



AN AGENDA
FOR ACTION

MOVING REGIONAL
OCEAN GOVERNANCE
FROM THEORY TO PRACTICE

JOINT OCEAN
COMMISSION INITIATIVE
MONTEREY BAY AQUARIUM

August 2007

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INTRODUCTION

When the Pew Oceans Commission and the U.S. Commission on Ocean Policy issued their respective reports in 2003 and 2004, both called for regions around the nation to establish new and more effective approaches to the stewardship of our oceans, coasts, and Great Lakes. They believed that better coordinated federal governance must be complemented by regional ocean governance in order to address the management of human activities in and on our oceans at the most effective scale. Incorporating a regional approach makes it possible to tailor solutions to the unique needs of a region by confronting problems and seizing opportunities whose boundaries—and solutions—cut across multiple political jurisdictions.

In March 2007 the Joint Ocean Commission Initiative and the Monterey Bay Aquarium's Center for the Future of the Oceans convened a workshop on regional ocean governance.¹ Leaders and experts from emerging and established regional ocean governance initiatives around the country were asked to identify the practical steps needed to strengthen and expand the capacity of regions to work collaboratively toward improved ocean and coastal health. Over the course of two and a half days of vigorous discussion, workshop participants affirmed the need for regional ocean governance and acknowledged that encouraging developments are underway. However, they were also realistic about the substantial investments, hard work, and difficult choices that must be made in order to move regional ocean governance from theory to practice.

Informed by the discussion that took place at the workshop, the Joint Ocean Commission Initiative and the Monterey Bay Aquarium present this report, *An Agenda for Action: Moving Regional Ocean Governance from Theory to Practice*, to stimulate the ocean policy community to take concrete steps to create effective and sustained regional ocean governance initiatives. The report also presents an overview of the concepts of marine ecosystem-based management and area-based management, both of which are integral to understanding regional ocean governance. While benefiting from the collective wisdom of the leaders and experts gathered in Monterey, the views expressed in this report are solely those of the Joint Ocean Commission Initiative and the Monterey Bay Aquarium.

¹ The Joint Ocean Commission Initiative is a collaborative, bipartisan effort of the members of the U.S. Commission on Ocean Policy and the Pew Oceans Commission dedicated to accelerating the pace meaningful ocean policy reform (www.jointoceancommission.org). The Monterey Bay Aquarium is a national leader in ocean conservation, education, and research (www.mbayaq.org). The Center for the Future of the Oceans is a division of the Aquarium that works to empower individuals, influence policy, and contribute to the protection of the oceans for future generations (www.mbayaq.org/cr/cffo.asp).

A FRAMEWORK FOR REGIONAL OCEAN GOVERNANCE

Regional ocean governance mechanisms will vary in response to local needs and priorities, but a regional framework should:

- Consider all aspects of an ecosystem—natural, social, and economic—and how these aspects interact with each other and affect the ecosystem as a whole;
- Prioritize and coordinate management of multiple activities within a specified ecosystem or specified areas;
- Rely on scientific information that is continuously updated;
- Improve coordination among all levels of government to assist and support more effective design and implementation of regional approaches;
- Include goals that support ecosystem functions, productivity, and resilience and maintain the services essential to the well-being of people and other living things;
- Provide technical and financial incentives through federal and state governments;
- Incorporate transparent decision-making processes; and
- Achieve an informed public educated through formal and informal means.

Why Regional Ocean Governance? Why Now?

With each passing day science improves our understanding of the complex connections within the oceans and among the land, ocean, and atmosphere. Yet the legislative, regulatory, and institutional frameworks that have been established over many years are not responsive to the multiple impacts of human activities on ocean and coastal ecosystems. An outdated and disjointed collection of laws, institutions, and jurisdictions underlies this fragmented system. At the federal level alone there are more than 140 laws, dozens of federal agencies, and divided authority over our nation's ocean, coastal, and Great Lakes resources. This patchwork cannot respond effectively and coherently to such complex challenges as ocean dead zones, overfishing, habitat loss, and the impacts of and possible adaptations to climate change along our densely populated coasts. It also constrains our ability to explore and take advantage of promising new opportunities such as ocean-based forms of alternative energy production, environmentally and economically sustainable offshore aquaculture, and marine bioprospecting. These are just a few examples of the types of challenges the current system for managing ocean resources is ill-equipped to understand and address in environmentally and economically responsible ways.

Recent calls to overhaul the federal government's policies, programs, and institutions to address such challenges and opportunities have recommended new forms of ocean governance on a regional level, involving state, local, and federal partners. Both the U.S. Commission on Ocean Policy and the Pew Oceans Commission reflected this growing call

REGIONAL OCEAN GOVERNANCE AND ECOSYSTEM INITIATIVES: PAST AND PRESENT

New and emerging multi-state regional governance initiatives include the Gulf of Mexico Alliance, Great Lakes Regional Collaboration, Northeast Regional Ocean Council, and West Coast Governors' Agreement on Ocean Health, with active discussions taking place in other parts of the country, such as the Mid-Atlantic, Southeast, Caribbean, and Pacific Islands. Equally important are the new initiatives seeking to improve the management of human activities within significant ecosystems of a single state's waters, including the New York Oceans and Great Lakes Ecosystem Conservation Council, Puget Sound Partnership, Washington Ocean Caucus and Ocean Policy Advisory Group, California Ocean Protection Council, and the pending Massachusetts Ocean Act. See Appendix A for summary descriptions of these and other initiatives.

These recent and emerging initiatives rest on a foundation created by many established, large-scale ecosystem-focused programs. Examples include the Gulf of Maine Council for the Marine Environment, Chesapeake Bay Program, Delaware River Basin Compact, South Florida Ecosystem Restoration, the multiple interstate and international Great Lakes programs, and the CALFED San Francisco Bay-Delta Program, as well as dozens of state and federal research and management programs focused on coastal zones, estuaries, fisheries, other marine wildlife, and ocean areas. Regional fishery management councils and interstate fisheries commissions bear particular mention as institutions operating across large ocean ecosystems involving multiple jurisdictions.

in their recent reports. The Commissions' regional ocean governance recommendations emphasized the need for mechanisms that achieve a more coordinated and integrated approach for improving ocean and coastal health.² In both multi- and single-state contexts, regional ocean governance initiatives define objectives and priorities and advance cooperation in the management of ocean areas and their living and nonliving resources. Unlike the current decision-making regimes, effectively designed and implemented regional approaches can offer ways to:

- Forge common agreement on ecosystem boundaries and long-term management goals;
- Set measurable benchmarks to meet goals;
- Identify or create a political and institutional mechanism to focus authority at the appropriate level to accomplish goals; and
- Maintain a sustained effort among state, local, and federal partners to achieve goals.

² The Commissions' reports are available at www.jointoceancommission.org.

What Is Regional Ocean Governance?

Regional ocean governance in its multi-state form refers to a governance mechanism established by a coalition of state governments, with participation by the federal government, to address ocean and coastal issues that cross political boundaries. While state and federal governments need to play a strong leadership role, regional ocean governance initiatives must engage participation by the full spectrum of governmental and nongovernmental stakeholders in the region.

Today, multi-state collaborative agreements have been negotiated or are under active discussion in every coastal region of the United States. In addition, a number of coastal states have recently launched important new ocean management initiatives within state waters.

Federal agencies are, in most cases, active participants in regional ocean governance processes and are taking measures to amplify the regional orientation of a number of Executive Branch programs. This is evident, for example, in priorities set in the U.S. Ocean Action Plan and in the National Oceanic and Atmospheric Administration's new regional collaboration effort. Meanwhile, Congress is actively considering ocean legislation that would, among other things, establish a coherent regional ocean governance framework.

These efforts are unfolding alongside growing interest in developing practical approaches to ecosystem-based management of marine resources—managing activities that affect ocean and coastal resources in a way that considers the relationships among all ecosystem components, including humans and nonhuman species and the environment in which they live. This report identifies area-based management as an important site-based planning and management technique for implementing ecosystem-based management.

Moving Regional Ocean Governance From Theory To Practice

The increasing number of regional ocean governance initiatives arises from a growing recognition of the need to manage the human activities affecting our oceans and coasts at an appropriate scale and that ecosystem boundaries and dynamics are key to defining that scale. In addition, the desire to secure the economic, environmental, and social benefits of ocean and coastal resources for current and future generations is driving the growing effort to manage human activities in the context of ecosystems, whether they span multiple states or areas within a single state.

Many in the ocean policy community are encouraged by these developments, but they are also realistic about the substantial investments, hard work, and difficult choices that must be made to move regional ocean governance from theory to practice. That was the message from more than 100 leaders and participants in regional ocean governance initiatives from around the nation representing government, academia, the private sector, and non-governmental organizations convened by the Joint Ocean Commission Initiative and the Monterey Bay Aquarium at a March 2007 workshop in Monterey.³

The purpose of the workshop was to advance the development and implementation of effective regional ocean and coastal governance initiatives nationwide by bringing together leaders who are pursuing concrete, practical steps toward more coordinated and integrated management of ocean, coastal, and Great Lakes resources. While those deliberations did not and were not intended to achieve a formal consensus, these experts consistently reiterated a number of themes over the course of two and a half days. Based on these themes, the Joint Ocean Commission Initiative and the Monterey Bay Aquarium have identified an Agenda for Action to advance regional ocean governance in the United States. That agenda includes actions to achieve:

1. **Strong Leadership:** Encouraging strong and committed leadership of regional initiatives;
2. **Successful Regional Mechanisms:** Establishing and supporting effective, sustainable, and accountable mechanisms to carry out regional initiatives;
3. **Productive State-Federal Partnerships:** Building effective state-federal partnerships and providing technical and financial incentives to support regional ocean governance;
4. **Practical Tools:** Formulating practical applications of ecosystem-based and area-based management approaches;
5. **Essential Knowledge:** Focusing and expanding research, information, and technical assistance to support regional efforts; and
6. **Effective Communication:** Communicating in compelling and strategic ways about regional ocean and coastal challenges and solutions.

³ The workshop *Regional Ocean Governance: Effective Strategies for Bridging Theory and Practice*, held March 18–20 in Monterey, California, was convened with generous support from the David and Lucille Packard Foundation, the Gordon and Betty Moore Foundation, the Marisla Foundation, and The Ocean Foundation. More information about the workshop, including a participant list and agenda, is available at www.regionaloceans.org.

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AN AGENDA FOR ACTION

The following pages lay out a set of specific, tangible actions for advancing regional ocean governance in the United States. It is not an exhaustive list. Rather, the actions in this section are offered as essential steps for creating and implementing robust regional ocean governance programs. They are put forth in the hope of broadening the conversation about regional ocean governance to include a wider audience and to stimulate consideration across the ocean community about what must be done to move regional ocean governance from theory to practice. Each action is followed by consideration of what needs to happen, why it is important, and practical recommendations for how to achieve each of these essential steps.

It should be noted that there are entities in the ocean policy community addressing aspects of many of the actions detailed below. However, additional and more comprehensive efforts are needed on every front to accelerate the pace of change and address significant gaps.

ACTION 1. Strong Leadership

Strong and committed leadership from figures in government, advocacy, business, academia, and communities is essential to developing and sustaining regional ocean governance initiatives. Such leadership is key to breaking with old patterns of management across and among all levels of government, compensating for regional initiatives' current lack of structure and formal decision-making authority, and wielding the bully pulpit to motivate public support.

Governors should lead.

What: Governors whose states share ocean and coastal ecosystems should establish multi-state agreements, adequately fund their state's share of participation, and ensure the engagement of other levels of government, the public, user groups, the environmental community, business interests, and all other stakeholders.

Why: Governors represent an essential locus of leadership for regional ocean governance initiatives, are the focal point for engagement by the federal government, and act as the gateway to state agency and local government

participation. Governors are also highly visible messengers and thus well positioned to communicate to the public about the need for and benefits of effective regional ocean governance.

How: Convene a gubernatorial summit or meetings among those ocean and Great Lakes Governors who are engaged in and considering regional ocean governance initiatives. Meetings must drive home the connection between healthy oceans and coasts and the long-term economic and social vitality of their states. National and regional governors associations are one possible vehicle for convening these types of meetings.

Congress should support regional ocean governance.

What: Members of Congress should understand the compelling need for the nation to adopt regional approaches and commit to supporting such approaches in policy and appropriations in order to better manage the human activities that affect and depend on oceans and coasts.

Why: Only Congress can create a national framework for regional ocean governance and uniform technical and financial incentives that advance national ocean and coastal interests.

How: Develop and implement a strategy to enlist Members of Congress to back strong federal support for regional ocean governance. Target the strategy both in Washington, D.C. and in members' districts. The strategy must communicate why such initiatives are essential, the policy and funding measures needed, and the benefits to members' districts, home states, and the nation.

Note: See also Action Agenda 3, Productive State-Federal Partnerships

State legislators and local elected officials should provide leadership to establish regional ocean governance initiatives.

What: State legislators and local elected officials need to understand their stake in regional ocean governance in order to actively engage and play a leadership role in existing, emerging, or potential regional governance initiatives.

Why: State legislators will increasingly be called upon to pass state ocean policy laws that enable management of ocean resources on a regional, ecosystem basis and are guided by and consistent with a national ocean policy. State and local government leaders will be called upon to set goals, formulate incentives, assign authorities, and provide staff and financial resources to implement regional ocean governance strategies. Accordingly, they must be engaged and well informed about their stake in the regional ocean governance initiatives affecting their constituents.

How: Develop and implement a state-by-state and regional strategy that targets state legislators and local elected officials and is aimed at educating them about the importance of regional ocean governance and how they can play a meaningful role in moving it forward. Conferences and associations of state legislatures and mayors are a possible vehicle for nurturing state and local leadership.

New and existing leadership institutions should cultivate and nurture regional ocean leaders.

What: Leaders at all levels and from a wide array of disciplines must be recruited and encouraged to work collaboratively and to acquire and use relevant scientific information to achieve coordinated, comprehensive management of our oceans and coasts. Such leaders must be cultivated from diverse communities, including indigenous people with traditional knowledge of ocean resource management, the business community, graduate students in the natural and social sciences, academia, nongovernmental organizations, citizen activists, and local government, as well as state and federal agency staff.

Why: Ever-increasing population pressures and vulnerability to climate change along our coasts are just two of the many compelling reasons driving the need for leaders skilled in integrative, collaborative, and multidisciplinary approaches. Creating or retooling institutions dedicated to cultivating such leaders is a critical investment in building a national framework for regional ocean governance and the ecosystem-based management such governance should advance.

How: Create new or enhance existing ocean leadership institutes, certification programs, and awards that further coordinate, expand, and cultivate regional ocean leadership capacity from among the public, private, community, nonprofit, and academic sectors.

ACTION 2. Successful Regional Mechanisms

There is broad agreement within the ocean community that regional ocean governance initiatives must be accountable, sustainable, and demonstrably effective in improving decision making about human activities that affect ocean and coastal resources. Attempting to move from these general premises to specific recommendations for reaching these goals exposes uncertainties about a number of fundamental questions. Should regional initiatives be voluntary or mandated? Should they be advisory or regulatory? Despite such critical questions, it is possible to articulate a number of characteristics that will lead to successful regional ocean governance mechanisms.

Regional initiatives should build in mechanisms to assess and report performance.

- What:** Regional ocean governance initiatives should develop the capacity to assess the outcomes of their actions through the formulation of robust performance measures.
- Why:** The need for performance measures that track the efficacy of governance efforts is widely acknowledged, though not universally or effectively applied. While developing such measures can be challenging, incorporating them, and a transparent reporting process, into regional initiatives is key to secure and sustain political and material support.
- How:** Each regional initiative should develop clear, measurable objectives for each of their policy or goal areas. Performance measures must be an integral part of the goal setting process, not done after the fact. Measures should clearly reflect each of the objectives, and there should be clear interim benchmarks to allow for adaptation of strategies if objectives are not being reached. Objectives should be challenging, yet attainable. Early performance measures may focus on processes that are being put in place to achieve the measurable objectives, but after the processes are put in place, the focus must shift to actual, on-the-ground outcomes that support the objectives.

Resource agencies should coordinate and integrate their work among and across sectors, jurisdictions, and levels of government.

- What:** Regional ocean governance initiatives should utilize both positive and negative incentives to enhance coordination and integration among agencies with ocean and coastal responsibilities.

Why: Fragmented decision making among agencies at both the federal and state levels is cited as a major barrier to managing oceans and coasts on a regional, ecosystem basis. Competition over jurisdiction and financial resources, incompatible legal mandates, and inadequate funding are a few of the reasons inhibiting coordination and integration among agencies and among all levels of government.

How: Develop recommendations and models for tools and techniques that promote coordination and integration among agencies with ocean and coastal responsibilities, including specific suggestions about incentives related to agency budgets, workload, authority, the imposition of fines, and the issuance of “score cards” or similar assessments. Such work should be initiated by inter-agency bodies at both the federal and state levels with the involvement of other stakeholder groups to inform and keep the public aware of the process.

Leaders in regional initiatives should participate in ongoing, practical, and collaborative training about developing, implementing, and sustaining regional initiatives.

What: Those involved in the work of establishing and implementing regional initiatives would benefit from peer and expert learning about convening, leading, and implementing those initiatives, including techniques and approaches for developing strategies, formulating accountability measures, and managing adaptively.

Why: Regional ocean governance, ecosystem-based management approaches, and area-based management tools represent new ways of doing business. Leaders and participants in existing and emerging regional governance initiatives would benefit greatly from professional training in how to utilize these approaches to achieve regional ocean and coastal management goals.

How: Create and convene training workshops for leaders in regional ocean governance initiatives that use identified policy challenges as launching points for developing the skills and understanding required to establish and implement a successful regional ocean governance initiatives. Such workshops could be provided by government agencies, universities, nonprofits, or other organizations depending on the specific skills and issues to be covered.

Regional initiatives should generate management-relevant regional marine ecosystem research.

What: Regional ocean governance initiatives must utilize continuously updated information from the natural and social sciences to understand the potential effects of different management decisions on ocean and coastal ecosystems.

Why: Existing mechanisms for supporting the research side of marine ecosystem health suffer from many of the same problems that beset the governance system: insufficient funding; lack of shared agreement on priority issues; poor coordination and integration across scientific disciplines and among scientists and managers; and insufficient engagement of state and federal agencies not traditionally engaged in natural resource management, the private sector users of marine resources, and the public at large.

How: Develop recommendations for systematic approaches for regional initiatives to more effectively direct, fund, and engage broad participation in integrated, multidisciplinary, management-relevant regional marine ecosystem research. One way to accomplish this could be by developing a regional component to the Joint Subcommittee on Ocean Science and Technology's (JSOST's) *Ocean Research Priorities Plan and Implementation Strategy*.⁴ Improving communication and collaboration among scientists, managers, and policy makers is of particular importance.

ACTION 3. Productive State-Federal Partnerships

Many coastal states and regions are taking positive and proactive steps to organize regional ocean governance initiatives from the "bottom up," with varying degrees of federal involvement. However, to fully address critical issues affecting the national interest in marine ecosystems, adequate and sustained support and involvement from the federal government is essential.

Congress should establish a federal framework to encourage and support regional ocean governance initiatives.

What: Congress should enact legislation that establishes policies and programs that are sensitive to state and local needs and priorities, yet provide a degree of uniformity in intent. Such legislation should also include financial and technical incentives that enable regional governance initiatives and support their ability to perform functions that advance national ocean and coastal interests, such as conducting regional ecosystem assessments. Such legislation should also set requirements for coordination within and among federal agencies that facilitate stronger collaboration with regional initiatives.

Why: A federal framework is needed to ensure that regional initiatives emerge everywhere they are needed, that they address both regional and national ocean and

⁴ See http://ocean.ceq.gov/about/sup_jsost_prioritiesplan.html.

coastal interests, that they possess the essential features of effective regional ocean governance, and that they are consistent with a national ocean policy as envisioned by the Joint Ocean Commission Initiative in its report to Congress, *From Sea to Shining Sea*.

How: Congress should enact legislation that establishes a framework to support regional ocean governance initiatives that reflect all of the following components:

- Consider all aspects of an ecosystem;
- Set goals that support ecosystem functions, productivity, and resilience and maintain the services essential to the well-being of people and other living things;
- Prioritize and manage multiple activities within a specified area;
- Rely on scientific information that is continuously updated;
- Improve coordination among all levels of government to assist and support more effective design and implementation of regional approaches;
- Operate with transparent decision-making processes; and
- Engage and educate the public through formal and informal means.

Federal agency mandates and resources should be better coordinated and integrated to support regional ocean governance.

What: In order to meet regional priorities that are consistent with the national interest and support ecosystem-based approaches, federal agency mandates and resources need to be realigned and better coordinated.

Why: Fragmented responsibilities, uncoordinated programs and policies, and competition over jurisdictions and budgets characterize the multitude of federal agencies with regional ocean responsibilities. The development of the JSOST *Ocean Research Priorities Plan and Implementation Strategy* is an example of federal collaboration in a way that reflects the interests, responsibilities, and capabilities of multiple agencies. Similar efforts at the regional level would complement the federal effort.

How: Congress should require a progress report outlining priorities and results achieved by the Bush Administration's U.S. Ocean Action Plan and the new structure the Administration implemented with the establishment of the Council on Environmental Quality's interagency Committee on Ocean Policy. Congress should also conduct oversight hearings to discuss the progress of the interagency structure to date. As a result of those inquiries, Congress should pass legislation to codify the interagency structure with staff support provided by an office of ocean policy in the White House. In addition, the President should select an Assistant to the President to support and oversee the implementation of a national ocean policy.

ACTION 4. Practical Tools

In addition to the fundamental policy, institutional, and financial measures called for above, practitioners need tools and techniques to carry out the day-to-day work of regional ocean governance. The actions below target the use of technology, evaluation, and assessment to develop new knowledge and new mechanisms for exchanging knowledge.

An Internet-based networking mechanism should be created as a resource for people engaged in regional ocean governance initiatives.

- What:** The people engaged in developing and implementing regional ocean governance initiatives should have access to ongoing peer networking and dissemination of state-of-the-art information to support and enhance their efforts.
- Why:** Technology in the form of a website, list serve, and associated archive can help policy makers and practitioners from around the nation acquire vital information, interact with peers, and avoid reinventing the wheel. Such tools make it possible to access case studies, model programs, legislation, funding information, technical data, policy reports, and other information related to regional ocean governance. More sophisticated tools, such as a geographic information system to map and analyze the institutions, authorities, and programs relevant to ocean governance in a given region, could be incorporated.
- How:** The Joint Ocean Commission Initiative is pursuing the development of an interactive Internet site dedicated to connecting and informing people involved in regional ocean governance initiatives and is seeking partner organizations in this effort.

The federal government should coordinate and support the development of ecosystem-based management tools for regional ocean governance.

- What:** People engaged in regional ocean governance initiatives have a shared need for tools and techniques that aid their efforts. The federal government is in the best position to coordinate and substantially fund efforts to develop such tools. Examples include tools to:
- Forecast ecosystem states under different management scenarios and natural changes;
 - Perform economic analyses by assigning values to ecosystem services and evaluating trade-offs;
 - Clarify the benefits and costs of management actions, and;
 - Synthesize ocean science.

- Why:** The depth of federal investment in technical and scientific capacity in both the public and private sectors far exceeds that of the states, and there is a common need among regional initiatives for similar types of tools to support regional ocean governance initiatives.
- How:** The federal government should launch a systematic needs assessment process for ecosystem-based management tools as a first step. Both the assessment and subsequent development of tools must be done in close partnership with states engaged in regional ocean governance initiatives and the broader scientific community.

Credible ocean policy institutions should distill lessons from a range of sources to guide regional ocean governance initiatives.

- What:** Those involved in regional ocean governance initiatives would benefit from a systematic analysis of the many existing evaluations of regional endeavors in both the ocean and terrestrial contexts, supplemented as needed by original research.
- Why:** Evaluations of regional endeavors, in both the ocean and the terrestrial contexts, and in the U.S. and overseas, are vital sources of information for developing robust regional ocean governance mechanisms. Most have been scrutinized for their effectiveness in meeting sector-specific or other goals that may overlap with the wide range of issues regional governance initiatives are expected to address. In the U.S. ocean context, regional fishery management councils, interstate marine fisheries commissions, and large scale ecosystem restoration efforts are top candidates for examination. It would also be important to look at other models for important lessons, such as the regional ocean governance frameworks of other nations. In addition, models that are not marine-oriented, such as regional planning councils, councils of governments, or other entities from the urban and land use planning arenas, could offer important lessons and practical guidance.
- How:** Federal, state, and foundation sources should collaboratively underwrite one or more projects carried out by credible ocean policy institutions to analyze existing models and distill key lessons for structuring effective, accountable regional ocean governance initiatives. The lessons learned from such efforts should be disseminated through the networking and information sharing mechanism called for on page 14.

RESEARCH AND INFRASTRUCTURE PRIORITIES: PERSPECTIVES FROM THE MONTEREY WORKSHOP

Among the scientists and managers gathered at the Monterey workshop, human dimensions research appeared to top the list of high priority research needs for regional ocean governance based on ecosystem-based and area-based management approaches. Other actionable priorities that were identified included:

- Improving the understanding of near coastal processes and relationships;
- Assessing the vulnerability and resiliency of coastal communities;
- Acquiring time series data for ocean and coastal ecosystems across disciplines;
- Developing meaningful indicators of large marine ecosystem health and condition (biological, physical, social, and economic); and
- Developing methodologies to assess ecosystem services (characterization, threats, and valuation).

Specific infrastructure priorities included satellites, buoys, user-friendly databases that integrate disparate sources of potentially useful data, and decision support tools that provide forecasting abilities and are spatially explicit.

ACTION 5. Essential Knowledge

Like all ocean policy decisions, regional ocean policy decisions should be based on the best available understanding of the natural, social, and economic processes that affect ocean and coastal environments. The preceding action agendas include a number of recommendations to obtain better information to guide regional ocean governance, with a focus on structuring institutions and developing tools to generate useful information products. This section focuses on improving the basic knowledge needed for regional ocean governance through expanded research efforts and infrastructure investments. These priorities, articulated by participants at the March 2007 Monterey workshop, are consistent with recommendations of the JSOST's *Ocean Research Priorities Plan and Implementation Strategy* published January 2007.

The federal government should coordinate the preparation of regional ecosystem assessments in close cooperation with states, tribes, local governments, and academia with strong participation of the public and other stakeholders.

What: Assessments of the natural, cultural, social, and economic attributes of regional ecosystems are an important guide to decision making. They can also improve the National Environmental Policy Act process by providing a single regional assess-

ment as the basis for individual environmental impact statements. Ideally, developing regional ecosystem assessments would be a subset of a broader Ecosystem Research Initiative established by Congress, as recommended by the Joint Ocean Commission Initiative in its 2006 report to Congress, *From Sea to Shining Sea*.

Why: The federal government is in the best position, from a human resources, scientific, and technical point of view, to lead regional ecosystem assessment efforts in close collaboration with states, tribes, local governments, and academia, and with strong participation of the public and other stakeholders.

How: Congress and the Administration should establish, fund, and implement a program to lead coordinated, cooperative efforts to define ecosystem boundaries around the nation and prepare integrated ecosystem assessments.

The federal government, in partnership with states and the private sector, should invest in the infrastructure needed to support regional ocean governance.

What: Investment in infrastructure—such as satellites, buoys, research vessels, geographic information systems, and ocean observing systems—is needed to obtain essential information about ocean and coastal ecosystems.

Why: For regional ocean governance initiatives to take action based on the best available science, scientists must first be able to collect, monitor, observe, map, model, analyze, and synthesize data, and then translate their findings into useable and understandable forms for managers and policy makers. The erosion and inadequacy of the nation’s investments in ocean and coastal science infrastructure has been well documented by many credible sources, including the National Research Council, the Pew Oceans Commission, and the U.S. Commission on Ocean Policy.

How: Congress and the Administration should make the investments in ocean research infrastructure called for in the Joint Ocean Commission Initiative’s 2006 report to Congress, *From Sea to Shining Sea*, with particular attention to expanding the regional and local coastal observing infrastructure that can provide greater density and diversity of observations and address region-specific observational needs.

Federal and state governments and foundations should fund human dimensions research related to regional ocean governance.

What: A national strategy for social science and economic research that is relevant to regional, ecosystem-based management of ocean and coastal resources is needed along with the funding to implement that strategy. The strategy should include the development of socioeconomic assessments and models to illuminate the ways in which people depend on and affect ocean ecosystems on a regional basis.

Research priorities should include understanding how individuals perceive and value ocean resources and ways to motivate changes in behavior relevant to ocean resources.

Why: The success of regional ocean governance initiatives will depend on adequate social and economic science. Lip service is paid to the need for such information, but very little funding is dedicated in this direction.

How: The federal government should coordinate the development of an overall strategy for human dimensions research relevant to regional ocean governance, and Congress, the Administration, Governors, state legislatures, and the foundation community should fund implementation of that strategy in regions around the country.

ACTION 6. Effective Communication

Many voices within the ocean policy community have noted the urgent need for an effective communication strategy to mobilize public support for conserving oceans at both the regional and national levels. Achieving this goal is an important component of gaining the interest and motivation of the policy makers who will play central roles in facilitating and carrying out the actions described in this report.

The ocean community should develop a unified and compelling vision, message, and strategic communication approach to catalyze an ocean ethic among the nation’s citizens and leaders.

What: Advocacy organizations, academics, industry representatives, and leaders at all levels of government should jointly develop and agree to communicate a common message that:

- Articulates a broad, compelling vision of healthy and sustainable oceans;
- Resonates with the public and is delivered by the most credible messengers;
- Is understandable and “actionable,” connecting problems with solutions and identifying people as part of those solutions;
- Focuses on issues and outcomes rather than process;
- Illuminates the ocean-climate connection;
- Describes short-, medium-, and long-term goals; and
- Makes a convincing case about the vital role of science.

The regional aspect comes in the delivery of this message, since the most effective way to communicate the message will be to connect through “place.”

Why: There are hundreds of institutions, disciplines, and stakeholders concerned or affected by ocean policy reform. Uncoordinated and often competing messages from different interests and organizations can be confusing and frustrating to policy makers. A conscious, concerted, and coordinated communications effort is needed to persuade policy makers and the public to take the necessary actions to protect our oceans.

How: Leading entities from the ocean policy, science, advocacy, and foundation communities should convene the broader ocean policy community in a series of meetings to develop a common vision, message, and strategic communications approach for increasing action and support for protecting our oceans.

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MARINE ECOSYSTEM-BASED MANAGEMENT AND AREA-BASED MANAGEMENT

Marine Ecosystem-based Management

For many decades, scientists, policy makers, and advocates have recognized the need to consider the relationships among all ecosystem components, including humans and nonhuman species and the environment in which they live, when making decisions about ocean and coastal resources and their use, protection, and management. This concept goes by a number of names, but the term “ecosystem-based management” is among the most common. The term was used and the concept advocated by the 2003 Pew Oceans Commission and 2004 U.S. Commission on Ocean Policy reports, and by 221 academic scientists and policy experts who signed a 2005 scientific consensus statement on marine ecosystem-based management.⁵ Drawing from these sources, ecosystem-based management includes the following key principles:

- **Base management areas on ecosystems** in order to align decision-making with the complex issues that may affect many parts of an ecosystem.
- **Focus on overall ecosystem health** to ensure that the long-term provision of a full range of services essential to the well-being of people and other living things is a higher priority than short-term economic or social goals of individual sectors or interests.
- **Consider the cumulative impacts** of different activities on the ecosystem, including the diversity and interactions of species.
- **Recognize connectivity** among and within ecosystems by accounting for the import and export of larvae, nutrients, and food.
- **Respond to uncertainty with precaution** such that the less that is known about a system, the more precautionary management decisions are, and that activities proceed only when there is evidence that ecosystem functioning will not be harmed.
- **Coordinate at scales appropriate to specific goals** including between and among oceans, coasts, and watersheds, and at local, regional, national, and international levels.

⁵ McLeod, K. L., J. Lubchenco, S. R. Palumbi, and A. A. Rosenberg. 2005. Scientific Consensus Statement on Marine Ecosystem-Based Management. Signed by 221 academic scientists and policy experts with relevant expertise and published by the Communication Partnership for Science and the Sea at http://compassonline.org/marinescience/solutions_ecosystem.asp.

- **Restore and protect native biodiversity to strengthen resilience** to both natural and human-induced changes.
- **Develop indicators** to measure the status of ecosystem function and services and to gauge the effectiveness of management efforts.
- **Acquire more and better science for decision making** by reorienting research and monitoring to match ecosystem boundaries, develop better tools to communicate and apply information, and invest in social science, ocean science, engineering, exploration, observation, and infrastructure.
- **Engage stakeholders and the public** through transparent and participatory processes.
- **Provide for adaptive management** that improves future decision making through continual information gathering, periodic assessments, and modification of plans and actions.

The endorsement of this approach by the two Commissions and the scientists' consensus statement, delivered against the backdrop of mounting proof of imperiled marine resources and inadequate management regimes, has further hastened its acceptance among the spectrum of those concerned about our oceans and coasts. Ecosystem-based management has become ubiquitous as a focal point of academic and policy forums, campaigns of advocacy organizations, policies of state and federal ocean and coastal resource management agencies, and ecosystem restoration initiatives.

Ecosystem-based management has also increasingly been incorporated as a tenet of ocean legislation, agency policies, and resource management projects. As these move from formulation to implementation, there is growing evidence that practitioners are having difficulty translating the principles of ecosystem-based management into tangible, specific, and concrete action.

For example, one recent study examined the degree to which ecosystem-based management, as defined by academic scientists, was incorporated into the management plans and actions of eight coastal and marine sites at a range of scales.⁶ Most management efforts addressed general, overarching criteria such as ecological health and the need to include humans as part of the ecosystem. However, very few addressed specific ecological criteria (e.g., recognizing the operation of ecosystems over a wide range of spatial and temporal scales, incorporating concepts of linkages between ecosystem components) or management criteria (e.g., monitoring procedures, adaptive management practices). The authors identified a number of obstacles managers face in incorporating ecosystem-based management principles in their plans and actions, and they suggested, among other things, the need for scientists and managers to work collaboratively to develop a practical set of tools for implementing ecosystem-based management.

⁶ Arkema, K.K. et al. 2006. Marine Ecosystem-based Management: from Characterization to Implementation. *Frontiers in Ecology and the Environment* 4(10): 525–532.

Recommendations are coming from many quarters, articulating a need for scientists to conduct ecosystem research that is more solutions-oriented and otherwise relevant to management needs,⁷ the importance of modifying government policy, institutional structures, and society,⁸ and the importance of pursuing both incremental and systemic changes,⁹ to name a few. It is a sign of progress that debate over the merits of ecosystem-based management has been supplanted by articles, workshops, and hearings about overcoming obstacles to its implementation.

Marine Area-based Management

Area-based management, place-based management, marine spatial planning, and comprehensive ocean zoning are all terms that get at the idea of specifying appropriate human uses for particular geographic areas in ocean waters to reduce user conflicts and promote conservation. The approach generally includes the following steps, as expressed in recent academic and policy articles:¹⁰

- Define the place or area to be managed.
- Map the living and nonliving resources within that defined area.
- Develop a science-based plan that sets priorities for use and conservation of ocean resources within the defined area to achieve measurable ecological, economic, and social objectives.
- Designate geographic zones to site desired human activities in space and time.
- Formulate rules, licenses, and permits governing uses in specific zones to achieve clear regulatory authority and rules for decision making.
- Set timelines and provide accountability.
- Establish programs to monitor uses and enforce requirements.
- Create mechanisms to periodically review and adjust the system.
- Incorporate public and stakeholder participation in all steps.
- Provide dependable funding.

⁷ Boesch, DF. 2006. Scientific requirements for ecosystem-based management in the restoration of Chesapeake Bay and Coastal Louisiana. *Ecological Engineering* 26: 6–26.

⁸ Juda, L. 2003. Obstacles to Ecosystem Based Management. In *Global Conference on Oceans, Coasts, and Islands: Pre-Conference Proceedings Volume*. Paris, November 12–14, 2003.

⁹ Communication Partnership for Science and the Sea (COMPASS). 2005. *Implementing Marine Ecosystem-based Management: Integrating Perspectives from Science and Management*. Synthesis of a December 12–13, 2005 meeting in Monterey, California.

¹⁰ See, for example: Crowder, L. et al. 2006. Resolving Mismatches in U.S. Ocean Governance. *Science* 313: 617–618; UNESCO. 2006. *Visions for a Sea Change: Report of the First International Workshop on Marine Spatial Planning*. Paris, France, November 8–10, 2006; Agardy, T. 2007. Ocean Zoning is Coming! Ocean Zoning is Coming! Music to Some Ears, A Fearsome Sound to Others. Published in the *W2O Observer* (monthly newsletter of the online World Ocean Observatory, March 2007) at thew2o.net/newsletter.html; Norse, E. 2005. Ending the Range Wars on the Last Frontier: Zoning the Sea. In *Marine Conservation Biology: The Science of Maintaining the Sea's Biodiversity*. Island Press; and Young, et al. 2007. Solving the Crisis in Ocean Governance: Place-based Management of Marine Ecosystems. *Environment* 49(4): 20–32.

Observers make the case that the most headway in applying this approach to large marine areas can be found overseas, citing, for example, Belgium, Germany, the Netherlands, and the United Kingdom in Europe, and Australia and New Zealand in the South Pacific as places where preliminary plans and zoning proposals are in place, in some cases accompanied by authorizing national legislation.¹¹

In the United States, a current example gaining widespread attention is the Massachusetts Ocean Act. Recent proposals for liquefied natural gas terminals, sand and gravel mining, desalinization plants, gas pipelines, telecommunications cables, and wind energy facilities in Massachusetts state waters were the impetus for the comprehensive ocean planning bill, passed as Senate Bill 2653 in 2006 (but not taken up by the House of Representatives) and reintroduced in 2007. The bill would vest in the Massachusetts Executive Office of Energy and Environmental Affairs the authority to develop a comprehensive ocean management plan to protect and restore a healthy coastal and marine ecosystem and meet human needs and wants in a sustainable manner. The plan would be prepared in consultation with an advisory board and scientific board, using research, mapping, monitoring, and other data collection activities to acquire the best available scientific information about the state's ocean resources.

Advocates of comprehensive ocean planning and zoning believe that this form of area-based management confers a number of advantages, including the ability to:

- Identify or create jurisdictional boundaries that are large enough to manage resources at the appropriate ecosystem scale;
- Mediate conflicts between and among human uses of a marine area, as well as conflicts between human uses and the protection of essential ecosystem functions;
- Allow for the early identification and resolution of conflicts before damage is done to the environment or investments;
- Give economic interests certainty to engage in long-term planning without interference from incompatible uses;
- Complement existing, single-sector regulatory regimes and mitigate the effects of their fragmentation by addressing multiple, cumulative impacts to a marine ecosystem;
- Enable more effective use of scarce resources for management activities such as monitoring, enforcement, and training; and
- Adapt to the marine environment a practical tool that is already familiar from its extensive application in terrestrial settings.

¹¹ Douvère, F., and Ehler, C.N. 2006. The International Perspective: Lessons from Recent European Experience with Marine Spatial Planning. Paper presented at the Symposium on Management for Spatial and Temporal Complexity in Ocean Ecosystems in the 21st Century at the 20th Annual Meeting of the Society for Conservation Biology, San Jose, California, 24–28 June 2006.

Bringing It All Together

Those debating how best to address the problems of our oceans and coasts hold differing views about distinctions between and relationships among the concepts of regional ocean governance, ecosystem-based management, and area-based management. Some see area-based management, and more specifically comprehensive ocean zoning, as interchangeable with ecosystem-based management and regional ocean governance. Others view these as nested concepts, with regional ocean governance serving as the umbrella under which governmental entities define goals and priorities and advance cooperation across jurisdictional lines, and area-based management or large-scale ocean zoning as one tool, albeit a significant one, for implementing ecosystem-based management.

In listening to the views of experts convened at the Monterey workshop and engaging with many others who are working to advance these ideas in both theory and practice, it is clear to the Joint Ocean Commission Initiative and the Monterey Bay Aquarium that the concepts are complex and the dialogue about their application to the marine environment is evolving. It is encouraging that we now have sufficient collective understanding of the principles underlying these concepts that we can begin to use them to better manage coastal and marine ecosystems.

Perhaps a way forward is to view the concepts not as interchangeable or hierarchical, but as very closely related as follows:

- **Regional ocean governance** is a mechanism for cooperating to address ocean and coastal issues across traditional political boundaries.
- **Ecosystem-based management** is a method to account for multiple components of a scientifically defined area in a way that recognizes and addresses the relationships between and among those components. Those involved in regional governance initiatives may or may not (but should) manage using an ecosystem-based approach that respects those interrelationships.
- **Area-based management** is one way to implement ecosystem-based management by applying planning and zoning and other resource management tools to a defined area. Doing so involves examining the resources in that area and making decisions about what uses can take place where to best maintain the ecological and economic health of that area.

A greater clarity about these concepts among the proponents of improved ocean management will help everyone to move forward more effectively to advance the goal of healthy oceans and coasts.

August 2007

REGIONAL AND STATE OCEAN ACTIVITIES SUMMARY

The following tables provide summary information on state and regional ocean governance activities in the United States. The document focuses on initiatives that reflect in many respects the recommendations of the Pew and U.S. Oceans Commissions with regard to implementation of ecosystem-based management. The first section summarizes initiatives begun prior to release of the Commissions' reports. The second focuses on those initiated afterward and includes a subsection on recent state-level activities.

This is a living document that is updated as existing initiatives evolve and new ones begin. Updates are available on www.jointoceancommission.org, the Joint Ocean Commission Initiative's website. This document does not capture all ocean management activities; rather it is a highlight of current progress. For example, Regional Fishery Management Councils, Interstate Fishery Commissions, and many state-level coastal management activities, although important, are not included in this summary. This document was prepared by Meridian Institute, which serves the secretariat for the Joint Ocean Commission Initiative. To facilitate periodic updates, Meridian Institute would appreciate notification of amendments or additions. Please contact Laura Cantral of Meridian Institute (202-354-6444 or lcantral@merid.org).

Last updated: July 31, 2007

I. Initiatives Begun *Prior To U.S. Ocean Commission And Pew Oceans Commission Reports*

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
NORTHEAST REGION			
<p>Gulf of Maine Council on the Marine Environment www.gulfofmaine.org/</p>	<p>The 1989 Gulf of Maine Agreement on the Marine Environment.</p> <p>Members include two cabinet-level officials from each of the states and provinces surrounding the Gulf, U.S. and Canadian federal officials, and one private sector/NGO representative from each of the five jurisdictions.</p>	<p>“The mission of the Gulf of Maine Council on the Marine Environment is to maintain and enhance environmental quality in the Gulf of Maine to allow for sustainable resource use by existing and future generations.”</p>	<p>Projects include:</p> <ul style="list-style-type: none"> • Gulf of Maine Action Plan 2007–2012 • Gulf of Maine Mapping Initiative • Gulfwatch monitoring program • <i>Gulf of Maine Times</i> • Translating science into management • Increasing public awareness
<p>Long Island Sound Study www.longislandsoundstudy.net</p>	<p>U.S.EPA and the states of New York and Connecticut formed the Long Island Sound Study in 1985.</p> <p>A bi-state partnership consisting of federal and state agencies, user groups, concerned organizations, and individuals dedicated to restoring and protecting the Sound.</p>	<p>The Study works to protect and improve the health of the Sound by implementing the Sound’s Comprehensive Conservation and Management Plan completed in 1994.</p> <p>The Long Island Sound Stewardship Initiative was established in September 2006, with \$6M in research funding.</p>	<p>Members work on seven issues:</p> <ul style="list-style-type: none"> • Low dissolved oxygen (hypoxia) • Toxic contamination • Pathogen contamination • Floatable debris • Living resources and habitat management • Land use and development • Public involvement and education

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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MIDATLANTIC REGION

<p>Chesapeake Bay Program www.chesapeakebay.net</p>	<p>Chesapeake Bay Agreement of 1983.</p> <p>In addition to Maryland, Virginia, and Pennsylvania, members include the District of Columbia, the Chesapeake Bay Commission, U.S. EPA, and citizen advisory groups.</p>	<p>Restoration of the Chesapeake Bay. Highest priority is restoration of the Bay’s living resources by reducing the amount of nutrients—primarily nitrogen and phosphorous—that enter the Bay.</p>	<p>The Bay Program works within a collaborative organizational structure. Members from partner organizations participate in a series of committees that drive and implement the Bay Program’s efforts.</p>
<p>Delaware River Basin Commission www.state.nj.us/drbc</p>	<p>Established in 1961 by interstate compact legislation signed by President Kennedy and the Governors of Delaware, New Jersey, Pennsylvania, and New York.</p> <p>Comprised of the Governors’ offices mentioned above, as well as a federal representative appointed by the President.</p>	<p>The 1961 law created “a regional body with the force of law to oversee a unified approach to managing a river system without regard to political boundaries.”</p>	<ul style="list-style-type: none"> • Watershed planning and management • Agency coordination • Regulatory review (permits) • Flood and drought management • Recreation • Resolving interstate disputes • Providing venues for information exchange and public discourse

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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GULF OF MEXICO REGION

<p>Gulf of Mexico Program www.epa.gov/gmpo</p>	<p>Created in 1988 by U.S. EPA.</p> <p>Members include federal agencies (with U.S. EPA lead), Gulf states, and stakeholder groups.</p>	<p>“To facilitate collaborative actions to protect, maintain, and restore the health and productivity of the Gulf of Mexico in ways consistent with the economic well-being of the Region.”</p> <p>The Program emphasizes voluntary, non-regulatory solutions, the use of sound science, and coastal state and community leadership.</p>	<p>The partnership provides:</p> <ul style="list-style-type: none"> • Coordination among federal, state, and local programs • A regional perspective to access and provide information to address research needs • A forum for affected groups, public and private educational institutions, and the general public
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GREAT LAKES REGION

<p>Council of Great Lakes Governors www.cglg.org</p>	<p>Formed in 1983. The Governors of the eight Great Lakes states serve on the council.</p>	<p>“To encourage and facilitate environmentally responsible economic growth through a cooperative effort between the public and private sectors among the eight Great Lakes States and with Ontario and Québec.”</p> <p>Pursuing passage of Great Lakes–St. Lawrence River Basin Water Resources Compact into law.</p>	<p>Major focus areas include:</p> <ul style="list-style-type: none"> • Coordinating Great Lakes water policy on issues of quantity and quality • Environmental stewardship • International trade and economic development
<p>Great Lakes Commission www.glc.org</p>	<p>Established by the Great Lakes Compact, a joint legislative action of the Great Lakes states in 1955. A Declaration of Partnership established associate membership for Canadian provinces in 1999.</p> <p>Members include the eight Great Lakes states with associate member status for the Canadian provinces of Ontario and Québec. Each jurisdiction appoints a delegation of three to five members comprised of senior agency officials, legislators, and/or appointees of the Governor or Premier.</p>	<p>“Dedicated to the use, management, and protection of the water, land, and other natural resources of the Great Lakes–St. Lawrence system.”</p> <p>Legislative priorities for FY 2008:</p> <ul style="list-style-type: none"> • Aquatic invasive species • Funding for Great Lakes Regional Collaboration blueprint • Coastal health • Toxic pollutants • Habitat restoration 	<p>Communications, policy research, and advocacy around environmental protection, resource management, transportation, and economic development.</p>

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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GREAT LAKES REGION *(continued)*

<p>International Joint Commission www.ijc.org</p>	<p>1909 Boundary Waters Treaty between the U.S. and Canada.</p>	<p>“The International Joint Commission prevents and resolves disputes between the United States of America and Canada under the 1909 Boundary Waters Treaty and pursues the common good of both countries as an independent and objective advisor to the two governments.”</p>	<ul style="list-style-type: none"> • Assists with implementation of the Great Lakes Water Quality Agreement • Rules upon applications for approval of projects affecting boundary or transboundary waters • Seeks improvement of transboundary air quality • Alerts the governments to emerging issues along the boundary that may give rise to bilateral disputes • Pursues strong “Accountability Framework for Great Lakes Water Quality Agreement” (<i>13th IJC Biennial Report, March 2007</i>)
<p>Council of Great Lakes Governors www.cglg.org</p>	<p>Formed in 1983. The Governors of the eight Great Lakes states serve on the council.</p>	<p>“To encourage and facilitate environmentally responsible economic growth through a cooperative effort between the public and private sectors among the eight Great Lakes States and with Ontario and Québec.”</p> <p>Pursuing passage of Great Lakes–St. Lawrence River Basin Water Resources Compact into law.</p>	<p>Major focus areas include:</p> <ul style="list-style-type: none"> • Coordinating Great Lakes water policy on issues of quantity and quality • Environmental stewardship • International trade and economic development

WEST COAST REGION

<p>CALFED Bay-Delta Program www.calwater.ca.gov</p>	<p>In 1994, the state of California and the United States signed a “Framework Agreement” pledging cooperation on a long-term plan.</p> <p>Members include 25 state and federal agencies.</p>	<p>Charged with “providing accountability, ensuring balanced implementation, tracking and assessing program progress, using sound science, assuring public involvement and outreach, and coordinating and integrating related government programs.”</p>	<p>Agency coordination, annual planning, program assessment, public involvement, and an integrated grant processes to address:</p> <ul style="list-style-type: none"> • Water supply reliability • Ecosystem restoration • Water quality • Levee system integrity
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II. Initiatives Begun *After* The U.S. Ocean Commission And Pew Oceans Commission Reports

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
NORTHEAST REGION			
<p>Northeast Regional Ocean Council</p>	<p>August 2005 and May 2006 by resolution at the Annual Conference of New England Governors and Eastern Canadian Premiers.</p> <p>Membership includes Governors of Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont, as well as premiers of New Brunswick, Newfoundland and Labrador, Nova Scotia, Prince Edward Island, and Québec.</p>	<p>Created to provide the regional long-term protection of ocean resources, the balanced use of those resources for economic and ecological benefits, and a coordinated approach to finding and implementing solutions.</p> <p>NROC's goals are to:</p> <ul style="list-style-type: none"> • Coordinate priority issues identified by regional entities and raise awareness through actions taken by NROC partners and the New England Governors. • Identify issues that require regional solutions and to identify appropriate partners to address them. • Identify regional data collection and assessment needs. 	<p>December 2006 Work Plan articulated five actions that have been completed:</p> <ul style="list-style-type: none"> • Submit a FY 2008 appropriations request to Congress to support New England regional activities • Create a regional entity for southern New England similar to the Gulf of Maine Council • Convene regional ocean congress in spring 2007 • Seek a resolution from the Governors to facilitate development of an annual priorities statement • Create action plans around the priority issue areas <p>Priority issues:</p> <ul style="list-style-type: none"> • Ocean energy resource planning and management • Ocean and coastal ecosystem health • Maritime security • Coastal hazard response and resiliency

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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MID-ATLANTIC REGION

<p>Oceans and the Future Symposium</p>	<p>Convened September 2005 by Urban Coast Institute at Monmouth University.</p>	<p>Bring attention to the two Commissions' reports, the Administration's Ocean Action Plan, and the Governor's Coast 2005 Initiative. Also, further discussions about improving ocean and coastal management in New Jersey and the Mid-Atlantic region.</p>	
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SOUTHEAST REGION

<p>Coastal Conference on Ecosystem-Based Approaches to Management in the Southeast Region</p> <p>www.uncw.edu/dpacs/031906aHome.htm</p>	<p>Convened March 2006 by the University of North Carolina Wilmington.</p>	<p>The conference was organized to:</p> <ul style="list-style-type: none"> • Address marine science issues related to the Southeast Shelf Regional Ecosystem • Identify key technical issues and regional priorities • Define geographic scope and scale of these priority issues • Examine a suite of economic and socio-economic indicators to assist with ecosystem-based management 	<p>The conference addressed the following topics:</p> <ul style="list-style-type: none"> • Fish, fisheries, and protected species • Coastal habitats • Pollution and connections to ecosystems and human health • Socio-economic assessment of the southeast ecosystem • Water supply and water flow
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Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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GULF OF MEXICO REGION

<p>Gulf of Mexico Alliance</p> <p>www.gulfofmexicoalliance.org</p> <p>and</p> <p>www2.nos.noaa.gov/gomex</p>	<p>Spring 2004 by invitation from Florida Governor Jeb Bush to the other Gulf Governors.</p> <p>Membership includes the states of Alabama, Florida, Louisiana, Mississippi, Texas, and the Gulf of Mexico States Accord (facilitating Mexican involvement).</p> <p>NOAA and the U.S. EPA Gulf of Mexico Program co-chair a 13-agency Gulf of Mexico Regional Partnership Federal Workgroup, supporting state leadership and coordinating an integrated federal response to regional needs identified by the Alliance.</p>	<p>Priority issues:</p> <ul style="list-style-type: none"> • Water quality for healthy beaches and shellfish beds • Wetland and coastal conservation and restoration • Environmental education • Identification and characterization of Gulf habitats • Reducing nutrient inputs to coastal ecosystems • Coastal community resiliency 	<p>Sharing science, expertise, and financial resources and striving to create a workable and achievable strategy to enhance the environmental and economic health of the Gulf of Mexico.</p> <p>The Alliance released the <i>Governors' Action Plan for Healthy and Resilient Coasts</i> in March 2006, a focused plan to achieve "on the ground" results within 36 months.</p> <p>Public workshops were held between June 2005 and February 2006. A <i>Community Workshop Summary Report</i> summarizing priority issues identified at the workshops was released in August 2006.</p> <p>Annual "all hands" Governors' Action Plan Implementation and Integration Workshops were held in July 2006 and 2007.</p> <p>The Alliance met with Gulf State Governors in August 2007 to discuss the next phase of the Alliance.</p>
<p>Gulf of Mexico Summit</p> <p>www.hri.tamucc.edu/summit.html</p>	<p>Hosted by the Harte Research Institute at Texas A&M University-Corpus Christi.</p> <p>Co-hosts included state Governors, private industry, state and federal agencies, conservation organizations, and academic institutions.</p>	<p>Purpose:</p> <ul style="list-style-type: none"> • Increase international knowledge of the Gulf of Mexico • Expand awareness of the socioeconomic and ecological value of the Gulf of Mexico • Build partnerships for proactive management • Establish a strategy for ensuring the ecological and socioeconomic health and productivity of the Gulf of Mexico 	<p>Governors of five Gulf states formally agreed to an action plan for the Gulf of Mexico Alliance at this venue.</p> <p>On March 28–30, 2006, the Summit brought together top leaders in all sectors and brought media attention to the Gulf region.</p> <p>Organizers published a report on the state of the Gulf and an action agenda for future efforts.</p>

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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WEST COAST REGION

<p>Alaska Marine Ecosystem Forum (AMEF)</p> <p>www.fakr.noaa.gov/npfmc/current_issues/ecosystem/Ecosystem.htm</p>	<p>In September 2006, the North Atlantic Fisheries Management Council signed a memorandum of understanding with 10 federal and 4 state agencies to create the AMEF.</p>	<p>“The AMEF seeks to improve coordination and cooperative understanding between the agencies on issues of shared responsibilities related to the marine ecosystems off Alaska’s coast.”</p>	<p>The initial focus of the AMEF will be on the Aleutian Islands marine ecosystem.</p>
<p>West Coast Governors’ Agreement on Ocean Health</p> <p>http://westcoastoceans.gov</p>	<p>In September 2006, Governors Schwarzenegger (CA), Kulongoski (OR), and Gregoire (WA) launched this regional collaboration among the three West Coast states.</p>	<p>To address shared priorities on critical ocean and coastal protection and management issues facing all three states.</p> <p>Priority areas:</p> <ul style="list-style-type: none"> • Ensuring clean coastal waters and beaches • Protecting and restoring ocean and coastal habitats • Promoting effective implementation of marine ecosystem-based management • Reducing adverse impacts of offshore development • Increasing ocean literacy • Expanding scientific information, research, and monitoring • Fostering sustainable economic development in coastal communities 	<p>The Agreement called for the following specific actions, which have been completed or are significantly under way:</p> <ul style="list-style-type: none"> • Call upon federal leaders to provide sufficient funding for nonpoint source pollution control • Send a joint message to federal leaders reinforcing opposition to oil and gas development off of the West Coast • Support development of regional research plan for the West Coast in coordination with research institutions • Request of the White House CEQ help in acquiring technical assistance from federal agencies to address issues of regional significance <p>By the end of 2007, the states plan to issue an extensive Action Plan. They have held public meetings to obtain input and have prepared a discussion paper to guide public comment. The draft plan is expected to be release in early October 2007 and will be open for public comment again.</p>

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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PACIFIC ISLANDS REGION

<p>Pacific Islands Regional Ocean Forum</p> <p>www.spc.int/piocean/forum/New/forum.htm</p>	<p>Held February 2–8, 2004 at the University of the South Pacific in Suva, Fiji.</p> <p>The Forum was attended by over 200 people from more than 20 countries.</p>	<p>Purpose was to gather input from stakeholders regarding the actions needed to implement the Pacific Islands Regional Ocean Policy (PIROP), a statement of vision, goals, and principles for ocean management by the Pacific Island communities.</p>	<p>The discussions at the Forum provided the basis for the PIROP 's implementation framework, the Pacific Islands Regional Ocean Framework for Integrated Strategic Action.</p> <p>The four central principles of the framework relate to:</p> <ul style="list-style-type: none"> • Understanding of the ocean • Sustainable development and management of ocean resources • Health of the ocean • Peaceful use of the ocean
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GREAT LAKES REGION

<p>Great Lakes Regional Collaboration</p> <p>www.glrc.us</p>	<p>Created by Presidential Executive Order in May 2004 at the request of the Great Lakes congressional delegation. The order created the Great Lakes Interagency Taskforce and directed U.S. EPA to convene a regional collaboration.</p>	<p>Eight priority areas act as the organizing principle for the Great Lakes Regional Collaboration Strategy released December 2005:</p> <ul style="list-style-type: none"> • Areas of concern restoration/sediment • Coastal health • Habitat/species • Indicators and information • Invasive species • Nonpoint source pollution • Persistent Bioaccumulative Toxics (PBT) reduction • Sustainable development 	<p>The Great Lakes Regional Collaboration Strategy prioritizes actions associated with the eight problem areas and suggests strategies for greater stakeholder collaboration.</p>
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Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES

<p>Protecting Our Ocean: California's Action Strategy www.resources.ca.gov/copc</p>	<p>The Governor directed the development of this plan of action for ocean and coastal management that would address actions by all levels of government, academia, public interest groups, and philanthropic interests.</p>	<p>Mission: To improve the protection, management, and restoration of California's ocean and coastal ecosystems for their intrinsic value and for the benefit of current and future generations.</p> <p>Goals relate to:</p> <ul style="list-style-type: none"> • Governance • Research and monitoring • Ocean and coastal water quality • Physical processes and habitat structure • Ocean and coastal ecosystems • Education and outreach 	<p>Plan sets forth numerous objectives and specific actions that the state and partners can take to address the six goal areas.</p>
<p>California Ocean Protection Council www.resources.ca.gov/copc</p>	<p>Established in 2004 pursuant to the requirements of the California Ocean Protection Act.</p> <p>Members include the Secretary for Resources, Secretary for Environmental Protection, Chair of the State Lands Commission, and two ex-officio legislative members.</p>	<p>Coordinate and improve the protection and management of California's ocean and coastal resources and to help implement Governor Arnold Schwarzenegger's plan <i>Protecting Our Ocean: California's Action Strategy</i>.</p>	<p>The Council is tasked to:</p> <ul style="list-style-type: none"> • Coordinate activities of state agencies • Coordinate the collection and sharing of scientific data • Identify and recommend changes in state and federal law <p>Ocean Research Strategy adopted September 2005.</p> <p>Ecosystem-based Management Initiatives announced January 2006.</p> <p>5-year strategic plan released August 2006 with themes of:</p> <ul style="list-style-type: none"> • Governance • Research and monitoring • Ocean and coastal water quality • Physical processes and habitat structure • Ocean and coastal ecosystems • Education and outreach <p>Marine debris reduction and prevention resolution adopted February 2007.</p>

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES *(continued)*

<p>Florida Oceans and Coastal Resources Council</p> <p>www.floridaoceanscouncil.org</p>	<p>Established by the state legislature in 2004 (House Bill 1855).</p> <p>Three non-voting and fifteen voting council members were appointed in August 2005 from various stakeholder, academic, and government organizations.</p>	<p>Each year the Council is charged to:</p> <ul style="list-style-type: none"> • Develop annual priorities for ocean and coastal research • Establish a statewide ocean research plan • Coordinate public and private ocean research for more effective coastal management • Make recommendations to the state legislature 	<p>In the most recent FY 2007–2008 Research Plan, the Council recommended 34 research focus areas and an integrated data management and dissemination system. State agencies participating in the Council have also articulated their management needs in a document available on the Council’s website.</p>
<p>Hawaii Ocean and Coastal Council</p>	<p>Created by Governor Linda Lingle in January 2005.</p> <p>Established in the Department of Land and Natural Resources with 25 members from state, federal, and local government, NGOs, and academia.</p>	<p>Provide advice to guide the Governor’s positions on ocean issues.</p>	<p>In October 2005, upon request, provided recommendations for an update of the state’s Ocean Resources Management Plan.</p> <p>In February 2006, legislation was introduced (Senate Bill 2361) to formalize continuation of the Council in state law.</p>
<p>Maine Bay Management Study</p> <p>www.state.me.us/dmr/baystudy/baystudy.htm</p>	<p>In 2003, state legislation directed Maine’s Land and Water Resources Council to undertake a two and a half-year study “to explore and document potential new and innovative concepts for the management of Maine’s embayments.”</p> <p>Work is being performed by an interagency team with input from a project steering committee consisting of members of the public with expertise in relevant fields of interest.</p>	<p>The goal of the study is to create an improved nearshore governance system that is regional in nature, provides for improved local input, incorporates scientific information, and manages for multiple uses.</p>	<p>The Bay Management study has three components:</p> <ul style="list-style-type: none"> • Public participation • Pilot projects • Staff research and analysis <p>Final report released in January 2007. Main recommendations include:</p> <ul style="list-style-type: none"> • Enhanced regional management of nearshore waters • Increased availability of nearshore information • Improved state framework for nearshore management • Increased number and type of funding sources

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES *(continued)*

<p>Massachusetts Oceans Act, S.529</p>	<p>Prompted by the final recommendations of the Massachusetts Ocean Management Task Force.</p> <p>This legislation passed the Massachusetts Senate in July 2006 (as S. 2653), but the legislative session ended before the House was able to consider it.</p> <p>It was re-filed for the 2007–2008 legislative session, where it was reported favorably out of the joint House/Senate Committee on Natural Resources, Environment, and Agriculture after a hearing on June 13, 2007. It was subsequently referred to the Senate Ways and Means Committee.</p> <p>Senate passage is expected in September with a House version of the bill to be introduced just after Senate action.</p>	<p>Calls for the development and implementation of an ocean management plan that would govern development activities and foster environmentally sustainable uses in Massachusetts waters while protecting valuable marine resources.</p> <p>State agencies would be required to grant licenses and permits in accordance with the ocean management plan. Enforceable through existing state statutes and regulations and CZMA federal consistency review authority.</p> <p>If enacted, the legislation would be the first of its kind in the nation, in that it offers a spatially-based, enforceable planning mechanism.</p>	<p>A broadly representative ocean management advisory board would assist the Secretary of the Executive Office of Energy and Environmental Affairs in designing an ocean management plan. A separate ocean science advisory council would assist the Secretary in gathering and analyzing the best available scientific information.</p>
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Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES *(continued)*

<p>New York Ocean and Great Lakes Ecosystem Conservation Council</p> <p>www.dec.ny.gov/environmentdec/18858.html</p>	<p>Established in August 2006 by the New York Ocean and Great Lakes Ecosystem Conservation Act.</p> <p>The nine-member council is comprised of the heads of state agencies and chaired by the Commissioner of the Department of Environmental Conservation.</p> <p>The Act stipulates that it shall be the policy of the state to "conserve, maintain, and restore coastal ecosystems so that they are healthy, productive, and resilient and able to deliver the resources people want and need."</p>	<p>Council responsibilities include:</p> <ul style="list-style-type: none"> • Promote understanding, protection, restoration, and enhancement of New York's ocean and Great Lakes ecosystems while promoting economic development • Ensure that community needs are addressed • Define and implement an adaptive approach • Integrate and coordinate ecosystem-based management with existing laws and programs • Develop guidelines for agency programs and activities • Encourage scientific research and information sharing to inform ecosystem-based management • Integrate academia and non-profits more effectively to advance marine ecosystem-based management • Facilitate regional coordination and cooperation to address cross-jurisdictional issues 	<p>The Council will complete a report to the Governor and legislature by November 2008 that defines government actions needed to integrate ecosystem-based management with existing programs.</p> <p>It will create an atlas of ocean and coastal resources to help ensure accurate information is available at all levels of government.</p>
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Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES *(continued)*

<p>Oregon Ocean Policy Advisory Council www.oregon.gov/LCD/OPAC</p>	<p>Reconstituted by the Oregon legislature in early 2005 (had existed previously from 1991–2002).</p> <p>Members are the directors of seven state agencies and 16 other members appointed by the Governor.</p>	<p>Created to give coordinated policy advice to the Governor, state agencies, and others and to prepare a plan for Oregon’s Territorial Sea.</p>	<p>Has no authority to directly regulate ocean activities, manage resources, or enforce its plans or policies. However, once its plans and policies are approved by the Land Conservation and Development Commission, state agencies are required to carry them out or act consistently with them.</p> <p>Currently has three work groups:</p> <ul style="list-style-type: none"> • Marine Reserves • Marine Sanctuary • Wave Energy
<p>Puget Sound Partnership www.psp.wa.gov</p>	<p>First incarnation established by Governor Gregoire in December 2005. It completed its work in December 2006.</p> <p>The 2007 Washington State Legislature approved over \$200 million for Puget Sound restoration and recovery, including a new agency, the Puget Sound Partnership, to manage the work. The Partnership opened its doors on July 1, 2007. The new state agency replaces the Puget Sound Action Team and will assume the functions now performed by the Shared Strategy for Puget Sound.</p> <p>Members include elected and public officials, tribal leaders, business interests, and environmentalists.</p>	<p>To achieve a clean and healthy Puget Sound by 2020 by “accelerating protection and restoration of Puget Sound and Hood Canal.”</p>	<p>The original Partnership released its final report and recommendations in December 2006, including a 2020 action agenda with five priority areas:</p> <ul style="list-style-type: none"> • Clean areas with septic problems • Habitat protection • Habitat restoration • Accelerate control and cleanup of toxic pollution • Reduce polluted stormwater runoff <p>By September, the new Partnership will create a 2020 Action Agenda that will identify and prioritize actions, name those responsible, identify funding, track progress, and report the results publicly. Every two years a short-term work plan corresponding with the state’s budget cycle will be developed from the Action Agenda.</p>

Initiative	Origin and Membership	Mission/Goals	Programs/Activities
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STATE INITIATIVES *(continued)*

<p>Washington State Ocean Policy Work Group</p>	<p>In mid-2005, the state legislature provided funding for Governor Gregoire’s office and three state agencies to develop a policy advisory group. The funding was approved after a bill to establish an ocean council (promoted by a handful of legislators) failed in 2005.</p> <p>Twenty members, including agency heads, legislators, the Governor’s office, tribal representatives, and others.</p>	<p>Identify recommendations of the U.S. Commission on Ocean Policy appropriate for immediate implementation and recommend areas for improved coordination, management, legislation, and finance of ocean resource management and protection by Washington State.</p> <p>Six focus areas were:</p> <ul style="list-style-type: none"> • Governance • Marine resource stewardship • Sustainable and resilient communities • Coastal vulnerabilities from marine sources • Ocean research, observation, and education 	<p>Charged to develop two reports on priority ocean resource management topics.</p> <p>The first report, <i>Action for Washington’s Ocean: Initial Steps to Enhance Management of Washington State’s Ocean and Outer Coasts</i>, was released in December 2005.</p> <p>Conducted stakeholder outreach to coastal communities for feedback during spring 2006.</p> <p>The final report was released in December 2006 and included 60+ recommendations in the six policy focus areas.</p> <p>In 2007 Governor Gregoire signed into law legislation that created the permanent Washington State Policy Advisory Group as a vehicle for public input to the interagency Washington State Ocean Caucus.</p>
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c/o Meridian Institute / 1920 L Street NW
Suite 500 / Washington, DC 20036-5037
202-354-6444 tel / 202-354-6441 fax
www.jointoceancommission.org



MONTEREY BAY
AQUARIUM

886 Cannery Row / Monterey, CA 93940
831-648-4800 tel / www.mbayaq.org