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# **Preliminary Overview of US Regional Ocean Governance Initiatives**

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## INTRODUCTION

Both the U.S. Commission on Ocean Policy and the Pew Oceans Commission recommended the use of regional ocean governance (ROG) in their final reports, released in December 2004 and June 2003, respectively. The U.S. Commission Report devoted an entire chapter<sup>1</sup> to promoting regional ocean governance, calling for the creation of flexible and voluntary regional ocean councils to coordinate the private sector, academia, and all levels of government in large-scale ocean and coastal management. The Pew Oceans Commission contained a recommendation to establish regional ocean ecosystem councils,<sup>2</sup> consisting of federal and state government and tribal representatives, with permanent advisory committees to obtain views of private industry, non-governmental organizations, local government and the public. These councils would be charged with developing and overseeing implementation of enforceable regional ocean governance plans. Finally, the U.S. Ocean Action Plan,<sup>3</sup> released in December 2004, contains many specific objectives for regional cooperation and management of oceans and the Great Lakes. An official recommendation of the U.S. Ocean Action Plan is to support regional collaborations on oceans, coasts, and Great Lakes policy in partnership with leadership of states, localities, and tribes. An example of this type of regional collaboration is the Great Lakes Interagency Task Force, which was put into effect by the Executive Order signed by President Bush on May 18<sup>th</sup>, 2004. All of these activities signal the recent increase in attention regional ocean governance has received over the last two years, and its prominence at the federal and state level is expected to continue to grow in the near future.

This document is prepared and distributed as a discussion piece for a workshop held at the Coastal Zone 2005 Conference, July 20, 2005, New Orleans, LA. The purpose of the workshop, “Regional Ocean Governance in the US: Concept and Reality”, is to assist those individuals involved in developing and implementing ROG activities, and to assist those who are just beginning to conceptualize a ROG approach. The objective is to develop a baseline of information about existing and emerging ROG efforts. The baseline will describe the institutional structures and objectives of ROG efforts such as participants, goals, scope of activities, level of effort, and primary linkages to other institutions. Additionally, operational dynamics will be discussed such as impetus for development, opportunities for growth, constraints to overcome, and future needs. The workshop will address ecosystem-based management within regions and how ROG contributes to advancing that concept. Commonalities and differences in ROG work will be described to portray a national picture. A workshop report will be prepared describing the “state of the art” as of mid-2005, and will be widely distributed. Finally, we will begin to explore the development of a “learning network”.

This document attempts to capture the latest in new or evolving attempts at regional ocean governance in each major region of the US based on initial, limited research by student

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<sup>1</sup> Chapter 5, U.S. Commission on Ocean Policy. An Ocean Blueprint for the 21<sup>st</sup> Century. Final Report. Washington, DC, 2004 Available at: <http://www.oceancommission.gov/>.

<sup>2</sup> Recommendation 2, Pew Oceans Commission. America's Living Oceans: Charting a Course for Sea Change. Available at: <http://www.pewtrusts.org/>.

<sup>3</sup> U.S. Ocean Action Plan: The Bush Administration's Response to the U.S. Commission on Ocean Policy, Available at: <http://ocean.ceq.gov/>.

members of The Coastal Society University of Washington Student Chapter (Craig Russell, John Hansen, Marnie Meyer, Simon Geerlofs, and Carrie Byron) with exception to the profile for Alaska which was completed by Heather V. Brandon, Alaska Ocean Policy Coordinator. At the time of this release we were unable to obtain information on the Caribbean region. Although we do not focus on activities of the fisheries management councils (FMCs), we do acknowledge they are actively pursuing understanding how they may best fit into a new ROG approach. The profile on Alaska discusses efforts to determine how FMCs can participate in a new regional ecosystem council. Reporting on FMCs will require additional investigation. Most discussions on Integrated Ocean Observing System Regional Associations (IOOS RAs) are limited, except when the RA activity is the only new or developing activity in that region. However, we do recognize that any regional approach will require robust information resources and do not intend to minimize the role or importance of RAs. Since we did not have enough time to vet these profiles through the appropriate regional contacts, these profiles and the information or opinions expressed within represent only the authors and the sources cited, and not officials from the major activities unless otherwise noted. For more or up-to-date information, we suggest contacting or speaking with the key leaders or players noted for that activity.

Findings in this document are preliminary and may require modification or clarification. Comments, questions, and other feedback are welcome and should be directed to the authors at [craigr@u.washington.edu](mailto:craigr@u.washington.edu).

Finally, we would like to thank the many individuals from around the country who provided information, links, or other references to aid the development of this preliminary report.

# ALASKA

## Summary

Alaska is the nation's only arctic state, with more than half of the nation's offshore waters, two-thirds of the nation's coastline, 40% of the nation's surface water, 20% of the nation's land base, and over 50% of the nation's wetlands. Alaska's oceans are productive, and sustainably managed. In these respects, Alaska is unlike any other coastal state and is the nation's best example of environmental quality partnered with productivity. Any national ocean policy framework should seek to achieve this level of sustainable natural resource use throughout the nation.

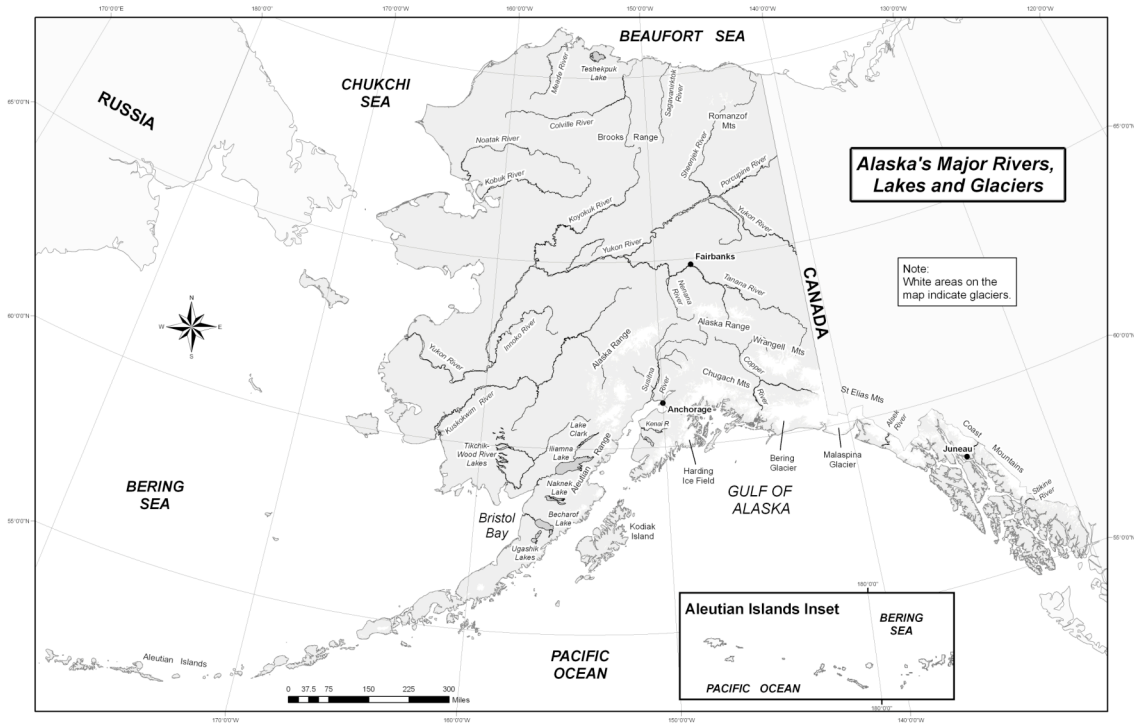
Alaska fought hard for statehood in 1959 and to gain the same sovereignty granted to other states under the Constitution. Alaska is bound by the same federal laws and enjoys the same freedoms, responsibilities, and duties as all other states that comprise the United State's of America. Under the Constitution and federal laws, states are provided the jurisdictional authority for pollution control, coastal management, regulation of intertidal and upland watershed development, and allocation of fish and wildlife resources.

The U.S. Commission on Ocean Policy report provided ample evidence that many of the nation's ocean management problems stem from poor coordination and inadequate funding of numerous single purpose federal ocean management and pollution control programs. A national ocean policy framework must include three fundamental principles important to all states:

1. Successful national policy must reflect the sovereignty and jurisdiction of states for coastal and upland resource management and land use regulation;
2. Measurable results can and should be achieved from existing ocean and coastal resource laws and programs, supported by increased federal funding and coordination; and
3. Regional ecosystems vary widely. Applied science and environmental monitoring must be tailored and site-specific.

## Regional Definition or Description

The size and quality of Alaska's ocean and coastal resources are unparalleled. Alaska's Exclusive Economic Zone (EEZ) comprises over 50% the nation's offshore waters. Following the Mississippi River watershed, the Yukon River watershed is the nation's second largest and covers nearly the entire state. Ecosystems in Alaska range from arctic tundra to temperate rainforest.



**Figure 1. Map of Alaska’s oceans (by Carol Barnhill, ADF&G).**

Alaska has vast proven and unexplored natural resources. Alaska oceans and coastal watersheds produce 25% of the nation’s oil, over 50% of the nation’s seafood, and minerals from several world-class mines, including the world’s largest operating zinc mine.

The unique regional nature of Alaska’s ocean and watershed resources are also reflected in their quality. Alaska’s resources, for the most part, are healthy, productive, and relatively pollution-free. EPA’s 2005 report on the condition of the nation’s coast concludes that, “Alaska’s coastal resources are generally in pristine condition. Concentrations of contaminants have been measured at levels significantly lower than those in the rest of the coastal United States.” (<http://www.epa.gov/owow/oceans/nccr/2005/index.html>)

Alaska has only one community (Anchorage) that would be considered urban by the other states. Most of Alaska’s communities are isolated, small, and can only be reached by air or water. There is no statewide power grid; most Alaska communities depend on energy produced from individual community diesel generators. Alaska communities are also the home of 229 federally recognized tribes – over 40 % of the nation’s total number of tribes, many of whom are linked culturally and economically to Alaska’s fish and game resources.

When Alaska was a Territory prior to statehood in 1959, the United States government asserted exclusive jurisdiction for managing Alaska’s ocean and coastal resources. Centralized federal management allowed the use of fish traps with devastating impacts to Alaska’s salmon populations. The desire of Alaskans to protect the fisheries resource with local management was a preeminent motivation for petitioning Congress to grant Alaska statehood.

In granting statehood, Congress ratified Alaska's Constitution, which includes a provision that "Fish, forests, wildlife, grasslands, and all other replenishable resources belonging to the State shall be utilized, developed and maintained on the sustained yield principle."

(<http://ltgov.state.ak.us/constitution.php?section=8>)

Alaska is also uniquely situated to develop its own version of regional ocean coordination. Alaska's ocean and coastal resources are all confined to one state with an executive branch of government that includes two natural resources agencies (Dept. of Natural Resources, Dept. of Fish and Game), a pollution control agency (Dept. of Environmental Conservation), a single state fisheries regulatory entity (Alaska Board of Fisheries), a single federally-recognized regional fishery management council (North Pacific Fishery Management Council), and a number of federal resource management and pollution control agencies with regional office personnel physically located in Alaska to work on Alaska specific issues (NOAA, MMS, USFS, USCG, USFWS, NPS, DOD).

## Overview of Major Activity

### 1. Alaska Ocean Policy Cabinet (state agencies only)

#### a. **Players, Leaders, and Organizations Involved**

Governor Murkowski established the Alaska Ocean Policy Cabinet in 2004. The Ocean Policy Cabinet consists of six individuals: four agency commissioners [Departments of Natural Resources (DNR), Environmental Conservation (DEC), Fish and Game (ADF&G), and Commerce, Community and Economic Development (DCCED)], the Director of State/Federal Relations, and the Governor's fish policy advisor. The Ocean Policy Cabinet has one staff (Ocean Policy Coordinator) whose duties include the coordination and communication of information related to ocean research and management among state agencies, with federal and local governmental entities, and with nongovernmental organizations in Alaska.

#### b. **Key Issues Addressed**

- Federal ocean and coastal resource legislation as it pertains to the state (e.g., Magnuson-Stevens Act reauthorization, National Offshore Aquaculture Act, Coastal Zone Management Act reauthorization).
- State ocean strategic planning.
- Cross-agency ocean issues which require collaboration.
- State ocean and coastal research priorities.
- Major resource development and environmental protection issues.

#### c. **Geographic Scope**

The Ocean Policy Cabinet members have jurisdiction over state-owned living and non-living resources, and the authority to set and enforce environmental quality standards by permitting for pollution discharges to Alaska's air, land, or water. The state cabinet members are authorized to manage all state-owned renewable and non-living resources. The Ocean Policy Cabinet does not have jurisdiction over activities on federal lands (comprising 60% of the state) or in federal waters (EEZ). However,

Alaska has a federally approved Coastal Management Program that allows the state (DNR) to review federal activities or federally permitted activities for consistency under the Coastal Zone Management Act. The State of Alaska (through DFG's designated seat and gubernatorial appointments) also has a majority membership on the North Pacific Fishery Management Council, which has management jurisdiction over most commercial fisheries in the EEZ.

**d. Tools Used**

The Ocean Policy Coordinator position was created by gubernatorial administrative order (<http://www.gov.state.ak.us/admin-orders/223.html>). The Ocean Policy Cabinet meets informally at least once a month.

The Ocean Policy Cabinet is the state entity that can receive inquiries and engage federal agencies on regional ocean governance and collaboration discussions. Commitment of the State of Alaska to collaboration on ocean-related projects (i.e. case studies, pilot projects, workgroups) can occur through the Ocean Policy Cabinet.

**e. Use of Information**

The information used in the past and currently has primarily been on policy, collaborative bodies, and governance structures. The Ocean Policy Cabinet continues to engage in high-level policy discussion, rather than to get into natural science products such as ecosystem assessments or the establishment of ecosystem health indicators. The research community in Alaska is extensive, well funded, and usually includes State of Alaska representation, which allows information to flow back into the state agencies and to the Ocean Cabinet.

**f. Timeline**

The Ocean Policy Cabinet was established in late winter, 2004 and the Coordinator position was created in December 2004.

Several factors influence the state's timeline for developing Alaska's ocean collaboration plan, such as state legislative session timing and length, and drivers external to the state such as federal legislation, federal agency planning and budgeting (primarily NOAA/NMFS and EPA), court case decisions (Exxon Valdez Oil Spill "re-opener") and pressure from groups (NPFMC, AOOS) to partner on ocean-related planning.

## **2. North Pacific Fishery Management Council**

**a. Players, Leaders, and Organizations Involved**

Stephanie Madsen, Chair of the North Pacific Fishery Management Council, also Chairs the NPFMC's Ecosystem Committee. The Ecosystem Committee has membership from academia (Prof. Dave Fluharty of University of Washington), NPFMC members, an environmental non-governmental organization (Jim Ayers of Oceana), an industry organization (Dave Benton of Marine Conservation Alliance), and others.

**b. Key Issues Addressed**

The Ecosystem Committee investigated how the NPFMC would either become on interact with a “regional ecosystem council”, as described in the U.S. Commission on Ocean Policy report.

**c. Geographic Scope**

Commercial fisheries occur in two Large Marine Ecosystems (LMEs) off of Alaska’s shores: Gulf of Alaska and the Bering Sea. The NPFMC has jurisdictional authority over commercial fisheries in the Exclusive Economic Zone (EEZ) of these two LMEs. There are no commercial fisheries in the Arctic Seas.

**d. Tools Used**

n/a

**e. Use of Information**

n/a

**f. Timeline**

n/a

**Regional Integrated Ocean Observing Systems:**

**Alaska Ocean Observing System (AOOS).** AOOS is in the process of development. Partners have already signed an MOA, developed an interim governance structure, hired a director, and established an office in Anchorage, AK. AOOS has a close working relationship with the North Pacific Research Board (Clarence Pautzke, Executive Director), sharing staff and office space. AOOS has several signatories to the MOA including the University of Alaska, National Weather Service, Sea Life Center, Exxon Valdez Oil Spill Trustee Council, Prince William Sound Science Center, Alaska Fisheries Science Center, Minerals Management Service, Barrow Arctic Science Consortium, Arctic Research Commission, U.S. Geological Service, NOAA Arctic Programs, and Alaska Sea Grant. Other users include industry groups, including fisheries and aquaculture associations. Activities will be coordinated on a scale, which is smaller than a Large Marine Ecosystem. Key Leaders: Molly McCammon, Executive Director. (AOOS Home Page)

**Acknowledgements**

Special thanks to Heather V. Brandon, Ocean Policy Coordinator for the State of Alaska, for developing this profile.

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EPA Coastal Conditions Report II (2005)

<http://www.epa.gov/owow/oceans/nccr/2005/index.html>

Alaska Ocean Observing System Home Page (AOOS) (2005)

<http://www.aos.org/>

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## **PACIFIC NORTHWEST**

### **Summary**

There are a few activities underway in the Pacific Northwest. Three activities are: a University of Washington Regional Ocean Governance Project, a Nature Conservancy (TNC) Marine Initiative on Ecoregional Planning, and regional ocean observing systems (NANOOS & PACOOS). There are dozens of regional collaboration or coordinating entities in the Pacific Northwest. Most of these are focused on single-issues such as oil spill response, fisheries management, salmon recovery, water quality, and sediment management. Others address a broader suite of issues more holistically. Though these activities continue to play an important role in ocean and coastal management in the Pacific Northwest, they are not the focus of this overview of new initiatives. This profile reviews the two outer coast activities conducted by the University of Washington and The Nature Conservancy, and the NANOOS ocean observing system. Not profiled but worth noting is a new dialog between Washington, Oregon, and California recently on regional collaboration as a result of encouragement from the White House Council on Environmental Quality. In addition, Washington and Oregon each have ocean policy advisory councils. Oregon's Ocean Policy Advisory Council (OPAC) is well established but recently reconstituted itself, holding its first meeting in June 2005 and will be establishing its agenda. The Washington state legislature authorized a state ocean policy review by an ocean policy workgroup. The workgroup will develop two reports for submittal to the Governor and legislature at the end of 2005 and 2006.

### **Regional Definition or Description**

The Pacific Northwest (PNW) region consists of the area from the upland watersheds out to the extent of the exclusive economic zone (EEZ) of Washington State and Oregon, northern California, and the Province of British Columbia, Canada. First nations and tribal lands and resources within Canadian provinces and US states are also included in the region. The state of Idaho is also sometimes included in the region. The boundary varies depending on who is defining "region" and by what criteria. Some regional definitions include all of California due to connectivity to the California Current. The Columbia River Basin joins Washington and Oregon and is an important source of hydropower and water for agriculture. In both Oregon and Washington, population centers are found on inland waters, with outer coasts possessing dramatic rugged coastlines or lightly developed coastal beaches. A major driver in the Pacific Northwest is the restoration and protection of endangered or threatened salmon populations impacted by steady population growth and resulting habitat

loss and water quality impairment. Pacific Northwest ports are also major hubs for international and trans-continental shipping and trade. Commercial fishing, agriculture, timber, aerospace, tourism and information technology are major economic activities of the region. The Olympic Coast National Marine Sanctuary covers 2,500 square nautical miles off the coast of Washington state.

## **Overview of Major Activities**

### **1. University of Washington Regional Ocean Governance Project**

#### **a. Players, Leaders, and Organizations Involved**

Dr. Richard Spinrad, NOAA's Assistant Administrator for Oceans and Coastal Zone Management: provides funds for grant that implements this project.

Margaret Davidson, Director of the NOAA/NOS Coastal Services Center in Charleston, SC: oversees grant implementation.

Prof. Marc J. Hershman, Professor, School of Marine Affairs and Adjunct Professor, School of Law, University of Washington: director of UW project.

The Nature Conservancy (TNC): various staff provide expertise on information use and management related to ROG.

#### **b. Key Issues Addressed**

The purpose of this project is to assess the potential for ROG in the PNW. The project is developing a list of priority issues raised during interviews by key leaders throughout the region, formulating and advancing an approach for thinking about ROG institutional diagnostics, offering insights into next steps in the PNW, and building a network of regional leaders to share information and support a regional approach in the PNW. Through a partnership with TNC, the project is also investigating the use, role, and availability of information resources to support ROG. The project is also hosting a workshop on ROG at the bi-annual Coastal Zone conference in July 2005, to advance an understanding of ROG activities around the country and build a learning network for key leaders and participants. The PI of this project also works closely with CA, WA and OR leadership to promote ROG on the West coast.

#### **c. Geographic Scope**

Same as overall region.

#### **d. Tools Used**

The project is funded by NOAA/NOS through a grant from NOS/CSC. The partnership with TNC requires occasional collaborative meetings. Research and publication are the primary tools used in this project. Research involved elite interviews with regional leaders and case profiles of existing sub-regional organizations in the PNW. A related side project involved advancing legislation to establish a State Ocean Review Panel in the Washington State Legislature. The

project anticipates holding a regional leadership workshop in December 2005 in addition to the national workshop at the Coastal Zone conference in July 2005.

**e. Use of Information**

This project aims to facilitate integration and use of information by coordinating with entities such as TNC's Marine Initiative and NANOOS. The project is also actively engaging regional leaders in the PNW and US to build a network for information sharing.

**f. Timeline**

June 2004 – held initial workshop on ROG in the PNW

August 2004 – receive funding and begin major research

August 2004 – June 2005 – complete research and prepare report

July 2005 – host ROG Workshop at CZ05, New Orleans, LA

September 2005 – distribute Project Final Report and Workshop Proceedings

December 2005 – host regional leadership workshop in PNW

**2. The Nature Conservancy Ecoregional Planning Initiative**

**a. Players, Leaders, and Organizations Involved**

Dr. Richard Spinrad, NOAA's Assistant Administrator for Oceans and Coastal Zone Management: provides funds for grant that implements this project.

Margaret Davidson, Director of the NOS Coastal Services Center in Charleston, SC: oversees grant implementation.

The Nature Conservancy Marine Initiative:

Lynne Hale, Director

Mike Beck, Chief Scientist

Dick Vander Schaaf, Scientist and Ecoregional Planner

Zach Ferdana, Ecoregional Planner and Geospatial Analyst

Jacques White, Ecoregional Planner

TNC also partners with the US Fish and Wildlife Service, Washington Department of Natural Resources, Washington Department of Fish and Wildlife, Oregon Natural Heritage Program, Conservation Data Center of British Columbia, Nature Conservancy of Canada, Bureau of Land Management, People for Puget Sound, University of Washington, Archipelago Marine Research, LTD., and Land Use Coordination Office, British Columbia.

**b. Key Issues Addressed**

TNC's Ecoregional Planning activities focus on conservation planning for conservation of natural resources and habitat and to achieve other management actions. Through use of their Ecoregional Planning Process and decision support tool, they are working with state, local, and other entities in the PNW to develop conservation plans and strategies. Through the CSC grant, TNC is improving the

role and availability of socio-economic and geo-political data in ecoregional planning and decision-making. Their ultimate goal is to develop a tool that can be used and modified by various interests for decision-making in an ROG context.

**c. Geographic Scope**

TNC defines the region based on nine distinct eco-sections: Queen Charlotte Sound and Strait along the outer waters of north Vancouver Island, Johnstone Strait in the inland seas of Vancouver Island, Vancouver Island continental shelf along the island's West coast, the Strait of Juan de Fuca, two sections north and south of Pt. Grenville, Washington, and two sections north and south of Cape Arago, Oregon. The ecoregion also includes connect uplands (TNC 2004).

**d. Tools Used**

The project is funded by NOAA/NOS/CSC. TNC uses partnerships and contracts with state and other entities to apply and modify their decision support system. They also hired a graduate student to research expansion of socio-economic and geo-political information use.

**e. Timeline**

N/A

**Regional Integrated Ocean Observing Systems:**

**Northwest Association of Networked Ocean Observing Systems (NANOOS).**

Organized and led by the University of Washington and Oregon State University, NANOOS is a developing IOOS regional association focused on addressing the ocean and coastal observing and prediction needs of users in northern California, Oregon, and Washington, with strong linkages to established programs in British Columbia and Alaska (NANOOS Home Page). NANOOS is in the process of developing its governance structure. Once constituted, NANOOS next step will be to form a 501©3 non-profit organization to facilitate information, funds, and technology transfers. Key leaders: David Martin, Director (UW-APL), Antonio Baptista, Executive Director (OSU), Jan Newton, Coordinator (UW-COFS).

**Pacific Coast Ocean Observing System (PACOOS).** PACOOS is the ocean observing backbone for the California Current large marine ecosystem (LME), composed of academic partners, foundations, state fisheries agencies, and other organizations to provide information services and products for fisheries resources, marine birds and turtles, and protected marine mammals, and to forecast ecosystem changes resulting from fisheries, environmental variability and climate change (PACOOS Web site).

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## CALIFORNIA

This section will summarize the recent developments in Regional Ocean Governance in the State of California, focusing on the recent formation of the California Ocean Protection Council.

### Regional Definition or Description

Because of its coastal length, and diverse coastal environment, California is considered a region, despite it not being multi-State. California's important coastal features include the San Francisco Bay, the Monterey Bay and Channel Islands National Marine Sanctuaries, and a coastal border with Mexico to the south. California is home to three of the four largest ports in the U.S. (Los Angeles, Long Beach, and Oakland). California's coastal population is over 21,000,000, a number that is expected to grow steadily over the coming years. Overall, California is an important coastal region of the U.S. based on its large economic, political and aesthetic value.

### Ongoing Regional Activities

- **CALFED Program:** Established in 1994 to develop and implement a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta System.
- **California Coastal Commission:** Established in 1972, the Commission is charged with protecting, conserving, restoring, and enhancing environmental and human-based resources of the California coast and ocean for environmentally sustainable and prudent use by current and future generations.
- **California Coastal Conservancy:** Established in 1976, a state agency that uses entrepreneurial techniques to purchase, protect, restore, and enhance coastal resources, and to provide access to the shore.

## Overview of Major Activity

### 3. California Ocean Protection Council

#### a. **Players, Leaders, and Organizations Involved**

The California Ocean Protection Council is housed in the Ocean Resources Management Program of the California Resources Agency. The Council chairman is Mike Chrisman (Secretary of Resources); with council members Cruz Bustamante (Lieutenant Gov, Chair of State Lands Commission), Sheila Kuehl (State Senator) and Alan Lloyd (CalEPA Secretary). The lead staff-person for the Council is Brian Baird (Assistant Secretary for Ocean and Coastal Policy).

#### b. **Key Issues Addressed**

At their first meeting in March 2005, the Council called for coordination of state agencies and the gathering of scientific data, and recommended some necessary changes to State and federal law. They also highlighted the importance of ecosystem-based management in all state ocean and coastal agencies. Major emphasis was placed on tracking the progress of the Federal Energy bill, and issues with lifting offshore oil/gas moratorium in State waters. The Council discussed Tidelands Revenue as source for funding, with possible funds of \$10 million. At their latest meeting, on June 10, 2005, the Council adopted interim guidelines for funding, project selection, and application procedures. Further, the Council staff is now soliciting public comment on the *Draft California Ocean and Coastal Information, Research, and Outreach Strategy*. Finally, the Council is organizing the Ocean and Coastal Economic Summit with the California Biodiversity Council to be held July 21-22.

#### c. **Geographic Scope**

Scope of the Ocean Protection Council is limited to State jurisdiction.

#### d. **Tools Used**

The Council was recommended in the California Ocean Action Plan, and as a result was established by Statute, found in Division 26.5 of the Public Resources Code, Sections 35500-35650. The California Ocean Action Plan, released by Governor Schwarzenegger, calls for additional attention to regional issues, which could be addressed by system of regional councils. However, these will only be supported if they serve to enhance existing efforts, rather than duplicating previous activities. The plan also called for the Federal government to provide incentives to encourage initial regional meetings to identify needs and working relationships.

#### e. **Use of Information**

The Council is still in the process of formation, and presently the Council is using existing State ocean and coastal agency resources. While not directly associated with the California Ocean Protection Council, California does contain two regional associations for ocean observing, serving a national IOOS. (See #2 below for more information.)

**f. Timeline**

The Council was established in September 2004. First meeting was held March 21, 2005 with second meeting on June 10, 2005.

**Regional Integrated Ocean Observing Systems:**

**Central and Northern California Ocean Observing System (CeNCOOS) & Southern California Coastal Ocean Observing System (SCOOS).** In California, there are two integrated ocean observing systems in both Northern and Southern California. The first is the Central and Northern California Ocean Observing System, a multi-institution collaboration made up of 55 groups, ranging geographically from San Luis Obispo in the south to Arcata in Humboldt County in the north. Its southern counterpart is the Southern California Coastal Ocean Observing System, made up of 11 organizations including many University of California campuses and JPL/NASA. Both of these organizations are partnerships between State and federal agencies, academia, and private groups. There are separate partnerships for Northern/Central California and Southern California, with separate leaders and staff involved.

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<http://www.coastalconservancy.ca.gov/>; accessed 6/17/05

<http://www.cencoos.org/>; accessed 6/21/05

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**PACIFIC ISLANDS**

This section will summarize the recent developments in Regional Ocean Governance in the Pacific Islands, focusing on the recent formation of the Ocean and Coastal Council in Hawaii and ocean governance in Guam.

**Regional Definition or Description**

This region encompasses the U.S. States and territories in the Pacific Ocean, with focus on Hawaii and the territory of Guam. The Hawaiian Islands are the longest island chain in the world, covering over 1,500 miles in length. The water area of Hawaii covers over 4,500 square miles, with 1,000 miles of total coastline. The Hawaiian Islands include such

protected areas as the Hawaiian Islands Humpback Whale National Marine Sanctuary, in addition to extensive coral reefs and valuable aquatic habitat. Combined with popular beaches and tourist attractions, Hawaii is one of the most economically and aesthetically valuable ocean regions of the U.S. Guam's ocean area and coasts are also popular tourist destinations, supporting a \$300 million-a-year industry. With coral reefs holding over 400 species of coral and 1,000 species of fish, extensive wetlands and mangroves, Guam is also an invaluable component of the ocean and coastal resources of the U.S.

## **Overview of Major Activity**

### **1. Hawaii Ocean and Coastal Council**

#### **a. Players, Leaders, and Organizations Involved**

The Hawaii Ocean and Coastal Council was established in the Department of Land and Natural Resources, and is chaired by Peter Young (DLNR Chairman). The Council is made up of 25 members, from State, federal, and local government, NGOs and academia. Presently, the Council has met once, and has only begun organizational activities.

#### **b. Key Issues Addressed**

As the Council is still in its formation stages, there is not a well-defined agenda or priority agenda at this stage. Currently, much of the work of the Council is working towards an agenda for an Ocean Summit meeting in October 2005, focusing on Pacific Islands Region.

#### **c. Geographic Scope**

The geographic scope of the Council limited to State of Hawaii jurisdiction.

#### **d. Tools Used**

The Hawaii OCC was formed by Governor Lingle's Executive Order No. 5.

#### **e. Use of Information**

Because the Council is in its early stages, their resources are currently limited to those existing previously for DLNR.

#### **f. Timeline**

The Hawaii OCC was established in January, 2005, by Executive Order. Their first meeting took place in February, with no publication of results/agenda.

## 2. Guam – Pacific Islands Regional Ocean Forum

### a. **Players, Leaders, and Organizations Involved**

Guam is a part of the Pacific Islands Regional Ocean Forum, which met in 2002 and has had little reported activity since then. The Forum (PIROF) is made up of 22 other Pacific Islands countries/territories, including from the U.S. Guam, the Northern Mariana Islands, American Samoa and other U.S. territories.

### b. **Key Issues Addressed**

Statements to PIROF in 2002 stated Guam's concerns over lack of information/data systems for Guam's waters. Other than that, no recent specific activities have been reported.

### c. **Geographic Scope**

The scope of PIROF is limited to State jurisdiction, with a 200mi EEZ for each island nation-state.

### d. **Tools Used**

Became part of PIROF by State decision, but no legal mandate was involved. No reported activity since 2002.

### e. **Use of Information**

Guam has somewhat limited ocean and coastal information resources, and as a result they are dependent on U.S. for information gathering and scientific study, which is very sporadic due to location of Guam.

### f. **Timeline**

Joined PIROF in 2002, no reported activity since then.

## **Regional Integrated Ocean Observing Systems:**

### **Hawaii-Pacific Regional Ocean Observing System (HPROOS)**

The Hawaii-Pacific Regional Ocean Observing System is an effort to develop an umbrella organization to coordinate observing system related activities in the coastal regions of the US flag islands of the Pacific, which include the State of Hawaii, Guam, the Northern Marianas, American Samoa, Palmyra, Jarvis, Howland and Baker islands. The HPROOS is made up of a partnership between a number of observing programs, including the Hawaii Ocean Time-series (HOT) Program, the National Data Buoy Center (NDBC) and National Water Level Observation Network (NWLON) Programs of NOAA, wave observations of the U.S. Army Corps of Engineers, stream gauges of the U.S. Geological Survey, and the Coral Reef Ecosystem Investigation (CREI) monitoring network.

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<http://coastalmanagement.noaa.gov/czm/czmhawaii.html>; accessed 6/17/05

<http://www.spc.int/piocean/forum/New/forum.htm>; accessed 04/17/05

<http://www.ocrm.nos.noaa.gov/czm/czmgua.html>; accessed 6/17/05

<http://www.csc.noaa.gov/coos/hawaii.html>; accessed 8/9/05

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## **GULF OF MEXICO**

### **Summary**

The Gulf of Mexico has a history of regional ocean governance activity stemming from the EPA Gulf of Mexico Program, established in 1988, and continuing with the current early-phase efforts of the Gulf of Mexico Alliance. The Gulf of Mexico is also considered as a sub area in the larger region covered by the Southeastern Aquatic Resource Partnership (SARP). The high level of regional activity in the Gulf reflects the value and interconnectedness of its aquatic, coastal, and offshore resources.

### **Regional Definition or Description**

The Gulf of Mexico has a total area of nearly 600,000 square miles and is bordered by three countries, Mexico, Cuba, and the United States (Florida, Alabama, Mississippi, Louisiana, and Texas). Its watershed drains almost two million square miles of Canada and the United States, from Montana to New York. The Gulf contains nearly 24 percent of all estuarine areas in the contiguous states, a \$1 billion fishing industry, \$17 billion tourism industry (total economic impact), seven of the ten busiest ports in the U.S., and an important offshore oil and gas industry (<http://www.epa.gov/gmpo/governance.html>).

Environmental problems such as coastal land loss in Louisiana and a seasonal hypoxic dead zone near the mouth of the Mississippi River have grabbed headlines the last few years. However, the Gulf is also troubled by, among other things, declining fisheries, aquatic nuisance species, debate over offshore oil and gas drilling, and rapid coastal development. Its enormous size, multiple jurisdictional boundaries, and ecosystem interactions between continental, coastal, and marine environments make the Gulf of Mexico an ideal candidate for an integrated regional management approach.

## Overview of Major Activity

### 1. The Gulf of Mexico Program

**a. Players, leaders, and organizations involved:**

EPA (lead organization), Depts. of Agriculture, Defense, Transportation, Health and Human Services, Homeland Security, Interior, Commerce, NASA, the Gulf States (Texas, Mississippi, Florida, Louisiana, Florida), business and industry, environmental interests, agricultural interests. Contact: Program Director, Griffith Bryon, EPA, [griffith.bryon@epa.gov](mailto:griffith.bryon@epa.gov).

**b. Key Issues Addressed:**

- Assist the Gulf States in implementing actions to restore 20% of the impaired waters in the priority coastal areas to levels that meet state water quality standards by 2009.
- Assist the Gulf States in protecting public health by providing information concerning contaminated seafood and early warnings of harmful algal blooms.
- Increase seagrasses and protect or restore coastal and marine habitats that are essential to the recreational and commercial fisheries of the Gulf, including the prevention and control of invasive species in U.S. areas of the Gulf, by 20,000 acres by 2009.
- Support national efforts to reduce the 5-year running average extent of Gulf hypoxia to less than 1,930 square miles (5,000 square kilometers) by 2015.
- Foster regional stewardship and a strong sense of community and value among Gulf State residents and tourists to protect, restore, and responsibly use the resources of the Gulf of Mexico.  
(<http://www.epa.gov/gmpo/about/objectives.html>)

**c. Geographic Scope:**

Covers the five gulf-states: Alabama, Florida, Louisiana, Mississippi, and Texas. Programs target both coastal and watershed environments, including the Mississippi/Atchafalaya river basin.

**d. Tools Used:**

The Program utilizes multiple, project specific tools to accomplish its aims. Projects include: Restoration, outreach, modeling, and public workshops.

**e. Use of Information:**

This again varies widely from project to project. Information is used to support research and program goals. The Gulf Ecological Management Sites Program (GEMS) collects and uses information to inform management of particularly ecologically sensitive sites. The GEMS “information network” is an informational database containing data about 105 selected GEMS sites. This information will be available to managers and the public over the web and be useful in facilitating data sharing, public education, and informing management strategies.

**f. Timeline:**

The Gulf of Mexico Program was established in 1988 and continues today. From FY 2000-2003, the Program spent \$8,609,853 on projects in each gulf state as well as gulf-wide programs (Gulf of Mexico Projects FY 2000-2003).

**2. The Gulf of Mexico Alliance**

**a. Players, Leaders, and Organizations Involved:**

The Alliance is a regional partnership among the five Gulf States (Alabama, Florida, Mississippi, Louisiana, and Texas) and includes participation by the EPA's Gulf of Mexico Program, NOAA, and the Gulf of Mexico States Accord. The Alliance is still in its formative stage, having emerged from Florida Governor Jeb Bush's office in the spring of 2004. As such, the Alliance is still in the process of exploring partnership opportunities. Mexico is being considered as a potential international partner. Contact: Director, Florida Department of Coastal and Aquatic Areas, Katherine Andrews, [katherine.andrews@dep.state.fl.us](mailto:katherine.andrews@dep.state.fl.us).

**b. Key Issues Addressed:**

Drawing from the Final Report of the US Commission on Ocean Policy and the subsequent response by the Bush administration, the US Ocean Action Plan, the Alliance has settled on five priorities as a starting point ([www.GulfofMexicoAlliance.org](http://www.GulfofMexicoAlliance.org)):

1. Reductions in nutrient loading
2. Improving Gulf water quality, emphasis on beaches & shellfish beds
3. Restoration of coastal wetlands
4. Identification of Gulf habitats to inform management
5. Gulf of Mexico environmental education

The Alliance has developed five white papers that detail current and future activities to address each one of these priority areas. These can be downloaded and viewed at <http://www.dep.state.fl.us/gulf/files/default.htm>,

**c. Geographic Scope:**

The Gulf of Mexico, coastal and marine environments.

**d. Tools Used:**

The Alliance conducted a meeting of federal, state, and local officials on June 9, 2005 to discuss the Ocean Action Plan and potential for regional collaboration. The meeting was held Rookery Bay National Estuarine Research Reserve in Naples, Florida. The goals of this meeting were to ([www.GulfofMexicoAlliance.org](http://www.GulfofMexicoAlliance.org)):

- Establish the framework of a Gulf Alliance Plan of Action to be announced in late 2005.
- Explore and better define partnership opportunities between the Gulf states and federal partners, including expanded federal support toward state priorities

- Begin to forge linkages with local communities
- Set the stage for a parallel joint effort with Mexico.

On June 10<sup>th</sup> at the same location, another meeting was held to discuss the Alliance from the perspective of southwest Florida stakeholder groups. Involving local governments, NGO's, and state and federal representatives, the meeting was the first of ten community workshops across the Gulf aimed at forging strong local connections to the activities of the Alliance (<http://www.dep.state.fl.us/gulf/events/default.htm>).

**e. Use of Information:**

It is too early to tell exactly what the Alliance will do with the information it collects. It is safe to say that information will be used to inform decision making in regard to the five main goals listed above.

**f. Timeline:**

The Alliance is still in its early stages gathering momentum from the meetings mentioned above.

## **Regional Integrated Ocean Observing Systems:**

### **Gulf of Mexico Ocean Observing System (GCOOS)**

The 88 Signatories to the GCOOS resolution represent a diverse group of interested individuals from all sectors of government, academia, and private industry. The GCOOS Regional Association became effective in January 2005 through a Memorandum of Agreement, and are currently working towards to the goal of integrating existing Gulf-wide coastal and ocean observing activities as an element of a national integrated ocean observing system for the U.S. coastal ocean. The Board of Directors for the GCOOS Regional Association was elected in June 2005, and the focus is now moving towards integrated additional observing system elements, improving model sharing and validation, developing requirements of users of data and products, and developing operational structures. The Board of Directors will have their first meeting at the end of August 2005.

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## **GREAT LAKES**

### **Summary**

There are five major efforts underway to encourage regional collaboration in the Great Lakes region. These efforts range from improving water quality to promoting economic growth, and they are embodied within organizations that have been established by treaty, executive order, and negotiation.

### **Regional Definition or Description**

The Great Lakes region encompasses the US States and Canadian Provinces that border the five Great Lakes of Huron, Ontario, Michigan, Erie, and Superior. The US states are Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin. The Canadian Provinces of Ontario and Québec often participate in regional governance activities as well.

The Great Lakes cover more than 750 horizontal miles and compose the largest freshwater system in the world. These lakes contain approximately 84% of the surface fresh water in North America and supply water for human consumption, transportation, power generation, and recreation, among other uses. The Great Lakes area is also important economically: almost 25% of Canadian agriculture and 7% of American farm production is located there (<http://www.epa.gov/glnpo/basicinfo.html>, last accessed 7/5/05).

Over 30 million people live in the Great Lakes basin and this population significantly impacts the regional environmental quality. There are numerous threats to water resources and quality in the Great Lakes region, including pollution, invasive species, and degraded habitat. Pollution stems from agricultural and urban runoff, industrial discharge, and atmospheric deposition. Because outflows from the Great Lakes are small, pollution becomes concentrated within the system (*ibid.*).

The network of governance structures in this region complicates management efforts as two nations, various states and provinces, Tribes, and numerous municipal and local governments share oversight of the areas resources.

## **Overview of Major Activity**

### **1. Great Lakes Regional Collaboration**

#### **a. Players, Leaders, and Organizations Involved**

The Great Lakes Regional Collaboration came about when President Bush called for a regional collaboration and the establishment of a cabinet-level interagency task force in an Executive Order of May 18, 2004 (Executive Order #13340). The subsequently formed Great Lakes Interagency Task Force was charged with establishing the regional collaboration. This task force, along with the Council of Great Lakes Governors, the Great Lakes Cities Initiative, Great Lakes Tribes, and the Great Lakes Congressional Task Force, they decided to convene a collaboration of stakeholders to develop an action plan for the region. A convener's meeting was held in late 2004 that established the Great Lakes Regional Collaboration by bringing together stakeholders from across the region to sign a declaration committing to developing a Great Lakes restoration and protection strategy. (Contact information for the US EPA's Great Lakes National Program Office: Address: 77 W. Jackson Boulevard (G-17J), Chicago, Illinois 60604-3511; Phone: 312-353-2117).

#### **b. Key Issues Addressed**

The framework of issues to be addressed is currently being developed. To assist in this, eight Issue Area Strategy teams have been formed, focusing on: habitat/species, indicators and information, persistent bioaccumulative toxics reduction, invasive species, sustainable development, coastal health, non-point source pollution, and areas of concern - restoration/sediments. These teams are also tasked with addressing human health impacts, tribal interests, and research and monitoring.

#### **c. Geographic Scope**

This collaboration is restricted mainly to US participants.

#### **d. Tools Used**

The strategy will be developed through recommendations of the strategy teams, which solicit public as well as expert input.

#### **e. Use of Information**

N/A

#### **f. Timeline**

After the convener's meeting in late 2004, a timeline was developed to guide the progress of the Collaboration. In late April of 2005, a joint meeting of the Great Lakes Regional Collaboration Executive Committee and the eight issue teams was held to draft the restoration and protection strategy. This strategy will be released at

a summit in July, then after public comment the final version will be released in December 2005.

## 2. International Joint Commission

### a. **Players, Leaders, and Organizations Involved**

This commission was established by the 1909 Boundary Waters Treaty between the US and Canada. The six-member commission has three appointed members from each country. The Public Information Officer for the U.S. Section is Frank Bevacqua (Address: 1250 23rd Street N.W., Suite 100; Washington, DC 20440; Phone: 202-736-9024; Email: bevacquaf@washington.ijc.org)

### b. **Key Issues Addressed**

The commission's activities are mainly directed at solving problems related to GL water quality issues and water levels. The commission reviews and makes determinations on applications for dams or canals in GL waters, sets conditions and reviews operations on these projects. They also investigate water and air pollution at the request of Canada or the US.

### c. **Geographic Scope**

Same as overall scope.

### d. **Tools Used**

The activity involves formal hearings as well as collaborative efforts to address boundary water issues and collaboration between the countries.

### e. **Use of Information**

N/A

### f. **Timeline**

Ongoing

## 3. Great Lakes Commission

### a. **Players, Leaders, and Organizations Involved**

The Commission was established by the Great Lakes Basin Compact, a joint legislative action of the Great Lakes states in 1955 that was granted congressional consent in 1968. In 1999, a declaration of partnership established the Canadian provinces as associate members. The Interim Executive Director of the Great Lakes Commission is Thomas Crane (Address: 2805 S. Industrial Hwy, Suite 100, Ann Arbor, MI 48104-6791 , Phone: 734-971-9135, email: tcrane@glc.org)

### b. **Key Issues Addressed**

Issues addressed include environmental protection, resource management, transportation and economic development. Activities in support of this include facilitating communications among the membership and stakeholders, policy research, and advocacy.

**c. Geographic Scope**

Same as overall scope.

**d. Tools Used**

There is a committee and task force structure set up to identify and address issues and recommend policy positions, which are then adopted by the membership.

**e. Use of Information**

N/A

**f. Timeline**

Ongoing

**4. Council of Great Lakes Governors**

**a. Players, Leaders, and Organizations Involved**

The governors of the 8 US Great Lakes states and the premiers of the 2 Canadian provinces serve on the council. The Executive Director of the Great Lakes Council of Governors is David Naftzger (Address: 35 East Wacker Drive, Suite 1850, Chicago, IL 60601; Phone: 312-407-0177, email: dnaftzger@cglg.org)

**b. Key Issues Addressed**

The mission of the council is to encourage economic growth while maintaining environmental quality. Current projects include: the Great Lakes water management initiative, the Great Lakes Priorities Task Force, the Great Lakes International Trade Initiative, and the Aquatic Invasive Species Initiative. Past projects include The Auto Project, The Brownfields Project, Great Lakes Recycle, Spill Protection Initiative, and Workforce Quality Initiative.

**c. Geographic Scope**

Same as overall scope.

**d. Tools Used**

Largely work through policy advocacy and task force development, although they partner with other groups for external efforts focusing on environmental quality.

**e. Use of Information**

N/A

**f. Timeline**

Ongoing

## 5. Great Lakes Fishery Commission

### a. **Players, Leaders, and Organizations Involved**

The commission was established by the 1955 Convention on Great Lakes Fisheries. There are eight commissioners (four from Canada and four from the US). Gerry Barnhart is the current Chair of the Commission. (Contact Information: Address: 2100 Commonwealth Blvd, Suite 100, Ann Arbor, MI 48105; Phone: 734-662-3209, Email: [info@glfc.org](mailto:info@glfc.org))

### b. **Key Issues Addressed**

Issues addressed include fisheries research and promotion, sea lamprey control, and facilitation of cooperative fishery management. They also publish scientific information obtained in pursuit of these issues.

### c. **Geographic Scope**

Same as overall scope.

### d. **Tools Used**

The commission collects scientific information about Great Lakes fisheries and the invasive sea lamprey, and uses this to publish findings and promote policies that assist fishery coordination and recovery.

### e. **Use of Information**

Databases of information about Great Lakes fisheries are used in decision-making and made available to the public.

### f. **Timeline**

Ongoing

## **Regional Integrated Ocean Observing Systems:**

While there is not a unified regional integrated observing system for the Great Lakes, there are various observation systems in place for the region. These include NOAA's CoastWatch Great Lakes Program, which provides near real-time and archived data from satellite observations as well as in-situ data from throughout the Great Lakes. Satellite data is obtained from NOAA Advanced Very High Resolution Radiometer (AVHRR) and Geostationary Operational Environmental Satellites (GOES) observations, while the in-situ observation stations consist of platforms, buoys, gauges, and ship reports from a number of different organizations. There are additional observations from NOAA taking place, including observation of water level, stream flows, and wave data.

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## **SOUTHEAST AQUATIC RESOURCES PARTNERSHIP**

### **Summary**

Initiated in 2001, the Southeast Aquatic Resources Partnership (SARP) covers 13 southeastern states—from watershed to coastal and marine environments. In response to declining aquatic resources and increasing recreational and commercial fishing pressure, SARP was established with the following mission: “With partners, protect, conserve, and restore, aquatic resources including habitats throughout the Southeast, for the continuing benefit, use, and enjoyment of the American people” (SARP White Paper; page 1). SARP focuses on six key issues of concern:

1. Public use
2. Fishery mitigation
3. Imperiled fish and aquatic species recovery
4. Inter-jurisdictional fisheries
5. Aquatic habitat conservation
6. Aquatic nuisance species (ANS)

### **Regional Definition or Description**

SARP covers the southeast United States. 13 states participate: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, and Texas. Agency partners are U.S. Fish and Wildlife Service, National Marine Fisheries Service, Gulf States Marine Fisheries Commission, and the Gulf and South Atlantic Fishery Management Councils.

The partnership seeks to address issues in inland waters and watersheds, as well as coastal resources. Members “envision a southeastern United States with healthy and diverse aquatic ecosystems that support sustainable public use” (*ibid.*). SARP is a true regional effort, intending to “develop State and Federal partnerships that will extend beyond traditional boundaries of fishery resource management agencies and will establish a commitment to truly work together for the benefit of the resource” (*ibid.*)

## Overview of Major Activities

### 1. 2003, six workshops to identify specific actions and tasks

#### a. **Players, Leaders, and Organizations Involved:**

SARP's webpage describes its partners as (<http://sarpaquatic.org/sarp/index.shtml>):

- 13 southeastern states (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee and Texas; inland and marine divisions)
- The U.S. Fish and Wildlife Service (FWS), National Marine Fisheries Service (NMFS), Gulf States Marine Fisheries Commission (GSMFC), and the Gulf and South Atlantic Fishery Management councils (GMFMC and SAFMC).
- All states served by the Southeastern Association of Fish and Wildlife Agencies (SEAFWA).
- Non-governmental organizations (NGOs), grassroots groups, industry, business, and private sector interests are also invited to participate.

#### b. **Key Issues Addressed:**

Participants were asked to “identify specific actions and tasks, estimated costs, responsible parties, and targets for accomplishing the objectives outlined in the SARP strategic plan for each of the issue areas” (SARP FY 2006 Budget Initiative). At the same time, SARP members were asked to identify fish and aquatic habitat restoration projects designed to implement the identified actions and tasks

#### c. **Geographic Scope:**

Region-wide.

#### d. **Tools Used:**

Workshops and meetings

#### e. **Use of Information:**

To inform specific habitat and restoration projects identified by SARP members. These workshops were held as an exercise in laying out specific future actions that will bring about achievement of SARP's goals and mission.

#### f. **Timeline:**

The workshops were held in 2003.

### 2. Implementing an Aquatic Resource Management Plan for the Southeast

#### a. **Players, Leaders, and Organizations Involved:**

The Aquatic Resource Management Plan has support from the International Association of Fish and Wildlife Agencies, Southeast Association of Fish and Wildlife Agencies, NOAA Fisheries, FWS, Coastal Fishery Management Councils

and Commissions, and 16 state resource agencies. Contact: FWS, Doug Fruge, doug\_fruge@fws.gov

**b. Key Issues Addressed:**

This undertaking involves eight steps (Quoted directly from SARP FY 2006 Budget Initiative; page 3.):

**Issue 1:** Coordinating and maintaining a geographically referenced database for fish and aquatic resources in the Southeast. [\$5.8 million].

**Issue 2:** Addressing fish passage and riparian habitat restoration needs in the Southeast. [\$3.35 million].

**Issue 3:** Conducting statewide assessments of aquatic habitat needs in free-flowing streams in the Southeast. [\$3.45 million].

**Issue 4:** Developing a Southeast Fish Habitat Plan. [\$400,000].

**Issue 5:** Mitigating federal impacts to fisheries in the Southeast. [\$5.2 million].

**Issue 6:** Assessing recreational public use needs throughout the Southeast. [\$6.7 million]

**Issue 7:** Developing and begin implementing Aquatic Nuisance Species Plans for each state in the Southeast. [\$1.73 million]

**Issue 8:** Coastal fisheries enhancement. [\$4.6 million].

**Next Steps:**

- Employ a full-time coordinator.
- Develop a Southeast Aquatic Habitat Plan to be integrated into National Fish Habitat Plan.
- Establish an Executive Advisory Board.
- Expand partner base to include Tribes and other entities. (Presentation by Doug Fruge, CZ '05 Conference, July 20, 2005.)

**c. Geographic Scope:**

The Southeastern U.S.

**d. Tools Used:**

Each issue listed above uses unique tools to carry out its objectives. Tools are thus listed by issue.

- **Issue 1:** Existing tools developed by NGO's and Agencies will be used whenever possible to assess aquatic resource needs on a landscape scale and prioritize target species to direct restoration activities in a "biologically-holistic manner" (*ibid.*). GIS and remote sensing technologies will be used to "support practical application of landscape ecology, ecosystem management, and adaptive resource management" (*ibid.*).

- **Issue 2:** On the ground restoration projects will focus on removal of fish passage barriers and riparian habitat restoration.
- **Issue 3:** Multi-disciplinary collection of information and assessment of all southeastern free-flowing streams, including population inventories and in-stream flow assessments, if necessary.
- **Issue 4:** “A science based, landscape-scale, partnership-driven model for habitat conservation.”
- **Issue 5:** Mitigating the construction of dams through habitat and water quality improvements.
- **Issue 6:** Assessments of recreational carrying capacities, needs for improved public access, marketing programs to increase participation in recreation fisheries, public programs to cultivate outdoor recreation skills and promote ethical use of natural resources.
- **Issue 7:** Development of state aquatic nuisance species (ANS) management plans to prioritize ANS problems and funding, reduce duplication between state agencies, and “promote regional, state, and local collaboration” (*ibid.*). An allocation of \$125,000 per state would be used to hire an ANS program coordinator, convene management planning workshops, develop educational and outreach materials, provide coordination between states, conduct monitoring and early detection activities, participate with states in rapid response efforts.
- **Issue 8:** Focus on “developing key science-based information leveraged in collaboration with partners in the management and harvest of sustainable fisheries and aquatic resources” (*ibid.*). Dedicated program of scientific management, enhancing collaboration with States, Councils, Commissions, NOAA Fisheries, and stakeholders to restore coastal fisheries and habitat, provide monitoring for fish diseases, managing coastal National Wildlife Refuge System Lands as models of sustainable coastal fisheries.

**e. Use of Information:**

SARP will focus attention on two initial assessment needs: Coastal fisheries of the nine Gulf States and aquatic resource needs of Arkansas, Missouri, Kentucky, Tennessee, and Oklahoma.

**f. Timeline:**

Established in 2001, ongoing activities.

**Regional Integrated Ocean Observing Systems:**

For discussion of Integrated Ocean Observing in the areas covered by SARP, please see the Regional Integrated Ocean Observing Systems section in the Gulf of Mexico and Southeast Atlantic Regions discussed in this paper.

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SARP White Paper. November 2004

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Presentation by Doug Fruge, CZ '05 Conference, July 20, 2005, New Orleans, LA.

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## GULF OF MAINE

### Summary

The Gulf of Maine Council on the Marine Environment is one of a handful of existing regional ocean governance initiatives in the US and involves coordination with three US states and two Canadian provinces in what is historically one of the world's most productive fishing grounds. Primary drivers of coordination are long-term sustainable management of coastal and marine resources, habitat restoration and conservation, information management, monitoring and research to support a diverse group of users.

### Regional Definition or Description

The Gulf of Maine is one of the world's most biologically productive environments. The coastlines of Massachusetts, New Hampshire, Maine, New Brunswick, and Nova Scotia make up its western and northern boundaries. It is a semi-enclosed sea of approximately 33,000 square miles, bounded by the underwater banks, including Georges Bank. Its marine waters and shoreline habitats host some 2,000 species of plants and animals. Two currents control temperatures and bring nutrients and food to the plants and animals that occupy the rich undersea terrain, including 18 marine mammal species. Its watershed, totaling 69,115 square miles, encompasses much of Nova Scotia, New Brunswick, Maine, New Hampshire and Massachusetts, and a small portion of Quebec. The Gulf of Maine was one of the most productive and active fisheries in the world, though it witnessed declines in yields due to over fishing. As with most coastal areas in the US, the Gulf of Maine feels the pressure of growing population of approximately 5 million people. Impacts include changing land use, habitat modification and point and non-point source pollution from industrial, commercial and residential development. (Adapted from GMC 2005; Springer 2002).

### Overview of Major Activity

#### 1. Gulf of Maine Council on the Marine Environment

##### a. Players, Leaders, and Organizations Involved

The Gulf of Maine Council on the Marine Environment (GMC) administers the 1989 Gulf of Maine Agreement on the Marine Environment, a US/Canadian

partnership of governmental and non-governmental organizations. ([www.gulfofmaine.org](http://www.gulfofmaine.org)) Participation is not legally binding and is characterized by informality and consensus. In addition, Federal governments are not signatories but are practical, full members. Membership is composed of 2 cabinet officials/administrators from each of the three states and two provinces, US and Canadian federal officials, and 1 private sector/NGO representative selected by each of the five jurisdictions. In addition, working committees involve over 200 others from other public, academic and private interests in the region. A working group and a number of committees, task forces and panels implement action plans and strategies.

**b. Key Issues Addressed**

The focus of the GMC is to maintain and enhance environmental quality in the Gulf of Maine and to allow for sustainable resource use by existing and future generations. At five-year intervals the Council, with extensive stakeholder engagement, produces a 5-year Action Plan that contains measurable goals and objectives. The 2001-2005 Plan has three focal points.

- Protect and restore coastal and marine habitats
- Protect human health and ecosystem integrity
- Encourage sustainable maritime activities

Within each of these priorities the Council has articulated a series of measurable objectives and 51 specific actions that it seeks to address in partnership with public and private interests.

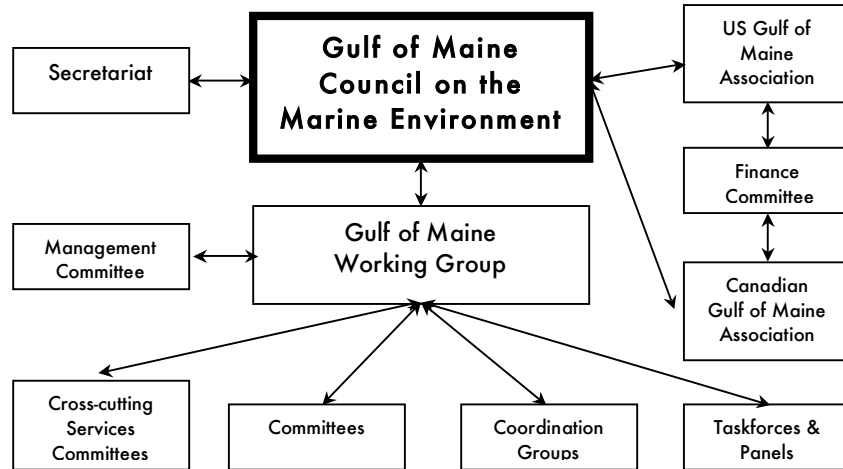
**c. Geographic Scope**

At inception in 1989 the Council established its area of purview as extending from the furthest headwaters of the Gulf's coastal watersheds out to the EEZ. (This approach is consistent with the large marine ecosystem recommendations of the US Commission on Ocean Policy.)

**d. Tools Used (examples)**

- Working Group and multiple Committees, task forces and panels to implement specific initiatives to address the priority actions
- Regional consensus through 5-year Action Plans that identify and target priority issues
- Form coalitions and build the capacity of its non-government partners through annual grants program and projects
- Quarterly newspaper
- Marshal resources and decide how best they should be used to further the mission
- Support projects, when possible, as part of a region-wide focus (e.g., \$1M/year for on-the-ground habitat restoration, etc.)

- Conduct long-term environmental monitoring, prepare State of the Environment reports and produce indicators of ecosystem health
- Educate the public and raise awareness



**Figure 1. Gulf of Maine Council Organization Chart**

**e. Use of Information**

An early focus of the Council was on data and information management. An example of this work includes: the Gulf of Maine Times (a free quarterly newspaper) is distributed to 10,000 readers; the PeopleFinder is a web-based directory of people active in Gulf of Maine affairs; the Non-governmental Directory is a web-based tool of over 600 coastal and marine non-profit organizations; the Council produced the Gulf of Maine watershed map and the Undersea Landscape map to introduce people to the region they live in; the Gulfwatch Program (blue mussel contaminants based monitoring) has 11-years of data; the Agreement between the Regional Association for Research In the Gulf of Maine and the Regional Marine Research Board; and partnering with the Gulf of Maine Ocean Observing System (GoMOOS).

**f. Timeline (Adapted from Springer 2002)**

- 1964 – Canadian authorities issue permits for oil and gas exploration on parts of Georges Bank
- 1970s – US and Canada extend coastal state jurisdiction to 200 miles; claims overlapped
- 1973 – Conference on New England Governors and Eastern Canadian Atlantic Premiers begin regional coordination
- 1979 – East Coast Fisheries Agreement created controversial bilateral fisheries management; US withdraws from agreement.
- 1984 – World Court redraws single boundary in Gulf of Maine between Canada and US.
- 1988 – Gulf of Maine Working Group first meets

1989 – Gulf of Maine Council on the Marine Environment formed

**g. Funding**

Agency commitments (e.g., \$2M/year) comprise the bulk of the resources used by the Council each year.

**2. Marine Habitats in the Gulf of Maine: Assessing Human Impacts and Developing Management Strategies**

**Gulf of Maine Council**

The Gulf of Maine Council’s Habitat Conservation Subcommittee is engaged in a two-year project to describe human impacts on the Gulf of Maine’s marine habitats and to identify regional management strategies. Phase 1 of this project was completed in March 2005, with the publication of the “Gulf of Maine Marine Habitat Primer”. The Primer provides an overview of GOM habitat types and management considerations. It can be downloaded at <http://www.gulfofmaine.org/habitatprimer/>. Phase 2 of this project calls for a regional human impact assessment, including a workshop of expert scientists and managers in September 2005.

**The Nature Conservancy**

In keeping with its model of determining conservation priorities based on ecoregional assessments, The Nature Conservancy (TNC) has taken steps towards an assessment of the Northwest Atlantic Marine and Coastal Ecoregion (North Carolina to Nova Scotia). As part of this work, TNC is collecting information on specific habitat types, the ecological factors necessary for their restoration or persistence, and relevant human impacts and management options, stratified by subregions such as the Gulf of Maine. In consideration of complementary focus, goals, and workplans, TNC representatives from Maine, New Hampshire, and Massachusetts are collaborating with the Gulf of Maine Council to co-host the September 2005 workshop. The workshop contributes to efforts by many organizations to improve ecosystem-based management and conservation of the Gulf of Maine’s marine habitats. The meeting will be conducted with small working groups focusing on management issues and strategies for the region. Approximately 85 people from the science and management community in the Gulf of Maine will be invited to attend.

**Attendees (by invitation only):**

- Scientists who are experts on select habitats, human impacts, and the Gulf of Maine ecosystem.
- Managers who are responsible for managing interactions between human activities and marine habitats in the Gulf of Maine.

**Workshop Goals:**

- To define and prioritize human impacts to six habitat types (rocky, sandy, muddy, seagrass, kelp, shellfish beds/reefs) based on the degree to which their key ecological attributes are altered or threatened.

- Identify ecosystem-based management strategies to address human impacts on a regional scale.

The workshop will include two plenary speakers and small working-group sessions. Final workshop products will include a summary of impact assessment information from the region and a document summarizing workshop discussions. These documents will be distributed to coastal decision-makers at government and non-government organizations and other interested parties. The workshop products will help provide a foundation for ongoing efforts to improve ecosystem-based management in the Gulf of Maine.

### **Regional Integrated Ocean Observing Systems:**

**Gulf of Maine Ocean Observing System (GoMOOS).** GoMOOS is a non-profit corporation that provides data and information to public and private users for decision-making, prediction, and ecosystem understanding. Membership includes universities, port authorities, industry, government, and other non-governmental organizations, and is open to any legal entity. GoMOOS has a Board of Directors, staff, and partner scientists.

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## **SOUTHERN NEW ENGLAND**

### **Summary**

The Massachusetts Ocean Management Initiative is the primary ocean management activity taking place in the Southern New England Region, providing a State-level foundation for possible future regional governance activities. In addition, Rhode Island Sea Grant Strategic Focus Group has met to discuss in depth what opportunities are available for regional coastal and ocean management in the future, based on the recommendations of the U.S. Commission on Ocean Policy. The group acknowledges the importance and vision by the Commission to have coastal and ocean policies that are based on large ecosystems and all the interactions and relationships within them based on natural science rather than traditional political boundaries. Regional opportunities and issues for collaboration have been discussed in the areas of marine research, transportation and security, economics, fisheries, and governance. Immediate next steps have been identified, with the participation by organizations including the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, National Estuarine Research Reserve System, U.S. Fish and Wildlife Service, Integrated Ocean Observing Systems, possibly state Coastal Zone Management programs, and the Northeast Sea Grant Programs.

In addition, although not a new activity resulting from the U.S. Commission on Ocean Policy's recommendations for regional ocean governance, the States of Connecticut and New York, and the U.S. Environmental Protection Agency's (EPA) Regions 1 and 2 are partnered in the Long Island Sound Study, a cooperative effort that produced the 1994 Comprehensive Conservation and Management Plan for Long Island Sound, as part of the EPA's National Estuary Program. The Management Plan identified seven issues of major importance to the Long Island Sound: low oxygen conditions (hypoxia), toxic contamination, pathogen contamination, floatable debris, the impact of these water quality conditions and habitat degradation and loss on living marine resources, land use, and public involvement and education (US EPA website).

### **Regional Definition or Description**

The Southern New England Region encompasses the states of Massachusetts (south of Cape Cod), Rhode Island, and Connecticut. The region could also include New York, depending on different regional definitions.

The regional economy is largely supported by ocean activities, including commercial and sport fishing, boating, swimming and beach-going (EPA website). The Large Marine

Ecosystem (LME) within the Southern New England Region is the Northeast Continental Shelf System, which extends from the Gulf of Maine to Cape Hatteras, North Carolina. Structurally, this LME is very complex, with marked temperature and climate changes, winds, river runoff, estuarine exchanges, tides and complex circulation regimes. It is one of the most productive LMEs of the Northern Hemisphere (taken from NOAA website).

## **Overview of Major Activity**

### **1. Massachusetts Ocean Management Initiative**

#### **a. Players, Leaders, and Organizations Involved**

In March 2003, Massachusetts Governor Mitt Romney launched the Ocean Management Initiative in an effort to develop a comprehensive approach to manage ocean resources. To advise the Massachusetts Ocean Management Initiative, former Environmental Affairs Secretary Ellen Roy Herzfelder named a [Task Force](#). The Task Force was chaired by Dr. Susan F. Tierney (former Massachusetts Executive Office of Environmental Affairs Secretary) and included 22 additional members from federal, State and local governments and public individuals representing diverse ocean user groups.

#### **b. Key Issues Addressed**

The Ocean Management Initiative included: 1) establishment of a proactive process for ocean management, 2) providing a seamless ecosystem approach by working with the federal government to improve management of ocean resources in federal waters, and 3) review of existing statutes and regulations to determine which elements need to be strengthened or revised. The Ocean Management Task Force examined the current issues, identified data and information gaps, reviewed existing ocean governance mechanisms, and issued recommendations for administrative, regulatory, and statutory changes in the March 2004 publication, *Waves of Change: The Massachusetts Ocean Management Task Force Report and Recommendations*. The report is available at: [http://www.mass.gov/czm/oceanmanagement/waves\\_of\\_change/index.htm](http://www.mass.gov/czm/oceanmanagement/waves_of_change/index.htm).

#### **c. Geographic Scope**

Scope of the Ocean Management Initiative was limited to State jurisdiction.

#### **d. Tools Used**

The Ocean Management Initiative was launched by the Governor, and the Task Force established was in place for ten months in order to provide its final report. The Task Force held numerous meetings and workshops before concluding with sixteen recommendations that responded to the charge of the Governor and Environmental Affairs Secretary.

#### **e. Use of Information**

The Task Force's Management Tools Recommendation #6: Use Characterization, states, "To support fully informed and inclusive decision-making, ocean management

planning should be supported by the development and maintenance of inventories of the activities and resources of the state's marine waters. GIS-based data should be organized on maps and databases to depict activities and resources on the seafloor, in the water column, and/or at the ocean surface, as well as activities in the airspace over these areas, and when activities (human uses and natural) occur in time.”

In response to this Task Force recommendation, The Executive Office of Environmental Affairs (EOEA), through the Massachusetts Office of Coastal Zone Management (MCZM), contracted with Penobscot Bay Media and TerraLogic GIS in April 2005 to develop a “Characterization of Non-Fishing Ocean-Based Human Uses in Massachusetts”. The goal of this project was to inventory, assess, and organize, within a statewide Geographic Information System (GIS), data and information on human uses in Massachusetts waters to provide guidance for ocean management planning. The project includes: a) an inventory, analysis, and description of existing human uses in Massachusetts, and b) a compilation and/or creation of GIS-based data layers to illustrate these human uses. While MCZM recognizes the value of recreational and commercial fishing activities for ocean planning and management, this project excluded activities associated with the recreational and commercial fishing industry and focuses on non-fishery uses of the ocean environment.

The Use Characterization will provide an initial stage of information used to guide ocean planning and management and data will be stored in the Massachusetts Ocean Resource Information System (MORIS). MORIS is an in-development online information clearinghouse developed by MCZM to manage and display spatial and non-spatial data, maps and reports related to coastal Massachusetts; MORIS metadata are FGDC-compliant. By utilizing a format compatible with MORIS, the “Characterization of Non-Fishing Ocean-Based Human Uses in Massachusetts” was constructed in a manner that allows the database to be updated as the state continues to acquire new information.

Through the Ocean Management Task Force process and the efforts of the Use Characterization Working Group, MCZM recognized that the Commonwealth has limited information related to human uses in state waters. Furthermore, the quality of existing information varies and has not been verified at this time. MCZM understands the challenges in creating an inventory and analysis of existing human uses. Therefore, this project completed the first step of information collection, and developed a strong geodatabase, as a foundation for eventually achieving a comprehensive statewide dataset.

**f. Timeline**

The Ocean Management Initiative was announced in March 2003, and the Task Force met between June 2003 and March 2004. The Task Force concluded its work by releasing their final report and recommendations in March 2004.

## **Regional Integrated Ocean Observing Systems:**

While there is no single regional observing system for the Southern New England Region, there are numerous functioning ocean observation systems in and around Massachusetts. These include the National Data Buoy Center (NDBC) and National Water Level Observation Network (NWLON) Programs of NOAA. In addition, Woods Hole Oceanographic Institution runs the Martha's Vineyard Coastal Observatory (MVCO). Completed in 2001, the MVCO consists of an offshore node 1.5km from shore, and an Air-Sea Interaction Tower (ASIT) located 3km from shore. These components are being used to study the effects of coastal wind and waves on such processes as air-sea gas exchange, beach erosion, sediment transport and phytoplankton distribution. The MVCO provides online real-time access to researchers and near real-time and archived data to all users.

## **Acknowledgements**

Special thanks to Kate Killerlain-Morrison, Massachusetts Office of Coastal Zone Management, in providing information for this profile.

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# **MID-ATLANTIC**

## **Summary**

The regional ocean governance activities in the Mid Atlantic Region include the Chesapeake Bay Program, the Delaware River Basin Commission, and the Mid-Atlantic Coastal Ocean Observing Regional Association (MACOORA). The Chesapeake Bay Program and the Delaware River Basin Commission are heavily focused on water quality issues related to surrounding watersheds and the effects on the health of marine organisms, habitat restoration, and estuarine sciences. MACOORA is the Regional Association (RA) responsible for the Mid Atlantic, as part of the Integrated Coastal Ocean Observing System

(ICOOS). RAs provide the primary framework for orchestrating the required collaboration within each region and are responsible for the design and coordinated operation of regional coastal ocean observing systems.

In addition to the three regional activities mentioned above, two National Estuarine Research Reserves and the Coastal Zone Management offices from Delaware, Maryland and Virginia have begun regional meetings to discuss mutually beneficial projects to protect estuaries along the Delmarva Peninsula. Among the topics of discussion are the environmental impacts on estuaries from residential housing development and new transportation initiatives. The group is trying to find out if they can accomplish more by joining regionally rather than working as separate states to protect estuaries. So far the group has held monthly conference calls, and in July they will be coming together for a workshop.

Delaware, New Jersey and Pennsylvania have also tried to come together to discuss protection of the Delaware Estuary. Among topics are the potential impacts on the estuary from a proposed liquefied natural gas terminal in New Jersey and habitat restoration for migrating shorebirds in the Bay.

The Delaware Estuary, which was established in 1988 and encompasses the states of Delaware, New Jersey and Pennsylvania, and the New York/New Jersey Harbor Estuary Program, which was also established in 1988, are part of the U.S. Environmental Protection Agency's National Estuary Program.

## **Regional Definition or Description**

The Mid Atlantic Region encompasses the following states: New York, Pennsylvania, New Jersey, Delaware, and Maryland. The state of Virginia is also included in some regional activities of the Mid-Atlantic.

The Mid Atlantic Region is one of the most populated coastal regions in the U.S. The estimated population growth for Southern New England and the Mid Atlantic region combined between the years 2003-2008 is expected to be around 17 million people. A population increase of this size will have a significant impact on the already growing coastal development in the Mid Atlantic. The environmental impacts of increasing population growth, land use changes, and climate variability on the estuaries, bays and coasts of the region are a huge concern in the area.

The Large Marine Ecosystem (LME) within the Mid Atlantic is the Northeast Continental Shelf, which is highly productive and extends from Maine to North Carolina. The main driving force behind the changes in fisheries biomass in the LME is fishing, with climate being the secondary force.

## Overview of Major Activity

### 1. Chesapeake Bay Program

#### a. **Players, Leaders, and Organizations Involved**

The Chesapeake Bay Program is comprised of: the states of Virginia, Maryland, Pennsylvania, the District of Columbia, the Chesapeake Bay Commission, the United States Environmental Protection Agency, and participating citizen advisory groups.

“The Chesapeake Bay Commission (CBC) is a tri-state legislative commission created in 1980 to advise the members of the General Assemblies of Maryland, Virginia, and Pennsylvania on matters of Bay-wide concern. Twenty-one members from three states define the Commission’s identity and its work. Fifteen of the members are legislators, five each from Maryland, Virginia, and Pennsylvania. Completing the ranks are cabinet secretaries from each state who are directly responsible for managing their states’ natural resources, as well as three citizen representatives who bring with them a unique perspective and expertise. The commission serves as the legislative arm of the multi-jurisdictional Chesapeake Bay Program and acts in an advisory capacity to their respective General Assemblies.” (Chesapeake Bay Commission website, 2005)

Since the signing of the Chesapeake 2000 agreement, Delaware, New York, and West Virginia joined the Chesapeake Bay Program partnership. They will each work with the program to reduce nutrients and sediments flowing into the Chesapeake Bay from their jurisdictions.

#### b. **Key Issues Addressed**

The Chesapeake Bay Program’s highest priority is the restoration of the Bay’s living resources, such as finfish, shellfish, and Bay grasses. The program has made significant advances in estuarine science, as well as in fisheries and habitat restoration, recovery of Bay grasses, and reductions in nutrients and toxics to the Bay.

#### c. **Geographic Scope**

The Chesapeake Bay watershed stretches across six states: New York, Pennsylvania, Maryland, Delaware, Virginia and West Virginia, and the District of Columbia. There are several smaller watershed systems that also drain into the streams and rivers that flow into the Chesapeake Bay.

#### d. **Tools Used**

- a. Chesapeake Bay Agreement of 1983
- b. 1987 Chesapeake Bay Agreement
- c. 2000 Chesapeake Agreement

#### e. **Use of Information**

N/A

**f. Timeline**

The Chesapeake Bay Program was established in 1980 and is an ongoing program.

**2. Delaware River Basin Commission**

**a. Players, Leaders, and Organizations Involved**

The Delaware River Basin Commission is made up of the governors of Delaware, New Jersey, Pennsylvania, and New York, and a federal representative appointed by the President of the United States.

**b. Key Issues Addressed**

The key issues that the Delaware River Basin Commission addresses are: water quality protection, water supply allocation, regulatory review (permitting), water conservation initiatives, watershed planning, drought management, flood control, and recreation.

**c. Geographic Scope**

The geographic scope of the Delaware River Basin watershed stretches 330 miles from the Delaware River's headwaters near Hancock, N. Y., to the mouth of the Delaware Bay.

**d. Tools Used**

The commission holds meetings, public hearings, and releases annual publications.

**e. Timeline**

The Delaware River Basin Commission was established in 1961, and has no timeline of ending its activities.

**Regional Integrated Ocean Observing Systems:**

**Mid-Atlantic Coastal Ocean Observing Regional Association (MACOORA).**

MACOORA is a partnership or consortium of data providers and users from both private and public sectors that use, depend on, study and manage coastal environments and their resources in a region. MACORRA partners are: the National Data Buoy Center, the Gulf of Maine Ocean Observing System (GoMOOS), and the South East Atlantic Coastal Ocean Regional Association (SECOORA). Education, outreach and research centers involved with MACORRA are: Mid-Atlantic Sea Grant Programs, Mid-Atlantic Center for Ocean Science Education Excellence (MA-COSEE), NOAA NOS Center for Operational Oceanographic Products and Services, and the National Estuarine Research Reserve System Coastal Training Program. Analysis and forecasting centers involved with MACORRA are: Regional Fisheries Application Center, Wave System Mapping for Ocean Observing System (JHUPAL), Alliance for Coastal Technologies, and the National Estuarine Research Reserve System.

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## SOUTHEAST ATLANTIC

### Summary

The regional ocean governance activities in the Southeast Atlantic are focused thus far on the region's ocean observing system, the South East Atlantic Coastal Ocean Observing System (SEACCOOS), and its regional association, the South East Coastal Ocean Observations Regional Association (SECOORA). These activities provide ocean observation data and information to the Southeast region for things such as weather prediction, satellite imagery, environmental modeling, and ocean data management.

## **Regional Definition or Description**

The Southeast Atlantic Region encompasses the states of Virginia, North Carolina, South Carolina, Georgia, and the east coast of Florida. The Southeast Atlantic includes a variety of marine and coastal ecosystems, such as coral reefs, open ocean, seagrass beds, shellfish beds, estuaries, mudflats, lagoons, island ecosystems, beaches and sand dunes. These fragile ecosystems are very important to the regional economy, such as for the commercially valuable crustacean industry in the region. Fisheries in the Southeast are managed by the South Atlantic Fishery Management Council in collaboration with the National Marine Fisheries Service's Southeast Fisheries Science Center.

The region boasts numerous protected marine ecosystems and estuaries, including sites such as the Albemarle-Pamlico Sounds National Estuary and the Indian River Lagoon National Estuary established by the U.S. Environmental Protection Agency's National Estuary Program, Grey's Reef National Marine Sanctuary and the Florida Keys National Marine Sanctuary established under NOAA's National Marine Sanctuary Program, and 5 Reserves established under NOAA's National Estuarine Research Reserve System, including the North Carolina Reserve, North Inlet-Winyah Bay Reserve, ACE Basin Reserve, Sapelo Island Reserve, and Guana Tolomato Matanzas Reserve.

The Large Marine Ecosystem (LME) of the Southeast Atlantic is the Southeast Continental Shelf System, which extends from the Straits of Florida to Cape Hatteras, North Carolina.

It is estimated that the coastal population in the Southeast is expected to increase by over one million people between the years 2003 and 2008, which can increase the loss of wetlands and intensify the environmental impacts on the region's coastal and ocean ecosystems.

## **Overview of Major Activity**

### **1. The SouthEast Atlantic Coastal Ocean Observing System (SEACOOS)**

#### **a. Players, Leaders, and Organizations Involved**

SEACOOS is a collaborative university partnership that collects, manages, and disseminates integrated regional ocean observations and information products for the coasts of North Carolina, South Carolina, Georgia, and Florida. Funding for this effort has been provided by the Office of Naval Research.

SEACOOS partners include: University of North Carolina at Chapel Hill, North Carolina State/Sea Grant, University of North Carolina System, South East Center for Ocean Sciences Education Excellence, University of South Carolina, South Carolina Sea Grant Consortium, South Carolina Department of Natural Resources, Skidaway Institute of Oceanography, University of Georgia, University of Florida/Sea Grant, University of Miami, and the University of South Florida. There are many collaborators and affiliates as well.

**b. Key Issues Addressed**

The SouthEast Atlantic Coastal Ocean Observing System (SEACOOS) is to be a part of the larger IOOS system. The key issues addressed by SEACOOS are ocean observing, modeling, and data information management.

SEACOOS compiles data from independent researchers across the Southeast and uses that data to create a variety of informational products, such as remote sensing interactive maps, observation maps, coastal wind observations, sea surface temperature, ocean circulation models, and weather related products such as surface current responses to hurricanes. SEACOOS also conducts outreach studies of user needs and explores governance models for the program in future years.

**c. Geographic Scope**

SEACOOS includes the coastal oceans of and off Florida, Georgia, South Carolina, and North Carolina, from head of tide inland to the seaward boundary of the Exclusive Economic Zone.

**d. Tools Used**

SEACOOS is organized internally by: a Board of Directors; Executive Committee; Affiliate Members Committee; Working Groups for information management, modeling, observing, outreach & education, and federal agencies; and Coordinating Committees for data management, modeling, HF radar, and remote sensing. In addition, SEACOOS has many partners, affiliates and collaborators.

**e. Use of Information**

SEACOOS is to be one of the regional systems to form the coastal component of the Integrated Ocean Observing System (IOOS).

**f. Timeline**

This is an ongoing observing system.

**2. SouthEast Coastal Ocean Observations Regional Association (SECOORA)**

**a. Players, Leaders, and Organizations Involved**

Regional Associations (RAs) provide the primary framework for orchestrating the required collaboration within each region and are responsible for the design and coordinated operation of regional coastal ocean observing systems (RCOOSs). A National Federation of Regional Associations (NFRA) will represent the RAs at the federal level and coordinate the development of RCOOSs according to IOOS design principles.

**b. Key Issues Addressed**

The goal of SECOORA is to establish a sustainable ocean information cooperative that can meet the specific needs of Southeast ocean users.

SECOORA provides data, information and products on marine and estuarine systems along the South Atlantic Bight, East Florida Shelf, and the West Florida Shelf. Components of SECOORA include buoy systems, coastal and riverine sensors, satellite observations, field measurements, ship observations, airborne observations, computer models, ecological forecasts, education, atmospheric measurements, and information integration.

**c. Geographic Scope**

SECOORA includes the open ocean and estuaries of the southeast region of the U.S. (from North Carolina to the western tip of Florida) and extends seaward to the EEZ boundary.

**d. Tools Used**

N/A

**e. Timeline**

This is an ongoing project, with an upcoming meeting of the Southeast Shelf Ecosystem Work Group expected in August 2005.

**Regional Integrated Ocean Observing Systems:**

See above.

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