural Resources established a new National Estuarine Research Reserve section within the Division of Natural Areas and Preserves, to better ensure future visibility within state budget processes.

PADILLA BAY
Washington

Designated: 1980

Biogeographic Region: Columbian

Size: 2,500 acres

Acquisition Status: 24% complete

Federal Funding FY90: $205,000

Federal Funding FY91: $341,000

I. Background

Established in 1980 under management by the Washington Department of Ecology, the Padilla Bay National Estuarine Research Reserve covers over 2,500 acres of estuarine wetlands, 100 acres of uplands, and some 14,000 square feet of facility space. Located near Anacortes in Skagit County, Washington, the site contains one of the largest concentrations of eelgrass on the Pacific Coast and maintains a diverse collection of invertebrates, fish, birds and marine mammals. The reserve is uniquely located, is surrounded by large urban centers and an inland marine system used extensively for commerce and urban recreation.

The reserve implements major programs in research, education and interpretation, utilizing field, laboratory, classroom and exhibitry resources onsite. More than 25,000 citizens participate in these programs each year; outreach efforts touch several thousand additional citizens. Cooperative programs involve state and regional universities, 40 regional public school districts, and local, state and Federal agencies. The reserve is enhanced by the support of a nonprofit corporation (the Padilla Bay Foundation) and advisory committees providing professional guidance in research and education.

II. Program Accomplishments

The reserve management plan is undergoing revision to show the current status and future direction of the research, education, development and acquisition, and operations programs. Hat Island was recently purchased by Washington State, and the process for incorporating this productive resource area into the reserve boundaries has begun. Once the boundary is adjusted, the site will be eligible for Federal matching funds from OCRM, which will be used to purchase other critical sites already within the reserve acquisition plan and/or provide for facility needs of education and research programs.

Facilities development continued on the barn renovation to upgrade laboratory space, and the Breazeale House renovation to accommodate offices, a conference room, and storage space. A tunnel trail from the Interpretive Center to the observation deck and a spiral staircase from the observation deck to the beach were constructed to provide direct estuary access at the site. Facilities development was accompanied by the initiation of a policy/procedure/safety manual. A research library and a thorough bibliography of Padilla Bay studies was established, and a technical report/reprint series was completed. Some improvements to Interpretive Center exhibits made and a prospectus for a new main exhibit area has been developed. A research and education assistance/ internship program was established with the assistance of the Padilla Bay Foundation and the Shell Oil Company.

III. Research and Monitoring Programs

The reserve continued to develop baseline information on the resources and processes in Padilla Bay. Maps of the channels, seagrass and macroalgae beds, and intertidal flats of Padilla Bay (using 1989 summer color aerial photography) were published. Researchers at the reserve collected data on the density and biomass of seagrasses and macroalgae particle size distribution of sediment. Managers established baselines for the hydrocarbon content of sediments were measured and a permanent transect for future research projects in Padilla Bay.

Newly launched studies will examine suspended sediments and light in Padilla Bay and the influx of sediments to the bay from an agricultural watershed; the seasonal effects of light reduction and oxygen depletion on growth and survival of the seagrass *Zostera marina* in Padilla Bay; and the flow of freshwater into Padilla Bay (i.e., amount of water, water quality, circulation within the Bay) through the Swinomish Channel, one of the four major sources of freshwater into Padilla Bay.

IV. Education Program

The reserve education and interpretation program includes in-house courses taught at the pre-school through college level, teacher workshops, youth programs, family programs, special group programs, presentations and lectures, adult workshops, guided tours, volunteer and teacher training, outreach programs, special events, film series, exhibits and aquaria, portable displays, a newsletter/activity calendar, and brochures. A high school level estuarine curriculum for use at the site, and film on Padilla Bay are nearly complete. The staff is developing a high school level, interdisciplinary, outreach estuarine learning program for use in schools who students cannot visit the site.

V. Evaluations

An evaluation was conducted covering the period from November 1986 through November 1990. The final evaluation findings documented program accomplishments, including an excellent, well-developed education and interpretive program, strengthened research and monitoring program, and active facilities development program. Recommendations for improvement included: developing a strategy for meeting the tremendous demand for the education programs by hiring more staff and modifying curricula for use throughout the year; adding a fulltime permanent position for the research coordinator; and strengthening the role of the Research Advisory Committee.

ROOKERY BAY
Florida

Designated: 1978

Biogeographic Region:
West Indian

Size: 9,400 acres

Acquisition Status:
68% complete

Federal Funding FY90:
$378,358

Federal Funding FY91:
$110,000

I. Background

The reserve protects a large mangrove-fringed bay and two creeks. Managed by the Florida Department of Natural Resources (DNR), the reserve includes mangrove forests, marshes, sea grasses, and open water. The reserve's uplands are composed of pine woodlands, seasonal wetlands and scrub oak habitat. In November 1988, the state acquired Cannon Island, a 350-acre pristine coastal hardwood hammock and mangrove-fringed barrier island, for inclusion into the reserve. In March 1989, the DNR outlined a proposal to expand the existing boundaries of the reserve to include additional state-owned lands in the Rookery Bay area and associated watersheds.

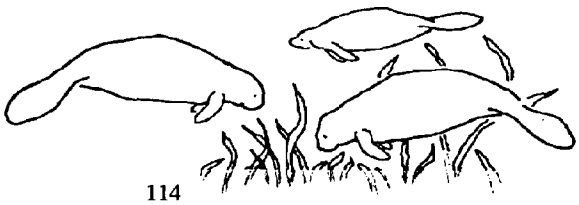
II. Program Accomplishments

In 1990, three research, one maintenance and one administrative assistant joined the reserve staff. A new management plan was completed and is currently under review. A new office building is planned for 1992. The reserve has initiated a habitat restoration program aimed at wetlands and sheetflow restoration and eradication of invasive exotic plants. Acquisition of additional lands using state funds is underway, with 85 high priority parcels totalling over 4000 acres being appraised in 1991-92. The reserve was designated in 1991 as a regional site for marine mammal stranding response, and participated in rescue, recovery and transport of 6 manatees and whales.

III. Research and Monitoring Programs

Research in progress includes studies of wading birds, habitat preferences of fishes and invertebrates, primary and secondary productivity in mangrove ecosystems and stone crab biology. Reserve staff are collecting data to analyze the fish populations in the reserve. Long-term programs exist for monitoring water quality, compiling a bird census, and recording tide and meteorological conditions. The reserve also sponsors a geographic information system and remote sensing program.

With support from a NOAA research development grant, the reserve expanded its onsite research and monitoring capabilities in 1990 with the addition of three staff, a 19 foot research vessel and a minivan. A Research Advisory Committee was established to provide input into a new reserve research plan. The staff received funds from the U.S. Environmental Protection Agency to conduct an advanced identification of wetlands adjacent to the reserve, as well as, an environmental assessment of state-owned lands in support of the proposed boundary expansion.



IV. Education Program

Reserve education programs contacted 11,887 persons in 1990 and 1991, through 483 classes, high school field trips, seminars and summer programs. Over 216 adults participated in 12 courses offered by the reserve, including Inshore Fishing, Bird Watching, and Gulf Coast Cooking. "Learning Through Research," a two-year fish population study utilizing high school and adult volunteers, concluded in December 1991. Reserve staff completed a new sign system, including entrance, facility and informational signage. A new field guide to Rookery Bay was completed for field trip participants.

Bimonthly Coastal Reserve Management Workshops continue into a fourth year, targeting environmental professionals from across the state involved in planning, regulation and management. A cooperative education agreement between DNR and The Conservancy Inc. ensures an effective overall education effort at the reserve. The reserve acquaired a second 26 foot education vessel and plans to use a third vessel, from Edison Community College, in 1992. Reserve education programs range from illustrated slide talks, interpretive displays and videos to adult education courses, high school and college field trips and training workshops for teachers.

IV. Evaluations

An evaluation conducted by NOAA in January 1990, indicated that progress had been made in the education component. The findings indicated, however, that the reserve needs to increase emphasis on research and monitoring. Following the evaluation, DNR requested and received a research development grant from NOAA to implement an effective research program.

SAPELO ISLAND
Georgia

Designated: 1976

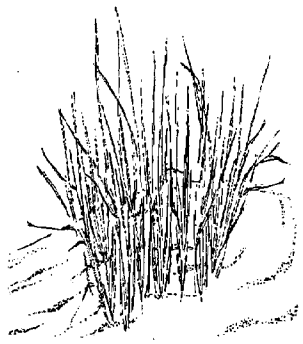
Biogeographic Region: Carolinian

Size: 5,905 acres

Acquisition Status: 100% complete

Federal Funding FY90: $49,838

Federal Funding FY91: $110,000



I. Background

Most of the Duplin River watershed is included in the reserve, which contains extensive marsh, southern hardwood forest, pure stands of pines, dunes and beaches. Managed by the Georgia Department of Natural Resources (DNR), the reserve is bound to the northwest by the Mud River, to the west by New Teakettle Creek, and to the southwest by Doboy Sound. The site encompasses 3,811 acres of marshland and 2,094 acres of high ground at the south end of Sapelo Island.

Broad-leafed evergreens and Spanish moss flourish in the reserve. During the warm months, the Duplin River serves as a nursery ground for shrimp and the juvenile forms of menhaden, sea trout, blue crabs and sea bass.

II. Program Accomplishments

During the biennium, a comprehensive management plan was approved and as part of this effort, site advisory committees and research and education subcommittees were created. Plans are underway for construction of an on-site visitor center. The reserve recently hired a full-time manager and education coordinator. Public access to the reserve was improved by the acquisition of a 55 seat passenger tram, which guide tours throughout the site. During the biennium, there were more than 250 tours of the reserve, accommodating approximately 5,000 visitors.

III. Research and Monitoring Programs

Approximately 40 research projects were conducted in the reserve during FY88 and FY89. The University of Georgia Marine Institute (UGMI), located at the reserve, targets nearshore geological and ecological research. More than 600 publications were generated by the Institute, addressing the general ecology and system energetics of the marshes of Sapelo Island. In addition to Institute-sponsored research, the reserve attracted a variety of estuarine research proposals funded by other Federal agencies, such as the National Science Foundation and NOAA's Sea Grant Program.

During the biennium, OCRM provided funds for a two-year project to develop a Geographic Information System for the island that may provide a prototype system for other national estuarine reserves.

As part of its monitoring program, the reserve worked in conjunction with UGMI to establish three remote Hydro Lab 2020 units and three weather stations, two units operated by UGMI already existed. In addition, the Georgia Environmental Protection Division quarterly samples 22 physio-chemical parameters and annually samples metals and pesticides in water, oysters and sediment. The Georgia Coastal Resources Division conducts bi-monthly water quality sampling as part of its shellfish program at four reserve sites.

IV. Education Program

The education program sponsored slide talks, films, and guided tours of the reserve. During the biennium, OCRM provided funds for the development of three videos on the reserve. The videos will examine the value of wetlands in fishery production, the role of tides in estuarine productivity, and the monitoring at Sapelo that assesses the health of the estuarine environment.

V. Evaluations

Final evaluation findings issued March 1990 noted that the state had made commendable progress in the operation and management of the reserve. The report recommended additional staff support for the education coordinator and completion of the management plan. The plan was subsequently approved and an interpretive assistant hired.

SOUTH SLOUGH
Oregon

Designated: 1974

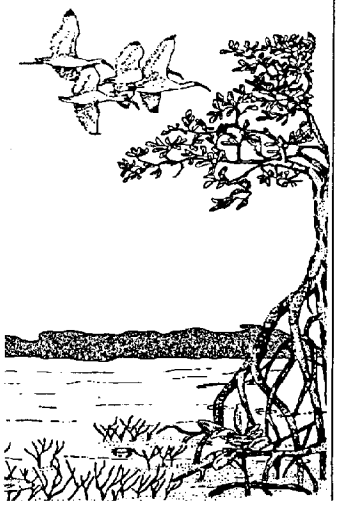
Biogeographic Region: Columbian

Size: 4,400 acres

Acquisition Status: 100% complete

Federal Funding FY90: $225,124

Federal Funding FY89: $331,340



I. Background

The first estuarine reserve, South Slough is one of 11 shallow tidal inlets connected to the Coos Estuary in Coos Bay, Oregon. Encompassing approximately 25 percent of the South Slough drainage basin, the reserve includes a variety of habitats, including upland forests, freshwater marsh, mudflats, salt marsh, and open water. At least 22 commercially important fish species reside at the estuary and the reserve's extensive eelgrass beds attracts waterfowl migrating along the Pacific Flyway. The reserve is managed by the South Slough National Estuarine Research Reserve Management Commission, under the policy guidance of the Oregon State Lands Board.

II. Program Accomplishments

In 1992, the purchase of the George and Marion Tracy property completed the reserve's acquisition of land.

III. Research and Monitoring Programs

The Reserve initiated a comprehensive baseline inventory of physical and biotic resources contained within the administrative boundaries. Ongoing monitoring activities (Phases IA and IB) will document the status of estuarine tidelands, freshwater wetlands, and riparian areas. A subsequent inventory (Phase IC) will assess the status of upland forests and recovering clear-cuts. Inventory and monitoring activities were conducted at the newly-established South Slough Estuarine Research Laboratories, located at the University of Oregon Institute of Marine Biology. Research investigations were completed to investigate the effects of oyster cultivation techniques on the survival of eelgrass and infaunal invertebrates. Habitat rehabilitation planning began to restore tidal circulation to diked agricultural lands, and re-establish a diverse coastal forest within critical parcels of the South Slough watershed. The Reserve also collects and maintains summary data describing basic physical environmental features of the area. Tidal data available dates back to the early 1970s, as well as data sets for meteorological and hydrographic parameters.

IV. Education Program

A major part of the Reserve's education program is the highly regarded series of school curricula administered on-site during spring and fall. The education program's interpretive segment includes a varied series of interpretive activities (lectures, workshops, walks, etc.), trails, exhibits, video, film, and slide programs, brochures, and signs.

V. Evaluations

No evaluations were conducted during FY90 or FY91. An evaluation site visit was conducted in December 1991.

TIJUANA RIVER
California

Designated: 1982

Biogeographic Region: Californian

Size: 2,531 acres

Acquisition Status: 100% complete

Federal Funding FY90: $224,770

Federal Funding FY91: $335,000

I. Background

Managed by the California Department of Parks and Recreation (DPR), the reserve encompasses approximately 2,531 acres of tidally flushed wetlands, riparian, and upland habitats extending immediately north of the U.S.-Mexico border in southern San Diego County. As the southern most estuarine system on the west coast, the reserve represents one of the few remaining examples of relatively undisturbed, tidally flushed coastal wetlands in southern California. Tijuana River is one of approximately 30 coastal wetlands that still exist south of Point Conception. Located within the jurisdictions of Imperial Beach and San Diego and near the City of Tijuana (Mexico), the estuary provides productive marsh habitat for invertebrates, fish, and birds including federal and state-listed endangered or threatened species, such as the light-footed clapper rail, California least tern, brown pelican, and peregrine falcon. An endangered plant, the salt marsh bird's beak, also flourishes in the area.

Responsibility for setting management policies lies with the Tijuana River National Estuarine Sanctuary Management Authority (TRNESMA), comprised of representatives from the lead agency, the California Department of Parks and Recreation (DER), and from the U.S. Fish and Wildlife Service, City of San Diego, the City of Imperial Beach, San Diego County, the California Coastal Commission, and the California Coastal Conservancy. Southwest Wetlands Interpretive Association coordinates education and volunteer support programs.

II. Program Accomplishments

During FY90 and FY91, a garage, laboratory space and caretaker's car port were constructed adjacent to the new visitor center. The comprehensive enhancement draft plan and draft EIR/EIS concluded five years of effort. The plan presented at a public hearing details 495 acres of restoration to be implemented as funds become available. The reserve initiated a 10-acre, $120,000 restoration project funded by CDPR, for a heavily disturbed riparian habitat. The reserve is purchasing 75 acres with approximately $450,000 in state and Federal funds as part of the updated land acquisition plan. Development of final exhibit design plans for the visitor center hall and other outdoor exhibits is nearing completion. The FWS, CDPR, and NOAA will each contribute $175,000 for the design phase, subsequent construction and installation. The TRNERR Management Authority continues to address significant issues in the reserve, such as sewage facility development, water quality problems, illegal immigration, obtaining land acquisition funding and restoration planning and funding.

The Management Authority worked closely with the County of San Diego, a member of the authority, to coordinate the purchase of 730 acres of parkland upstream and adjacent to the reserve.

III. Research and Monitoring Programs

The reserve experienced substantial changes, including episodes of fluctuatingfreshwater flow, increased sedimentation, and severe deterioration of water quality. These changes and the unique southerly character of the wetland provided the basis for research that contributed to the understanding of estuarine systems in southern California. The Pacific Estuarine Research Laboratory, managed by San Diego State University and located within the reserve serves as a center for research and education programs. Research is conducted on a broad range of habitats, including dunes, beach, salt marsh, udflat, salt pannes, coastal sage scrub, riverine and brackish marsh. Research focused on the effects of wastewater discharges and watershed management practices on the estuarine environment, the development of estuarine and riparian habitat enhancement techniques, and the assessment of artificial wetlands as a mitigation measure in the region. Monitoring programs tracked the influence of hydrological disturbances on the reserve and the recent diversion of virtually all sewage flow from the estuary via a temporary connect to San Diego's treatment plant.

IV. Education Program

The reserve's school programs center on the M.A.R.S.H. (Marsh Awareness with Resources of Slough Habitats) Project curriculum developed for fifth and sixth grade students. To encourage student visits, the reserve trained teachers to use the curriculum, familiarize them with the site, and required that the educational materials be used for at least two weeks prior to the site visit. The reserve offers teacher training workshops throughout the year, including ART-SCI (Art in Science). Workshop materials were published in English and Spanish. Four hundred teachers have been trained since the program began. A parttime, bilingual education assistant joined the staff. The small laboratory in the visitor center offers classes for children during the week and on weekends. The reserve participates in the National Geographic Kid's Network project. Nine kits have been distributed to two school districts in the county. The reserve supplies additional curriculum material on the county watershed and estuaries. The San Diego Water Authority and the Helix Water Authority provide materials on statewide water delivery.

V. Evaluations

Final evaluation findings issued on November 21, 1989, noted the following accomplishments: finalizing a long-term lease between the California DPR and the U.S. Fish and Wildlife Service (FWS) for use of land as a visitor center; developing a memorandum of understanding between OCRM and DPR; developing an education program; establishing a volunteer program, and increasing staff. The findings indicated an optimal coordination between DPR and FWS, which uses office space at the site. The evaluation recommended that the state commit funding to an education coordinator position.

I. Background

The reserve, managed by the Hawaii Department of Land and Natural Resources, encompasses most of the Waimanu Valley, the adjacent bay and the trail corridor from neighboring Waipio Valley. Although intermittently inhabited for centuries, Waimanu Valley has been uninhabited for over 40 years. Partial surveys identified two major archaeological sites with complex cultural features. The reserve's water resources are among the few in the state that remain undiverted and undeveloped for human use. With the headwaters of Waimanu Stream and tributaries stemming from an adjoining state natural reserve, an entire watershed and stream system falls under reserve protection.

Waimanu Valley is primarily used by pig hunters and backers. The valley is a popular public hunting area and backpacking destination, accessible via the 7.5 mile Muliwai Trail from Waipio Valley. The lack of human influence since the tsunami of 1946 allows the vegetation and animal life to evolve undisturbed. Native and non-native species comprise the vegetation. The valley also provides habitat for the only land mammal native to the Hawaiian Islands, the endangered ope'ape'a or Hawaiian hoary bat, as well as the endangered Hawaiian duck (Koloa), then endangered 'io (Hawaiian hawk), and rare pueo (Hawaiian short-eared owl). Aquatic life in the stream system includes five native fish species, four native invertebrates and the introduced Tahitian prawn.

II. Program Accomplishments

A revised Reserve Management Plan was prepared for OCRM review. In addition, the Governor signed an Executive Order converting Waimanu Valley from its forest reserve status to the NERR System.

The reserve entered into an agreement with the U.S. Geological Survey (USGS) to install hydrologic instrument stations to monitor stream flow, rainfall and sedimentation within Waimanu Valley. Water quality samples are also collected and analyzed approximately five times per year while stream stations are serviced by the USGS. All stream flow information collected and processed appears in water resources data reports published on an annual basis by the USGS.

Information signs for health, safety and notice of the need for camping permits were constructed and installed at the Waipio Valley Lookout. Signs identify the nine campsites in the valley and provide the public with information about flashfloods and potential disease causing bacteria within the wet areas. Two Clivus-Multrum composting toilets have been constructed along the berm at the valley mouth to serve the established camping area.

WAIMANU VALLEY
Hawaii

Designated: 1976

Biogeographic Region: Insular

Size: 3,600 acres

Acquisition Status: Approximately 92% complete

Federal Funding FY90: $70,000

Federal Funding FY91: $70,000

III. Education Program

A video documentary of the oral history of Waimanu Valley was produced and shown on Hawaii Public Television. The show details the history of the valley and its occupation, as well as information of the natural and historic resources of the valley. A reserve brochure describing the resources and reserve policies was produced and circulated.

IV. Evaluations

No evaluation was conducted during FY90 and FY 91. An evaluation site visit was conducted in February 1992.

WAQUOIT BAY
Massachusetts

Designated: 1988

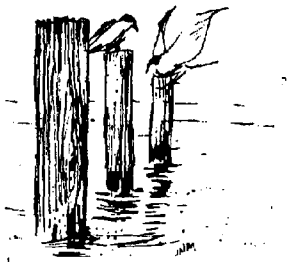
Biogeographic Region: Virginian

Size: 2,199 acres

Acquisition Status: 92% complete

Federal Funding FY90: $374,000

Federal Funding FY91: $210,000



I. Background

Located in the towns of Falmouth and Mashpee in Barnstable County, the reserve includes areas of intense, moderate and low human impact. The boundary of the reserve spans approximately 2,250 acres, including several distinct water bodies and upland areas within and adjacent to Waquoit Bay. South Cape Beach State Park and Washburn Island, both public recreational areas, are within the reserve, as well as the open water and marshes of Waquoit Bay. The reserve encompasses marsh, open water and upland fields and forest. Managed by the Massachusetts Department of Environmental Management, the reserve is one of only two confirmed localities in the commonwealth where the endangered plant Sandplain Gerardia grows. Federally threatened Piping Plover and Least Terns and federally endangered Roseate Terns also thrive at the site.

II. Program Accomplishments

Renovations on three of the four buildings at the reserve headquarters at the Swift Estate, in addition to the exterior of the 16 room Main House are complete. Interior renovation awaits funding. The headquarters includes administrative offices, a research laboratory, a research/education classroom, library, overnight accommodations for researchers, field equipment storage space, a meeting space and outside classroom. When completed the Main House will feature a conference room, exhibits and offices.

A camping permit system was established for the 11 campsites on Washburn Island. Island Manager interns live on the island during the summer to provide information and implement regulations. Volunteer Piping Plover Patrollers erect predator exclusion fences around nesting Plovers and Terns annually.

The Resource Protection Subcommittee, composed of the town and state officials with jurisdiction in Waquoit Bay, developed a Resource Protection Summary to examine resource protection, the issues, the regulations, the gaps in the regulations and suggestions to fill the gaps. Subcommittee recommendations will become part of a Waquoit Bay Watershed Management Plan.

III. Research and Monitoring Programs

The reserve claims one of the most extensive research programs within the NERR System due to the significance of local resources, and the reserve's close proximity to prestigious institutions of higher learning. Among the many research projects currently underway is "Coupling of Watershed and Coastal Waters in Waquoit Bay," jointly funded by NOAA, National Science Foundation and Environmental Protection Agency (EPA) to examine how changes in land use over time affect the groundwater nutrients and how these effects influence the health of the bay. This four-year grant involves five

institutions and several principal investigators. The project will provide important information and methodology on nutrient loading to the Cape Cod Commission, the regional planning agency and to programs such as the Buzzards Bay Project.

Other research includes studies on the effects of groundwater withdrawal on fisheries; watershed delineation; the effects of eutrophication on growth and productivity of macroalgae in Waquoit Bay; the impacts of macroalgae on fisheries; scallop recruitment; the effects of excess nutrients on eelgrass; the exploration of fissures found in young waterfowl;and a Waquoit Bay NERR volunteer botany and bird survey.

IV. Education Program

During the summer season, the reserve offers several educational programs, such as regular walks on South Cape Beach and Washburn Island and weekly Watershed Field Trips that begin in the research/education classroom. Interactive classroom activities demonstrate groundwater and watershed; the group is then taken out into the watershed to experience these concepts. Students also explore different types of land use and the effects on groundwater. This program relies on a curriculum developed with a NOAA education grant. Two posters are available with this curriculum. The "Evenings on the Bluff" series invites the general public to picnic on the lawn and listen to entertaining presentations on research and policy issues.

The reserve also offers education programs for policymakers and regulators. A Roundtable discussion brings together researchers and policymakers to clarify expectations. The Research Exchange Day invites all researchers working in the watershed to share their work with each other, local officials and committee members. EPA funded a reserve conference on "Nitrogen Removal Onsite Wastewater Treatment Systems," which brought together people from various agencies that permit and manage alternative denitrifying systems. The reserve also established a volunteer program to enhance public education activities and provide support for the research community. The volunteers serve on the reserve's Advisory Committee and three subcommittees.

IV. Evaluations

Final evaluation findings were issued on January 22, 1992. Accomplishments of the program included: developing a large volunteer corps; creating and actively involving the Resource Protection Subcommittee; facilitating the flow of information from researchers to coastal policymakers and the public; renovating the Swift Estate and providing educational/interpretive opportunities. The evaluation recommended that the state commit funding to the education coordinator position and other staff. The findings also recommended that the state develop a long-term acquisition plan, conduct a study of the cumulative impacts of docks, piers and boating on marine resources; and improve fiscal administration in Boston.

WEEKS BAY
Alabama

Designated: 1986

Biogeographic Region: Louisianan

Size: 3,028 acres

Acquisition Status: 100% complete

Federal Funding FY90: $315,000

Federal Funding FY91: $84,000

I. Background

Located along the eastern shore of Mobile Bay in Baldwin County, the reserve encompasses 3,028 acres of land and water in and around Weeks Bay. The bay is a small shallow estuary surrounded by forested wetlands. The reserve protects a nursery for shrimp and serves as a productive nursery for other commercially important fisheries. An estimated 19,000 threatened or endangered species inhabit the bay and surrounding lands. The reserve, managed by the Alabama Department of Economic and Community Affairs (ADECA), employs a manager, program assistant and parttime secretary.

II. Program Accomplishments

The Weeks Bay Reserve is in its initial development phase. In 1991, the state designed an interpretive center for the reserve including a classroom, laboratory and office space, exhibits, and trails. Construction will be completed in fall 1992.

III. Research and Monitoring Programs

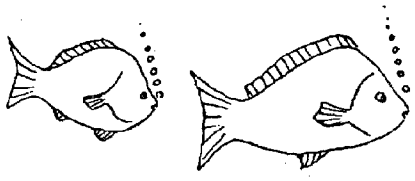
Weeks Bay is a small estuary with two river tributaries, making the reserve an ideal site for comparative studies of larger estuarine systems. Research efforts at the reserve included development of a model of the Weeks Bay estuary and its tributaries, a natural history survey of Weeks Bay, a vegetation community assessment and other projects. The reserve is also developing a monitoring program.

IV. Education Program

The reserve's education program includes nature trail tours, bird, plant and animal identification walks, and offsite presentations to area environmental and civic organizations and school groups. Plans are underway to stimulate students' interest in the sciences by awarding class research grants to high school and middle school science classes.

V. Evaluations

No evaluation was conducted during the biennium. The next evaluation site visit was scheduled for March 1992.



WELLS
Maine

Designated: 1984

Biogeographic Region: Acadian

Size: 1,600 acres

Acquisition Status: 100% complete

Federal Funding FY90: $200,881

Federal Funding FY91: $110,000

I. Background

The Wells reserve is nestled in York County, within the town of Wells, on the southern coast of Maine and includes the historic Laudholm Farm. The reserve's diverse natural features form an ecosystem unique to the region with undeveloped marshes and transitional upland fields and forests along two contrasting watersheds — the Little River estuary and the Webhannet River estuary. Two endangered species — the piping plover and least turn — nest within the reserve. Three plant species under state protection, the slender blue flag, eastern joe-pye weed, and arethusa, thrive at Wells.

The Town of Wells managed and operated the the reserve until 1990, when the state legislature created the Wells National Estuarine Research Reserve Management Authority as the State agency responsible for managing and operating the reserve.

II. Program Accomplishments

The reserve added several members to its staff, including a fulltime research coordinator, a parttime volunteer coordinator and caretaker. With the addition of these staff members, the reserve focused on refining the research and monitoring programs. The volunteer corps increased to approximately 300 individuals, allowing the site to be open seven days a week.

Projects completed during the biennium include a historic restoration of the main barn and the construction of meeting rooms and a workshop. Restoration began on other historic structures, and maintenance work continues on the property. There are several historic structures on the property that are integral to future program development plan. Projected uses for these buildings include housing for researchers, a wetlab and classroom space. In 1991, a small building located near the farmhouse was renovated and dedicated by the Governor as the Adams-Nunnemacher Research Laboratory.

The reserve's final management plan was revised and then approved by the state; the reserve signed Memoranda of Understandings (MOUs) with the state and NOAA and most other state agencies, and other MOUs are in negotiation. Reserve regulations are also being promulgated. The management plan developed a zoning plan that directs the type and extent of activities allowed in different areas of the site. This will help minimize conflicts among various uses and will help protect the reserve's resources.

The Laudholm Trust, the primary non-Federal source of financial support for the reserve, completed a $3 million fundraising campaign to support development and operations of the reserve through 1992.

III. Research and Monitoring Programs

Much of the reserve research has involved collection of valuable baseline data. Researchers obtained additional baseline information from habitat mapping, bird and plant surveys, and deployment of an automated weather station and water sampling device. To improve the reserve's research potential, the Reserve Management Authority is exploring the addition of a running seawater lab system. The reserve manager also serves as the Governor's appointee to the state's Marine Research Board.

Data from the reserve's automated weather station proved valuable to the monitoring project by the Jackson Estuarine Laboratory in understanding how the physical and chemical properties of the Webhannet Estuary respond to environmental factors. The reserve also installed a computerized resource map that enabled the staff and researchers to pinpoint locations on the reserve and to analyze geographical interrelationships. Another monitoring program established a benchmark index of the Webhannet estuary's environmental health. An associated plankton survey was the first of its kind completed south of Portland, and deemed a significant contribution to Gulf of Maine studies. Another monitoring project sought to document vegetation changes in a marsh where tidal influence is being restored.

IV. Education Program

The reserve sponsored two major interrelated education projects, the development of the Outreach and the on-site Discovery programs. The Outreach Program teaches K-6 grades estuarine ecology and resource protection. The reserve conducts workshops for teachers who then use the reserve's teaching kits to instruct students. The project involves an entire elementary school population. During its two-year cycle, the program will reach nearly 8,000 students in nine schools.

The Discovery Program complements the content of the outreach curriculum. Backpacks and equipment are loaned for use with trail guides that describe hands-on activities for children at stops along the reserve's five trail loops. Each loop uses a theme interpreted at two instructional levels. Approximately 500 students used the program in two years. In addition, the reserve completed its planned trail and boardwalk system of 14 trails grouped into five interpretive loops.

The education program actively integrated reserve efforts with other education and management programs in the region, such as with the New England Aquarium, the Association of Science and Technical Centers, and other reserve educators. The education coordinator became a member of the State Shore Steward Trust Advisory Committee which encourages local citizen education and action on water quality issues.

V. Evaluations

An evaluation was conducted in July 1991. Findings report that the state continues to operate and manage a strong reserve program that is consistent with the goals of the national program. The findings also indicated that the state made numerous accomplishments since the 1988 evaluation. Major accomplishments include: the creation of the Wells Reserve Management Authority, the new state agency responsible for reserve management and operations; the hiring of a research coordinator; development and implementation of two major education programs; and completion of a $3 million fundraising campaign to support the operations of the reserve.

Appendices

STATUS OF STATE COASTAL ZONE MANAGEMENT PROGRAMS

STATE	Actual or Estimated Federal Approval Date By Fiscal Year End (end 9/30)	Comment and Status 1/31/92
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 and Harbor Segment)	1982	Approved
New York	1982	Approved
Virginia	1986	Approved
New Hampshire	1988	Approved
Georgia		Pending
Ohio		Pending
Minnesota		Pending
Texas		Pending
Republic of Palau		Pending
	Non-Participating	
Indiana	"	
Illinois	"	

ITEMIZATION OF ALLOCATION OF FUNDS AND A BREAKDOWN OF PROJECTS AND AREAS WHICH FUNDS WERE EXPENDED

STATE	SECTION 306*				SECTION 308			SECTION 309				SECTION 315				TOTAL***
	1974 1987**	1988 1989	1990	1991	1974 1987	1988 1989	1990 1991	1974 1987	1988 1989	1990	1991	1974 1987	1988 1989	1990	1991	1987-1991
ALABAMA	5,861	1,130	593	534	4,080	0	0	0	0	0	59	1,224	183	318	50	$14,032
ALASKA	28,074	3,817	2,014	1,813	59,639	0	0	0	0	0	201	0	0	0	0	95,558
AMERICAN SAMOA	4,140	1,019	476	428	226	0	0	0	0	0	48	0	0	0	0	6,337
CALIFORNIA	30,231	3,817	2,014	1,813	8,943	0	0	0	0	0	201	0	0	245	564	47,828
CONNECTICUT	7,987	1,471	767	690	1,769	0	0	200	100	0	77	0	0	0	24	13,085
DELAWARE	6,931	1,088	571	514	1,978	0	0	0	0	25	57	0	10	50	0	11,224
DISTRIC OF COLUMBIA	0	0	0	0	0	0	0	0	0	28	0	0	0	0	37	65
FLORIDA	16,406	2,117	2,014	1,813	4,213	0	0	339	0	0	201	4,544	166	633	245	32,691
GEORGIA	1,857	0	0	0	1,357	0	0	0	0	0	0	1,808	473	50	110	5,655
GUAM	4,814	912	480	432	343	0	0	0	0	0	48	0	0	0	0	7,029
HAWAII	8,881	1,368	715	644	387	0	0	80	50	46	72	300	250	0	113	12,906
ILLINOIS	1,709	0	0	0	0	0	0	131	248	81	0	0	0	0	0	2,169
INDIANA	1,365	0	0	0	195	0	0	0	0	0	0	0	0	0	0	1,560
LOUISIANA	16,406	2,117	2,014	1,813	79,982	0	0	0	0	0	201	18	0	0	0	102,551

STATE	SECTION 306*				SECTION 308			SECTION 309				SECTION 315				TOTAL***
	1974 1987**	1988 1989	1990	1991	1974 1987	1988 1989	1990 1991	1974 1987	1988 1989	1990	1991	1974 1987	1988 1989	1990	1991	1987-1991
OREGON	13,224	1,765	868	781	1,821	0	0	420	669	89	87	2,683	324	175	382	$ 23,288
PENNSYLVANIA	7,297	1,404	732	659	5,792	0	0	157	0	0	73	0	0	0	0	16,114
PUERTO RICO	11,761	2,175	1,134	1,021	193	0	0	0	0	0	113	1,012	300	217	90	18,016
RHODE ISLAND	8,730	1,156	606	545	2,304	0	0	0	50	0	60	1,336	20	22	370	15,199
SOUTH CAROLINA	12,128	2,559	1,334	1,601	2,080	0	0	0	0	0	133	162	10	80	742	20,829
TEXAS	4,183	0	0	0	34,556	0	0	0	0	0	0	0	0	0	0	38,739
VIRGIN ISLANDS	4,521	951	960	441	361	0	0	0	0	0	49	0	0	0	0	7,283
VIRGINIA	5,153	3,568	1,859	1,673	573	0	0	285	443	165	186	10	40	100	185	14,240
WASHINGTON	19,051	3,742	1,950	1,755	2,388	0	0	200	0	0	195	1,924	148	230	415	31,998
WISCONSIN	11,176	1,598	833	750	669	0	0	300	0	0	133****	24	0	0	0	15,483

* Includes 306A funds

** Includes Section 305 program planning funds

*** Includes all Federal funding awarded since 1974 through FY 1991 (Marine Sanctuary funding is not included).

**** Includes Section 310 funds

(Dollars in Thousands)

STATE	SECTION 306*				SECTION 308			SECTION 309				SECTION 315				TOTAL
	1974 1987**	1988 1989	1990	1991	1974 1987	1988 1989	1990 1991	1974 1987	1988 1989	1990	1991	1974 1987	1988 1989	1990	1991	1987-1991
MAINE	11,581	2,950	1,538	1,384	1,492	150	0	0	155	98	154	1,552	475	244	110	21,883
MARYLAND	13,150	3,617	2,014	1,813	2,346	0	0	855	785	0	201	788	123	128	251	26,071
MASSACHUSETTS	11,844	2,361	1,230	1,107	4,898	0	0	214	0	40	123	2,461	875	374	210	25,737
MICHIGAN	16,032	3,817	2,014	1,813	1,243	0	0	0	0	0	201	0	0	0	0	25,120
MISSISSIPPI	4,214	1,026	539	485	16,536	0	0	0	0	0	54	0	0	0	0	22,854
NEW HAMPSHIRE	3,096	950	500	450	1,849	0	0	0	0	0	50	534	1,132	274	229	9,064
NEW JERSEY	15,241	3,817	2,014	1,822	4,358	0	0	200	0	10	192	50	0	0	25	27,729
NEW YORK	11,730	3,817	2,014	1,772	2,740	0	0	125	197	0	242	1,456	202	290	599	25,184
NORTH CAROLINA	12,958	3,693	3,008	1,358	1,968	0	0	0	70	0	150	2,797	413	122	1,110	27,647
NORTHERN MARIANAS	3,525	925	487	0	308	0	0	0	0	0	0	0	0	0	0	5,245
OHIO	0	0	0	0	805	0	0	0	0	0	0	596	90	99	70	1,660

CONSISTENCY APPEALS REPORT
AS OF JANUARY 16, 1992

APPELLANT	STATE	NOTICE OF APPEAL FILED	DISPOSITION
SHICKREY ANTON	SC	10/2/89	Decision Issued 5/21/91
* HENRY CROSBY	SC	10/11/89	Record closed
* ROGER W. FULLER	NC	12/11/89	Record closed
* CLAIRE PAPPAS #2	NY	3/13/90	Record closed
* EUGENE J. DEAN	MA	3/23/90	Record closed
ELMER E. MARTIN	SC	3/28/90	Withdrawn 8/17/90
* DAVIS A. McNEILL	SC	4/4/90	Record closed
KINSTON SMITH	NC	4/16/90	Dismissed 11/1/90
CHARLES LeBRETON	PR	5/1/90	Dismissed 11/90
MARVIN MANN	SC	5/21/90	Dismissed 8/1/90
VICTOR L. GONZALEZ	PR	5/30/90	Dismissed 3/91
CITY OF BARCELONETA	PR	6/4/90	In process
DAVIS & DUNLAP	AK	6/26/90	Dismissed 2/22/91
JOSÉ ESPADA-ORLANDI	PR	7/10/90	Dismissed 5/28/91
* MOBIL EXPLORATION & PRODUCING U.S.,INC.	NC	7/31/90	Record closed
JUAN SEGARRA-PAGÁN	PR	8/6/90	Dismissed 2/13/91

*** Record closed/decision is being drafted or circulated.**

APPELLANT	STATE	NOTICE OF APPEAL FILED	DISPOSITION
* DAVIS HENIFORD	SC	9/25/90	Record closed
* YEAMANS HALL CLUB	SC	9/25/90	Record closed
* ROBERT E. HARRIS	NY	11/1/90	Record closed
JOSE LUIS IRIZARRY	PR	11/23/90	Dismissed
* MOBIL EXPLORATION U.S. Inc.	NC	12/3/90	Record closed
TEXACO INC.	AK	12/7/90	Withdrawn 5/10/91
WEYERHAEUSER	WA	1/17/91	Appeal stayed
JAMES & UTA STEIN	WA	1/17/91	Dismissed 7/2/91
NIANTIC DOCKOMINUM	CT	1/8/91	In process
CHEVRON U.S.A. INC (Destin Dome)	FL	3/28/91	In process
PETER ZORZI	MA	4/12/91	Appeal stayed
PAUL THOMAS	SC	5/23/91	Appeal Stayed until 2/3/92
WILLIAM A. TOWNE	SC	7/22/91	Dismissed 12/24/91
GREGORIE BROTHERS	SC	8/7/91	Dismissed 11/12/91
CARLOS CRUZ COLON	PR	9/22/91	In process
VEPCO - Lake Gaston	NC	10/4/91	In process
JOSEPH RUSHTON/ FRANCIS CODD	MD	10/11/91	In process
JUSTO RIVERA	PR	10/25/91	Fee payment letters sent

*** Record closed/decision is being drafted or circulated.**

GUIDANCE REGARDING CONSISTENCY APPEAL PROCESSING FEES

Section 307(i) of the Coastal Zone Management Act, as amended (CZMA), provides that with respect to appeals under sections 307(c)(3) and (d), the Secretary shall collect an application fee of not less than $200 for minor appeals and not less than $500 for major appeals, unless the Secretary, upon consideration of an applicant's request for a fee waiver, determines that the applicant is unable to pay the fee. The Secretary shall collect such other fees as are necessary to recover the full costs of administering and processing such appeals under section 307(c).

In order to meet the requirements of CZMA § 307(i), the following guidance is provided for applicants who wish to appeal a state objection under CZMA § 307(c)(3) and (d).

Type of Appeal: A "major" appeal is one involving a project with a value of at least $1 million or one which, in the Secretary's determination, would involve significant administrative costs to the agency. All other appeals will be considered "minor" appeals by the Secretary. The applicant shall state in its Notice of Appeal whether it considers the appeal to be major or minor and shall state the value of the project. Where the applicant has, as part of its request for a permit or federal assistance, indicated the value of the proposed project, a copy of that portion of the permit or federal assistance application should accompany the Notice of Appeal.

Application Fee: The applicant shall include with the Notice of Appeal a check made payable to NOAA in the amount of either $200 for a minor appeal or $500 for a major appeal, or request an application fee waiver. Upon receipt of the Notice of Appeal and the application fee (or waiver of the fee), the Secretary shall begin processing the appeal.

Application Fee Waiver: In the event applicants for minor appeals believe the requirement of the payment of an application fee will impose a financial hardship, they may request an application fee waiver by including with the Notice of Appeal a properly completed and executed application for a waiver (attached). If the Secretary denies the waiver request, the fee must be received within 30 days of receipt of the Secretary's denial or the appeal shall be dismissed with prejudice. There will be no waiver of the application fee for appeals having a value of over $1 million.

Processing Fee: The Secretary will notify the applicant of the amount of the processing fee which shall be due on the same date as the applicant's final brief or brief on any threshold issues. The processing fee together with the application fee shall be set to cover the estimated full cost of administering and processing the appeal taking into account the complexity of the appeal. The processing fee may not be waived. Currently we estimate that the processing fee for a minor appeal will range from $1,700 to $4,000, and for a major appeal from $9,000 to $15,000. This fee does not apply to appeals under section 307(d).

Hearing Fee: In order to more fully develop the record, the Secretary may, on his own initiative or upon request, order a hearing. If a hearing is ordered, the Secretary will notify the applicant of the amount of the actual costs incurred as a result of conducting the hearing. The applicant will be responsible for payment of the hearing fee which shall be due seven days after the public hearing. These costs will include costs for travel and per diem expenses of Department of Commerce employees participating in the conduct of the hearing, of procuring a hearing venue, of equipment rentals and services, of public notice, of recording the proceeding, of providing a hearing transcript to the agency, and any other costs necessary to hold the hearing. This fee does not apply to appeals under section 307(d).

Failure to Pay a Fee: If a required fee is not paid in full when due, the Secretary shall suspend processing of the appeal. He shall promptly notify the applicant in writing of the amount of fee due. Upon receipt of the required fee within the time established in a notice of delinquency, the Secretary shall deem the fee to have been paid on the date the fee was due. The extension of time in which to cure a fee payment delinquency, however, will not extend the deadline for submission of any brief, or other document required to process the appeal. The Secretary will dismiss an appeal with prejudice if the full fee is not received within 30 days of the receipt of the Secretary's notice of delinquency.

Refund Policy: No refunds will be given. NOAA will periodically compare estimated costs with actual costs incurred and adjust the processing fee as appropriate.

Attachment

4/30/91

COASTAL ZONE MANAGEMENT ACT CONSISTENCY APPEAL

_____	)	APPLICATION FEE
(Appellant)	)	WAIVER FORM
v.	)	
	)	
_____	)	
(State)	)	

I, _____, request to proceed without being required to prepay the application fee. I state that because of my poverty, I am unable to pay this fee; that I believe I am entitled to relief. In support of this application, I answer the following questions.

1. Are you presently employed? ____ Yes ____ No

   a. If the answer is "yes," state the amount of your salary or wages per month, and give the name and address of your employer. (list both gross and net salary)

   b. If the answer is "no," state the date of last employment and the amount of the salary and wages per month which you received.

2. Have you received within the past twelve months any money from any of the following sources?

   a. Business, profession or other form of self-employment? ___ Yes ___ No
   b. Rent payments, interest or dividends? ___ Yes ___ No
   c. Pensions, annuities or life insurance ___ Yes ___ No
   d. Gifts or inheritances? ___ Yes ___ No
   e. Any other sources? ___ Yes ___ No

If the answer to any of the above is "yes," describe each source of money and state the amount received from each during the past twelve months.

3. Do you own any cash, or do you have money in checking, savings, or any other accounts?

___ Yes ___ No

If the answer is "yes," state the total value of the items owned.

4. Do you own any real estate, stocks, bonds, notes, automobiles or other valuable property (excluding ordinary household furnishings and clothing)?

___ Yes ___ No

If the answer is "yes," describe the property and state its approximate value.

5. List the persons who are dependent upon you for support, state your relationship to those persons, and indicate how much you contribute toward their support.

6. Have you ever filed an application fee waiver form in any other consistency appeal?

___ Yes ___ No

7. Have you retained an attorney to represent you?

___ Yes ___ No

I declare that the foregoing is true and correct.

Executed on _____ _____
Date Signature of Applicant

Address (include Zip Code) _____

_____

Telephone Number _____

SUBSCRIBED AND SWORN TO me the _____ day of ____ 19____.

_____
Notary Public or other officer authorized to administer oath

Done at Washington, DC, on September 23, 1991.

R.J. Pricha,

Acting Administrator, Food Safety and Inspection Service.

[FR Doc. 91-25060 Filed 10-17-91; 8:45 am]

BILLING CODE 3410-DM-M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

15 CFR Parts 928 and 932

[Docket No. 910815-1215]

RIN 0648-AD09

Implementing the Coastal Zone Act Reauthorization Amendments of 1990; Phase One

AGENCY: Office of Ocean and Coastal Resource Management (OCRM), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of Proposed Rulemaking (NPRM).

SUMMARY: This NPRM is issued to provide interested persons with an opportunity to contribute to the development of NOAA's regulations to implement certain provisions of Public Law 101-508, the Coastal Zone Act Reauthorization Amendments of 1990 (1990 Reauthorization), which amended the Coastal Zone Management Act (CZMA). Because of the large scope of the 1990 Reauthorization and the substantial rulemaking required to implement many of its new provisions, NOAA has decided to pursue a phased approach to the rulemaking. The first phase includes regulations to implement the new Coastal Zone Enhancement Grants Program (new section 309), revised procedures for conducting reviews of performance under section 312, and new authority for interim sanctions under section 312(c). Regulations for the Enhancement Grants Program are required by the 1990 Reauthorization within one year of enactment (or by November 5, 1991). The regulations will provide the procedures for NOAA and the coastal States to follow in awarding enhancement grants and carrying out reviews of performance, and the criteria that NOAA will apply in evaluating enhancement grant proposals and in deciding whether to invoke interim sanctions. Interested persons are invited to submit detailed written comments.

DATES: Comments must be received by December 2, 1991.

ADDRESSES: Submit comments concerning this Notice of Proposed Rulemaking to: Vickie A. Allin, Chief, Policy Coordination Division, Office of Ocean and Coastal Resource Management, NOS/NOAA, 1825 Connecticut Avenue NW., suite 701, Washington, DC 20235 (tel. 202/606-4100).

FOR FURTHER INFORMATION CONTACT: Vickie Allin or Dee Garner, Policy Coordination Division (202/606-4100).

SUPPLEMENTARY INFORMATION:

I. Authority

This Notice of Proposed Rulemaking is issued under the authority of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451-1464).

II. Availability of Comments

All comments submitted in response to this Notice of Proposed Rulemaking will be available during normal business hours 8 a.m.-4:30 p.m.) in suite 701, Universal South Building, 1825 Connecticut Avenue NW., Washington DC 20235.

III. Regulatory Issues

A. General Background

The Coastal Zone Management Act (CZMA) was enacted to encourage and assist coastal States and territories (States) in developing and implementing management programs to preserve, protect, develop and, where possible, restore or enhance the resources of our Nation's coast. On November 5, 1990, the President signed the Coastal Zone Act Reauthorization Amendments of 1990, which reauthorized the CZMA through FY 1995. The purpose of the reauthorization was to revitalize and strengthen the CZMA, particularly in the area of water quality. To do so, the reauthorization added several major new provisions, including:

- A new Coastal Nonpoint Pollution Control Program, which requires each coastal State with a federally approved coastal zone management (CZM) program to develop a program to be implemented through section 306 of the CZMA and section 319 of the Clean Water Act, to protect coastal waters from nonpoint source pollution. Program approval and oversight are shared between NOAA and the Environmental Protection Agency (EPA);
- A new enhancement grants program which encourages each coastal State to improve its CZM program in one or more of eight identified national priority areas: Coastal wetlands management and protection, natural hazards management (including potential sea and Great Lakes level rise), public improvements, reduction marine debris, assessment of cumulative and secondary impacts of coastal development, special area management planning, ocean resource planning, and siting of coastal energy and government facilities;
- A new "Coastal Zone Management Fund" (CZM Fund) consisting of Coastal Energy Impact Program loan repayments form which the Secretary of Commerce shall pay (subject to appropriations) for the Federal administrative costs of the program and fund special projects, emergency State assistance and other discretionary CZM activities;
- New requirements for expanded public participation opportunities in the program evaluation process and expedited production of final evaluation findings, and new authority to impose interim sanctions involving suspension of financial assistance for 6 to 36 months if a State or National Estuarine Research Reserve (Reserve) designated under section 315 of the CZMA is failing to adhere to its federally-approved program or management plan of the terms of financial assistance awards;
- A new requirement for the Secretary to provide technical assistance and management-oriented research to support development and implementation of State CZM programs;
- Authorization for NOAA to make annual achievement awards to individuals and local governments for outstanding accomplishments in the field of coastal zone management;
- Clarification of the scope of the CZMA's Federal consistency provisions, which state that Federal actions in or affecting the coastal zone must be consistent with federal-approved State coastal management programs, and overturning the Supreme Court's 1984 decision in *Secretary of the Interior* v. *California*, in which the Court held that OCS oil and gas lease sales were not subject to Federal consistency;
- Modifications to the National Estuarine Research Reserve System under 315 of the CZMA, including increasing the maximum amount of Federal financial assistance for land or water acquisition at an individual Reserve from $4M and $5M, and increasing the maximum Federal share of costs for managing Reserves and supporting educational activities from 50 to 70 percent;
- Reorganization and consolidation of CZM program approval requirements and other technical changes, including new statements of findings and purpose, new and revised policies and objectives,

and new and revised statutory definitions. Authority to make program development grants is reinstituted through FY 1993, and the significant improvement provisions of section 306(a) are deleted; and

• Addition of three new program approval requirements at section 306(d) (14), (15) and (16), dealing with public participation in permitting processes, consistency determinations and other similar decisions, providing a mechanism to ensure that all State agencies will adhere to the program, and requiring enforceable policies and mechanisms to implement the applicable requirements of the new Coastal Nonpoint Pollution Control Programs, respectively. The public participation and State agency adherence requirements must be met within 3 years of enactment. The enforceable policies for nonpoint source pollution must be met on the same schedule as the development of the Coastal Nonpoint Pollution Control Programs.

B. Approach to Rulemaking

Because of the substantial scope of these changes and the statutory requirement to develop regulations for the Coastal Zone Enhancement Grants Program within 12 months from the date of enactment of the 1990 Reauthorization, NOAA has decided to undertake a phased rulemaking. This will allow us to concentrate the necessary resources to meet the statutory deadline for the enhancement grants rulemaking, and also make necessary changes to the regulations on review of performance to implement the new procedures and interim sanctions in an equitable and consistent manner.

NOAA believes it is premature to undertake rulemaking on other aspects of the reauthorization. For example, NOAA needs more information before proceeding to rulemaking on program approvability requirements for the new nonpoint pollution control programs. This is because EPA must issue guidance on management measures for sources of nonpoint pollution on the basis of which States are to develop their programs. EPA has 18 months in which to develop this guidance. In addition, NOAA and EPA have joint approval authority for these programs. NOAA's regulations need to reflect agreement between NOAA and EPA on who will have authority to approve which parts of the program. Thus, rulemaking to implement the Coastal Nonpoint Pollution Control Program will be a later phase of the rulemaking process.

Similarly, NOAA will not proceed with rulemaking immediately to implement the new program approval requirements of section 306(d) (14), (15) and (16). This is because no State is required to meet these requirements until, at the earliest, 3 years from the date of enactment (or November 1993), and because the requirements of sections 306(d) (14) and (15) have been partially met already by existing State programs. NOAA will incorporate the requirements of sections 306(d) (14) and (15) into its program approval regulations and issue guidance to the States on meeting these requirements. The new requirement of section 306(d) (16) that State CZM programs contain enforceable policies to implement the new Coastal Nonpoint Pollution Control Programs will be incorporated into program approval regulations for these programs, when those regulations are developed.

The changes to the National Estuarine Research Reserve System (section 315 of the CZMA) are non-controversial conforming changes which will be included as a part of a separate rulemaking that will make other necessary clarifying changes to NOAA's existing section 315 regulations.

NOAA does not propose to issue regulations on the CZM Fund, the technical assistance program, or the CZM achievement awards at this time. Also, NOAA does not intend to revise its Federal consistency rules at this time. The changes to the Federal consistency provisions, except for overturning the Supreme Court's decision on outer continental shelf (OCS) oil and gas lease sales, merely codify NOAA's existing regulations. NOAA wishes to gain more experience with the new provisions, the issues likely to arise in their implementation, and the public and interagency concerns, before deciding how to address rulemaking on this subject.

Under the phased rulemaking approach described above, Phase I consists of:

(1) Regulations to implement the Coastal Zone Enhancement Grants Program (section 309 of the CZMA), required by statute within 12 months of enactment, and

(2) Regulatory revisions and new regulations to implement the procedural requirements and interim sanction provisions of section 312—Review of Performance.

C. Preliminary Comments

On February 22, 1991, OCRM distributed issue papers on the rulemaking for the Coastal Zone Enhancement Grants Program and Review of Performance to approximately 225 interested parties on a mailing list established for this rulemaking and maintained by OCRM. Thirty-eight comments were received. After considering these comments, NOAA has prepared this proposed rule.

D. Legislative Amendments and Issues to be Resolved Through Rulemaking—Phase I

1. Coastal Zone Enhancement Grants Program

The new Coastal Zone Enhancement Grants Program encourages each coastal State to improve its CZM program in one or more of eight identified areas. Beginning in FY 1991, the Secretary is authorized to make grants (not less than 10 percent and not more than 20 percent of the amounts appropriated under sections 306 and 306A, up to a maximum of $10,000,000 annually) to coastal States to provide funding for development and submission for Federal approval of program changes that support attainment of one or more coastal zone enhancement objectives. As part of this effort, the Secretary is required to evaluate and rank State proposals for funding, and make funding awards based on those proposals. The Secretary has the authority to suspend a State's eligibility for enhancement grant funding for at least one year, if the Secretary finds that the State is not undertaking the actions committed to under the terms of the enhancement grant.

NOAA must issue regulations relating to the new enhancement grants program within 12 months of enactment (by November 5, 1991). The regulations must establish: "(1) Specific and detailed criteria that must be addressed by a coastal State (including the State's priority needs for improvement as identified by the Secretary after careful consultation with the State) as part of the State's development and implementation of coastal zone enhancement objectives; (2) administrative or procedural rules or requirements as necessary to facilitate the development and implementation of such objectives by coastal States; and (3) other funding award criteria as are necessary or appropriate to ensure that evaluations of proposals, and decisions to award funding, under this section are based on objective standards applied fairly and equitably to those proposals."

Since the statute required NOAA to implement the new enhancement grants program immediately, NOAA adopted an interim approach for FY 1991. This allowed time for development of the statutorily-mandated regulations and identification of each State's priority needs for improvement with regard to

the coastal zone enhancement objectives. In FY 1991, NOAA set aside 10 percent of the funds allocated under section 318(a)(2) for section 309 purposes. These funds were allocated to States based on the formula and weighting factors at existing 15 CFR 927.1(c).

The process developed by NOAA for determining a State's priority needs has been set forth in NOAA guidance on "section 309 Assessments and Strategies," issued on May 10, 1991, or as amended. NOAA guidance is available from the Office of Ocean and Coastal Resource Management, Coastal Programs Division, Universal South Building, room 724, 1825 Connecticut Avenue, NW., Washington, DC 20235. Interested persons are invited to submit detailed written comments on the NOAA guidance as part of this proposed rule.

The process for determining a State's priority needs has two stages. First, each State will develop a public assessment document ("Assessment") that reviews each enhancement objective as it applies to the State and identifies the relative importance of each objective. Based on the Assessment, NOAA, after careful consultation with the State, will identify the priority needs for improvement in the State.

Once NOAA has identified the priority management issues, the second stage involves the development of a multi-year strategy ("Strategy"). The State, in consultation with NOAA, will propose a Strategy that will identify specific program changes that the State will seek to achieve in the identified priority areas. The Strategy must be approved by NOAA and will guide the development of the State's FY 1992 and subsequent year section 309 grant proposals.

The proposed regulations implementing the new Coastal Zone Enhancement Grants Program under section 309 of the CZMA, as amended, assume that a State has completed an Assessment and Strategy in accordance with NOAA guidance. The proposed regulations are set forth in 15 CFR part 932, replacing the regulations currently codified at 15 CFR part 932.

The proposed regulations at 15 CFR 932.1 set forth in the basic eligibility requirements for receiving financial assistance under section 309. The objectives of assistance under section 309(b), (c) and (d) are provided at proposed 15 CFR 932.2.

Section 309(b) authorizes the Secretary to make grants to coastal States to provide funding for development and submission for Federal approval of program changes that support attainment of one or more coastal zone enhancement objectives. The term "program change" is defined at proposed 15 CFR 932.3 to include State actions that change current management programs, such as the development of new or revised enforceable policies, authorities and State coastal land acquisition and management programs. Other key terms, such as "project of special merit," "fiscal needs" and "technical needs," are also defined at proposed 15 CFR 932.3.

Proposed regulations for allocating funds under section 309 are set forth at 15 CFR 932.4. Section 309(f) authorizes the Secretary to allocate not less than 10 percent and not more than 20 percent of the amounts appropriated under section 318(a)(2), up to a maximum of $10,000,000 annually. NOAA proposes to annually determine the amount of funds to be devoted to section 309, taking into account the amount appropriated under section 318(a)(2) of the CZMA, as amended.

NOAA proposes to award section 309 funds by: (1) Weighted formula and (2) individual review of projects of special merit. Projects proposed for funding under both categories are not State entitlements and, therefore, would be required to meet the identified criteria discussed below. NOAA would annually determine the proportion of available funds to be awarded to all eligible coastal States by weighted formula and the proportion to be awarded to eligible coastal States based on NOAA's review of individual project proposals of special merit.

Under the weighted formula approach, NOAA would establish State weighted formula funding targets. The weighted formula funding targets would be the State based allocation determined by operation of the formula at existing 15 CFR 927.1(c), multiplied by a weighting factor derived from NOAA's evaluation and ranking of the quality of the State's Strategy, as supported by the State's Assessment. The application of the weighting factor could result in a weighted formula funding target that is higher or lower than the State's base allocation.

NOAA proposes to award the remaining section 309 funds, which are not awarded by the weighted formula approach, based on an annual review of projects of special merit. NOAA would limit the funding of projects of special merit to the highest ranked proposals based on criteria set forth at proposed 15 CFR 932.(b).

Section 309 requires that the Secretary "evaluate and rank State proposals for funding." NOAA interprets the word "rank" to mean that a State's Strategy or project would be assigned a position or rank, relative to other State submissions, according to its satisfaction of the applicable criteria. NOAA anticipates that the ranking under the weighted formula approach could result in several ranking categories (so that some States would be assigned the same rank.)

This proposed allocation process would allow each coastal State that has a NOAA approved Assessment and Strategy to pursue an enhancements program, while at the same time provide incentive for States to develop and submit more aggressive proposals which commit to making the greatest improvements toward the coastal zone enhancement objectives.

The proposed regulations set forth the criteria for section 309 project selection at 15 CFR 932.5. States would be required to meet minimum criteria for projects that would be funded by weighted formula. For projects of special merit, States would be required to meet both minimum criteria and additional criteria that include the merit of the project. NOAA would evaluate and rank projects of special merit using a point system. Following the first year of funding under this Part, NOAA would consider a State's past performance in assessing the merit of the State's individual project proposals.

The proposed regulations also set forth pre-application procedures for financial assistance under section 309 at 15 CFR 932.6. States would be expected annually to consult with the Assistant Administrator or his/her designee and to submit a pre-proposal on a schedule to be determined by the Assistant Administrator of his/her designee. The pre-proposal would include information on the section 309 projects the State proposes for funding during the next fiscal year.

The procedures for submission of formal applications and for reviewing and approving projects under section 309 are set forth at proposed 15 CFR 932.7. Applications for financial assistance under section 309 will be included with applications for financial assistance under Subpart J of existing 15 CFR Part 923. States would be notified of their section 309 awards at the same time that they are notified of their section 306/306A awards.

The proposed regulations set forth the procedures for revising a State's Assessment and Strategy at 15 CFR 932.8. States would be required to submit proposed revisions to the Assistant Administrator prior to the initiation of the contemplated change. Based on the extent to which the

proposed revision(s) change the original scope of the State's Strategy, the Assistant Administrator could require the State to provide public review and comment on the proposed revision(s) in accordance with NOAA guidance.

C. Review of Performance (Program Evaluation)

Section 312 of the CZMA requires a continuing review of the performance of coastal States with respect to coastal management, and detailed written findings on the extent to which the State has implemented and enforced the program approved by the Secretary, addressed the coastal management needs of section 303(2)(A) through (K), and adhered to the terms of any grant or cooperative agreement. Section 312 further requires that a public meeting be conducted as part of each evaluation and that opportunity be provided for oral and written comment by the public. Evaluation reports must be issued following each review of State performance.

The 1990 Reauthorization mandated changes to the procedures for carrying out evaluations of State coastal management programs and national estuarine research reserves. (Any changes to procedures for evaluation of estuarine reserves will be included as a part of a separate rulemaking to revise NOAA's section 315 regulations.) These changes require: A 45 day notice for public meetings, written response to all written comments on the evaluation, and completion of the final evaluation report within 120 days after the last public meeting held in the State. The 1990 Reauthorization also authorized new interim sanctions (section 312(c)) which provide for suspension and redirection of any portion of financial assistance awards to State coastal management programs or estuarine reserves if the State if failing to adhere to its approved program or reserve management plan, or a portion of the program or plan. Final sanction provisions at section 312(d) now require the Secretary to withdraw program approval and financial assistance if the State fails to take the actions required under section 312(c).

The basic requirements for review of performance are set forth at existing 15 CFR Part 928. They define key terms, such as "continuing review," and provide that evaluations will be conducted in the course of continuing reviews and that written findings will be prepared. These proposed regulations would revise existing 15 CFR 928.4(b)(2) to require that notice of public meeting(s) be provided at least 45 days in advance. They would revise existing 15 CFR 928.3(b)(7) to require that final findings be completed within 120 days of the last public meeting in the State and that copies of the final findings document be sent to all persons and organizations who write, attend a public meeting, or are interviewed during the evaluation. Persons who attend a public meeting or are interviewed during an evaluation would be asked to complete a card or sign-in sheet containing their name and address and indicating a desire to receive the final findings. A new proposed regulation has been added at existing 15 CFR 928.3(b)(8) requiring that all final findings documents contain a section which specifically identifies, summarizes and responds to the written comments received during the evaluation process.

In addition, NOAA has determined that two of the statutory changes to section 312(b)—namely, the requirement to respond in writing to all written comments received and the requirement to complete the evaluation within 120 days of the last public meeting—will increase the workload associated with the evaluation process. Therefore, NOAA is proposed in two discretionary changes to the procedures on review of performance to make the increased workload manageable.

First, NOAA proposes to revise the definition of "continuing review" at existing 15 CFR 928.2(a) to state that evaluations of State coastal management programs would be conducted and written findings prepared at least once every three years, rather than at least once every two years as currently provided. (NOAA's estuarine reserve regulations at existing 15 CFR 922.40(b) already provide for evaluation of estuarine reserves at least once every three years.) The phrase "but not more than once every year" would be deleted, so as not to restrict unnecessarily NOAA's flexibility to conduct issue or problem specific evaluations, as described below.

Second, because NOAA recognizes that significant changes can occur in three years, NOAA is proposing a new regulation at existing 15 CFR 928.3(b)(9) providing for issue or problem specific evaluations to be conducted between scheduled evaluations. These issue or problem specific evaluations would serve two principle purposes: (1) To follow-up on potentially serious problems or issues identified in the most recent scheduled evaluation, or (2) to evaluate evidence of potentially serious problems or issues that may arise during the day-to-day monitoring of State/Reserve performance of grant tasks and other program implementation activities in the interim between scheduled evaluations. These issue or problem specific evaluations would still be subject to the public participation and other minimum requirements of section 312.

The proposed regulations set forth the process for invoking interim sanctions at existing 15 CFR 928.5(a). The proposed regulations replace the old regulations on reduction of financial assistance for failure to make significant improvements, which were deleted because the significant improvement provisions were deleted in the 1990 Reauthorization. The proposed process for invoking interim sanctions would include notice to the State and opportunity to comment on and rebut the finding of non-adherence on which the sanctions are based before any action is taken. Indicators of non-adherence would be provided to inform States of what NOAA expects and on what basis interim sanctions might be invoked.

Implementing the statutory changes to section 312(d) requires some revision of NOAA's regulations at existing 15 CFR 928.5(b) on Withdrawal of Program Approval and Financial Assistance. The proposed revisions would delete references to "unjustifiable deviation," which have been removed from the statute, and replace them with the requirement that the Assistant Administrator would withdraw program approval and financial assistance if he/she finds that a State has failed to take the actions required under the interim sanction provisions of section 312(c).

IV. Other Actions Associated with the Notice of Proposed Rulemaking

A. Executive Order 12291: Regulatory Impact Analysis

Executive Order 12291 requires each Federal agency to determine if a regulation is a "major" rule as defined by the Order and, "to the extent permitted by law," to prepare and consider a Regulatory Impact Analysis (RIA) in connection with every major rule. NOAA has concluded that this is not a "major" regulatory action, as defined by the Executive Order, because it will not result in:

(1) An annual effect on the economy of $100 million or more;

(2) A major increase in costs or prices for consumers, individual industries, Federal, state or local government agencies, or geographic regions; or

(3) Significant adverse effects on competition, employment, investment, productivity, innovation or on the ability of United States-based enterprises to

complete with foreign-based enterprises in domestic or export markets.

The proposed rules would provide for enhancement of State CZM programs in eight national objective areas and will improve the evaluation of their performance. The proposed rules only serve to strengthen the framework for making rational coastal management decisions and will not result in any major direct or indirect economic or environmental impacts. Therefore, preparation of an RIA is not required.

B. Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act (RFA) requires Federal agencies to consider explicitly the effect of regulations on "small entities." A Regulatory Flexibility Analysis was not prepared for this regulatory action. This proposed rule sets forth procedures for the Coastal Zone Enhancement Grants Program and review of performance. The proposed rules affect only State governments, which are not "small government entities," as defined by the RFA. Accordingly, the General Counsel of the Department has certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities, and therefore, a regulatory flexibility analysis, as defined under the Regulatory Flexibility Act of 1980 (5 U.S.C. chapter 6), is not required.

C. Paperwork Reduction Act

The Paperwork Reduction Act is intended to minimize the reporting burden on the regulated community as well as minimize the cost of Federal information collection and dissemination. Information requirements of section 312—Review of Performance—embody existing procedures and would not constitute any increase inn reporting on the part of any affected party.

The proposed rule to implement section 309—Coastal Zone Enhancement Grants—contains a collection of information requirement subject to the Paperwork Reduction Act. This collection of information requirement is a one-time requirement for Assessments of State priority needs for improvement in the eight national priority areas and Strategies for making those improvements and is necessary to implement section 309(d) of the CZMA, as amended, which requires the Secretary of Commerce to identify each State's priority needs for improvement, after careful consultation with the States. These Assessments and Strategies would replace an existing reporting requirement (Part C of the annual performance report) for FY 1991. Therefore, the paperwork burden has been minimized.

In addition, States would be required to provide pre-proposals containing their proposed enhancement grant projects annually in April of each year, in order that NOAA may carry out the individual evaluation and ranking of proposals required by statute and provide States with timely information on approved projects to include in their joint section 306/306A/309 financial assistance award applications. This procedure for pre-proposals would replace a similar procedure for interstate grants, authorization for which was repealed in the Coastal Zone Act Reauthorization Amendments of 1990.

Public reporting burden for this collection is estimated to average 480 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information, and developing the Assessments and Strategies.

A request to collect this information has been submitted to the Office of Management and Budget for review under section 3504(h) of that Act. Comments from the public on the collection of information requirements contained in the proposed rule are specifically invited and should be addressed to: Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20530, Attn: Desk Officer for the Department of Commerce.

D. National Environmental Policy Act (NEPA)

NOAA has determined that this regulatory action, if adopted, would not significantly affect the quality of the human environment. Therefore, an environmental assessment or environmental impact statement will not be prepared.

E. Executive Order 12612

This rule does not contain policies with Federalism implications sufficient to warrant preparation of a Federalism assessment under E.O. 12612.

List of Subjects

15 CFR Part 928

Administrative practice and procedure, Coastal zone, Grant programs-natural resources, and Natural resources.

15 CFR Part 932

Coastal zone, Grant programs-natural resources, Natural resources, and Reporting and recordkeeping requirements.

Accordingly, NOAA proposes to amend 15 CFR Chapter IX as set forth below.

PART 928.—REVIEW OF PERFORMANCE

1. The authority citation for Part 928 is revised to read as follows:

Authority: Section 312 of the Coastal Zone Management Act, as amended (16 U.S.C. 1458).

2. Section 928.1 is revised to read as follows:

§ 928.1 General.

This part sets forth the requirements for review of approved State coastal zone management (CZM) programs pursuant to section 312 of the Act (16 U.S.C. 1458). This part defines "continuing review" and other important terms, and sets forth the procedures for:

(a) Conducting continuing reviews of approved State CZM programs;

(b) Providing for public participation;

(c) Invoking interim sanctions for non-adherence to an approved coastal zone management program or a portion of such program; and

(d) Withdrawing program approval and financial assistance.

3. Section 928.2 is amended by revising paragraphs (a), (c), (d), and (g) to read as follows:

§ 928.2 Definitions.

(a) *Continuing review* means monitoring State performance on an ongoing basis. As part of the continuing review, evaluations of approved CZM programs will be conducted and written findings will be produced at least once every three years.

* * * * *

(c) *Interim sanction* means suspension and redirection of any portion of financial assistance extended to any coastal State under 16 U.S.C. 1451–1464, if the Secretary determines that the coastal State is failing to adhere to the management program or a State plan developed to manage a national estuarine reserve, or a portion of the program or plan approved by the Secretary, or the terms of any grant or cooperative agreement funded under 16 U.S.C. 1451–1464.

(d) *Approved CZM program* means those elements of the program approved by the Secretary, under 15 CFR Part 923 (Development and Approval Provisions),

including any changes to those elements made by approved amendments and routine program implementation.

* * * * *

(g) *Assistant Administrator* means the Assistant Administrator for Ocean Services and Coastal Zone Management, or the NOAA Official responsible for directing the Federal Coastal Zone Management Program.

4. Section 928.3 is amended by revising the section heading, paragraphs (a), (b)(7), (c)(1)(ii), (c)(3) introductory text, and (c)(3)(iii); and by adding paragraphs (b) (8) and (9) to read as follows:

§ 928.3 Procedure for conducting continuing reviews of approved State CZM programs.

(a) As required by section 312(a) of the Act, the Secretary shall conduct a continuing review of the performance of coastal States with respect to coastal management. Each review shall include a written evaluation with an assessment and detailed findings concerning the extent to which the State has implemented and enforced the program approved by the Secretary, addressed the coastal management needs identified in section 303(2)(A) through (K) (16 U.S.C. 1452), and adhered to the terms of any grant, loan, or cooperative agreement funded under 16 U.S.C. 1451–1464.

(b) * * *

(7) The Assistant Administrator will issue final findings to the State CZM program manager and the head of the State CZM agency within 120 days of the last public meeting in the State. Copies of the final findings will be sent to all written commentors and to persons and organizations who participated in the evaluation, and who complete a card or sign-in sheet provided by the evaluation team indicating that they wish to receive the final findings. Notice of the availability of the final findings will also be published in the **Federal Register**.

(8) The final findings will contain a section entitled "Response to Written Comments." This section will include a summary of all written comments received during the evaluation and NOAA's response to the comments. If appropriate, NOAA's response will indicate whether NOAA agrees or disagrees with the comment and how the comment has been addressed in the final findings.

(9) The Assistant Administrator may conduct issues or problem-specific evaluations between scheduled evaluations of approved State CZM programs. If the Assistant Administrator conducts an issue or problem specific evaluation, he/she will comply with the procedures and public participation requirements of 15 CFR 928.3 and 928.4.

(c) * * *

(1) * * *

(ii) Addressed the coastal management needs identified in section 303(2)(A)–(K); and

* * * * *

(3) Procedure for assessing how the State has addressed the coastal management needs identified in section 303(2)(A)–(K). The assessment of the extent to which the State has addressed the coastal management needs identified in section 303(2)(A)–(K) will occur as follows:

* * * * *

(iii) The findings concerning how the State has addressed the coastal management needs of section 303 will be used by the Assistant Administrator in negotiating the next financial assistance award.

* * * * *

5. Section 928.4 is amended by revising paragraphs (a), (b)(2), and (b)(3) to read as follows:

§ 928.4 Public participation.

(a) As required by section 312(b) of the Act, in evaluating a coastal State's performance, the Secretary shall conduct the evaluation in an open and public manner, and provide full opportunity for public participation, including holding public meetings in the State being evaluated and providing opportunities for the submission of written and oral comments by the public. The Secretary shall provide the public with at least 45 days notice of such public meetings by placing a notice in the **Federal Register**, by publication of timely notices in newspapers of general circulation within the State being evaluated, and by communications with persons and organizations known to be interested in the evaluation. Each evaluation shall be prepared in report form and shall include written responses to the written comments received during the evaluation process.

(b) *Requirements.* (1) * * *

(2) Each State will issue a notice of the public meeting(s) in its evaluation by placing a notice in the newspaper(s) of largest circulation in the coastal area where the meeting(s) is being held and by taking other reasonable action to communicate with persons and organizations known to be interested in the evaluation, such as sending a notice of the meeting(s) to persons on its mailing list and publishing a notice in its newsletter, at least 45 days before the date of the public meeting(s). The State will provide a copy of such notice to the Assistant Administrator. States are encouraged to republish the newspaper notice at least 15 days before the date of the public meeting(s). The State will inform the public that oral or written comments will be accepted and that attendance at the public meeting(s) is not necessary for submission of written comments.

(3) Notice of the availability of final findings will be published in the **Federal Register**. The notice will state that copies of the final findings will be available to the public upon written request. Copies of the final findings will be sent to persons and organizations who participated in the evaluation, in accordance with 15 CFR 928.3(b)(7).

6. Section 928.5 is amended by revising paragraphs (a), (b)(1), and (b)(2)(i) and (iii) to read as follows:

§ 928.5 Enforcement.

(a) *Procedures and criteria for invoking and lifting interim sanctions.* (1) As required by section 312(c) of the Act:

(i) The Secretary may suspend payment of any portion of financial assistance extended to any coastal State, and may withdraw any unexpended portion of such assistance, if the Secretary determines that the coastal State is failing to adhere to—

(A) The management program or a State plan developed to manage a national estuarine reserve established under section 315 of the Act (16 U.S.C. 1461), or a portion of the program or plan approved by the Secretary; or

(B) The terms of any grant or cooperative agreement funded under 16 U.S.C. 1451–1464.

(ii) Financial assistance may not be suspended under paragraph (a)(1)(i) of this section unless the Secretary provides the Governor of the coastal State with—

(A) Written specifications and a schedule for the actions that should be taken by the State in order that such suspension of financial assistance may be withdrawn; and

(B) Written specifications stating how those funds from the suspended financial assistance shall be expended by the coastal State to take the actions referred to in paragraph (a)(1)(ii)(A) of this section.

(iii) The suspension of financial assistance may not last for less than 6 months or more than 36 months after the date of suspension.

(2) *Requirements.* (i) The Assistant Administrator will identify the need for interim sanctions through the continuing review process. The Assistant Administrator will use the criteria at 15

CFR 928.5(a)(3) in determining when to invoke interim sanctions.

(ii) The Assistant Administrator will issue the State a preliminary finding of non-adherence with the approved CZM program, or a portion thereof, and/or with a term or terms of a grant or cooperative agreement. This preliminary finding of non-adherence may be contained in the draft evaluation findings, or in a preliminary notification letter to the State CZM program manager. If the preliminary finding is contained in a preliminary notification letter, the Assistant Administrator will comply with the applicable public participation requirements of section 312(b) and NOAA's regulations at § 928.4. The draft evaluation findings or preliminary notification letter containing a preliminary finding of non-adherence will explain that if the finding of non-adherence is issued, the State is subject to suspension of financial assistance and, if the State fails to take the actions specified pursuant to section 312(c) and this part, to withdrawal of program approval and financial assistance.

(iii) The State will be given 30 days from receipt of the draft evaluation findings or preliminary notification letter to comment on and rebut the preliminary finding of non-adherence. During this 30 day period, the State may request up to 15 additional days to respond, for a maximum of 45 days from receipt of the draft evaluation findings or preliminary notification letter.

(iv) After considering the State's comments, the Assistant Administrator will decide whether or not to issue a final finding of non-adherence. If the Assistant Administrator decides to issue a final finding of non-adherence, he/she will do so in the final evaluation findings issued pursuant to section 312(b) or in a final notification letter as provided by paragraph (a)(2)(ii) of this section. The Assistant Administrator may invoke interim sanctions provided by section 312(c) immediately or at any time after issuing the final evaluation findings or final notification letter containing the finding of non-adherence, but not later than the next regularly scheduled evaluation.

(v) If the Assistant Administrator decides to invoke interim sanctions, he/she will do so in a letter to the Governor of the State and the State CZM program manager. The letter will contain the information required in section 312(c)(2)(A) and (B). This information will include the amount of financial assistance to be suspended and redirected, the actions the State should take in order to have the suspension withdrawn, how the suspended funds shall be expended to take the required actions, and a schedule for taking the required actions. The letter will also contain the length of the suspension, which may not last for less than 6 months or more than 36 months. The Assistant Administrator will establish he length of the suspension based on the amount of time that is reasonably necessary for the State to take the required actions. If the State can take the required actions faster than expected, the suspension can be withdrawn early (but not in less than six months).

(vi) The State must respond to the final notification letter by developing a proposed work program to accomplish the required actions on the schedule set forth in the final notification letter. The State may propose an alternative approach to accomplishing the required actions and/or an alternative schedule. The Assistant Administrator's approval of the State's work program will signify his/her agreement with the approach and schedule for accomplishing the actions necessary to withdraw the suspension.

(vii) The Assistant Administrator will monitor State performance under the work program. This may involve additional direction to the State through the grant administration process and/or a visit to the State by appropriate NOAA program staff, evaluation staff and/or other experts to work with the State on a specific problem or issue. The Assistant Administrator will consider proposals to revise the work program on a case-by-case basis, providing that the State will still be able to accomplish the necessary actions within a maximum of 36 months.

(viii) The State must document that it has taken the required actions on the schedule established under this section. The State must provide its documentation in writing to the Assistant Administrator. The Assistant Administrator may conduct a follow-up evaluation or otherwise revisit the State at his/her discretion.

(ix) If the Assistant Administrator determines that the required actions have been taken, the Assistant Administrator will promptly notify the Governor and the State program manager, in writing, the NOAA has withdrawn the suspension of financial assistance. If, however, the State does not take the required actions, then the Assistant Administrator will invoke the final sanction provisions of section 312(d) on program termination and withdrawal of all financial assistance.

(3) *Criteria for invoking interim sanctions.* (i) The Assistant Administrator may consider the following indicators of non-adherence to an approved State CZM program in determining whether to invoke interim sanctions.

(A) Ineffective or inconsistent implementation of legally enforceable policies included in the CZM program. Indicators of ineffective or inconsistent implementation could include: evidence of non-compliance with core authorities by the regulated community; insufficient monitoring and inspecting of coastal development to ensure that it conforms to program requirements and applicable conditions; or inadequate enforcement action when development is found not to be in compliance with the program or permit under which it is authorized or is found to be an unpermitted activity.

(B) Inadequate monitoring of the actions of State and local agencies for compliance with the program. Indicators of inadequate monitoring of these agencies could include: evidence of noncompliance of networked agencies with the CZM program, unresolved conflicts between agencies regarding what constitutes compliance with the program, or lack of a mechanism to ensure that all State agencies will adhere to the program or to approved local coastal programs pursuant to NOAA's regulations at 15 CFR 923.40 and new section 306(d)(15).

(C) Non-compliance of local coastal programs with the approved State program. Indicators of non-compliance could include: local permitting or zoning decisions that are inconsistent with State standards or criteria, widespread granting of variances such as to render a zoning program ineffective in meeting State standards or criteria, changes to local comprehensive plans or zoning maps that are inconsistent with State standards or criteria, or inadequate monitoring and enforcement, as described in paragraph (a)(3)(i)(A) of this section.

(D) Ineffective implementation of Federal consistency authority. Indicators of ineffective implementation could include: not reviewing Federal activities, Federal licenses and permits, including offshore oil and gas exploration and development, and Federal financial assistance to State and local governments for consistency with the approved CZM program or employing review procedures that are not in accordance with State and 15 CFR part 930.

(E) Inadequate opportunity for intergovernmental cooperation and public participation in management program implementation. Indicators of inadequate opportunity could include: not carrying out procedures necessary to insure adequate consideration of the

national interest in facilities which are necessary to meet requirements which are other than local in nature, not implementing effectively mechanisms for continuing consultation and coordination, not providing required notice that a management program decision would conflict with a local zoning ordinance, decision or other action, or (after November 5, 1993) not providing opportunities for public participation in permitting processes, consistency determinations and other similar decisions pursuant to new section 306(d)(14).

(F) Non-adherence to the terms of a grant or cooperative agreement, including the schedule for funded activities. The Assistant Administrator will also consider the extent to which priorities for expenditure of Federal funds reflect an appropriate priority for activities necessary to implement and enforce core program authorities effectively.

(G) Not submitting changes to the approved program for Federal approval in a timely fashion or developing and implementing changes to the approved program without Federal approval which are inconsistent with the Act or the approved program or which result in a reduced level of protection of coastal resources.

(ii) The Assistant Administrator may consider whether an indication of non-adherence is of recent origin (in which case the State may be given a reasonable opportunity to correct it) or has been repeatedly brought to the State's attention without corrective action in determining whether to invoke interim sanctions.

(b) *Withdrawal of program approval and financial assistance.* (1) As required by section 312(d) and 312(e) of the Act:

(i) The Secretary shall withdraw approval of the management program of any coastal State and shall withdraw financial assistance available to that State under 16 U.S.C. 1451–1464 as well as any unexpended portion of such assistance, if the Secretary determines that the coastal State has failed to take the actions referred to in paragraph (a)(1)(i)(A) of this section.

(ii) Management program approval and financial assistance may not be withdrawn under paragraph (b)(1)(i) of this section, unless the Secretary gives the coastal State notice of the proposed withdrawal and an opportunity for a public hearing on the proposed action. Upon the withdrawal of management program approval under paragraph (b)(1)(i) of this section, the Secretary shall provide the coastal State with written specifications of the actions that should be taken, or not engaged in, by the State in order that such withdrawal may be canceled by the Secretary.

(2) *Requirements.* (i) If the Assistant Administrator determines that the State has not taken the actions required in § 928.5(a)(2), the Assistant Administrator will provide the Governor and the State CZM program manager with written notice of this finding and NOAA's obligation to withdraw program approval and financial assistance under 16 U.S.C. 1451–1464. The State will be given 30 days from receipt of this notice to respond with evidence that it has taken the actions specified pursuant to § 928.5(a)(2). During this 30 day period, the State may request up to 30 additional days to respond, for a maximum of 60 days from receipt of notice.

(ii) * * *

(iii) If the State does not request a public hearing or submit satisfactory evidence that it has taken the actions specified pursuant to § 928.5(a)(2) within 30 days of publication of this notice, and the Assistant Administrator determines that the State has failed to take the actions specified pursuant to § 928.5(a)(2), the Assistant Administrator will withdraw program approval and financial assistance and will notify the State in writing of the decision and the reasons for it. The notification will set forth actions that must be taken by the State which would cause the Assistant Administrator to cancel the withdrawal.

* * * * *

7. Part 932 is revised to read as follows:

PART 932—COASTAL ZONE ENHANCEMENT GRANTS PROGRAM

Sec.
932.1 General.
932.2 Objectives.
932.3 Definitions.
932.4 Allocation of section 309 funds.
932.5 Criteria for section 309 project selection.
932.6 Pre-application procedures.
932.7 Formal application for financial assistance and application review and approval procedures.
932.8 Revisions to assessments and strategies.

Authority: Section 309 of the Coastal Zone Management Act, as amended (16 U.S.C. 1456).

§ 932.1 General.

(a) The purpose of this part is to set forth the criteria and procedures for awarding coastal zone enhancement grants under section 309 of the Coastal Zone Management Act, as amended (16 U.S.C. 1456). This part describes the criteria States must address in developing and implementing coastal zone enhancement objectives, the procedures for allocating section 309 funds between weighted formula and individual review of proposals of special merit, how the amount of section 309 weighted formula grants will be determined, the criteria NOAA will use to evaluate and rank individual proposals of special merit, and the procedures for applying for financial assistance under section 309.

(b) A coastal State with an approved program under section 306 of the Coastal Zone Management Act (CZMA), as amended (16 U.S.C. 1455), is eligible for grants under this part if the State meets the following requirements:

(1) The State must have a NOAA approved Assessment and Strategy, submitted in accordance with NOAA guidance and § 932.8;

(2) The State must be found to be adhering to its approved program and must be making satisfactory progress in preforming grant tasks under section 306; and

(3) The State must be making satisfactory progress in carrying out its previous year's award under section 309.

(c) All applications for funding under section 309 of the CZMA, as amended, including proposed work programs, funding priorities and funding awards, are subject to the administrative discretion of the Assistant Administrator and any additional NOAA guidance.

(d) Grants awarded under section 309 may be used to support up to 100 percent of the allowable costs of projects under section 309 of the CZMA, as amended.

(e) All application and pre-proposal application forms are to be requested from and submitted to: National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resource Management, Coastal Programs Division, 1825 Connecticut Avenue, NW., Suite 724, Washington, DC 20235.

§ 932.2 Objectives.

(a) The objective of assistance under this part is to encourage each State with a federally-approved coastal management program to continually improve its program in specified areas of national importance. The Secretary is authorized to make grants to a coastal State for the development and submission for Federal approval of program changes that support attainment of one or more coastal zone enhancement objectives.

(b) As required by section 309(a) of the Act, for purposes of this part, the

term "coastal zone enhancement objective" means any of the following objectives:

(1) Protection, restoration, or enhancement of the existing coastal wetlands base, or creation of new coastal wetlands.

(2) Preventing or significantly reducing threats to life and destruction of property be eliminating development and redevelopment in high-hazard areas, managing development in other hazard areas, and anticipating and managing the effects of potential sea level rise and Great Lakes level rise.

(3) Attaining increased opportunities for public access, taking into account current and future public access needs, to coastal areas of recreational, historical, aesthetic, ecological, or cultural value.

(4) Reducing marine debris entering the Nation's coastal and ocean environment by managing uses and activities that contribute to the entry of such debris.

(5) Development and adoption of procedures to assess, consider, and control cumulative and secondary impacts of coastal growth and development, including the collective effect on various individual uses or activities on coastal resources, such as coastal wetlands and fishery resources.

(6) Preparing and implementing special area management plans for important coastal areas.

(7) Planning for the use of ocean resources.

(8) Adoption of procedures and enforceable policies to help facilitate the siting of energy facilities and Government facilities and energy-related activities and Government activities which may be of greater than local significance.

§ 932.23 Definitions.

(a) *Program change* means "routine program implementation" as defined in 15 CFR 923.84 and "amendment" as defined in 15 CFR 923.80, and includes the following:

(1) A change to coastal zone boundaries that will improve a State's ability to achieve one or more of the coastal zone enhancement objectives.

(2) New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement/understanding, that will improve a State's ability to achieve one or more of the coastal zone enhancement objectives.

(3) New or revised local coastal programs and implementing ordinances that will improve a State's ability to achieve one or more of the coastal zone enhancement objectives.

(4) New or revised coastal land acquisition, management and restoration program that improve a State's ability to attain one or more of the coastal zone enhancement objectives.

(5) New or revised Special Area Management Plans or plans for Areas of Particular Concern (APC), including enforceable policies and other necessary implementing mechanisms or criteria and procedures for designating and managing APCs that will improve a State's ability to achieve one or more of the coastal zone enhancement objectives.

(6) New or revised guidelines, procedures and policy documents which are formally adopted by a State and provide specific interpretations of enforceable CZM policies to applicants, local governments and other agencies that will result in meaningful improvements in coastal resource management and that will improve a State's ability to attain one or more of the coastal zone enhancement objectives.

(b) *Assessment* means a public document, prepared by a State and approved by NOAA in accordance with guidance on Assessments and Strategies issued by NOAA (hereafter referred to as the guidance[1]), that identifies the State's priority needs for improvement with regard to the coastal zone enhancement objectives. The Assessment determines the extent to which problems exist with regard to each of the coastal zone enhancement objectives and the effectiveness of current efforts to address those problems. The Assessment includes the factual basis for NOAA and the States to determine the priority needs for improvement of management programs in accordance with this part.

(c) *Strategy* means a comprehensive, multi-year statement of goals and the methods for their attainment, prepared by a State in accordance with NOAA guidance and these regulations and approved by NOAA, that sets forth the specific program changes the State will seek to achieve in one or more of the coastal zone enhancement objectives. The Strategy will address only the issue(s) identified in a State's Assessment as a priority need and will include specific tasks and milestones, as appropriate.

[1]NOAA guidance is available from the Office of Ocean and Coastal Resource Management, Coastal Program Division, Universal South Building, room 724, 1825 Connecticut Avenue, NW., Washington, DC 20235.

(d) *Project of Special Merit* means a project which NOAA will evaluate and rank based on the criteria at § 932.5(b).

(e) *Fiscal needs* means the extent to which a State must rely solely on Federal funds to complete a project under section 309 because State funds are not otherwise available.

(f) *Technical needs* means the extent to which a State lacks trained personnel or equipment or access to trained personnel or equipment to complete a project under section 309.

(g) *Assistant Administrator* means the Assistant Administrator for Ocean Services and Coastal Zone Management, or the NOAA Official responsible for directing the Federal Coastal Zone Management Program.

§ 932.4 Allocation of section 309 funds.

(a) (1) As required by section 309(e) of the Act, a State will not be required to contribute any portion of the cost of any proposal for which funding is awarded under this section.

(2) As required by section 309(f) of the act, beginning in fiscal year 1991, not less than 10 percent and not more than 20 percent of the amounts appropriated to implement sections 306 and 306A of the act shall be retained by the Secretary for use in implementing this section, up to a maximum of $10,000,000 annually.

(b) The Assistant Administrator will annually determine the amount of funds to be devoted to section 309, which shall be not less than 10 percent nor more than 20 percent of the total amount appropriated under section 318(a)(2) of the Coastal Zone Management Act, as amended (16 U.S.C. 1464), taking into account the total amount appropriated under section 318(a)(2). The total amount of funds to be devoted to section 209 shall not exceed $10,000,000 annually.

(c) Of the total amount determined in paragraph (b) of this section, the Assistant Administrator will annually determine the proportion to be awarded to eligible coastal States by weighted formula and the proportion to be awarded to eligible coastal States for projects of special merit. This determination will take into account the total amount appropriated under section 318(a)(2) of the CZMA, as amended.

(d) *Weighted formula funding.* (1) A weighted formula funding target will be determined for each State that meets the eligibility requirements at § 932.1(b). The weighted formula funding target will be the State base allocation determined by the operation of the formula at 15 CFR 927.1(c), multiplied by a weighting factor derived from the

Assistant Administrator's evaluation and ranking of the quality of the State's Strategy, as supported by the State's Assessment. The application of the weighting factor may result in a weighted formula funding target that is higher or lower than the State's base allocation. Each State's weighted formula funding target will be adjusted to reflect the funds available.

(2) The Assistant Administrator will determine each State's weighting factor based on an evaluation and ranking of the State's Strategy that takes into consideration the following:

(i) The scope and value of the proposed program change(s) contained in the Strategy in terms of improved coastal resource management;

(ii) The technical merits of the Strategy in terms of project design and cost effectiveness; and

(iii) The likelihood of success that the State will have in attaining the proposed program change(s), including an evaluation of the State's past performance and support for the Strategy.

(3) Each State will be notified individually of its weighting factor, the reasons for assigning this weighting factor, and any changes thereto. In consultation with the Assistant Administrator, a State may choose to make substantive changes to its approved Assessment and Strategy to improve its weighting factor, in accordance with the procedures at § 932.8.

(4) The Assistant Administrator may establish minimum and maximum weighted formula funding targets under § 932.4(d).

(e) *Funding for projects of special merit.* The Assistant Administrator will award the remaining section 309 funds, which are not awarded under § 932.4(d), to States based on an annual evaluation and ranking of projects of special merit, as defined in § 932.3(d). Funding of projects of special merit will be limited to the highest ranked projects based on the criteria at § 932.5(b).

(f) The Assistant Administrator will notify each State annually of the total amount of funds to be devoted to section 309 pursuant to § 932.4(b), the proportion to be awarded by weighted formula pursuant to § 932.4(c), the State's weighted formula funding target pursuant to § 932.4(d), and the total amount of funds available for funding for projects of special merit pursuant to § 932.4(e).

§ 932.5 Criteria for section 309 project selection.

(a) *Section 309 criteria for weighted formula funding.* (1) For those projects that will be funded by weighted formula, the Assistant Administrator will determine that:

(i) The project is consistent with the State's approved Assessment and Strategy and advances the attainment of the objectives of the Strategy;

(ii) Costs are reasonable and necessary to achieve the objectives of both the project and the Strategy. Allowability of costs will be determined in accordance with the provisions of OMB Circular A-87: Cost Principles for State and Local Governments; [2]

(iii) The project is technically sound;

(iv) The State has an effective plan to ensure proper and efficient administration of the project; and

(v) The State has submitted the required project information as specified in § 932.6(b)(1).

(2) In reviewing projects that will be considered under the weighted formula, the Assistant Administrator will take into consideration the fiscal and technical needs of proposing States and the overall merit of each proposal in terms of benefits to the public.

(b) *Section 309 criteria for evaluation and ranking of projects of special merit.* (1) The Assistant Administrator will evaluate and rank State funding proposals of special merit which may be funded under § 932.4(e).

(2) In addition to meeting the criteria in paragraph (a)(1) of this section, proposals will be evaluated and ranked under this subsection using the following criteria:

(i) *Merit.* (90 points) The Assistant Administrator will review each application to determine the following:

(A) Degree to which the project significantly advances the program improvements and leads to a program change identified in the State's Strategy. In making this determination, the Assistant Administrator may consider the weighting factor derived from the evaluation of the quality of the State's Strategy, as supported by the State's Assessment, relative to the weighting factors assigned to other eligible States;

(B) Overall benefit of the project to the public;

(C) innovativeness of the proposal;

(D) Transferability of the results to problems in other coastal States; and

(E) The State's past performance under section 309.

(ii) *Fiscal needs.* (5 points) The Assistant Administrator will review each application to determine the "fiscal needs" of a State as defined in § 932.3(e).

(iii) *Technical needs.* (5 points) The Assistant Administrator will review each application to determine the "technical needs" of a State as defined in § 932.3(f).

(c) Section 309 funds not awarded to States under § 932.5(a) will be awarded to States under § 932.5(b).

§ 932.6 Pre-application procedures.

(a) *Pre-submission consultation.* Each State is expected to consult with the Assistant Administrator prior to the submission of its pre-proposal (see § 932.6(b)) and formal application for section 309 funding. The purpose of the consultation will be to determine whether the proposed projects are consistent with the purposes and objectives of section 309 and with the State's approved Strategy, to resolve any questions concerning eligibility for funding under section 309 (see § 932.1(b)), and to discuss preliminarily the State's recommendations regarding which projects should be funded by weighted formula and which projects should be individually evaluated and ranked as projects of special merit.

(b) *Pre-proposals.* After pre-submission consultation, States shall submit pre-proposals for section 309 funding annually on a schedule to be determined by the Assistant Administrator. These pre-proposals shall contain the following:

(1) A clear and concise description of the projects that the State proposes to be funded under section 309. This description shall explain the relationship of each proposed project to the State's approved Assessment and Strategy and how each proposed project will accomplish all or part of a program change that the State has identified in its Strategy. In addition, each project description shall include:

(i) A specific timetable for completion of each project;

(ii) A description of the activities that will be undertaken to complete each project and by whom;

(iii) The identification of any subawardees, pursuant to 15 CFR 923.95(d)(3)(ii); and

(iv) The estimated total cost for each project.

(2) Section 309 funds may be used for any of the following allowable uses which support the attainment of a program change:

(i) Personnel costs;

(ii) Supplies and overhead;

(iii) Equipment (pursuant to 15 CFR part 24);

[2] OMB Circular A-87: Cost Principles for State and Local Governments is available from the Office of Ocean and Coastal Resource Management, Policy Coordination Division, Universal South Building, room 701, 1825 Connecticut Avenue NW., Washington, DC 20235.

(iv) Projects, studies and reports; and

(v) Contractual costs including subcontracts, subawards, personal service contracts with individuals, memoranda of agreement/ understanding, and other forms of passthrough funding for the purpose of carrying out the provisions of section 309.

(3) Funds may not be used for land acquisition or low cost construction projects that are eligible for funding under section 306A of the Act (16 U.S.C. 1455).

(4) The State may recommend which projects should be funded by weighted formula under § 932.5(a) and which projects should be funded as projects of special merit under § 932.5(b).

(5) The pre-proposal shall contain documentation of fiscal needs and technical needs, if any. This documentation shall include:

(i) For fiscal needs, information on the current State budget (surplus or deficit), the budget of the applying agency (increase or decrease over previous fiscal year), future budget projections, and what efforts have been made by the applying agency, if any, to secure additional State funds from the Legislature and/or from off-budget sources such as user fees; and

(ii) For technical needs, identification of the technical knowledge, skills and equipment that are needed to carry out propsed projects and that are not available to the applying agency, and what efforts the applying agency has made, if any, to obtain the trained personnel and equipment it needs (for example, through agreements with other State agencies).

(6) The Assistant Administrator may request additional documentation of fiscal and technical needs.

(7) Following the first year of funding under section 309, the pre-proposal shall describe how the past year's work contributed to the attainment of a program change as defined in § 932.3(a) in one or more of the coastal zone enhancement objectives.

(8) The sum of estimated project costs for projects the State recommends be funded under § 932.5(a) should not exceed the State's weighted formula funding target pursuant to § 932.4(d).

(c) *Review of pre-proposals.* (1) The Assistant Administrator will make the final determination of which projects should be funded by weighted formula and which projects should be funded as projects of special merit, taking into account the State's recommendations.

(2) The Assistant Administrator may seek advice from technical experts in the fields of the coastal zone enhancement objectives as to the technical soundness and overall merit of section 309 project proposals.

(3) The Assistant Administrator will make the final determinations on project selection using the criteria at § 932.5(a) and evaluate and rank projects of special merit based on the criteria at § 932.5(b).

(4) If the Assistant Administrator determines that a State's project proposal(s) for weighted formula funding fails to meet the criteria at § 932.5(a), the Assistant Administrator may either reduce or deny the amount available to the State under § 932.4(d).

(5) Each state will be notified of the results of the review of pre-proposls, as described in paragraphs (c)(3) and (4) of this section, in time to include approved section 309 projects in their applications for financial assistance pursuant to subpart J of 15 CFR part 932.

§ 932.7 Formal application for financial assistance and application review and approval procedures.

(a) Application for financial assistance under this part must be developed and submitted on the same schedule as applications for financial assistance under Subpart J of 15 CFR part 923.

(b) Application for financial assistance under this part must be in a separate section of the application and must contain the information specified at § 932.6(b)(1) for each approved section 309 project.

(c) In addition to the information at § 932.6(b)(1), applications must also contain documentation of fiscal and technical needs, if any, pursuant to § 932.6(b)(5), and, following the first year of funding under section 309, a description of how the past year's work contributed to the attainment of a program change, pursuant to § 932.6(b)(7).

(d) Applications will be reviewed for conformance with the regulations at subpart J of 15 CFR part 923

(e) States will be notified of their section 309 awards at the time they are notified of their section 306/306A awards.

(f) If the Assistant Administrator seeks technical advice pursuant to § 932.6(c)(2), anonymous copies of the project reviews provided to the Assistant Administrator on projects proposed by a State will be made available to the State upon request after October 1 of each year.

(g) If the Assistant Administrator finds that a State is not undertaking the actions committed to under the terms of a section 309 grants, the Assistant Administrator shall suspend the State's eligibility for future funding under this section for at least one year.

(h) A State's eligibility for future funding under this section will be restored after the State demonstrates, to the satisfaction of the Assistant Administrator, that it will conform with the requirements under this part.

§ 932.8 Revisions to assessments and strategies.

(a) A State, in consultation with the Assistant Administrator, may propose to revise its approved Strategy. Revision(s) to an approved Strategy must be submitted to and approved by the Assistant Administrator prior to the initiation of the contemplated change.

(b) The Assistant Administrator will review such proposed revision(s) and determine if public review and comment is required. This determination will be based on the extent to which the proposed revision(s) changes the original scope of the State's Strategy.

(c) If the Assistant Administrator determines that public review and comment is necessary, he/she will notify the State of his/her determination. The State will be required to provide public review and comment in accordance with NOAA guidance.

(d) A State that wants to revise substantively the program changes identified in its approved Strategy or to address new enhancement objectives not identified as a priority in the original Assessment, also must revise the Assessment through a public process as described in NOAA's guidance.

(e) The Assistant Administrator will notify the State of his/her decision to approve or deny the proposed revision(s) to the Strategy.

(f) The Assistant Administrator will notify the State of any change in the weighting of the Strategy at the time he/she notifies the State of the approval of projects under this part. The new weighting will apply to the determination of the weighted formula funding target in the subsequent funding cycle.

Federal Domestic Assistance Catalog 11.419 Coastal Zone Management Program Administration.

Dated: October 4, 1991.

Frank W. Maloney,

Acting Assistant Administrator for Ocean Services and Coastal Zone Management.

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NATIONAL ESTUARINE RESEARCH RESERVES

NAME AND LOCATION	DESIGNATED	UPLAND AREA	WETLAND AREA	OPEN WATER AREA	TOTAL LAND AND WATER	SQUARE KILO-METERS	BIO-GEOGRAPHIC REGION	
		(APPROXIMATE ACRES BY TYPE)						
DESIGNATED ESTUARINE RESERVES		(1 SQUARE MILE = 640 ACRES)						
1. South Slough, Oregon	1974	3930	710	60	4700	19.0	Columbian	# 17
2. Waimanu Valley, Hawaii	1976	2710	720	170	3600	14.6	Insular	# 25
3. Sapelo Island, Georgia	1976	1450	4455	0	5905	23.9	Carolinian	# 7
4. Rookery Bay, Florida	1978	7000	1400	0	8400	34.0	West Indian	# 10
5. Apalachicola, Florida	1979	50078	*67840	*67840	185758	784.1	Louisianian	# 11
6. Elkhorn Slough, California	1980	430	880	20	1330	5.4	Californian	# 15
7. Padilla Bay, Washington	1980	64	1875	625	2564	10.4	Columbian	# 19
8. Narragansett Bay, Rhode Island	1980	1035	1591	0	2626	10.6	Virginian	# 3
9. Old Woman Creek, Ohio	1980	371	200	0	571	2.2	Great Lakes	# 21
10. Chesapeake Bay, Maryland	1981 - 90	*1781	*1781	1258	4820	19.5	Virginian	# 5
(Monie Bay)	[1981]	[*1335]	[*1335]	[756]	[3426]	[13.9]		
(Jug Bay)	[1990]	[*241]	[*240]	[241]	[722]	[2.9]		
(Otter Point Creek)	[1990]	[*205]	[*206]	[261]	[672]	[2.7]		
11. Jobos Bay, Puerto Rico	1981	?	?	?	2800	11.3	West Indian	# 9
12. North Carolina Components	1982 -90	1599	*4124	*4124	9847	39.8	Carolinian	# 6
(Currituck Banks)	[1982]	[335]	[*312]	[*313]	[960]	[3.9]		
(Rachel Carson)	[1982]	[345]	[*1140]	[*1140]	[2625]	[10.6]		
(Masonboro Island)	[1990]	[670]	[*2214]	[*2213]	[5097]	[20.6]		
(Zeke's Island)	[1982]	[249]	[*458]	[*458]	[1165]	[4.7]		
13. Tijuana River, California	1982	1000	1000	150	2150	8.7	Californian	# 14
14. Hudson River, New York	1982	1270	2860	0	4130	16.7	Virginian	# 5
(Piermont Marsh)								
(Iona Island)								
(Tivoli Bays)								
(Stockport Flats)								
15. Wells, Maine	1984	400	1159	0	1559	6.3	Acadian	# 2
16. Weeks Bay, Alabama	1986	?	?	?	3028	12.2	Louisianian	# 11
17. Waquoit Bay, Massachusetts	1988	*315	*314	0	2199	8.9	Acadian	# 3
			1570					
18. Great Bay, New Hampshire	1989	800	958	4471	6229	24.8	Acadian	# 2
SUBTOTAL DESIGNATED RESERVES		74233	93437	78718	252216	1052.4		
ADDITIONAL COMPONENTS AND EXPANSIONS OF EXISTING RESERVES IN PROGRESS								
4. Rookery Bay (expansion)	1991	?	?	?	142000	574.3	West Indian	# 10
14. Hudson River	1990	?	?	?	402	1.6	Virginain	# 5
SUBTOTAL EXPANSIONS AND NEW COMPONENTS		?	?	?	142402	575.9		
NEW RESERVES IN DEVELOPMENT								
19. Chesapeake Bay, Virginia	1991	961	2010	1663	4684	19.0	Virginian	# 5
(Goodwin Islands)		[58]	[411]	[1138]	[1607]			
(Catlett Islands)		[14]	[332]	[571]	[917]			
(Taskinas Creek)		[372]	[152]	[1]	[525]			
(Sweet Hall Marsh)		[501]	[881]	[253]	[1635]			
20. Delaware	1992	?	?	?	8842	35.8	Virginain	# 4
(St. Jones River)					[5028]	[20.4]		
(Upper Blackbird Creek)					[3814]	[15.4]		
21. A. C. E. Basin, South Carolina	1991	7752	68397	59405	135554	646.7	Carolinian	# 6
22. North Inlet - Winyah Bay, South Carolina	1992	200	7800	?	8000	32.4	Carolinain	# 7
23. St. Lawrence River Basin, New York	TBD	?	?	?	5000	20.2	Great Lakes	# 21
24. San Francisco Bay, California	TBD	?	?	?	?	?	Californian	# 16
25. East Florida, Florida	TBD	?	?	?	?	?	Carolinian	# 8
SUBTOTAL NEW RESERVES		8913	78207	61068	162080	754.1		
TOTAL ALL SITES (estimate)		83146	171644	139786	556698	2382.36		

* Data only available by combination of upland and wetland or wetland and open water. In these instances the acerage is evenly divided, arbitrarily, between both categories.

1 square mile = 640 acres = 2.59 square kilometers

APRIL 24, 1991

BIOGEOGRAPHIC SUB-REGIONS NOT YET REPERSENTED	LOCATION
1. # 1 - Acadian	Northern Gulf of Maine (northern Maine)
3. # 12 - Louisianian	Mississippi Delta (Mississippi, Louisiana, northern Texas)
4. # 13 - Louisianian	Western Gulf of Mexico (southern Texas)
5. # 18 - Columbian	Washington Coast (Washington)
6. # 20 - Great Lakes	Lake Superior (Minnesota,Wisconsin, Michigan)
7. # 20 - Great Lakes	Lake Michigan (Wisconsin, Michigan, Indiana, Illinois)
8. # 20 - Great Lakes	Lake Huron (Michigan)
9. # 22 - Fjord	Southern Alaska
10. # 23 - Sub-Arctic	Aleutian Islands (Alaska)
11. # 24 - Sub-Arctic	Northern Alaska
12. # 26 - Insular	Western Pacific Island
13. # 27 - Insular	Eastern Pacific Island

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