CHAPTER 5

Advancing a Regional Approach

The nation's ocean and coastal resources offer many opportunities for beneficial uses but are also affected by the cumulative impacts of human activities that span cities, counties, states, and sometimes nations. To move toward an ecosystem-based management approach, government should have the institutional capacity to respond to ocean and coastal issues in a coordinated fashion across jurisdictional boundaries.

The voluntary establishment of regional ocean councils, developed through a process supported by the National Ocean Council, would facilitate the development of regional goals and priorities and improve responses to regional issues. Improved coordination of federal agencies at the regional level would complement the establishment of regional ocean councils, improving the federal response to state and local needs while furthering national goals and priorities. The development and dissemination of regionally significant research and information is imperative to meet the information needs of managers and support ecosystem-based decisions.

Addressing Issues Across Jurisdictional Lines

In addition to improving coordination at the national level, as described in Chapter 4, an important component of the new National Ocean Policy Framework is the strengthening of regional approaches that allow decision makers to address pressing ocean and coastal issues on an ecosystem-based scale. Today's governance systems are generally not designed to transcend traditional political boundaries. Governments rarely consider opportunities or impacts outside their immediate jurisdictional area, although these borders seldom correspond with ecosystem boundaries. In addition, individual agency mandates are often too narrow in scope, sector-based, and poorly coordinated to address regional issues. Finally, broadly accepted regional goals—social, economic, and environmental—are infrequently available to promote and gauge progress.

Despite these challenges, there are many instances where concern for the health of a particular ecosystem has motivated a wide range of participants to create new structures for addressing regional concerns. The declining health of the Chesapeake Bay triggered a

significant initiative by federal agencies, state and local governments, nongovernmental organizations, and other stakeholders to address the region's water quality and living resource problems. In the Pacific Northwest, a similar mix of governmental and nongovernmental entities came together to address the decline in endangered salmon stocks. Efforts to address the growing hypoxic zone in the Gulf of Mexico brought together several Gulf states, as well as states throughout the Mississippi River Basin. Water quality and quantity issues spurred the development of multiple regional initiatives among Great Lakes states and Canadian provinces. The United States and Canada are also partners in area-wide efforts to enhance environmental quality in the Gulf of Maine. Additionally, U.S. island states and territories are collaborating to develop strategies to protect and preserve coral reef ecosystems and address impacts due to climate change. Several examples of regional coordination are described in Box 5.1.

Regional efforts are usually initiated at the grassroots level in response to pressing, shared concerns. Ideally, these bottom-up efforts are complemented by federal support, creating conditions where all levels of decision making strive to move in concert toward common ecosystem goals. Partnerships developed at the regional level can take optimum advantage of the expertise, resources, and infrastructure found in federal, state, and local governments, as well as in industry, academia, and other nongovernmental entities.

There is a growing awareness that regional approaches can benefit each of the nation's ocean and coastal regions. Focusing efforts within whole ecosystems, rather than arbitrary political boundaries, provides an opportunity for decision makers at all levels to coordinate their activities, reduce duplication of efforts, minimize conflicts, and maximize limited resources. It also promotes a sense of stewardship among government, private interests, and the public by encouraging a shared feeling of connection to a specific area.

Facilitating Bottom-Up Regional Responses

National Support and Guidelines

An important element of the proposed National Ocean Policy Framework is development of a voluntary process for a wide range of participants (including federal, state, territorial, tribal, and local leaders, and participants from the private sector, nongovernmental organizations, and academia) to establish regional ocean councils. Although the process should be implemented by those most directly involved, broad national guidelines can provide a measure of consistency and help ensure minimum standards for performance while allowing each region to tailor its approach to meet unique needs. A flexible approach is essential in view of the dramatic variations in environmental, political, social, and economic conditions across the country. With its broad mandate and high-level visibility, the National Ocean Council will be in a good position to encourage and facilitate the process of bringing participants together at the regional level.

Recommendation 5–1

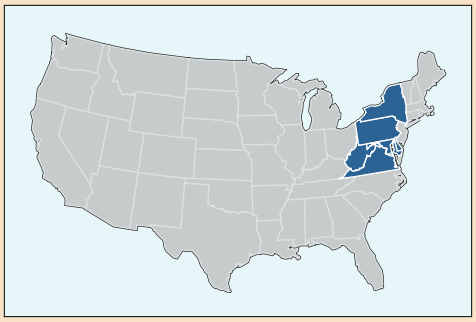
The National Ocean Council should work with Congress, the President's Council of Advisors on Ocean Policy, and state, territorial, tribal, and local leaders, including representatives from the private sector, nongovernmental organizations, and academia, to develop a flexible and voluntary process for the creation of regional ocean councils. States, working with relevant stakeholders, should use this process to establish regional ocean councils, with support from the National Ocean Council.

Box 5.1 Regional Approaches at Work

Different initiatives have taken different approaches to address pressing regional issues, although a hallmark of most efforts is the establishment of measurable goals and clear implementation strategies for achieving healthier regional ecosystems. Several types of organizational structures and functions have been tried, often tailored to the political and social climate of the individual region, but sometimes evolving on a haphazard basis, particularly at the outset. These initiatives are now at different stages of their development, learning what works best in their regions as they proceed. All have helped move the nation toward more ecosystem-based management approaches.

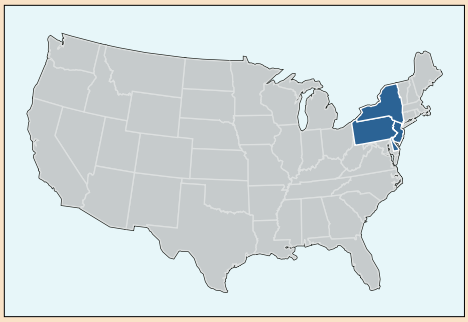
The Chesapeake Bay Program

The Chesapeake Bay ecosystem is a vast, 64,000 square-mile watershed that includes parts of New York, Pennsylvania, West Virginia, Delaware, Maryland, Virginia, and the entire District of Columbia. The initiative to restore the Bay began thirty years ago as an informal gathering of conservation leaders, citizens, and government officials to address nutrient over-enrichment, dwindling underwater Bay grasses, toxic pollution, and the reduction of fish, shellfish, and other wildlife populations. In 1983, the interstate Chesapeake Bay Agreement, which is the basis of the Chesapeake Bay Program, was signed, calling on participating states and the federal government to achieve specific ecosystem goals. Although the Agreement (most recently updated in 2000) is not binding, it represents a commitment by the members of the executive council, consisting of: the governors of the states of Maryland, Pennsylvania, and Virginia; the mayor of the District of Columbia; the chairman of the tri-state Chesapeake Bay Commission; and the administrator of the U.S. Environmental Protection Agency (representing fifteen federal agencies), to implement actions to achieve these goals.



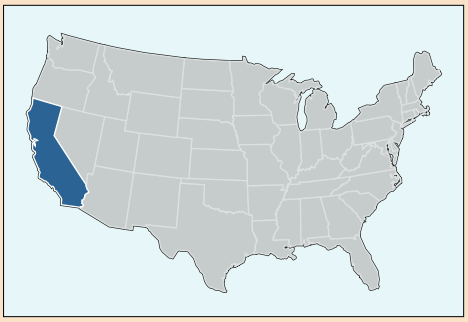
The Delaware River Basin Commission

The drainage basin of the 326 mile-long Delaware River encompasses an almost 13,000 square mile area that includes portions of four states and stretches from its headwaters in the Catskill Mountains of New York to the mouth of the Delaware Bay. Growing concerns in the 1950s about water quality protection, water supply allocation, flood control, and other issues, created pressure for the establishment of a regional body with legal authority to manage the entire river system, regardless of political boundaries. In 1961, President Kennedy, together with the governors of Delaware, New Jersey, Pennsylvania, and New York, created an interstate-federal compact establishing the Delaware River Basin Commission and charging it with adopting and promoting coordinated policies for water management in the basin. The Commission has broad regulatory and planning authority and plays a critical role in coordinating among the multiple federal, state, local, and private entities that influence water resource management in the Basin. Commission members include the four basin state governors, who appoint high-ranking, knowledgeable commissioners from relevant state agencies, and a Presidentially-appointed federal representative from the U.S. Army Corps of Engineers. The Commission partners with the Delaware Estuary Program and other organizations, the private sector, and citizens to restore, maintain, and protect the Delaware Estuary.



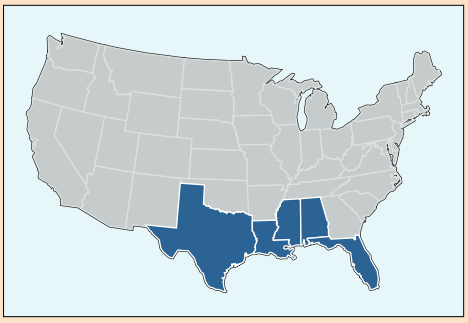
The California Bay-Delta Authority (CALFED)

The San Francisco Bay-Delta estuary is the largest estuarine system on the West Coast. It is dominated by the state's two largest rivers, the Sacramento and the San Joaquin, which together drain a watershed of about 39,000 square miles. To reverse negative trends in water quality, fish and wildlife populations, and the reliability of water supplies—all exacerbated by the drought of the late eighties and early nineties—an accord was signed between the state of California and the federal government in 1994 to find solutions to long-standing regional problems. The California Bay-Delta Authority, known as CALFED, began in 1995 as a mechanism for the region's disparate agencies and authorities to work collaboratively to develop and implement actions to achieve goals in four main areas: ecosystem restoration; water supply reliability; and water quality and levee system integrity. This effort includes enlisting local governments and stakeholder support in the process. CALFED was initially organized under a memorandum of understanding among its state and federal members, relying on individual agencies to act pursuant to their existing authority. In 2002, legislation was passed in California to create a single governing body for CALFED, giving it authority to oversee work plans and coordinate funding spent by the state on water and environmental projects. The authority will sunset in 2006 unless corresponding federal legislation is enacted to authorize participation of appropriate federal agencies in the Authority.



The Gulf of Mexico Program

The Gulf of Mexico is bordered by five U.S. states, Mexico, and Cuba. The system encompasses 1.8 million square miles and is the receiving body for 66 percent of the rivers within the continental United States, including the Mississippi, the largest river system in North America. In 1998, growing natural resource problems in the region prompted the U.S. Environmental Protection Agency (EPA) to establish the Gulf of Mexico Program, which brings federal and state environmental and resource management programs together in partnership with a broad coalition of regional and local stakeholders to collaboratively improve the health of the Gulf region while sustaining economic development. A policy review board composed of governmental and nongovernmental leaders from key sectors of five U.S. Gulf coast states (Alabama, Florida, Louisiana, Mississippi, and Texas) provides the EPA Gulf of Mexico Program Office with policy and management direction and guidance. The board is advised by a citizens advisory committee, made up of representatives from the agricultural, tourism, environmental, fisheries, and business communities, as well as a scientific and technical committee. Additional committees focus on specific issues of concern in the Gulf region such as nutrients, habitat, public health, environmental monitoring, modeling, and research. This non-regulatory program relies on the commitment of its partners to effectively carry out regional goals and priorities.



Regional approaches at work in the Great Lakes region are profiled in Box 5.3.

Nature and Functions of Regional Ocean Councils

The purpose of the regional ocean councils is to facilitate more coordinated and collaborative approaches to realizing opportunities and addressing concerns in the region. The councils should develop regional goals and priorities and identify the best mechanism for responding to each issue. The councils should also work with the President's Council of Advisors on Ocean Policy to communicate regional needs at the national level and better address issues of national importance in the regions.

Although the specific structure and functions of a regional ocean council should be determined by participants in the region, the geographic scale, scope, and membership will need to be broad to enable them to realize their potential. The councils should address a wide range of issues, look at interactions among many activities, and consider influences from upstream to far offshore, and from the atmosphere down to the groundwater and seafloor. Council membership should be representative of every level of decision making in the region, drawing on the knowledge of all stakeholders, whether through formal membership on the council or through separate advisory bodies. The councils will also need to work with inland decision makers on issues such as nonpoint source pollution. Additionally, in certain regions, including the Great Lakes, New England, the Pacific Northwest, the Gulf of Mexico, and U.S. island territories, the councils may need to work closely with other nations.

The boundaries of regional ocean councils should encompass relatively large areas with similar ecosystem features. Large Marine Ecosystems (Figure 3.1), which helped define the Regional Fishery Management Council (RFMC) regions, may be used as a starting point, although these regions might not always be suitable. For example, more than one regional council may be necessary along the Pacific Coast and for island states and territories. A council for the Great Lakes region is also desirable. At a minimum, councils should encompass the area from the inland extent of coastal watersheds to the offshore boundary of the nation's exclusive economic zone.

The regional ocean councils are not intended to supplant any existing authorities, such as the RFMCs, state agencies, and tribal governments. Rather, the councils will work with these authorities to further regional goals, providing a mechanism for coordination on myriad regional issues. However, the structure and function of a council may evolve over time. For example, participants might choose to pursue more formal mechanisms for implementing decisions, such as interstate compacts, interagency agreements, or changes to regulatory requirements.

Regional ocean councils may be used to carry out a variety of other functions. They may designate ad hoc committees to examine discrete issues of regional concern, address sub-regional priorities, or mediate and resolve specific disputes. They can help facilitate required government approvals or permitting processes that involve several government agencies within the region. They may monitor and evaluate the state of the region and the effectiveness of management efforts. They will be important in engaging stakeholders in the design of marine protected areas. Finally, the councils can help ensure that offshore activities are planned and managed in an ecosystem context by providing input to the National Ocean Council and Congress as they establish an offshore management regime (as discussed in Chapter 6). Above and beyond all their specific functions, the regional councils will help build public awareness about ocean and coastal issues.

The creation of regional ocean councils will undoubtedly be challenging, particularly given that regions vary greatly in their level of coordination, interest, and expertise. Steps can be taken, however, to promote their development. In areas where readiness and enthusiasm for a regional approach is already strong, efforts to establish councils should be supported immediately. The first councils can then serve as pilot projects, enabling those involved to learn what works and serving as models for other regions.

Box 5.2 Nature and Functions of Regional Ocean Councils

The establishment of regional ocean councils is intended to be voluntary and flexible, guided by the needs and circumstances in each region. The councils, on their own, will not supplant existing laws or authorities, or alter state, territorial, or tribal sovereignty. However, as the councils evolve, participants may choose to pursue more formal mechanisms for implementing decisions, such as interstate compacts.

Regional ocean councils should have several basic characteristics:

- Their boundaries should be based approximately on those of Large Marine Ecosystems or other appropriate ecosystem-based areas. At a minimum, councils should encompass the area from the inland extent of coastal watersheds to the offshore boundary of the nation's exclusive economic zone.
- They should address a wide range of ocean and coastal issues.
- Their membership should be broad and representative of all appropriate levels of government. Nongovernmental stakeholders also need to be represented, either through council membership or through an advisory body.

The councils should fulfill certain core functions:

- Facilitating coordinated and collaborative responses to regional issues.
- Developing regional goals and priorities.
- Communicating regional concerns to the National Ocean Council through the President's Council of Advisors on Ocean Policy.

Building on Existing Regional Initiatives

As noted above, problems in ocean and coastal areas around the nation have prompted a number of regional-scale responses (Box 5.1). These innovative initiatives have sought to overcome traditional political and institutional barriers that impede the goal of restoring the health and productivity of entire ecosystems. However, lacking formal mechanisms for responding to complex, cross-cutting issues, many of these initiatives have faced considerable obstacles in coordinating policies and management actions to address immediate concerns and plan for the future of ocean and coastal areas.

The experiences of current regional initiatives illustrate the advantages and challenges in pursuing such approaches. They also demonstrate different ways for the many layers of decision making in a region to work together on common goals. Often, coordination must be developed incrementally to knit together traditional decision-making responsibilities that are vested in dozens of entities. These initiatives also demonstrate that concern and persistence among local stakeholders are needed to drive change at higher institutional levels.

In some areas, existing initiatives can serve as excellent starting points for the creation of regional ocean councils. The councils can build on their experiences, while developing a broader and more comprehensive role. An existing regional initiative could be used as the nucleus for development of a regional ocean council, preventing duplication and establishment of new structures. However, to achieve the comprehensive regional mandate envisioned for the councils, existing initiatives may require changes to their geographic scale, scope, functions, and membership.

In all regions, a major responsibility of the regional ocean council will be to offer support to any existing regional initiatives, coordinate among them where necessary, and facilitate the creation of new forums for improving the management of specific issues. The councils can help ensure that regional initiatives are carried out in harmony with one another to achieve larger ecosystem goals.

Enhancing Federal Support for a Regional Approach

Federal Agency Coordination

Federal agencies play an important role in the management of ocean and coastal resources by addressing issues of national significance, supporting state and local management efforts, and encouraging environmental stewardship among all citizens. Within each of the nation's regions, federal policies and programs are carried out that affect common resources. Often, these activities overlap, conflict, or are inconsistent with one another, impeding efforts at all levels to effectively address regional concerns. For example, navigation projects, highway development, and other federal infrastructure activities often conflict with environmental protection goals. Several federal agencies oversee habitat protection and restoration programs, but in isolation from one another. Furthermore, federal regulations and permit requirements are typically applied on a project-by-project basis, without adequate consideration of the cumulative effect of these decisions on ocean and coastal ecosystems.

For coastal states, it's difficult enough to figure out how to deal with the many offices and programs within NOAA, let alone the complex interactions of all the other federal agencies of jurisdiction.

—The Honorable Mary Nichols, *Secretary of Resources, State of California, testimony to the Commission, April 2002*

Federal agencies can support regional progress by immediately improving their own coordination at the regional level. Systematic collaboration will lead to better integration of federal policies, strategies, plans, programs, and other activities within the region. It will also help the agencies identify inconsistencies in agency mandates, policies, regulations, practices, or funding. The agencies can then communicate these and other regional concerns and priorities to the National Ocean Council, which may in turn recommend changes to existing laws, regulations, practices, and funding.

Equally important, regionally coordinated federal agencies will provide a visible point of contact for nonfederal entities, enhancing communication in both directions—federal agencies will be able to reach out to local and state governments and other stakeholders, while nonfederal groups will know where to convey regional priorities, issues of concern, and information needs to federal agencies. All interested parties will be able to exchange information more effectively, develop regional goals, and mitigate the cumulative impacts of activities in the region.

A regionally coordinated federal presence will provide an additional incentive for the formation of regional ocean councils that can serve as clear counterparts to work with the federal agencies. The recent creation of a Great Lakes Interagency Task Force is one attempt to improve federal coordination at the regional level (Box 5.3).

Recommendation 5–2

The President, through an executive order, should direct all federal agencies with ocean- and coastal-related functions to immediately improve their regional coordination and increase their outreach efforts to regional stakeholders.

To initiate this process, NOAA, EPA, USACE, DOI, and USDA should:

- collaborate with regional, state, territorial, tribal, and local governments, and nongovernmental parties to identify regional priorities and information needs.
- identify inconsistencies in agency mandates, policies, regulations, practices, or funding that prevent regional issues from being effectively addressed and communicate these to the National Ocean Council.
- improve coordination and communication among agencies, including the possible development of interagency protocols to guide regional decision making.
- coordinate funding and grants in a manner consistent with regional priorities.

Moving Toward Common Regional Boundaries

Many federal agencies already divide their nationwide operations and management responsibilities along regional lines. For example: the U.S. Environmental Protection

Box 5.3 Moving Toward Improved Federal and Stakeholder Coordination in the Great Lakes Region

The five Great Lakes and their related waterways span eight U.S. states and two Canadian provinces. They comprise the largest freshwater system in the world, containing 20 percent of the world's freshwater and occupying a nearly 200,000 square-mile basin. The Great Lakes have been the focus of regional management for more than a century, originating from the need to avoid and resolve disputes over control of water levels and flows in the basin. The United States and Canada have also joined together in bilateral treaties and agreements to address shared concerns. Numerous regional intergovernmental organizations have been established to address basin-wide issues, many of which have binational representation. Examples include the International Joint Commission, Great Lakes Fishery Commission, Great Lakes Commission, Council of Great Lakes Governors, Great Lakes Cities Initiative, and the International Association of Great Lakes and St. Lawrence Mayors. There are also several nongovernmental organizations, such as Great Lakes United, that are concerned with the health of the Great Lakes ecosystem.

A plethora of government programs help fund and implement environmental restoration and management activities throughout the Great Lakes region. A 2003 report by the U.S. General Accounting Office (GAO) found that there are over 140 such programs administered by federal agencies, and another 51 at the state level.[i] Despite the abundance of regional initiatives and government programs, the GAO found a lack of coordination among the Great Lakes environmental strategies being used at the international, federal, and state levels. The lack of a coordinated strategy hinders progress toward establishing priorities, assessing progress, and applying ecosystem-based management throughout the Great Lakes basin.

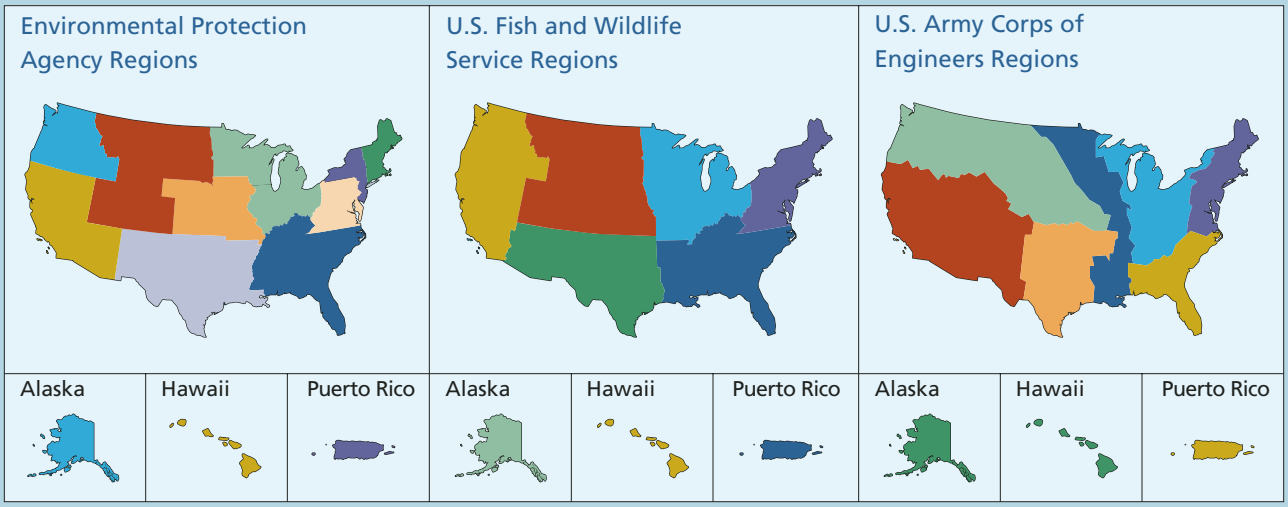
Recent developments show promise for improving coordination among federal agencies and regional stakeholders in the Great Lakes. In May 2004, President Bush signed an executive order creating the Great Lakes Task Force. The Task Force will bring together ten federal agencies with responsibilities in the Great Lakes basin to better coordinate their policies and programs at both the national and regional levels. The executive order also calls on the federal agencies to collaborate with Canada, Great Lakes states, tribal, and local governments, communities, and other interests to address nationally significant environmental and resource management issues in the basin.

The executive order should benefit the many intergovernmental bodies in the basin by enabling more systematic collaboration and better integration at all levels. Establishment of the Task Force may also spur the development of a complementary process of collaboration among the existing intergovernmental bodies in the region to create a more unified regional voice in support of ecosystem-wide goals and priorities for the Great Lakes.

[i] U.S. General Accounting Office. *Great Lakes: An Overall Strategy and Indicators for Measuring Progress Are Needed to Better Achieve Restoration Goals*. GAO–03–515. Washington, DC, April 2003.

Agency (EPA) has ten regional offices throughout the nation, mapped along state lines; the U.S. Fish and Wildlife Service has seven regions, also following state lines but different from the EPA regions; and the U.S. Army Corps of Engineers is organized into eight regions defined by the boundaries of watersheds, not states (Figure 5.1). The structures and functions of regional offices also differ among agencies, with some possessing more independence and authority than others. In some cases, regional offices have not had strong ties to their agencies' national management, and it is common for the regional office of one agency to operate in isolation from the corresponding regional offices of other agencies. The current structure hinders the ability of federal agencies with ocean- and coastal-related responsibilities to effectively interact on a regional basis with each other and with state, territorial, tribal, and local entities.

Figure 5.1 Alignment of Federal Regions Is Essential for Communication



Shown above are the existing regional management areas for three federal agencies. Because these areas do not coincide, it is difficult for the agencies to coordinate and communicate about issues of common concern at the regional level. Furthermore, this lack of coordination impedes their ability to effectively interact with regional, state, territorial, tribal, and local entities on a regional basis.

Recommendation 5–3

The President should form a task force of federal resource management agencies to develop a proposal for adoption and implementation of common federal regional boundaries. The task force should solicit input from state, territorial, tribal, and local representatives.

Any re-designation of federal regions should be closely coordinated with the ongoing process of establishing regional ocean councils. Although the regions may be of different sizes and their boundaries may not be identical, they should be complementary to facilitate smooth coordination.

Meeting Regional Research and Information Needs

Even with greatly improved coordination among regional stakeholders and federal agencies, the movement toward an ecosystem-based management approach will require greater knowledge about ocean and coastal ecosystems, including how human activities impact these systems. Decision makers at all levels, especially local managers, require this information to develop and apply appropriate management measures. Improved coordination among federal and nonfederal entities within a region will begin to help regional managers communicate their information needs to the institutions that fund and carry out research and data gathering efforts. Notwithstanding these improvements, enhanced investments will also be needed to provide managers with the best available science, information, tools, and technology on which to base their decisions.

Today, research targeted at regional concerns, such as the origins of nonpoint source pollution, the impacts of development on coastal habitat and water quality, socioeconomic trends in coastal areas, or the impacts of global-scale processes on local resources, is severely limited. Furthermore, the data that do exist are rarely translated into products that are useful to managers. As the National Research Council concluded in a 2002 report, *Bridging Boundaries through Regional Marine Research*, enhanced regional research and

data collection efforts are essential, as are efforts to solicit information needs from those that require this information to manage ocean and coastal ecosystems.[1] There are four essential regional information needs:

- Research.
- Data collection, monitoring, and observations.
- Development of useful information products.
- Outreach, education, training, and technical assistance for decision makers.

Ideally, efforts to meet these information needs should be carried out under the guidance of regional ocean councils. However, because the process to develop these councils is voluntary and may take time to implement, in the interim these efforts should be undertaken by some other entity, as determined by each region. The organization tasked with meeting these needs should draw on existing governmental and nongovernmental institutional capacity in the region and be guided primarily by the needs of the users in the region. Each region should also collaborate with others, as appropriate, to address issues that transcend regional boundaries.

Regions may have several options for establishing a program to improve regional ocean information development and dissemination. For example, the Regional Associations that are being organized throughout the country to administer the regional components of the national Integrated Ocean Observing System may have the capacity to take on these broader responsibilities. The National Sea Grant College Program is another potential vehicle for carrying out regional information tasks. Some regions have other existing science and information programs that could also be broadened or adapted to fill this need. However, an existing entity may need to revise its scope to include the four regional information responsibilities listed above and be driven primarily by the needs of end users. For example, a Regional Association would have to expand its mandate beyond observing activities. Likewise, the Sea Grant program would need to find a mechanism to transcend state and local interests. Whatever the implementing vehicle, a representative group of information providers and end users should oversee the development of regional information priorities, to be carried out through partnerships among existing governmental and nongovernmental institutions.

Recommendation 5–4

Pending the creation of a regional ocean council, the governors in each region should select a suitable entity to operate a regional ocean information program that carries out research, data collection, information product development, and outreach based on the needs and priorities of ocean and coastal decision makers.

The entity assigned to carry out the regional ocean information program should:

- include representation from federal agencies, state, territorial, tribal, and local decision makers, scientists, as well as experts in information exchange and outreach.
- communicate regional research and information priorities to federal agencies and others with ocean and coastal responsibilities to help guide their programs.
- maintain strong links with the regional ocean observing systems to help them fulfill regional data collection requirements while adhering to national Integrated Ocean Observing System requirements.

Although regions may want to experiment with different approaches for achieving the goals of the regional ocean information programs, the National Ocean Council can offer support. If the entity selected by the governors (or by a regional ocean council) develops a comprehensive plan for regional research, data collection, information product development, and outreach, based on regional needs and priorities, the plan could be submitted to the National Ocean Council to coordinate funding by relevant agencies. Proposals can then be solicited to implement elements of the plan, with grants awarded on a competitive basis.

Developing Regional Ecosystem Assessments

Assessments of the natural, cultural, and economic attributes of each region, including an inventory of the region's environmental resources and demographic characteristics, would be extremely valuable to decision makers for a variety of different purposes. For example, these assessments could be used to establish baselines of ocean and coastal ecosystem health, enhancing the ability of decision makers to analyze the cumulative impacts of human activities on the ecosystem. Enhanced regional research and information activities would contribute greatly to the creation of these assessments, as would the wealth of information developed by states.

Recommendation 5–5

The National Oceanic and Atmospheric Administration (NOAA) and the U.S. Environmental Protection Agency (EPA), working with other appropriate federal and regional entities, should coordinate the development of regional ecosystem assessments, to be updated periodically.

As part of this process, NOAA and EPA should:

- incorporate data and information developed at the state and local levels, including resource assessments developed by state coastal management programs.
- coordinate with the organization responsible for improving regional ocean information collection and dissemination activities to make optimum use of regional information.
- collaborate closely with regional ocean councils.

Regional ecosystem assessments would also improve the process mandated under the National Environmental Policy Act (NEPA) that requires federal agencies to prepare Environmental Impact Statements (EISs) for proposed major activities. Currently, each agency must conduct an individual assessment of the state of the environment to determine the impact of a proposed activity or related set of activities. The existence of a single, scientifically-based regional ecosystem assessment that is updated periodically would reduce duplication of effort and help ensure that every EIS is based on similar, comprehensive, and timely information about the region.

Assessments are also important to evaluate the cumulative impacts over time of many proposed activities. Although guidelines developed by the Council on Environmental Quality (the office responsible for overseeing NEPA implementation) require federal agencies to prepare cumulative impact evaluations for proposed activities, challenges in developing a consistent approach have made it difficult for federal agencies to meet this requirement.

Recommendation 5–6

The Council on Environmental Quality should revise its National Environmental Policy Act guidelines to state that environmental impact statements for proposed ocean- and coastal-related activities should incorporate the regional ecosystem assessments called for in Recommendation 5–5.

References

[1] National Research Council. *Bridging Boundaries through Regional Marine Research.* Washington, DC: National Academy Press, 2002