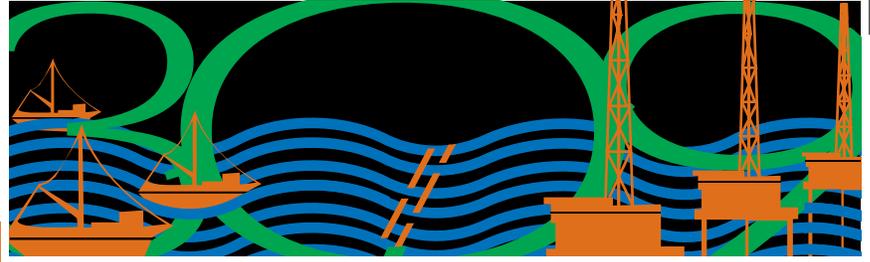


state enhancement grant assessments and strategies



OCEAN GOVERNANCE



NOAA / NOS / Office of Ocean and Coastal Resource Management
Coastal Programs Division

October 1999

NOS/OCRM/CPD 99-08

Overview

This report describes the changes to state, territory and commonwealth coastal zone management (CZM) programs to improve the protection of ocean resources that were completed or initiated during the time frame of Federal fiscal years 1992-1996. These changes were characterized by the States in the last round of Assessments, which were submitted to OCRM in February of 1997. If Strategies were developed to protect ocean resources, the planned activities are also summarized.

Improving the protection of ocean resources and consideration of the demands on ocean areas has been a fundamental goal of the Coastal Zone Management Act (CZMA) since its passage in 1972. Primary objectives include ensuring that essential habitat for living resources and sensitive areas such as coral reefs, are protected through appropriate management regimes (i.e., regional or site-specific); and understanding and balancing the often competing uses in the exclusive economic zone and Outer Continental Shelf, such as demands for food, energy, minerals, National defense needs, recreation, transportation, and waste disposal.

The National Coastal Zone Management Program (CZMP) is a voluntary partnership between the Federal government and the 35 U.S. coastal states, territories, and commonwealths authorized by the CZMA to:

- Preserve, protect, develop, and where possible, restore and enhance the resources of the Nation's coastal zone for this and succeeding generations;*
- Encourage and assist the States to exercise effectively their responsibilities in the coastal zone to achieve wise use of land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well as the needs for compatible economic development;*
- Encourage the preparation of special area management plans to provide increased specificity in protecting significant natural resources, reasonable coastal-dependent economic growth, improved protection of life and property in hazardous areas and improved predictability in governmental decision-making; and*
- Encourage the participation, cooperation, and coordination of the public, Federal, State, local, interstate and regional agencies, and governments affecting the coastal zone.*

In the 1990 reauthorization of the CZMA, Section 309 was amended to create the Coastal Zone Enhancement Program. Its intent was to provide incentives to States to make improvements to their coastal programs in any of eight areas of national significance (a ninth was added in 1996), including ocean resources. As a part of the Section 309 grant process, periodically all the coastal programs must develop Assessments — a critical examination of each of the nine enhancement areas. The Assessments provide a comprehensive review of activities previously performed by the CZM program (with particular emphasis on 309-funded efforts), identify specific impediments or needs, and present a general characterization of the adequacy of the State's management framework for that area. The Assessments conclude with a ranking of the area as high, medium, or low, based on its importance in the State; the need to improve the State's ability to manage the area, and the suitability of using the Section 309 program as the means to address it. For those issues ranked as a high priority for Section 309 purposes, States develop multi-year Strategies, laying out a framework for activity and funding levels which, at the project's conclusion, should lead the State to specific program changes that also are defined.

Improvements to state coastal programs are generally intended to encompass new or strengthened laws, regulations, or other enforceable policies at the state and local level. Examples of allowable activities included: developing or revising state or local statutes, regulations, and ordinances related to ocean resources (e.g., regulations for fisheries, aquaculture, ocean mining); developing or improving state processes and improving coordination among agencies responsible for managing ocean resources, such as developing memoranda of understanding, and geographical information systems to improve decision-making in conflict areas; and performing planning activities (e.g., inventory existing laws and management frameworks, site-specific or regional plans).

The report is broken down into four parts. The first section contains state-specific summaries, organized by Region. The summaries generally describe the environment for ocean resources and planning; briefly outline the activities undertaken/initiated between 1992 and 1996 (highlighting those that were 309-funded); identify obstacles to addressing ocean resources and the need for specific refinements to improve the environment for planning; and if applicable, detail the State's strategy for achieving those improvements (or other planned activities). A State contact is included for the purposes of obtaining additional information.

The second section compiles the ocean resources activities for all the states, and if applicable, their Strategies, and reorganizes them into six general areas: (1) planning; (2) regulatory; (3) non-regulatory; (4) research and assessment; (5) outreach and coordination; and (6) mapping. These categories are further broken down as appropriate, and similar activities are grouped accordingly.

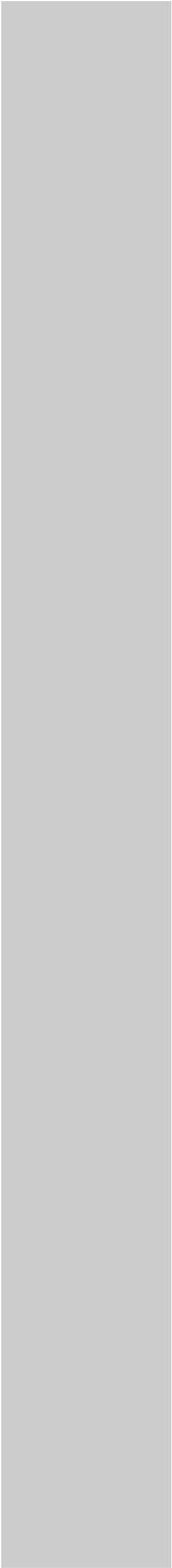
The third section pertains to obstacles and needs. Brief descriptions of impediments to or areas for improvement in achieving improved ocean resources protection were compiled from the Assessments and broadly grouped by issue, which are also characterized.

The report concludes with a table, which provides a snapshot of the overall distribution of ocean resources projects by State and type, including distinguishing between Section 309-funded and non-309 funded. Joelle Gore of NOAA's National Ocean Service compiled the information found in this report. Kristine Schlotzhauer provided editorial and design support. For further information or additional copies of this report, please contact Joelle at (301) 713-3117 x177 or joelle.gore@noaa.gov.

Table of Contents

<i>State Summaries</i>	5
<i>Northeast</i>	6
Connecticut	7
Delaware	8
Maine	9
Maryland	11
Massachusetts	12
New Hampshire	14
New Jersey	15
New York	16
Rhode Island	17
Virginia	19
<i>Southern/Caribbean</i>	20
Alabama	21
Florida	22
Louisiana	24
Mississippi	25
North Carolina	26
Puerto Rico	28
South Carolina	29
U. S. Virgin Islands	30
<i>Pacific</i>	31
Alaska	32
American Samoa	34
California	35
Commonwealth of Northern Mariana Islands	37
Guam	38
Hawaii	40
Oregon	42
Washington	44
<i>Great Lakes</i>	45
Wisconsin	46
<i>Activities</i>	47
Planning	48
Regulatory	52
Non-Regulatory	54
Research and Assessment	55
Outreach/Coordination	57
Mapping	58
<i>ObstaclesNeeds</i>	59
<i>Appendices</i>	64

State Summaries



Northeast

Connecticut

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low
1997 Assessment: Low

Issue Characterization

Ocean resources uses of concern in Connecticut include threats to offshore fisheries from overfishing and impacts to fishery habitats from nonpoint pollution. The State is also concerned with impacts to nearshore and offshore resources that are potentially threatened by oil spills.

State Activities 1992 -1996

None

309 Strategy

A Strategy was not developed.

Obstacles/Needs

None

Contact
Charles H. Evans, Director
Office of Long Island Sound Programs
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106-5127
Phone: 860.424.3034
Fax: 860.424.4084
E-mail: charles.evans@po.state.ct.us

Delaware

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: Low

Issue Characterization

Delaware's ocean and estuarine areas are very important to its living and non-living ocean resources. Likewise, food production and spawning habitat in the Delaware Estuary and the Inland Bays is important to the mid-Atlantic region. Delaware fisheries provide thriving industries for both commercial and recreational fishing. Recreational fisheries dominate the fishing interests in Delaware, landing a total of 1,557,721 pounds in 1995. Non-living resources in Delaware include hard minerals and hydrocarbon reserves. Offshore resources of sand are used to rebuild beaches and better protect coastal communities and beach habitat. Exploration of the hydrocarbon reserves (oil and gas) has not uncovered resources which are economically viable, however, consideration of new lease areas east of Delaware are allowed for in the Minerals Management Services' five year planning process.

State Activities 1992-1996

No significant changes have occurred. The State relies on its Division of Fish and Wildlife within the Department of Natural Resources and Environmental Control to manage fisheries and living resources. The State continues to monitor proposed outer continental shelf exploration activities.

309 Strategy

A Strategy was not developed.

Obstacles/Needs

None

Contact:
Sarah W. Cooksey or David B. Carter
Delaware Coastal Management Program
89 Kings Highway, P.O. Box 1401
Dover, Delaware 19901
Phone: 302.739.3451
Fax: 302.739.2048
E-Mail: scooksey@state.de.us
E-Mail: dcarter@state.de.us

Maine

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: High

1997 Assessment: High

Issue Characterization

Ocean resource uses are a high priority for the Maine Coastal Program. The most significant ocean resource concerns are fisheries management, marine habitat protection, competing uses of public waters, and ocean disposal of dredged material. The loss of offshore wild fish stocks and recent growth of new fisheries is putting more pressure on near coastal fisheries, and there is wide concern by the public and in State that this pressure will deplete State fisheries. Many commercial fisheries are overharvested, while others are fully exploited. The protection of marine habitats is a related concern, and there are some indications of their loss and degradation caused by pollution and physical destruction. Demand for mooring and dock space for recreational boats has outstripped supply in much of the coast. This increasing demand competes with anchorages for commercial vessels.

State Activities 1992-1996

Fisheries Management: Maine enacted legislation that shifts decision making authority from State officials to local lobstermen serving on community based councils. A revolving loan fund has been established for fishermen helping propagate lobsters by liberating seed and female lobsters, and establishing and supporting lobster hatcheries. A strategy was developed to conserve resources and create new jobs.

Critical Habitat Assessment & Protection: The Land and Water Resources Council established a marine working group to coordinate State agency actions pertaining to marine resources. The State published its first intertidal habitat classification. (309)

Single-Purpose Legislation: The State sets priorities for the exclusive use of submerged lands through a State leasing program. In reaction to a bill that would have changed the public trust status of submerged lands, Maine passed legislation in 1996 to reduce the lease fee for upland uses to make it the same as water dependent uses.

Dredge Material Disposal: The Army Corps of Engineers prepared a study that projected the future need for disposing dredged material from federal navigation projects. The study also began an analysis of possible ocean disposal sites that could be developed.

Obstacles/Needs

Comprehensive Planning: The current single-species approach to fisheries management is not considered effective in maintaining both sustainable fish populations and the fishing industry. In addition, the State needs a process to equitably allocate the private and public uses of submerged lands.

Education & Outreach: The State does not have funds to maintain an active education program to inform the public about marine resource issues and engages them to help develop new solutions.

Critical Habitat Assessment & Protection: The State lacks sufficient information about the marine ecosystem to better protect sensitive and threatened marine habitat. In addition, the State does not have a process to equitably distribute the private and public uses of submerged lands. This need will increase as uses of marine resources increase.

Dredge Material Disposal: Maine relies too heavily on ocean disposal for contaminated dredged material. The State has not identified many beneficial uses for, nor land sites to dispose of, contaminated dredged material. In addition, the State lacks site specific information on species population and migration patterns in dredged areas. This information is needed to set more accurate time limits on dredging.

309 Strategy

Fisheries Management: The State has started to create a new co-management approach for the lobster fishery, and will create similar management systems for other fisheries. In order to foster a stewardship ethic among fishermen and to control entry into fisheries, the State will design a new system to slow entry into fisheries and will create more stringent qualifications for obtaining a license to harvest.

Non-Regulatory Controls: Efforts will be undertaken to increase public awareness of marine habitat protection. The State will also establish guidelines, using existing research, on options to protect critical marine habitats.

Dredge Material Disposal: For dredged material management, the State plans to resolve issues surrounding the final designation of the Cape Arundel Disposal Site, identify uses or disposal sites for dredged material, and conduct research in areas where dredging is expected to determine the effects such activity would have on nearby fisheries.

Contact:
Josie Quintrell
Maine State Planning Office
187 State Street
38 State House Station
Augusta, Maine 04333-0038
Phone: 207.287.1488
Fax: 207.287.8059
E-Mail: josie.quintrell@state.me.us

Massachusetts

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: High

1997 Assessment: High

Issue Characterization

Massachusetts recognizes its need to provide for the balanced use and development of ocean resources through coordination of existing authorities and minimization of use conflicts. One of the primary uses of State ocean resources is aquaculture. Aquaculture activities are expected to steadily grow over the years, with anticipated conflicts over siting and impacts to water quality (also see Aquaculture Summary Report). The growth of the aquaculture industry is due in part to the decrease of bottomfish populations potentially caused from overfishing, bycatch, and impacts to habitat from ocean floor dragging.

A high threat to the health of the State's ocean resources is waste disposal. With increased population there is a corresponding rise in the need to dispose of wastes. Sewage treatment outfalls and disposal of dredged material are two major threats to marine water quality and public health. Another threat to the State's ocean resources comes from ecotourism. Since whale watching has become a major industry, the State has instituted a 500 yard buffer zone around individual Northern Right Whales to avoid harassment from whale watching vessels. The Northern Right Whale is critically endangered and the implementation of a Recovery Plan is ongoing.

A low grade threat to State ocean resources is the prospect for oil and gas exploration. Although Massachusetts currently has a moratorium on oil and gas development which expires in the year 2000, concerns about a reduction in fish may result in a push for the exploitation of oil and gas resources.

State Activities 1992-1996

Special Area Planning: The State has completed an Aquaculture White Paper and Strategic Plan. In addition, four policies relating to aquaculture have been developed and adopted for water withdrawal, shellfish seed sources, ocean sanctuary involvement in aquaculture permitting, and a coastal management program aquaculture policy. (309)

Ocean Resources Inventory: The State completed a report detailing the various ocean uses and activities in State waters and how they are managed. The State used this to explore through a Task Force the development of a comprehensive plan. The Task Force participants decided not to initiate plan development based on their opinions about its priority among other State environmental issues. (309)

Ocean Mapping/GIS: An Ocean Resources Information Management System has been developed utilizing orthophoto base maps and an evolving series of data layers. Data layers completed to date or currently under development include: jurisdictions, shellfish areas, bathymetry and historic shorelines, eel grass beds, digital nautical charts, existing aquaculture facilities, oil spill environmental sensitivity maps, and contaminated sediment data. (309)

Dredge Material Disposal: A Pilot Dredge Material Disposal Analysis for Essex County was conducted, resulting in the Dredged Material Assessment Program (DMAP). The DMAP is a computer program that determines the availability of reuse and disposal sites. The State later supported the development of a statewide DMAP which focused on the ports of Gloucester, Salem, New Bedford and Fall River. (309)

Obstacles /Needs

Comprehensive Planning: One of the gaps in meeting the programmatic objectives for ocean resources is the development of a comprehensive Ocean Resources Management Plan. During 1997-98 using 309 resources, the State explored through roundtables the development of a plan, but decided to instead focus on other State priorities including specific ocean resources protection efforts.

Interagency Coordination: There is a demonstrated need for significant interagency work to be done to develop a proactive approach to protecting this whale species.

309 Strategy

Comprehensive Planning: The State proposed in its initial Strategy to complete the development of a Ocean Management Plan to better manage their ocean resources. The effort was put on hold due to the agreement by participants of an interagency workgroup to focus on other State environmental issues.

Interagency Coordination: The State proposes to develop a coordinated approach to protecting marine biodiversity, to integrate a wide range of interrelated programs, and to advance the State's stature in marine science.

Ocean Mapping/GIS: The State proposes to identify and map special marine habitats to better protect the marine biodiversity in State waters. These areas will be integrated into the existing Ocean Resources Geographical Information Management System and be utilized for siting, project review, marine monitoring, and, potentially, the designation of additional protected areas.

Contact:
Susan Snow-Cotter
Massachusetts Coastal Program
100 Cambridge Street
20th Floor
Boston, MA 02202
Phone: 617.727.9530
Fax: 617.271.2155
E-Mail: susan.snow-cotter@state.ma.us

New Hampshire

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: Low

Issue Characterization

Ocean resource uses in New Hampshire classified as being at medium or high risk include fisheries, open ocean aquaculture, and migratory birds. The fishery situation in the Gulf of Maine has continued to erode, and fisheries are threatened by stock depletion, anticipated ecosystem changes, and collapse of local economies. Migratory birds continue to be threatened by habitat destruction and degraded water quality and the subsequent reduction in foraging opportunities. Open ocean aquaculture is threatened by competing uses of ocean resources and anticipated habitat degradation, interference with migratory marine mammals, and impacts on native species.

State Activities 1992-1996

Single-Purpose Legislation: New Hampshire has developed four statutes relating to ocean resources, including: 1) RSA 207: addresses general fish and game provisions; 2) RSA 211: regulates the taking of freshwater fish, saltwater fish and clams, lobsters, and crabs, as well as aquaculture activities; 3) RSA 213: directs the governor to enter into the Atlantic States Marine Fisheries Compact; and 4) Chapter 212: regulates propagation of fish and game.

Regional Planning: Atlantic States Marine Fisheries Commission has developed harvesting regulations, and funded various projects. The Commission currently maintains 16 different Fishery Management Plans and is developing several others. The State has several regional migratory bird planning and monitoring efforts underway.

Regional Ecosystem Studies: The State supports and participates in the Gulf of Maine's Council on the Marine Environment, which also includes participation from Maine, Massachusetts, and New Brunswick and Nova Scotia, Canada. The Council has developed the Gulfwatch monitoring program to test blue mussels for water toxicity as well as the Priority Habitat Identification Project to identify regionally significant habitats.

Critical Habitat Assessment & Protection: A Bird Study by the Great Bay Resource Partnership will enable researchers to better assess changes in migratory bird populations.

Obstacles/Needs

Comprehensive Planning: Following federal regulations, the State manages ocean resources on a species by species basis. However, more work is needed to determine sustainable management practices that consider ecosystems as well. The State also lacks a holistic view of its ocean resources, with many State agencies' concerns ending at the shore; improved offshore planning is necessary.

Critical Habitat Assessment & Protection: Continued work is necessary within the regional context to address fishery and migratory bird issues.

309 Strategy

A Strategy was not developed.

Contact:
Dave Hartman
Office of Planning
State of New Hampshire
22 Beacon Street
Concord, New Hampshire 03301-4497
Phone: (603)271-1750
Fax: (603)271-1728
dhartman@osp.state.nh.us

New York

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: Low

Issue Characterization

The most important ocean resource issues for the State have been the potential for and development of oil and gas reserves on the Outer Continental Shelf; sand mining in coastal waters; the disposal of contaminated dredged materials as a result of closing the Atlantic Ocean Mud Dump Site; and the maintenance of fisheries, and the support of migratory bird species. Sand mining for beach renourishment is a low statewide priority, but is a significant issue in particular affected areas.

State Activities 1992-1996

None

309 Strategy

A Strategy was not developed.

Obstacles & Needs

None identified

Contact:
William Barton
Division of Coastal Resources
& Water Revitalization
Department of State
41 State Street
Albany, New York 12231
Phone: 518.473.2469
Fax: 518.473.2464
E-Mail: wharton@dos.state.ny.us

Rhode Island

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low
1997 Assessment: High

Issue Characterization

Ocean management is evolving in Rhode Island. The Coastal Resources Management Council (Council) established preferred and prohibited uses of ocean areas through water type designations and associated policies. However, some specific uses need to be addressed, such as aquaculture, specific fishing areas, popular diving spots, and spawning grounds.

The biggest ocean management related issue the State is currently faced with is problems associated with the lack of a comprehensive dredging plan. Inadequate dredging and dredging management poses threats to recreational and commercial boating and maritime commerce. This was brought to light most vividly by an oil spill by the North Cape in January 1996. Other high threats include threats to fisheries due to habitat loss and conflicts between traditional fisheries and aquaculture. Although Rhode Island's offshore fishermen have focused their efforts on under-utilized species, landings of offshore fisheries have decreased significantly. The shellfishing industry is threatened by area closures and restrictions, primarily associated with nonpoint sources of pollution and rainfall events.

State Activities 1992 -1996

Single-Purpose Legislation: In 1996, the General Assembly passed the Marine Infrastructure Maintenance Act and associated amendments to the Council's enabling legislation. The purpose of the Act was to officially recognize that it is in the best interest of the State to have a general dredging policy and a program that resolves issues related to dredged material management. The Act gave the Council the lead in developing a long term dredged material plan for the State's navigation on canals and marinas.

Special Area Planning: The State passed a bond referendum authorizing funds to support infrastructure improvements at Quonset Point/Davisville. The planned improvements to transportation facilities and other infrastructure are considered necessary to encourage private port development at the site.

Dredge Material Disposal: The State is developing a Statewide dredged material management plan. (309)

Obstacles/Needs

Funding: Since the last assessment, the Council has lost its ability to generate funding for program initiatives through permit or other types of fees. At the same time, the Council has acquired new responsibilities. The Council has thus far been unsuccessful in its request for fiscal and technical support for the implementation of its new mandates.

Dredge Material Disposal: Technical needs associated with the development of a dredged materials management plan, including coordination with the identification of appropriate in-water disposal sites; biological, engineering, and economic evaluation of dredging and dredged materials disposal methods; the establishment of operational dredging standards; the assessment of appropriate beneficial uses for various sediment types; the establishment of parameters for the characterization of dredged materials; and the development of a classification scheme for sediment types.

309 Strategy

Dredge Material Disposal: The Council's priority task related to ocean resources is the development of a dredged materials management plan for Rhode Island. The task consists of the development of a plan which addresses specific policy issues associated with dredging and dredged material disposal including, disposal site uses, acceptable dredging methodologies and operational standards, acceptable disposable options based on dredged material, beneficial use guidelines, and monitoring criteria and testing protocols. The plan should allow for needed dredging while reducing the risk of oil spills and other hazardous spills by improving navigation, increasing opportunities for habitat restoration and creation through the beneficial use of dredged material, and developing a one-stop-shopping permit process for applicants for dredging activities.

Contact:
Jeff Willis
Coastal Resources Management Council
Oliver Stedman Government Center
4808 Tower Hill Road
Wakefield, Rhode Island 02879
Phone: 401.222.2476
Fax: 401.222.3922
Email: jeffwillis@ricconnect.com

Virginia

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: Low

Issue Characterization

Ocean resource uses and perceived threats in Virginia classified as medium or high risk include fisheries management issues and, although varying greatly by site, archaeological resource uses including site specific threats from any activity that disturbs submerged bottom. Sand and heavy minerals uses, such as increasing demand for beach sand and nourishment projects are classified as low risk threats. The State has less flexibility for management of its fisheries than it did before the Atlantic Coastal Fisheries Cooperative Management Act was passed in 1993, therefore Virginia withdrew from the voluntary program. However, a bill is being considered to repeal that decision. The first step toward developing a comprehensive plan for preserving submerged historic resources was completed through the development of an Assessment of Virginia's Underwater Cultural Resources. Oil and gas development activities pose no threat.

State Activities 1992-1996

No major activities have occurred.

309 Strategy

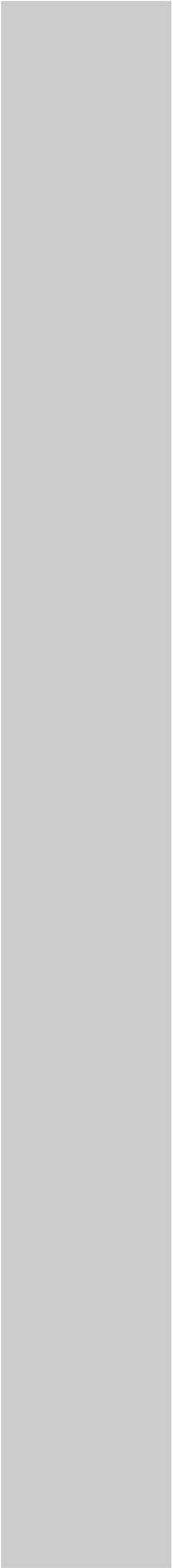
A Strategy was not developed

Obstacles/Needs

Specific Biological Assessments: There is a lack of fish stock assessments. Establishment of a long term data collection program would benefit future program development.

Archaeological Resource Assessment: Priority should be given to developing surveys to inventory areas representative of underwater cultural resources and their preservation, and to developing an information exchange program with watermen.

Contact:
Laura McKay, Program Director
Department of Environmental Quality
Virginia Coastal Program
629 East Main Street; 6th Floor
Richmond, Virginia 23219
Phone: 804.698.4319
Fax: 804.762.4319
E-Mail: lbmckay@deq.state.va.us



***Southern/
Caribbean***

Alabama

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: Medium

Issue Characterization

Alabama's ocean resources that are most threatened are its fisheries, including oyster reefs which have been closed temporarily over the past years from the occurrence of red tide. Increased population and poorly planned land use offers increased opportunity for more nonpoint source pollution in coastal waters from poorly sited septic tanks. There are also threats to fisheries from overharvesting of particular species. Increased shipping and port activities along with offshore gas drilling and associated pipelines heightens concern for accidents that could degrade coastal waters and fisheries. Potential threats to Alabama's tourism industry stem from offshore oil and gas development and resulting increased potential of spills from platforms, pipelines and tankers.

State Activities 1992-1996

Education & Outreach; Regional Ecosystems Studies: A major issue for Alabama since 1992, is the occurrence of *red tide*, and the threats to oyster reefs. The State recognized its need for further scientific investigation of *red tide* and the need to share the information with the public and oyster fishermen. To address this issue, the Alabama coastal program proposed its Technical Interagency Committee develop a public education and outreach effort, and hold a scientific symposium. Additionally, the EPA Gulf of Mexico Program should help coordinate with the region on this issue.

Critical Habitat Assessment & Protection: This is a habitat program covering approximately 900 square miles. The State uses Loran-C to identify coordinates for the corners of habitat zones so that shrimpers can avoid them.

Non-Regulatory Controls: Alabama and Mississippi coastal programs have entered into a MOA to facilitate continued cooperation and information exchange in protecting their shared coastal resources from nonpoint source pollution.

Obstacles/Needs

Comprehensive Planning: A comprehensive ocean resources management plan could provide for the balanced use and development of ocean resources, better coordination of existing resources, and the minimization of user conflicts.

309 Strategy

Regional Ecosystems Studies: Mobile, Alabama will be the site of the Gulf of Mexico Symposium in the year 2000. Red tide will be the target issue.

Contact:

Phillip Hinesley
Alabama Dept. of Econ. & Comm. Affairs
Coastal Programs Field Office
1208 Main Street
Daphene, Alabama 36526
Phone: 334.626.0042
Fax: 334.242.0552
E-mail: phinesley@surf.nos.noaa.gov

Florida

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: High

Issue Characterization

Environmental management in Florida has begun emphasizing ecosystem management strategies, attempting to management resources from a holistic approach. By extension of this approach, and because Florida is the only State in the contiguous U.S. that is completely surrounded on three sides by the sea, there is a real need for Florida to develop a statewide ocean policy. Some of the State's initial efforts include the development of a statewide ocean resource inventory and update of the report, Toward a State Ocean Policy, outlining and describing State policies relating to the ocean and its resources.

The highest threats to ocean resources and uses include threats to marine fisheries from overharvesting and anticipated conflicts between recreational and commercial fishermen over limited resources; threats to submerged cultural resources from dredging and illegal collecting; and threats to offshore sand sources from competition between local governments to use for beach renourishment.

State Activities 1992-1996

Fishery Management: The State Constitution was amended limiting marine net fishing, by banning all gill nets or other entangling nets from use in State waters and prohibiting all other nets of more than 500 square feet of mesh area from use in nearshore and inshore waters.

Special Area Planning: The number of underwater archeological parks has increased from two to five, with a sixth site in development. A management plan for the State's submerged cultural resources has been drafted, establishing goals and recommending changes to the Division of Historical Resources procedures.

Research & Assessment: The State and EPA conducted studies on the dilution of nutrients from outfalls, which show dilution is sufficiently down to background levels before significant bioaccumulation occurs. The likelihood of new outfalls is very small.

Regional Planning: The final management plan for the Florida Keys National Marine Sanctuary was released in September 1996.

Obstacles/Needs

Ocean Mapping/GIS: There are gaps in information available for the State Ocean Resources Inventory GIS. The State will encourage the standardization of geographic data and related information to allow as many State agencies as possible access and use of that information.

309 Strategy

Comprehensive Planning: Florida is facilitating a dialogue with State, regional and local stakeholders to develop recommendations and strategies on ocean policy and management to present to the Governor. Public forums are used to educate stakeholders and build support for comprehensive ocean management.

Ocean Mapping/GIS: With section 306 funds, the State is completing a Statewide Ocean Resources Inventory in ArcView GIS format, tying together physical and oceanographic data with related statutes and regulatory information. The system will provide resource managers current scientific and regulatory information to better manage ocean resources. Using information from the GIS Inventory and from the

update of the study, *Toward a State Ocean Policy*, the Coastal Programs' Department of Community Affairs and the Office of the Governor are convening working groups to develop new legislation or memoranda of agreement to address ocean resources. The GIS Inventory is also helping guide, by example, progress on a state/federal regional project for a South Atlantic Ocean GIS, being designed by NOAA's Coastal Services Center

Contact:

Ralph Cantral
Florida Coastal Management Program
Department of Community Affairs
Rhyne Building
2740 Centerview
Tallahassee, FL 32399-2100
Phone: 904.922.5438
Fax: 850.487.2899
ralph.cantral@dca.state.fl.us

Mississippi

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Medium/Low

1997 Assessment: Low

Issue Characterization

Major resources or uses of greatest concern to Mississippi are fisheries and offshore oil and gas development. Fisheries are threatened by pollution from nearshore sources, overharvesting, and use conflicts between finfish and shellfish fishermen, and between recreational and commercial uses. With regard to oil and gas development, offshore rigs within sight of beaches are thought to negatively impact the tourism industry. In addition, these are concerns associated with mineral extraction and transportation because of the possibility of spills.

State Activities 1992-1996

Single-Purpose Legislation: Ordinance No. 5.012 was enacted to establish specific criteria for where and when salt water fishing can occur.

Regional Planning: The Environmental Protection Agency's Gulf of Mexico Program developed a Shellfish Challenge Project to increase shellfish beds and awareness of safe harvesting.

Research & Assessment: The Commission on Environmental Quality plans to authorize drilling in the Mississippi Sound, however, a 1-mile buffer zone has been established around the islands of the Gulf Islands National Seashore.

Critical Habitat Assessment & Protection: A sensitivity index of the area's resources has been devised in order to react to and control spills successfully.

Non-Regulatory Controls: An MOA was established with Alabama to facilitate efforts to protect and enhance Mississippi Sound resources.

Obstacles/Needs

Comprehensive Planning: State ocean policies are needed that provide a comprehensive and integrated framework for managing coastal resources.

Interagency Coordination: The state would benefit from a task force to serve as a forum for conflict resolution and for balancing competing resources, interests, and needs.

309 Strategy

A Strategy was not developed.

Contact:
Steve Oivanki
1141 Bayview Avenue
Suite 101
Biloxi, Mississippi 39530
Phone: 228.374.5000, ext. 5055
Fax: 228.374.5008
E-Mail: soivanki@datasync.com

North Carolina

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: High

1997 Assessment: Low

Issue Characterization

Ocean resource uses and current or anticipated high threats to those uses in North Carolina include threats to fisheries from overfishing, bycatch, and conflicts between sport and commercial fishing; and Outer Continental Shelf oil and gas drilling and the potential threats to fisheries and fishery habitat, and impacts from related onshore activities. Moderate threats are posed from other uses including hard mineral mining (sand, gravel, phosphates) and the anticipated alterations to habitat and impacts to living and non-living resources; ocean outfalls and waste disposal and threats of marine pollution; and conflicts between recreational uses anticipated with the continued increase in population in the coastal zone.

State Activities 1992-1996

Comprehensive Planning: The State formed a task force in 1993 to advise on the development of a state ocean plan. Six ocean issues were identified for consideration by the Task Force: hard mineral mining, pollution, marine fisheries, Outer Continental Shelf oil and gas activities, recreational uses, and natural and cultural resources that might need special protection. The ocean plan consists of three parts: ocean resource data in GIS format, an ocean management study, and enforceable state policies. (309)

Single-Purpose Legislation: The Ocean Task Force presented several recommendations to the Marine Fisheries Commission. The legislature enacted a moratoria on new commercial fishing licenses and considered a proposal to initiate a sport fishing license. The Coastal Resources Commission is implementing a number of recommendations of the Ocean Task Force. Amendments to the State's coastal energy policies were adopted which clarify the policies, expand the definition of energy facilities to include drill ships and onshore support structures, and provide criteria for the placement of facilities. The amendments provide greater protection to critical habitat by restricting activities to less biologically-productive periods and by avoiding sensitive habitat where possible. The new rule also requires habitat restoration if facilities (e.g., drillships, pipelines) are abandoned.

Ocean Mapping/GIS: The State obtained spatial marine data on submerged vegetation, fishery nursery areas, anadromous fish spawning areas, seabird concentration areas, artificial reefs, shipwrecks, bathymetry and shoreline data. The State is also participating in a state/federal regional South Atlantic Ocean GIS mapping project, being designed by NOAA's Coastal Services Center. (309)

Ocean Resources Inventory: The Task Force oversaw the completion of a report entitled, *North Carolina's Ocean Stewardship Area: A Management Study*. In November 1996, the Coastal Resources Commission endorsed resolutions to establish by statute an ocean stewardship zone, providing for a local government jurisdictional boundary and authority to regulate certain ocean activities. Legislation has been drafted but not yet adopted. (309)

Obstacles/Needs

Comprehensive Planning/Political Will:

Although there are efforts underway to promote legislation establishing an ocean stewardship area, there is a lack of political support and funding to legislatively establish a comprehensive ocean management program.

309 Strategy

Comprehensive Planning: There has been substantial progress in developing a state ocean plan. The State will continue to work toward implementing the Ocean Task Force recommendations.

Contact:

■ Pat Hughes
■ Department of Environment, Health
■ and Natural Resources
■ Division of Coastal Management
■ P.O. Box 27687
■ Raleigh, North Carolina 27611-7687
■ Phone: 919.733.2293
■ Fax: 919.733.1495
■ E-Mail: pat_hughs@mail.enr.state.nc.us



Pacific

Alaska

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Low

1997 Assessment: High (Western and Southwest Regions)

Issue Characterization

Ocean resource uses and perceived threats in Alaska include oil and gas development and risks of spills, and impediments to fishing from oil structures; offshore mining and possible water degradation; decline in numbers of some marine mammals and birds possibly due to entanglement and noise from offshore oil and gas activities, smaller boats and cruise ships; and fisheries management issues, including allocation among commercial and recreational fisheries, and the interception of Alaskan salmon in the high seas.

Overall, comprehensive management of ocean resources is still limited in Alaska. Alaska has single purpose statutes related to individual ocean resources and ocean mineral extraction, but there have been no major changes to these statutes since the last assessment. Except for the Bering Sea Region, Alaska is not attempting to develop comprehensive ocean management statutes in the State.

State Activities 1992-1996

Non-Regulatory Controls: Although comprehensive ocean resource management was not considered a high priority in 1992, meaningful State participation in federal ocean resource management issues has increased, and several important coastal management related efforts have occurred or are ongoing, including: Memorandum of Understanding between the Division of Governmental Coordination and Minerals Management Service for coordinating oil and gas lease sale reviews in the Outer Continental Shelf (309); Memorandum of Understanding negotiated for review of oil and gas exploration and development plans; and creation of stakeholders task force by the Outer Continental Shelf Policy Council for development of the 5-year oil and gas development program for the Minerals Management Service.

Obstacles/Needs

Funding: Little special project funding under section 306 and State funding. Ocean resources efforts will rely heavily on 309 funding.

Comprehensive Planning: A detailed statewide or regional ocean management program is currently not incorporated into the State's coastal management program.

California

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Medium

1997 Assessment: Medium

Issue Characterization

California has experienced and is projected to continue experiencing stresses on the State's ocean resources. For example, the Coho Salmon on the central coast has been listed as an endangered species. California also has a number of beach closings every year due to poor water quality, resulting from impacts from nonpoint source pollution and other sources. Because the State lacks a comprehensive monitoring program, it is difficult to determine the health of the entire nearshore waters along the coast, and the tributaries, small bays and estuaries.

The State has high degrees of threat to several resources or uses, including threats to: habitat and living resources from declines of habitat and fisheries from point and nonpoint pollution sources; water quality from pollution of inland waterways from activities in watersheds; shorelines from erosion from dam construction, river channelization and development and armoring of the shoreline; and offshore resources and coastal communities from oil spills and aging offshore oil facilities. Other conflicts exist between habitat protection and dredge and fill activities in ports and harbors, and from hazardous spills from vessel traffic, and the growth inducing effects of increased drinking water sources from desalinization.

State Activities 1992-1996

Ocean Resources Inventory: The Resources Agency has developed a detailed report called, California Ocean Resources: An Agenda for the Future, which outlines the State's economic and institutional framework for ocean planning and governance, including an inventory of State and federal laws, rules, resolutions authorities and programs pertaining to ocean resources. The report also outlines recommendations for improving the protection of ocean resources and dealing with conflicts in use. California also hosted an international conference, California and the World Ocean, which focused both on California's ocean issues outlined in the Agenda and national and international ocean governance issues. (Occurred after the writing of Assessment and Strategy.)

Interagency Coordination: The State has increased coordination through the California Ocean Resources Management Act (CORMA), however, habitat decline is still affecting living resources. The State also has established regional working groups, such as the Monterey Bay Sanctuary Advisory Council. Another regional effort, the Morro Bay National Estuary Program, also was established.

Single-Purpose Legislation: Amendments have been made to single purpose statutes affecting ocean resources, including amendments to fisheries laws, the Oil Spill Prevention and Response law and the Outer Continental Shelf Act.

Guam

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: Medium

1997 Assessment: High

Issue Characterization

No comprehensive ocean management system currently exists for Guam. Because of the conflict between the government of Guam and the U.S. government concerning the rights to ocean management, Guam has not developed laws or regulatory processes for exploitation or management of non-living resources, or resources not covered by fishing laws. In the past, U.S. government restricted the territories from determining policy for regulation, conservation and development of ocean resources. A range of Guam agencies, departments, and port authority deal with sectoral coastal problems on a day-to-day basis. Confusion over jurisdictional limits have hampered comprehensive or connective management.

Major threats to resources include threats to fisheries, corals, and molluscs from over fishing and increased nonpoint source pollution; fisheries conflicts between regions related to disposal of waste in ocean space, and threats of pollution from ocean disposal; and threats of oil spills.

State Activities 1992-1996

Comprehensive Planning: Guam is moving toward incorporating elements of ocean resource management (e.g., commerce, fisheries, transportation) into its comprehensive land use planning documents.

Fisheries Management: Once the Magnuson Act was signed into law, Guam (the CNMI and American Samoa) took control of their exclusive economic zone.

Regional Planning: The NOAA Coral Reef Initiative allows for focus of coral reef issues directly affecting Guam, and fostered partnerships between science and management professionals to better protect the reefs. A regional work program was developed in conjunction with the U.S. Pacific Islands partners, and a local coral reef initiative will formalize Guam's efforts in protection and education. The Guam coastal management program is the lead for all of Guam's coral reef protection strategies.

Coordination: Guam has benefited from several associations to better protect its ocean resources, including the Fisheries Forum Association, Joint Interior-Commerce Working Group, and the South Pacific Commission.

Obstacles/Needs

Comprehensive Planning: Mechanisms and procedures for resolving ocean and coastal use conflicts remain inadequate, although improving. Likewise, enforcement systems are inadequate, resulting in jurisdictional confusion.

309 Strategy

Comprehensive Planning: Guam proposed to institute a planning team to identify critical issues, prepare technical papers, and suggest policies and implementing actions. The public must also be educated on the importance and the need for ocean stewardship and coastal conservation to help guide Guam's decisions and actions. Existing programs, activities, and funding resources along with the related laws and regulations for these programs should be inventoried and brought together to form the basis of an ocean plan. A Guam Ocean Resource Management Plan should be developed and should set forth guiding principles and recommendations to achieve comprehensive and integrated ocean management.

- Contact:
- Mike Ham
- Guam Coastal Management Program
- Guam Bureau of Planning
- Government of Guam
- Agana, Guam 96932
- Phone: 011.671.472.4201
- Fax: 011.671.477.1812
- E-Mail: mham@kuentos.guam.net

Hawaii

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: High

1997 Assessment: High

Issue Characterization

Ocean resources are critical to the social, economic, and physical well being of Hawaii, and its residents and visitors. A significant amount of public input and effort resulted in the adoption of an ocean resources management plan to govern coastal resources in Hawaii. A Marine and Coastal Zone Management Advisory Group was also established to facilitate the implementation of the ocean plan. In addition, there have been other efforts, such as the single purpose statutes (e.g., Hawaiian Humpback Whale Sanctuary), statewide planning groups (e.g., Coral Reef Initiative, Hawaii Marine Resource Inventory), and regional ocean planning efforts (e.g. Kaneohe Bay Master Plan) that have helped improve Hawaii's ability to protect and manage ocean resources.

Threats to Hawaii's ocean resources include rapid development of marine and coastal areas, and the opening of new areas for access; degradation of water quality from polluted runoff; and lack of monitoring and enforcement resulting from continued decreases in enforcement resources. Other threats include the damage to the marine ecosystem from overuse, some of which stems from lack of public understanding of potential use impacts; and resource degradation from oil spills.

State Activities 1992-1996

Comprehensive Planning: The legislature adopted the Ocean Resources Management Plan (ORMP) in 1994. In 1995, Act 104 incorporated the Plan into Hawaii's coastal management program and established the Marine and Coastal Zone Management Advisory Group (MACZMAG). The mandate of the Group is to facilitate the implementation of the Plan and to advise the coastal program on efforts to solve management problems.

Regional Planning: Two regional ocean and coastal management plans have been developed: the Kaneohe Bay Master Plan, for which a regional council was formed to implement; and the North Shore Kauai Regional Resource Management Planning Project.

Regional Planning: The Hawaiian Humpback Whale National Marine Sanctuary was designated by the U.S. Congress in 1992, the primary focus of which is education and research. In addition, several statewide ocean planning and working group efforts are underway. The Hawaii Coral Reef Initiative and the American flag Pacific Islands convened to develop the Pacific regional coral reef management plan; the Main Hawaiian Islands Marine Resource Investigation was initiated to assess the marine resources of the main Hawaiian Islands; and a Day-Use Mooring Buoy program was initiated to protect coral reefs from indiscriminate anchoring.

Oregon

309 Ocean Resources Enhancement Grant Summary

1992 Assessment: High

1997 Assessment: High

Issue Characterization

Oregon's efforts in ocean resource management have been thorough and consistent over the past several years, the highlight being the adoption of a comprehensive Territorial Sea Plan into its coastal program in 1995. Faced with a variety of management issues, such as accommodating diverse marine fisheries, protecting important seabird and marine mammal habitat and accommodating public use while protecting sensitive rocky shoreline areas, the State has worked to improve its institutional capacity and information base for management decisions and has initiated regional research and planning efforts to help address these issues.

Some of the highest threats to Oregon's ocean resources include harassment or disturbance of some marine mammals and seabird habitat areas from boats, aircraft, and humans on foot. Some accessible and popular rocky shore intertidal areas are highly threatened from increasing numbers of visitors including school groups which can result in habitat destruction and loss of marine species and biodiversity. The State has concerns regarding nearshore ocean kelp-reef areas and nearshore reef fisheries habitat, stemming from the variety of marine resources that use these reefs and potential for overuse and overharvest of some stocks. Increasing use of nearshore kelp-reef habitats is due primarily to shifts within the recreational and commercial fisheries caused by declines in salmon and groundfish harvest.

State Activities 1992-1996

Comprehensive Planning: Because ocean resources have been a high priority for the State since 1992, significant program changes have been made to address ocean management issues. These improvements include both internal program changes, such as a comprehensive management plan for the Territorial Sea that includes mandatory policies as well as guidance for educational and interpretive programs, and external coordination with other states and federal agencies to acquire better information and attempt to deal with ocean-resource issues on an ecosystem basis. Perhaps the biggest change in external conditions is the change in the ocean fisheries due to closure of most ocean salmon fishing and reductions in groundfish harvest allocations; this change has resulted in threats to the integrity of marine habitats and ecosystems throughout the nearshore area for which Oregon has responsibility. Specific program improvements include:

Regional Planning: A Rocky Shore Strategy was adopted as an element of the Oregon Territorial Sea Plan. The strategy provides a framework for implementing management measures at all rocky shore sites along the entire coast. (partially 309)

Education & Outreach: Support and assistance to community-based, volunteer rocky shore interpretive programs that help protect rocky intertidal resources through public awareness and a sense of personal stewardship. (309)

Interagency Coordination: Oregon's capacity to address nearshore ocean resource issues has been enhanced over the past five years. The improvements include increased technical, scientific and management expertise and enhanced collaborative relationships among State programs. (partially 309)

Ocean Mapping/GIS: The State has developed an inventory of information about the distribution, character, and variability of rocky shore habitats along the entire coast, habitat structure variability, and usage of some nearshore kelp/reef sites, and the population status of several marine mammals and seabird species that utilize Oregon's nearshore ocean area. (309)

Regional Ecosystems Studies: The State, collaborating with federal ocean agencies and academic research institutions, has initiated a region-wide study of coastal ecosystems, with an emphasis on effects of basin-scale variability and human stressors on nearshore and estuarine areas that are utilized by Pacific salmon and other species.

309 Strategy

Special Area Planning: Prepare area-based special management plans for a multi-site rocky shore areas where a cluster of significant management issues require resolution, and implement site-based rocky shore management measures such as interpretive signage and educational exhibits as prescribed in the Territorial Sea Plan.

Comprehensive Planning: Update and clarify the State's major ocean-resource goals and policies through an amendment to the Territorial Sea Plan and amendment to the State's ocean resources goal.

Research and Assessment: Continue to promote and seek funding for marine research and data development to support better management.

Obstacles/Needs

Lack of implementation: Lack of implementation of some management measures in the Territorial Sea Plan; the need to develop more localized special management area plans to address rocky shoreline and nearshore rocky reef area issues. State resource agencies, as opposed to the Coastal Management Program agency, lack staff and financial resources to fully implement measures and recommendations.

Ecosystem Information Gaps: There is a continuing need to fill information gaps about rocky shores, nearshore reefs, fishery resources and their ecological relationships, oceanographic conditions, and wider shore/reef ecosystem linkages. This will require significant, sustained, multi-disciplinary research, with funds that are not readily available, in order to develop a sophisticated information base to support planning and management of ocean resources.

Alternative Fishery Management: Single-species harvest allocations are not always appropriate for nearshore marine areas where many fisheries interact at an ecosystem scale. State and federal fishery agencies and other ocean resource agencies must develop better management approaches through special management areas or marine protected areas to sustain fish populations and the fishery economy as well as protect the integrity of marine ecosystems.

■ Contact:
■ Robert Bailey
■ Oregon Coastal Management Program
■ Department of Land Conservation and Development
■ 800 NE Oregon Street #18
■ Portland, Oregon 97232
■ Phone: 503.731.4065, ext. 27
■ Fax: 503.378.6033
■ E-Mail: bob.bailey@state.or.us



Great Lakes

Activities

Planning

State Activities 1992 to 1996

Comprehensive and Regional Planning

AS Protection of ocean resources is being enhanced through the establishment of a regional effort of the American Flag Pacific Islands Coral Reef Initiative. In addition, the South Pacific Regional Environmental Program provides some planning among Pacific island nations and territories.

FL The final management plan for the Florida Keys National Marine Sanctuary was released in September 1996.

GU Guam is moving toward incorporating elements of ocean resource management (e.g., commerce, fisheries, transportation) into its comprehensive land use planning documents.

The NOAA Coral Reef Initiative allows for focus of coral reef issues directly affecting Guam, and fostered partnerships between science and management professionals to better protect the reefs. A regional work program was developed in conjunction with the U.S. Pacific Islands partners, and a local coral reef initiative will formalize Guam's efforts in protection and education. Guam coastal management program is the lead for all of Guam's coral reef protection strategies.

Guam has benefitted from several associations to better protect its ocean resources, including the Fisheries Forum Association, Joint Interior-Commerce Working Group, and the South Pacific Commission.

HI The Hawaii legislature adopted the Ocean Resources Management Plan (ORMP) in 1994. In 1995, Act 104 incorporated the Plan into Hawaii's coastal management program and established the Marine and Coastal Zone Management Advisory Group (MACZMAG). The mandate of the Group is to

facilitate the implementation of the Plan and to advise the coastal program on efforts to solve management problems.

The Hawaiian Humpback Whale National Marine Sanctuary was designated by the U.S. Congress in 1992, the primary focus of which is education and research. In addition, several statewide ocean planning and working group efforts are underway. The Hawaii Coral Reef Initiative and the American flag Pacific Islands convened to develop the Pacific regional coral reef management plan; the Main Hawaiian Islands Marine Resource Investigation was initiated to assess the marine resources of the main Hawaiian Islands; and a Day-Use Mooring Buoy program was initiated to protect coral reefs from indiscriminate anchoring.

Two regional ocean and coastal management plans have been developed: the Kaneohe Bay Master Plan, for which a regional council was formed to implement; and the North Shore Kauai Regional Resource Management Planning Project.

MS The Environmental Protection Agency's Gulf of Mexico Program developed a Shellfish Challenge Project to increase shellfish beds and awareness of safe harvesting.

NH The Atlantic States Marine Fisheries Commission has developed harvesting regulations and funded various projects. The Commission currently maintains 16 different Fishery Management Plans and is developing several others. Several regional migratory bird planning and monitoring efforts are also underway.

NC The State formed a task force in 1993 to advise on the development of a state ocean plan. Six ocean issues were identified for consideration by the Task Force: hard mineral mining, pollution, marine fisheries, outer continental shelf oil and gas activities, recreational uses, and natural and cultural resources that might need special protection. The ocean plan consists of three parts: ocean resource data in geographic information system (GIS) format, an ocean management study, and enforceable state policies.

OR Ocean resources have been a high priority for Oregon since 1992, hence, significant program changes have been made to address ocean management issues. These improvements include both internal program changes, such as a comprehensive management plan for the Territorial Sea that includes mandatory policies as well as guidance for educational and interpretive programs, and external coordination with other states and federal agencies to acquire better information and attempt to deal with ocean-resource issues on an ecosystem basis. Perhaps the biggest change in external conditions is the change in the ocean fisheries due to closure of most ocean salmon fishing and reductions in groundfish harvest allocations; this change has resulted in threats to the integrity of marine habitats and ecosystems throughout the nearshore area for which Oregon has responsibility.

Special Area Planning

FL The number of underwater archeological parks has increased from two to five, with a sixth site in development. A management plan for the State's submerged cultural resources has been drafted, establishing goals and recommending changes to the Division of Historical Resources procedures.

MA The State has completed an Aquaculture White Paper and Strategic Plan. In addition, four agency policies relating to aquaculture have been developed and adopted for water withdrawal, shellfish seed sources, ocean sanctuary involvement in aquaculture permitting, and a coastal management program aquaculture policy.

PR The Underwater Archeology Council of the Institute of Puerto Rico Culture developed a procedure for identifying and protecting historic underwater shipwrecks by designating them as Natural Reserves under the coastal management program.

RI The State passed a bond referendum authorizing funds to support infrastructure improvements at Quonset Point/Davisville. The planned improvements to transportation facilities and other infrastructure are considered necessary to encourage private port development at the site.

Dredge Material Disposal

MA A Pilot Dredge Material Disposal Analysis for Essex County was conducted, resulting in the Dredged Material Assessment Program (DMAP). The DMAP is a computer program that determines the availability of reuse and disposal sites. The State later supported the development of a statewide DMAP which focused on the ports of Gloucester, Salem, New Bedford and Fall River.

RI The State is developing a Statewide dredged material management plan.

309 Strategy

Comprehensive and Regional Planning

AK The State intends to use section 309 funding to pursue a holistic ocean strategy for the Bering Sea, from which model policies would be adopted into the coastal management program and expanded upon for application in other regions of the State. Efforts will include the following efforts: 1) identify Bering Sea issues through a series of workshops, and examine ocean management programs of other states; 2) develop a model, integrated ocean strategy and conduct regional educational efforts; and 3) develop MOUs and/or MOAs to incorporate various participants into the strategy and into the coastal management program.

FL Florida is facilitating a dialogue with State, regional and local stakeholders to develop recommendations and strategies on ocean policy and management to present to the Governor. Public forums are used to educate stakeholders and build support for comprehensive ocean management.

GU Guam proposed to institute a planning team to identify critical issues, prepare technical papers, and suggest policies and implementing actions. The public must also be educated on the importance and the need for ocean stewardship and coastal conservation to help guide Guam's decisions and actions. Existing programs, activities, and funding resources along with the related laws and regulations of these programs should be inventoried and brought together to form the basis of an ocean plan. A Guam Ocean Resource Management Plan should be developed and should set forth guiding principles and recommendations to achieve comprehensive and integrated ocean management.

HI The Hawaii strategy for ocean resources includes legislative change, regulatory refinements, and development of necessary memorandum of understanding to effectuate priority recommendations in the Ocean Resources Management Plan (ORMP). Support of the Marine and Coastal Zone Management Advisory Group is important so that coordination with the implementing agencies is possible. Educational materials will also be developed to help improve public and policymaker awareness and support for the ORMP and other related policy initiatives.

MA The State proposed in its initial Strategy to complete the development of a Ocean Management Plan to better manage their ocean resources. The effort was put on hold for now due to the agreement among participants of an interagency workgroup to focus on other State environmental issues.

NC Although there is currently no political will to develop a comprehensive ocean plan, the State will continue to make substantial progress by implementing Ocean Task Force recommendations. The recommendations are related to the six issue areas identified by the Task Force, including: hard mineral mining, pollution, marine fisheries, outer continental shelf oil and gas activities, recreational uses, and natural and cultural resources that might need special protection.

OR The State will continue to update and clarify the State's major ocean-resource goals and policies through an amendment to the Territorial Sea Plan and amendment to the State's ocean resources goal.

Special Area Planning

OR The State will prepare area-based special management plans for a multi-site rocky shore areas where a cluster of significant management issues require resolution, and implement site-based rocky shore management measures such as interpretive signage and educational exhibits as prescribed in the Territorial Sea Plan.

Dredge Material Disposal

RI Rhode Island Coastal Resource Council's priority task related to ocean resources is the development of a dredged materials management plan for Rhode Island. The task consists of the development of a plan which addresses specific policy issues associated with dredging and dredged material disposal including disposal site uses, acceptable dredging methodologies and operational standards, acceptable disposal options based on dredged material, beneficial use guidelines, and monitoring criteria and testing protocols. The plan should allow for needed dredging while reducing the risk of oil spills and other hazardous spills by improving navigation, increasing opportunities for habitat restoration and creation through the beneficial use of dredged material, and developing a one-stop-shopping permit process for applicants for dredging activities.

Regulatory

State Activities 1992-1996

Single-Purpose Legislation

CA Amendments have been made to single purpose statutes affecting ocean resources, including amendments to fisheries laws, the Oil Spill Prevention and Response law and the Outer Continental Shelf Act.

LA The coastal program has instituted mitigation measures addressing adverse impacts described in Coastal Use Permit applications, including onshore facilities that support offshore activities.

ME The State sets priorities for the exclusive use of submerged lands through a State leasing program. In reaction to a bill that would have changed the public trust status of submerged lands, Maine passed legislation in 1996 to reduce the lease fee for upland uses to make it the same as water dependent uses.

MI Mississippi passed Ordinance No. 5.012 to establish specific criteria for where and when salt water fishing can occur.

NH New Hampshire has developed four statutes relating to ocean resources, including: 1) RSA 207: covers general fish and game provisions; 2) RSA 211: regulates the taking of freshwater fish, saltwater fish and clams, lobsters, and crabs, as well as aquaculture activities; 3) RSA 213: directs the governor to enter into the Atlantic States Marine Fisheries Compact; and 4) Chapter 212: regulates propagation of fish and game.

NC The State's Ocean Task Force presented several recommendations to the Marine Fisheries Commission. The legislature enacted a moratoria on new commercial fishing licenses and considered a proposal to initiate a sport fishing license. The Coastal Resources Commission is implementing a number of recommendations of the Ocean Task Force. Amendments to the State's coastal energy policies were

adopted which clarify the policies, expand the definition of energy facilities to include drill ships and onshore support structures, and provide criteria for the placement of facilities. The amendments provide greater protection to critical habitat by restricting activities to less biologically-productive periods and by avoiding sensitive habitat where possible. The new rule also requires habitat restoration if facilities (e.g., drillships, pipelines) are abandoned.

RI In 1996, the General Assembly passed the Marine Infrastructure Maintenance Act and associated amendments to the Coastal Resources Management Council's enabling legislation. The purpose of the Act was to officially recognize that it is in the best interest of the State to have a general dredging policy and a program that resolves issues related to dredged material management. The Act gave the Council the lead in developing a long term dredged material plan for the State's navigation on canals and marinas.

USVI Regulations have been enacted regulating the taking of Queen Conch from the exclusive economic zone in Puerto Rico and the U.S. Virgin Islands. In addition, the Commercial Fishing Rules and Regulations were amended to regulate conch and whelk harvesting and fish trap size.

Fishery and Aquaculture Management

FL The State Constitution was amended limiting marine net fishing by banning all gill nets or other entangling nets from use in State waters and prohibiting all other nets of more than 500 square feet of mesh area from use in nearshore and inshore waters.

GU Once the Magnuson Act was signed into law, Guam (the CNMI and American Samoa) took control of its exclusive economic zone.

ME Maine enacted legislation that shifts decision making authority from State officials to local lobstermen serving on community based councils. A revolving loan fund has been established for fishermen. A strategy was developed to conserve resources and create new jobs.

PR The Sea Grant College Program has presented the concept of Fishing Reserves to various groups of fishermen with a high level of acceptance. Fishing Reserves would be areas in which fishing activity is strictly controlled to permit the population of important species. A process of designation must also be developed.

309 Strategy

Fishery Management

ME The State has started to create a new co-management approach for the lobster fishery, and will create similar management systems for other fisheries. In order to foster an stewardship ethic among fishermen and to control entry into fisheries, the State will design a new system to slow entry into fisheries and will create more stringent qualifications for obtaining a license.

Non-Regulatory

State Activities 1992-1996

AL Alabama and Mississippi coastal programs have entered into a MOA to facilitate continued cooperation and information exchange in protecting their shared coastal resources from nonpoint source pollution.

AK Several important coastal management related efforts have occurred or are ongoing, including: 1) Memorandum of Understanding between the Division of Governmental Coordination and Minerals Management Service for coordinating oil and gas lease sale reviews in the Outer Continental Shelf; 2) Memorandum of Understanding negotiated for review of oil and gas exploration and development plans; and 3) creation of stakeholders task force by the Outer Continental Shelf Policy Council for development of the 5-year oil and gas development program for the Minerals Management Service.

ME Efforts will be undertaken to increase public awareness on marine habitat protection. The State will also establish guidelines using existing research on options to protect critical marine habitats.

MS An MOA was established with Alabama to facilitate efforts to protect and enhance Mississippi Sound resources.

Research and Assessment

State Activities 1992-1996

Regional Ecosystem Studies

NH The State supports and participates the Gulf of Maine's Council on the Marine Environment, which also includes participation from Maine, Massachusetts, and New Brunswick and Nova Scotia, Canada. The Council has developed the Gulfwatch monitoring program to test blue mussels for water toxicity as well as the Priority Habitat Identification Project to identify regionally significant habitats.

OR The State, collaborating with federal ocean agencies and academic research institutions, has initiated a region-wide study of coastal ecosystems, with an emphasis on effects of basin-scale variability and human stressors on nearshore and estuarine areas that are utilized by Pacific salmon and other species.

Critical Habitat Assessment & Protection

AL The State has a habitat program covering approximately 900 square miles. The State uses Loranc to identify coordinates for the corners of habitat zones so that shrimpers can avoid them.

ME The State's Land and Water Resources Council established a marine working group to coordinate State agency actions pertaining to marine resources. The State published its first intertidal habitat classification.

NH A Bird Study by the Great Bay Resource Partnership will enable researchers to better assess changes in migratory bird populations.

PR A special conference was organized to consider a new cooperative strategy for management of all coral reefs in Puerto Rican waters. Baseline data will be completed, and a manual developed for monitoring reefs long-term.

MD Adopted regulations under the federal Submerged Lands Act makes it necessary for a state to negotiate a lease with the Minerals Management Service to mine sand in federal waters. It is likely that Maryland will need significant sand resources during the 50 year life span of the Ocean City Beach Replenishment Project, so geological surveys are exploring the possible environmental effects of mining in the Maryland-Delaware region.

Ocean Resources Inventory

CA The Resources Agency has developed a detailed report called, California Ocean Resources: An Agenda for the Future which outlines the State's economic and institutional framework for ocean planning and governance, including an inventory of State and federal laws, rules, resolutions authorities and programs pertaining to ocean resources. The report also outlines recommendations for improving the protection of ocean resources and dealing with conflicts in use. California also hosted an international conference, California and the World Ocean '97, which focused both on California's ocean issues outlined in the Agenda and national and international ocean governance issues. (Occurred after the writing of Assessment and Strategy.)

MA A report detailing the various ocean uses and activities in State waters has been drafted. The State used this to explore through a Task Force the development of a comprehensive plan. The Task Force participants decided not to initiate plan development based on their opinions about its priority among other State environmental issues.

SC The Coastal Management Program and other specific policies on mining and dredge spoil disposal were reviewed to assure ocean resources were being acceptably managed. Existing policies were found to be adequate. The State also began increasing its knowledge of ocean resources data and statutes at the state and federal level through discussions with other South Atlantic states, and has participated on two state/federal partnership projects: the NOAA South Atlantic Ocean GIS mapping project, and the Minerals Management Service South Carolina Task Force on Offshore Resources.

Other

FL The State and EPA conducted studies on the dilution of nutrients from outfalls, which show dilution is sufficiently down to background levels before significant bioaccumulation occurs. The likelihood of new outfalls is very small.

MS The Mississippi Commission on Environmental Quality plans to authorize drilling in the Mississippi Sound, however a 1-mile buffer zone has been established around the islands of the Gulf Islands National Seashore.

309 Strategy

OR The State will continue to promote and seek funding for marine research and data development to support better management.

PR Depending on resources, Puerto Rico will implement a strategy for the cooperative monitoring and management of coral reefs.

SC South Carolina will monitor the utilization of offshore disposal sites administered by the Environmental Protection Agency. Since no information is kept regarding the total amount of material disposed in the sites, the State will review existing records and determine annual usage rates.

Outreach/Coordination

State Activities 1992-1996

Education & Outreach

AS The highly visible and well attended annual *Coastweeks* celebration in American Samoa includes education presentations on coastal resource protection and an island-wide beach clean up.

USVI The Virgin Island Department of Natural Resources held meetings with fishermen to discuss fish catch size and new techniques for making traps and fishing in general.

Interagency Coordination

CA The State has increased coordination through the California Ocean Resources Management Act (CORMA), however, habitat decline is still affecting living resources. The State also has established regional working groups, such as the Monterey Bay Sanctuary Advisory Council, and another regional effort, the Morro Bay National Estuary Program, was established.

OR Oregon's capacity to address nearshore ocean resource issues has been enhanced over the past five years. The improvements include increased technical, scientific and management expertise and enhanced collaborative relationships among State programs.

309 Strategy

Education & Outreach

HI Educational materials will be developed to help improve public and policymaker awareness and support for the Ocean Resources Management Plan and other related policy initiatives.

USVI Although ocean resources is deemed a low priority, any involvement should be aimed at an extensive educational outreach program geared towards resource conservation.

WI Wisconsin will provide education and outreach programs to better involve the public in combating the spreading of aquatic nuisance species and maintain the ecological integrity of the Great Lakes. The State also broadened its cumulative and secondary impacts of development program to include projects addressing aquatic nuisance species.

Interagency Coordination

HI The Hawaii strategy for ocean resources includes legislative change, regulatory refinements, and development of necessary memorandum of understanding to effectuate priority recommendations in the Ocean Resources Management Plan. Support of the Marine and Coastal Zone Marine Advisory Group is important so that coordination with the implementing agencies is possible.

MA The State proposes to develop a coordinated approach to protecting marine biodiversity, to integrate a wide range of interrelated programs, and to advance the State's stature in marine science.

Mapping

State Activities 1992 to 1996

Ocean Mapping/GIS

NC The State obtained spatial marine data on submerged vegetation, fishery nursery areas, anadromous fish spawning areas, seabird concentration areas, artificial reefs, and shipwrecks, bathymetry and shoreline data. The State is also participating in a state/federal regional South Atlantic Ocean GIS mapping project being designed by NOAA's Coastal Services Center.

MA An Ocean Resources Information Management System has been developed utilizing orthophoto base maps and an evolving series of data layers. Data layers completed to date or currently under development include: jurisdictions, shellfish areas, bathymetry and historic shorelines, eel grass beds, digital nautical charts, existing aquaculture facilities, oil spill environmental sensitivity maps, and contaminated sediment data.

309 Strategy

Ocean Mapping/GIS

FL The State is completing a Statewide Ocean Resources Inventory in ArcView GIS format, tying together physical and oceanographic data with related statutes and regulatory information. The system will provide resource managers current scientific and regulatory information to better manage ocean resources. Using information from the GIS Inventory and from the update of the study, Toward a State Ocean Policy, the Coastal Programs' Department of Community Affairs and the Office of the Governor are convening working groups to develop new legislation or memoranda of agreement to address ocean resources. The GIS Inventory is also helping guide, by example, progress on a state/federal regional project for a South Atlantic Ocean GIS.

SC The State is participating in two state/federal partnership projects, with the goal of helping develop an ocean GIS which will help identify offshore resources, including sand resources that could be used for beach renourishment. The two projects are a NOAA South Atlantic Ocean GIS, and a Minerals Management Service South Carolina Task Force on Offshore Resources.

MA The State has proposed to identify and map special marine habitats to better protect the marine biodiversity in State waters. These areas will be integrated into their existing Ocean Resources Geographical Information System and be utilized for siting, project review, marine monitoring, and potentially the designation of additional protected areas.

***Obstacles/
Needs***

Obstacles/Needs

Planning & Regulatory

The coastal states not only have an interest in ocean resources within their state waters, but also those resources lying beyond state jurisdictions found within the territorial sea and the Exclusive Economic Zone. Resources and uses of ocean areas under the jurisdictions of the U.S. and the states, are mostly governed under a regime that is fragmented among federal and state authorities, based largely on single-purpose statutes, and not integrated by broader state or national goals. The result is jurisdictional confusion and inefficient, often contentious decision-making that fails to consider impacts to ecosystems and ensure sustainable use of our oceans.

AK A comprehensive ocean resources management plan could provide for the balanced use and development of ocean resources, better coordination of existing resources, and the minimization of user conflicts are needed.

AS There is a need for a territory-wide, comprehensive management plan for ocean and nearshore resources, including comprehensive regulatory mechanisms. There are also specific needs to establish regulations on fishing through size of catch and/or gear restrictions to help immediately address problems with overfishing.

CA Development of guidelines for long-term planning of ocean resources and uses are needed, with specific policy priorities and guidelines for long-term management of the State's interests in federal waters. Also, specific controls are needed to minimize risks from vessel traffic offshore, to address shoreline erosion and shoreline processes, and clarify responsibility for the Commission's role in oil spill prevention and response with applicable federal consistency requirements.

CNMI The major gaps for the CNMI in meeting programmatic objectives are lack of a comprehensive ocean management plan, information regarding fisheries and habitat, and difficulties in intergovernmental coordination.

GU Mechanisms and procedures for resolving ocean and coastal use conflicts remain inadequate, although improving. Likewise, enforcement systems are inadequate, resulting in jurisdictional confusion.

ME The current single-species approach to fisheries management is not considered effective in maintaining both sustainable fish populations and the fishing industry. Also, the State needs a process to equitably allocate the private and public uses of submerged lands.

MD The State recognizes the need to develop a long-term management plan for the use of offshore sand deposits. Maryland will work with Delaware to develop a regional plan.

MA One of the gaps in meeting the programmatic objectives for ocean resources is the development of a comprehensive Ocean Resources Management Plan. During 1997-98 using 309 resources, the State explored through roundtables the development of a plan. State participants decided not to initiate plan development based on their opinions about its priority among other State environmental issues.

MS State ocean policies that provide a comprehensive and integrated framework for managing coastal resources. The state would also benefit from a task force to serve as a forum for conflict resolution and for balancing competing resources, interests, and needs.

Education & Coordination

NH Following federal regulations, the State manages ocean resources on a species by species basis. However, more work is needed to determine sustainable management practices that consider ecosystems as well. The State also lacks a holistic view of its ocean resources, with many state agencies' concerns ending at the shore; better off shore planning is necessary

OR There is a lack of implementation of some management measures in the Territorial Sea Plan, and the need to develop more localized special management area plans to address rocky shoreline and nearshore rocky reef area issues. State resource agencies, as opposed to the Coastal Management Program agency, lack staff and financial resources to fully implement measures and recommendations. Single-species harvest allocations are not always appropriate for nearshore marine areas where many fisheries interact at an ecosystem scale. State and federal fishery agencies and other ocean resource agencies must develop better management approaches through special management areas or marine protected areas to sustain fish populations and the fishery economy as well as protect the integrity of marine ecosystems.

PR Puerto Rico does not have any statutory language on management of ocean resources. Neither has there been any further discussion about a policy on sand for future construction.

Because of the complexity of ocean resources issues it is often difficult to identify a constituency interested in the balanced management of the ocean as a whole as opposed to the protection of one part of the marine environment, such as fish or marine mammals; thus, educating the public and decision-makers on ocean resources issues can be difficult. In addition, mechanisms are often not in place or available to encourage communication and coordination between state agencies responsible for managing a specific ocean resource or sector, or between state agencies and local universities which could help fuel new ideas about ocean management.

CA The State should help focus on ocean policy analysis in components of the its State educational system. The State also needs improvements to interagency management of ocean resources, including development of possible alternative conflict resolution mechanisms and frameworks.

HI Public involvement and awareness should be increased to build support for the ORMP and other efforts to improve the management of ocean resources. Also, there are numerous overlapping jurisdictions in Hawaii's coastal and nearshore areas that need to be resolved or better coordinated.

ME The State does not have funds to maintain an active education program to inform the public about marine resource issues.

MA There is a demonstrated need for significant interagency work to be done to develop a proactive approach to protecting this whale species.

Technical Needs/Information Gaps

Scientific knowledge needed to make sound management decisions regarding ocean resources is often limited. Better methods are needed for integrating scientific information into the management decision-making process. Likewise, access to and information on availability of existing data that can be used in developing information systems is limited.

CA Further reducing and improving the control of polluted runoff, and more focused attention on watershed management.

FL There are gaps in information available for the State Ocean Resources Inventory GIS. The State will encourage the standardization of geographic data and related information to allow as many State agencies as possible access and use of that information.

ME The State lacks sufficient information about the marine ecosystem to better protect sensitive and threatened marine habitat. The State also lacks site specific information on species population and migration patterns in dredged areas, which is needed to set more accurate time limits on dredging. In addition, Maine relies too heavily on ocean disposal for contaminated dredged material and needs to work towards developing long-term alternative disposal.

NH Continued work is necessary within the regional context to address fishery and migratory bird issues.

OR There is a continuing need to fill information gaps about rocky shores, nearshore reefs, fishery resources and their ecological relationships, oceanographic conditions, and wider shore/reef ecosystem linkages. This will require significant, sustained, multi-disciplinary research, with funds that are not readily available, in order to develop a sophisticated information base to support planning and management of ocean resources.

RI The State has technical needs associated with the development of a dredged materials management plan, including coordination with the identification of appropriate in-water disposal sites; biological, engineering, and economic evaluation of dredging and dredged materials disposal methods; the establishment of operational dredging standards; the assessment of appropriate beneficial uses for various sediment types; the establishment of parameters for the characterization of dredged materials developed; and the development of a classification scheme for sediment types.

SC Presently, there is a lack of data in the following areas: the utilization and capacity of offshore dredged material disposal sites; the location and suitability of offshore sand resources for beach renourishment; and the location of offshore cultural resources such as shipwrecks.

VA There is a lack of fish stock assessments. Establishment of a long term data collection program would benefit future program development.

Priority should be given to developing surveys to inventory areas representative of underwater cultural resources and their preservation, and to developing an information exchange program with watermen.

Funding/Political Will

Full development of a state comprehensive ocean management regime involves complex issues and numerous players and can be achieved only over the long term. This means a sustained commitment of resources which must be balanced with other state and territory priorities. In addition, there is often lack of political will since sustained public interest in ocean issues seems difficult except in times of disaster, and that issues that do arise are fairly specific (for example, fisheries, and oil and gas) and have historically been addressed in an ad hoc fashion.

AK Alaska has little special project funding available from other State or CZMA sources; the State's ocean resources efforts must rely heavily on more limited section 309 funding.

HI Although the Marine and Coastal Zone Marine Advisory Group has begun updating the Ocean Resources Management Plan and setting implementation priorities, resolving internal conflicts and implementing its recommendations will require sustained commitment of resources. There is also inadequate enforcement of existing regulations, and limited political will to implement the Ocean Resources Management Plan and address resource conflicts.

NC Although there are efforts underway to promote legislation establishing an ocean stewardship area, there is a lack of political support and funding to legislatively establish a comprehensive ocean management program.

RI Rhode Island's Coastal Resource Council has lost its ability to generate funding for program initiatives through permit, or any other type of, fees. At the same time, the Council has acquired new responsibilities. The Council has thus far been unsuccessful in its request for fiscal and technical support for the implementation of its new ocean resources mandates.

appendices

**STATE
OCEAN RESOURCES
CHANGES AND STRATEGIES**

STATE	PLANNING		REGULATORY		NON - REGULATORY		OUTREACH/ COORDINATION		RESEARCH ASSESSMENT		MAPPING	
	• s since '92	Current 309 Strategy	• s since '92	Current 309 Strategy	• s since '92	Current 309 Strategy	• s since '92	Current 309 Strategy	• s since '92	Current 309 Strategy	• s since '92	Current 309 Strategy
Alabama					•		•		•		•	
Alaska					%••	%		%				
A. Samoa	•		•		•		•					
BCDC	No	Changes										
California			••				•••					
CNMI		%				%		%				
Connecticut	No	Changes										
Delaware	No	Changes										
Florida	••	%	•				•	%	•			
Guam	•	%	•				••	%				
Hawaii	••		••	%		%	•	%	••			
Louisiana			•									
Maine		%	••			%	%	%	•	%		
Maryland			•						•			

STATE	PLANNING		REGULATORY		NON - REGULATORY		OUTREACH/ COORDINATION		RESEARCH ASSESSMENT		MAPPING	
	%%	%			%%	%			%	%	%	%
Massachusetts	%%	%			%%	%			%	%	%	%
Michigan	No	Changes										
Mississippi	•		••		•		•		•			
New Hampshire	•		•••••						••			
New Jersey			•		••				•			
New York	No	Changes										
North Carolina	%		••%						%		%	
Oregon	%	%				%	%%•	%	•	%	%	
Pennsylvania	No	Changes										
Puerto Rico							•		%•	%		
Rhode Island	%	%	••									
South Carolina									•	%	•	%
USVI												
Virginia	No	Changes										
Washington			•				•					
Wisconsin			•					%				

U.S. Department of Commerce
National Oceanic and Atmospheric Administration • National Ocean Service

William M. Daley

Secretary, U.S. Department of Commerce

D. James Baker, Ph.D.

Under Secretary of Commerce for Oceans and Atmosphere and Administrator, National Oceanic and Atmospheric Administration

Terry D. Garcia

Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy Administrator, National Oceanic and Atmospheric Administration

Nancy Foster, Ph.D.

Assistant Administrator for Ocean Services and Coastal Zone Management, NOAA National Ocean Service

