

CHAPTER 6: COORDINATING MANAGEMENT IN FEDERAL WATERS

Federal waters provide vast opportunities to build the nation's economy, enhance our quality of life, and increase knowledge about the workings of nature. Converging economic, technological, demographic, and other factors make federal waters an increasingly attractive place for new enterprises seeking to tap the ocean's resources, as well as for the continuation and expansion of traditional uses. The challenge for policy makers will be to unlock the ocean's potential while minimizing conflicts among users, safeguarding human and marine health, and fulfilling the federal government's obligation to manage public resources for the maximum long-term benefit of the entire nation. While legal, policy, and institutional frameworks exist for managing some ocean uses, there remain increasingly unacceptable gaps. The nation needs a coordinated offshore management regime that encompasses traditional and emerging uses and is adaptable enough to incorporate uses not yet clearly foreseen.

MEETING GROWING NEEDS

An important task for the new National Ocean Policy Framework is to improve the ability of the federal government to manage the growing number of activities taking place or being proposed in federal waters. This area, which extends from 3 to 200 nautical miles offshore, contains an enormous diversity of resources, many of which are used or affected by human activities. Within federal waters, the United States has sovereign rights for the purpose of exploring, exploiting, conserving, and managing the living and nonliving natural resources of the seabed and subsoil and the surface and subsurface of the waters. The federal government also has jurisdiction over the establishment and use of artificial structures, islands, and installations that have economic purposes, and the protection and preservation of the ocean environment. Associated with these authorities is the federal government's responsibility to ensure that ocean activities are managed for the benefit of the public.

In decades past, nearshore areas held certain inherent advantages for human activities—the waters tend to be shallower, logistics simpler, and costs lower. Increasingly, however, these advantages are shrinking. Nearshore waters are now crowded with competing users whose ranks are steadily augmented by surging coastal populations. There is also considerable public opposition to certain activities when conducted close to shore, such as those that involve the use of heavy equipment or disrupt scenic views. In addition, technological advances and an evolving scientific understanding of the ocean have made activities in offshore areas more feasible and economical than in the past.

For these reasons, interest in the use of federal waters is growing and activities farther offshore are expected to multiply. In many instances, these activities are mutually compatible and can take place in the same approximate area without problems. But in other instances, uses conflict with and can disrupt one another. While later chapters discuss many specific offshore activities, including fisheries (Chapter 19), aquaculture (Chapter 22), bioprospecting (Chapter 23), development of offshore energy and mineral resources (Chapter

24), and others, the focus of this chapter is the overarching offshore management regime that will be needed to coordinate all these activities and more—an important part of moving toward an ecosystem-based management approach.

An offshore management regime should embody strong principles and robust coordination for all ocean uses while recognizing the particular needs and challenges associated with each individual use. It must be able to address the needs of the ecosystem—including human needs—by prioritizing uses, minimizing conflicts, protecting resources, and ensuring that uses are compatible. It should also strike a balance between long-term and short-term strategies. For example, a legislative remedy may be warranted to address immediate concerns about one ocean activity, but the legislation should leave room to incorporate the activity within a broader, developing regime.

Any new offshore management regime should be grounded in the principles set forth in this report. For example, the nation should not wait until technologies are fully developed or scientific information is complete to establish mechanisms for managing new ocean uses. Instead, policy makers should proceed judiciously and responsibly to prepare for new uses, and to establish proactive means for identifying and remedying any negative impacts. Creating a coherent and coordinated management regime will make it easier for governments at all levels to protect the public interest and for private interests to make informed decisions.

One of the biggest obstacles to improving management of offshore resources is inadequate scientific understanding of how ecosystems function and how to evaluate the cumulative impacts of activities over time. Regional ecosystem assessments, as recommended in Chapter 5, provide a vehicle to comprehensively and periodically analyze the status of an ocean region, establish baselines for ocean ecosystem health, and describe existing or potential impacts from human activities. These assessments, coupled with a strong commitment to furthering scientific understanding of ecosystems and their components, would dramatically enhance the effectiveness of offshore management.

CLARIFYING OFFSHORE RESPONSIBILITIES

Numerous federal agencies are involved in managing offshore activities. Some activities, such as fishing or offshore oil and gas development, are governed according to well-developed regulatory regimes established in accordance with specific legislative mandates. Other activities, such as offshore aquaculture, are subject to regulation by a number of federal agencies executing varying responsibilities, but are not addressed by any comprehensive federal law. For emerging ocean uses, such as wind energy development, authorities and responsibilities remain dispersed and unclear.

The array of agency responsibilities and lack of coordination result in confusion that can create roadblocks to public participation, discourage private investment, cause harmful delays, and generate unnecessary costs. This is particularly true for new uses, for which federal agency responsibilities are scattered and ill defined and the decision making process is unclear. Without an understandable, streamlined, and broadly accepted method for reviewing a proposed activity, reactive, ad hoc management approaches will continue, perpetuating uncertainty and raising questions about the comprehensiveness and legitimacy of decisions.

Recommendation 6–1. Congress, working with the National Ocean Council (NOC), should ensure that each current and foreseeable use of federal waters is administered by a lead federal agency. The lead agency should coordinate with other federal agencies with applicable authorities and ensure full consideration of the public interest. Pending congressional action, the National Ocean Council should designate interim lead agencies to coordinate research, assessment, and monitoring of new offshore activities.

Swimming through Hoops: Establishing an Offshore Aquaculture Facility

The growing interest in offshore aquaculture offers an excellent example of how confusing and overlapping agency responsibilities create difficulties. As more entrepreneurs pursue this enterprise, they find they must cross several bureaucratic hurdles at the federal and state levels, often with little guidance from the agencies on what is needed, from whom, and when.

At the federal level, at least five agencies must be consulted or grant permits before an aquaculture facility can proceed:

- The Rivers and Harbors Act authorizes the U.S. Army Corps of Engineers to require permits for any device attached to the seafloor that poses a threat to navigation.
- The U.S. Coast Guard is responsible for marking potential obstructions to safe navigation.
- The Clean Water Act authorizes the U.S. Environmental Protection Agency (EPA) to require a National Pollutant Discharge Elimination System permit for any facility that discharges a pollutant into U.S. navigable waters or exclusive economic zone (EEZ).
- Although the Magnuson–Stevens Fishery Conservation and Management Act may not have been intended as a mechanism for managing marine aquaculture, NOAA asserts that the harvest of aquaculture species falls under the Act. Therefore, the Regional Fishery Management Councils (RFMCs) may develop management measures for aquaculture in offshore waters and the National Marine Fisheries Service (NMFS) may regulate aquaculture harvest based on such RFMC recommendations. In addition, NMFS, under the Endangered Species Act, must review aquaculture applications for any potential impacts on endangered species or marine mammals.
- In certain circumstances, the U.S. Fish and Wildlife Service may also review aquaculture applications for their impacts on endangered species or marine mammals, or other activities under its jurisdiction.

At the state level, each jurisdiction has its own procedures, with no uniformity among states. In fact, continuity is sometimes lacking even within a single state—one applicant may start the process with the state environmental protection office, another may start with the state marine fisheries agency, and a third may start with the state agricultural office.

Each of the federal and state offices may require a separate application, although much of the information required is exactly the same. Rarely do these offices coordinate with each other, and the application may be stopped at any stage. A more coordinated and consistent regime is needed to provide greater protections for the ocean environment, as well as to lessen unnecessary bureaucratic burdens on applicants.

ESTABLISHING A COORDINATED OFFSHORE MANAGEMENT REGIME

There are essentially two categories of ocean uses. Some activities are confined to a specific location, often requiring an offshore structure such as an oil rig, a wind turbine, or an aquaculture pen. Other activities, such as fishing or recreation, are more diffuse, taking place within broad, flexible areas. To begin moving toward an ecosystem-based management approach, the federal government should develop a better understanding of offshore areas and their resources, prioritize uses, and ensure that activities in a given area are compatible.

Where a proposed activity will occupy a certain space to the exclusion of other uses, it is the federal government's responsibility to determine where the activity can take place, by whom, in what manner, and for what length of time. But these decisions should not be made in isolation: the agency administering the siting of aquaculture facilities, for example, must be aware of actions taken by another agency permitting offshore power generation facilities. As the pressure for offshore uses grows, and before serious conflicts arise, coordination should be immediately improved among single-activity management programs that regulate

location-dependent activities. The National Ocean Council should review all such single-purpose ocean programs that regulate offshore activities with the goal of determining how such programs may be better coordinated.

However, to truly move toward an ecosystem-based management approach, coordination of *all* offshore activities is necessary—including those that are not tied to a specific geographic location. The new offshore management regime will also need to make sure that disputes are resolved and decisions made through an open process accepted by all parties.

Building a coordinated offshore management regime will take time. It will not be easy. No regime for governing ocean activities will eliminate all conflict, given the complexity of the problems and the diverse perspectives of competing interests. However, the National Ocean Council, Presidential Council of Advisors on Ocean Policy, regional ocean councils, and other components of the National Ocean Policy Framework provide the basis for more coordinated, participatory management of ocean activities. It provides the opportunity—one perhaps long overdue—for a larger federal-regional-state-stakeholders dialogue among stakeholders at the federal, regional, and state levels on a more coordinated and planned approach to the uses of and activities in offshore areas.

A Fair Return for the Use of Offshore Resources

The management of public resources also generally encompasses issues of public compensation. Specifically, economists refer to the economic value derived from a natural resource as *resource rent*. In the ocean, a natural resource may be an area, a space, a living or a nonliving resource. When publicly-owned and made available to the private sector, fairness and efficiency argue for a return of some portion of the rent received from the use or development of that resource to the public. This principle has been clearly established on land, where the government collects rents from ranchers through grazing fees and from timber and mining companies through royalties. The government also collects revenues from outer Continental Shelf oil and natural gas operations in the form of bonuses and royalties. In keeping with this principle, the public should also receive some return when private entities are allowed to use ocean space and other resources.

Recommendation 6-2. Congress, working with the National Ocean Council and regional ocean councils, should establish a coordinated, ecosystem-based offshore management regime that sets forth guiding principles for the balanced coordination of all offshore uses. It should recognize the need, where appropriate, for single-purpose ocean governance structures that are comprehensive and fully integrated with and based on the principles of the new offshore management regime. The regime should also include a process for planning for new and emerging activities and a policy that a reasonable portion of the resource rent derived from such activities is returned to the public.

EMPLOYING MARINE PROTECTED AREAS AS A MANAGEMENT TOOL

Marine protected areas are one type of management tool the federal government can employ for locations and resources in estuarine, nearshore, and offshore areas in need of protection. A broad umbrella term, marine protected areas are created for many different reasons, including conserving living marine resources and habitat, protecting endangered or threatened species, maintaining biological diversity, and preserving historically or culturally important submerged archeological resources. These areas have also been recognized for their scientific, recreational, and educational values.

Marine protected areas can vary from restricting all activities to limiting only some uses. Examples of activities that might be restricted include oil and gas exploration and production, dredging, dumping, certain types of vessel traffic, fishing, and placing structures on the seabed. Marine protected areas can be set aside permanently or temporarily and can be implemented either seasonally or year-round. Even within a marine

protected area, a particular activity may be allowed in one part of the area but not in others. Marine protected areas can be established and managed by a variety of agencies at the federal, state, territorial, tribal, and local levels, pursuant to a number of authorities.

Federal Efforts

The National Oceanic and Atmospheric Administration (NOAA) is authorized to develop and implement marine protected areas through several programs. NOAA manages thirteen marine protected areas as part of its National Marine Sanctuaries Program, and administers the National Estuarine Research Reserve System, which is made up of a network of twenty-six protected estuarine areas. The agency also manages a variety of fishery zones and area closures to protect critical habitat for threatened or endangered species.

The Department of the Interior (DOI), through the National Park Service (NPS) and the U.S. Fish and Wildlife Service (USFWS), is also authorized to create and manage marine protected areas. NPS manages the National Park System, which includes national parks, monuments, and preserves in ocean areas, as well as ten areas designated as national seashores on the Atlantic, Gulf, and Pacific coasts, and four national lakeshores along the Great Lakes coastline. USFWS manages the National Wildlife Refuge System, which includes more than 500 wildlife refuges, many of which are located in ocean and coastal areas. USFWS also manages critical habitat for endangered and threatened species that fall under its statutory responsibilities.

In 2000, an Executive Order on Marine Protected Areas directed NOAA and DOI to establish a Marine Protected Area Center. The Center is charged with developing a framework for a national system of marine protected areas and providing federal, state, territorial, tribal, and local governments with information, tools, and strategies for effectively designing and managing such areas. The Marine Protected Area Center has made progress in improving coordination and working to establish a national system of marine protected areas; however, further consolidation of the many related federal programs may be needed. Simplifying the multiplicity of marine protected area management regimes can lessen confusion, foster stewardship, and enhance enforcement. (Federal marine protected area programs are summarized in Appendix D.)

The Role of Marine Protected Areas

Marine protected areas are important tools for ecosystem-based management, although they will not in and of themselves deliver long-term sustainable use of the oceans. Other pressing problems will continue to require attention, including resource use outside protected areas, point and nonpoint source pollution, and intensive coastal development. For this reason, marine protected areas are most effective when they are designed within the broader context of regional ecosystem planning and adaptive management, and when they are employed in conjunction with other management tools.

When a marine protected area is determined to be the best approach for addressing ecosystem goals in a particular area, its design must take a number of factors into consideration. These factors include local, state, regional, and national objectives, ecosystem characteristics and threats, competing uses within the targeted area, ecological and socioeconomic impacts, and the capacity for effective implementation and enforcement of the protected area. Marine protected areas must also be designed using the best available scientific information to ensure that their establishment is likely to meet the intended objectives. Monitoring, periodic assessment, and modification are also essential to ensure the continuing effectiveness of marine protected areas.

Although at times controversial, appropriately designed and implemented marine protected areas have proven useful. A 2001 report by the National Research Council concluded that marine protected areas can be effective in maintaining marine biological diversity and protecting habitats and have the potential to provide a flexible, spatially-based management framework for addressing multiple ecological and socioeconomic

objectives.¹ The report stated that, in particular, closing certain areas to fishing—temporarily, seasonally, or permanently—can advance sustainable fisheries management and provide insurance against uncertainties in fisheries science. Nevertheless, design and implementation of marine protected areas, like any other marine resource management measure, must be considered in the context of broader planning and implementation of a coordinated regime.

Sunken Treasures: Preserving Historic Artifacts

A number of marine sanctuaries, national and state parks, and national historic monuments have been established to protect shipwrecks and other submerged cultural resources. At least 50,000 shipwrecks are scattered about the territorial waters and exclusive economic zone of the United States. Many hold considerable historic, archeological, recreational, and financial value.

Commercial salvors have used traditional admiralty law to justify their right to locate, recover, and remove objects of value from shipwrecks. However, many archeologists argue that historic shipwrecks and other submerged sites, as well as the material recovered from them, are part of the nation’s collective heritage, and the sale of artifacts deprives the public of important historical, cultural, and educational assets. While laws are in place to address conflicts about ownership and management of submerged cultural resources, they have been implemented with only modest success. A coordinated offshore management regime needs to recognize the potential importance of some of these sites and should consider preserving them for future generations by establishing protected areas when necessary.

National Interests

It is appropriate for marine protected areas to be designed and implemented with strong input from the regional and local levels. However, because marine protected areas have the potential to affect issues of national concern, such as freedom of navigation, there will always be a need for national-level oversight. With its multiple use, ecosystem-based perspective, the National Ocean Council is the appropriate entity for overseeing the development of a uniform process to design and implement marine protected areas.

The design of marine protected areas should not unreasonably limit important national interests, such as international trade, national security, recreation, clean energy, economic development, and scientific research. For example, in most cases freedom of navigation through marine protected areas should not be restricted. However, where some infringement on such national interests is deemed essential to achieving the purposes of a marine protected area, restrictions should be based on sound science, with a plan for ongoing monitoring and modifications over time. The overall ecological and socioeconomic impacts of marine protected areas should also be evaluated at the national level.

Recommendation 6–3. The National Ocean Council should develop national goals and guidelines leading to a uniform process for the effective design and implementation of marine protected areas.

The process should include the following:

- *marine protected area designations that are based on the best available scientific information to ensure that an area is appropriate for its intended purpose.*
- *periodic assessment, monitoring, and modification to ensure continuing ecological and socioeconomic effectiveness of marine protected areas.*
- *design and implementation that consider issues of national importance, such as freedom of navigation, and are conducted in the context of a comprehensive offshore management regime.*

Regional and Local Stakeholders

Part of the controversy surrounding marine protected areas stems from the impacts their restrictions can have on stakeholders. While some stakeholders recognize the benefits of creating such areas, others vigorously oppose the limitations on otherwise legal ocean uses. When designing and implementing a marine protected area, it is important to engage all regional and local stakeholders to build support for the proposed protected area and to ensure compliance with any restrictions it may impose.

Because marine protected areas are used to accomplish a broad range of objectives and have different meanings for different people, it is imperative that each proposed area has clearly defined regional goals and objectives that are consistent with national goals and guidelines. Regional ocean councils, or other appropriate state and local entities, can provide a forum for applying the uniform process developed by the National Ocean Council to design and implement marine protected areas. They can also facilitate public discussion of the trade-offs inherent in their implementation. Well-designed scientific studies at the design and review stages can assist in the evaluation of the potential impacts of the marine protected area on communities.

Recommendation 6–4. Regional ocean councils, or other appropriate regional entities, should actively solicit stakeholder participation and lead the design and implementation of marine protected areas. The design and implementation should be conducted pursuant to the goals, guidelines, and uniform process developed by the National Ocean Council.

¹ National Research Council. *Marine Protected Areas: Tools for Sustaining Ocean Ecosystems*. Washington, DC: National Academy Press, 2001.

