

# **REVIEW OF U.S. OCEAN AND COASTAL LAW**

**THE EVOLUTION OF OCEAN GOVERNANCE OVER THREE DECADES**

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## PREFACE

The Oceans Act of 2000 (Pub. L. 106-256) charged the U.S. Commission on Ocean Policy with making recommendations for a coordinated and comprehensive national ocean policy to promote the protection of life and property, responsible stewardship of ocean and coastal resources, protection of the marine environment, prevention of pollution, enhancement of maritime commerce, expansion of human knowledge of the environment and the role of the oceans in climate change, investment in technologies to promote energy and food security, close cooperation among government agencies and the private sector, and preservation of U.S. leadership in ocean and coastal activities.

To carry out this broad mandate, among other reviews and assessments required by the Act, Section 3(f) directed the Commission to include in its final report:

A review of the cumulative effect of Federal laws and regulations on United States ocean and coastal activities and resources and an examination of those laws and regulations for inconsistencies and contradictions that might adversely affect those ocean and coastal activities and resources, and recommendations for resolving such inconsistencies to the extent practicable. Such review shall also consider conflicts with State ocean and coastal management regimes.

The Commission's final report, *An Ocean Blueprint for the 21<sup>st</sup> Century*, addresses virtually all of those issues throughout its 31 chapters and over 200 recommendations. Many of its findings and recommendations are based on an assessment of the effect of over three decades of federal laws and regulations on the current state of the nation's marine resources.

Much of the background for that assessment is contained in this Appendix, which provides a descriptive review of ocean and coastal laws—the key governing statutes and selected issues that have evolved since the release of the Stratton Commission report—in a number of policy areas including ocean jurisdictions, coastal management, living and nonliving marine resources, water pollution, and marine operations. The Commission believes that an understanding of how the law has developed is essential in determining how to coordinate and improve the policies that guide the management and use of ocean and coastal resources, now and for future generations.

To prepare this document, the Commission solicited the expertise of preeminent legal scholars, policy experts, and practitioners to assist in the research and review of U.S. ocean and coastal law. It was assisted in this effort by the Sea Grant Law Center at the University of Mississippi. As part of the overall process, draft chapters were circulated to reviewers from a wide range of sectors, including representatives from government, private industry, and nongovernmental organizations. Finally, this Appendix went through a rigorous internal review by the Commission, which bears full responsibility for its content.

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## CHAPTER 1 SETTING THE STAGE

### INTRODUCTION

Like the oceans themselves, the Nation's marine interests are vast, complex, composed of many critical elements, and not susceptible to simplicity of treatment. Realization and accommodation of the Nation's many diverse interests require a plan for national action and for orderly development of the uses of the sea. The plan must provide for determined attack on immediate problems concurrently with initiation of a long-range program to develop knowledge, technology, and a framework of laws and institutions that will lay the foundation for efficient and productive marine activities in the years ahead.

—Our Nation and the Sea, January, 1969<sup>1</sup>

The statute that created the Commission on Marine Sciences, Engineering, and Resources, known as the Stratton Commission, was the Marine Resources and Engineering Development Act of 1966.<sup>2</sup> From the resulting report of the Stratton Commission, entitled *Our Nation and the Sea*, came recommendations for a national ocean policy, including a concerted effort to plan and manage the coasts through an independent federal agency and laws to address the use of marine resources and coastal areas.

Responding to the Stratton Commission report, Congress began to focus more on developing national marine natural resources and environmental policy. Notably, in 1970, Congress concurred with President Nixon's Reorganization Plan Number 4<sup>3</sup> to establish an agency to focus on the oceans, the National Oceanic and Atmospheric Administration, and in 1972 it enacted the Coastal Zone Management Act (CZMA). In passing the CZMA, Congress recognized the nation's coasts as a national resource, rather than resources of merely local or state significance. Also in 1972, Congress enacted the Marine Mammal Protection Act, the Federal Water Pollution Control Act Amendments (commonly known as the Clean Water Act), and the Marine Protection, Research, and Sanctuaries Act, which includes the Ocean Dumping Act and the Marine Sanctuary Program. The next year saw the enactment of the Endangered Species Act. These and existing shipping statutes and other jurisdictional authorities became the core of laws that govern the nation's management of ocean and coastal resources.

Over thirty years later, Congress enacted the Oceans Act of 2000,<sup>4</sup> calling for the creation of a second national ocean commission, the U.S. Commission on Ocean Policy, charged with establishing

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<sup>1</sup> Commission on Marine Science, Engineering, and Resources. *Our Nation and the Sea: A Plan for National Action*. Washington, DC: U.S. Govt. Print. Office, 1969.

<sup>2</sup> Pub. L. 89-54; 80 Stat. 205, June 17, 1966. (codified at 33 U.S.C. §§ 1101-1108 and subsequently amended.)

<sup>3</sup> See 5 U.S.C. App. at pp. 189-191 (2000); 35 Fed Reg. 15,627; 84 Stat. 2090; effective October 3, 1970.

<sup>4</sup> Pub. L. 106-256, 114 Stat. 644, August 7, 2000. (codified as a note at 33 U.S.C. § 857-19 and subsequently amended.)

findings and developing recommendations for a new coordinated and comprehensive national ocean policy. Part of the Commission’s mandate includes a review of federal laws that affect ocean and coastal resources. This document consists of that review, presenting a summary of the primary federal ocean and coastal laws and a brief discussion of some of the issues that have emerged from implementation of those laws. Chapter 1 describes the framework of ocean jurisdictional zones and provides context that is relevant to the discussions that follow in each of the subsequent chapters.

## **CHALLENGES FOR OCEAN AND COASTAL LAW**

### **A Complex Mosaic of Legal Authorities**

Management of ocean and coastal resources and activities must address a multitude of different issues, and involves aspects of a variety of laws—at local, state, federal, and international levels—including those related to property ownership, land and natural resource use, environmental and species protection, and shipping and other marine operations—all applied in the context of the multi-dimensional nature of the marine environment. Several of those aspects of law may come into play simultaneously when addressing conflicts over public and private rights, boundaries, jurisdictions, and management priorities concerning ocean and coastal resources. In addition, some laws result in geographic and regulatory fragmentation and species-by-species or resource-by-resource regulation.

Further complexity results because international law recognizes several distinct geographic jurisdictional zones in the ocean and authorizes coastal nations to assert certain rights and jurisdiction within these zones. Additionally, U.S. law divides authority and responsibility between federal and state governments. Pursuant to the Submerged Lands Act (SLA), states hold title to the submerged lands and the natural resources in such lands and waters out to 3 nautical miles<sup>5</sup> (9 nautical miles for Texas and the Gulf coast of Florida), subject to certain reservations.<sup>6</sup> In general, the federal government exercises resource management jurisdiction and other authorities from that 3-mile line out to 200 nautical miles and in some instances beyond. Many federal ocean and coastal laws incorporate these and other jurisdictional lines, sometimes providing different levels of protection for different ocean jurisdictional zones without correlation to the ocean’s ecology.

### **Overlapping Jurisdictions, Isolated Issues**

At the federal level, numerous departments and agencies have some authority over ocean waters or resources. For example, the offshore oil and gas leasing and permit review process involves a number of federal and state regulatory agencies. In federal waters, the federal government—specifically the Secretary of the Interior—has the authority to issue leases and permits for the extraction of oil and natural gas, pursuant to the Outer Continental Shelf Lands Act (OCSLA). Within the U.S. Department of the Interior (DOI), such authority has been delegated to the Minerals Management Service (MMS). However, an applicant also needs to comply with a variety of other laws, some of which are cross-referenced in the OCSLA: applicable requirements of state coastal zone management programs, pursuant to the CZMA; the National Environmental Policy Act (NEPA); permit requirements of the U.S. Army Corps of Engineers (USACE) for obstructions to navigation, under the Rivers and Harbors Act (RHA); permit requirements of the U.S. Environmental Protection Agency (EPA) under the Clean Water Act (CWA) for the discharge of pollutants into the ocean and pursuant to the Clean Air Act (CAA) for certain air emissions; and additional legal requirements involving other federal agencies.

<sup>5</sup> A nautical mile is approximately 6,076 feet, whereas the statute mile commonly used on land is 5,280 feet. All references hereinafter to miles in this Appendix are to nautical miles.

<sup>6</sup> The seaward jurisdiction of the U.S. states, territories, and possessions is discussed in the section of this chapter entitled Submerged Lands Act and other Law Establishing State Seaward Boundaries.

In state waters, the state has sole jurisdiction to issue leases and permits for oil and gas extraction, but the applicant also has to meet the requirements of the state's coastal zone management program, USACE, EPA (or a state agency exercising CWA and CAA legal authority in lieu of EPA), and perhaps other state and federal agencies exercising additional legal authorities.

Existing federal and state laws generally focus on regulation of individual categories of resources or activities. For example:

- the OCSLA, as noted, governs oil, natural gas, and mineral exploration and extraction on the outer Continental Shelf (OCS);
- the CWA and other statutes regulate activities affecting water quality in “waters of the United States” (which generally means internal waters and ocean waters out to three miles), in the contiguous zone, and in many instances further seaward based on the CWA or as specified in another statute governing the offshore activity; and
- the RHA regulates potential obstructions to navigation, both in state waters and on the OCS.

Similarly, federal laws often focus on one category of living marine resource, rather than on ecosystems as a whole. For example:

- the Marine Mammal Protection Act regulates actions affecting marine mammals;
- the Endangered Species Act regulates actions affecting endangered species or their designated “critical habitat”; and
- the Magnuson-Stevens Fishery Conservation and Management Act regulates much of the fishing in federal waters, usually through species-specific management plans.

With the geographic divisions of legal authority over ocean resources between the federal and state governments, the possibility of multiple agencies having a regulatory or consultation role at both the federal and state levels with respect to a particular resource or activity, and individual laws typically addressing individual categories of resources or issues, the protection and management of ocean and coastal resources and ecosystems can sometimes be a challenge for managers at all levels of government.

### **Addressing New and Emerging Uses**

There are a number of new and emerging uses of ocean areas that lack a specific legal or management regime, and management of these uses also highlights the potential complexity of federal jurisdiction over ocean-based activities. For example, proposals to build wind farms on the OCS have accentuated the fact that no one federal agency has specific authority to comprehensively manage any new category of uses that may arise in federal offshore lands or waters. MMS leases federal submerged lands for mineral extraction pursuant to the OCSLA, but that Act does not apply to non-extractive facilities such as wind farms. The USACE, pursuant to Section 10 of the RHA, has jurisdiction to require a permit for a wind farm on the OCS as an obstruction to navigation and, in the initial application for an offshore wind farm, has used that authority to coordinate the review of the proposed wind farm by all other federal and state agencies having jurisdiction over some aspect of the wind farm's siting or operations. The issue is more fully addressed in Chapter 5, *Fuels, Minerals, and Energy Production from the Ocean*.

## **INTERNATIONAL LAW OF OCEAN JURISDICTION**

Although invisible to the naked eye, governments have carved the world's oceans into many distinct zones, based on both international law and domestic statutes. The subject of ocean jurisdictions can become

complex, with sometimes-overlapping legal authorities and agency responsibilities. In general, under international law, the closer one gets to the shore, the more authority a coastal nation can exercise.

This section explains the ocean jurisdiction of the United States under international law, as well as the domestic distinction between federal and state waters.

## Post-World War II Law of the Sea

The modern era of the law of the sea began in 1945 with the Truman Proclamation<sup>7</sup> declaring U.S. “jurisdiction and control” over the continental shelf contiguous to coasts of the United States. Prior to 1945, most countries’ offshore claims were limited to 3-mile territorial seas. The U.S. continental shelf assertion initiated a number of offshore claims by other countries. For example, in 1947, Chile claimed jurisdiction over natural resources to 200 miles offshore, reacting to a post-World War II Japanese return to whaling grounds off the Chilean coast.

With other nations following suit and a rise in national jurisdictional claims in the ocean, the International Law Commission, part of the United Nations system, led the effort to codify a law of the sea. That effort resulted in the adoption, at the First U.N. Conference on the Law of the Sea (UNCLOS I) in 1958, of four treaties known as the 1958 Geneva Conventions on the Law of the Sea: Convention on the Territorial Sea and Contiguous Zone;<sup>8</sup> Convention on the Continental Shelf;<sup>9</sup> Convention on the High Seas;<sup>10</sup> and Convention on Fishing and Conservation of the Living Resources of the High Seas.<sup>11</sup>

The Second U.N. Conference on the Law of the Sea (UNCLOS II) met in 1960, but failed to resolve many disputes, including the legality of expansion of territorial seas from 3 to 12 miles, and the growing assertion of 200-mile exclusive economic zones.

The Third U.N. Conference on the Law of the Sea (UNCLOS III) began its deliberations in 1973 and concluded in 1982 with the adoption of a treaty text, the United Nations Convention on the Law of the Sea<sup>12</sup> (UNCLOS). The United States was in a unique position during the UNCLOS III negotiations as the world’s greatest naval power and a nation with significant coastlines. The United States pushed for a special set of rules to preserve international freedoms of navigation and overflight in light of the consensus view that coastal nations could claim a 12-mile territorial sea, including rules to retain rights for straits and archipelagic passage, and for innocent passage for warships.

While the Reagan administration acknowledged “many positive and very significant accomplishments . . . [including] extensive parts dealing with navigation and overflight,” the United States did not sign the 1982 UNCLOS convention and limited U.S. “participation in the remaining conference process . . . [to] the

<sup>7</sup> Presidential Proclamation 2667 of September 28, 1945. “Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf.” 10 Fed. Reg. 12,303 (Oct. 2, 1945). Truman also issued a second proclamation asserting the power of the United States to create coastal fisheries “conservation zones” where fishing activities would be “subject to the regulation and control of the United States.” Presidential Proclamation 2668, 10 Fed. Reg. 12,304 (Oct. 2, 1945).

<sup>8</sup> 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639.

<sup>9</sup> 499 U.N.T.S. 311; 15 U.S.T. 471; T.I.A.S. 5578.

<sup>10</sup> 450 U.N.T.S. 82; 13 U.S.T. 2312; T.I.A.S. 5200.

<sup>11</sup> 559 U.N.T.S. 285; 17 U.S.T. 138; T.I.A.S. 5969.

<sup>12</sup> 1982 United Nations Convention on the Law of the Sea (UNCLOS), *done* December 10, 1982, U.N. document A/Conf.62/122, *reprinted in* 21 I.L.M. 1261-1354 (1982).

technical level and [involving] only those provisions that serve United States interests.”<sup>13</sup> The primary concern was with the deep seabed mining regime that was viewed to be monopolistic, with an international mining entity determining access to and development of the deep seabed.

By 1994, concerns of the United States and several other industrialized nations over the deep seabed mining provisions were addressed in additional international negotiations that resulted in an agreement modifying the 1982 UNCLOS convention. The Clinton administration transmitted the convention to the Senate, requesting that body’s consent to accession to the treaty,<sup>14</sup> and President George W. Bush’s administration has also asserted its support. Although the United States is still a party to the 1958 Conventions, the United States has asserted expanded ocean jurisdiction claims that reflect acceptance of essentially all of the articles in the 1982 UNCLOS convention (other than those related to the deep seabed) as established international law. Nevertheless, the Senate has yet to act on the convention.

## Ocean Jurisdictional Zones

As shown in the following figure, under international law a coastal nation’s jurisdiction consists of different geographic areas: its internal waters; territorial sea; contiguous zone; exclusive economic zone; and continental shelf. In contemporary international law, as reflected in UNCLOS, the jurisdictional zones of the high seas and the deep seabed lie beyond (seaward of) national jurisdiction.<sup>15</sup>

### *The Baseline (0 Miles)*

Generally, for purposes of both international and domestic law, the boundary line dividing the land and internal waters from the ocean is called the *baseline*. The baseline is determined according to principles described in the 1958 United Nations Convention on the Territorial Sea and the Contiguous Zone<sup>16</sup> and the 1982 UNCLOS, and is normally the low water line along the coast, as marked on charts officially recognized by the coastal nation.<sup>17</sup> In the United States, the definition has been further refined based on federal court decisions; the U.S. baseline is the mean lower low water line along the coast, as shown on official U.S. nautical charts.<sup>18</sup>

The baseline can be drawn across river mouths, the opening of bays, and along the outer points of complex coastlines (with some limitations). Waterbodies inland of the baseline—such as bays, estuaries, rivers, and lakes, and sometimes portions of coastal ocean waters—are considered *internal waters* and are subject to national sovereignty over nearly all persons and things located there (with some exceptions, such as foreign warships).

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<sup>13</sup> Statement by President Ronald Reagan, Convention on the Law of the Sea, 18 Weekly Comp. Pres. Doc. 887 (July 9, 1982).

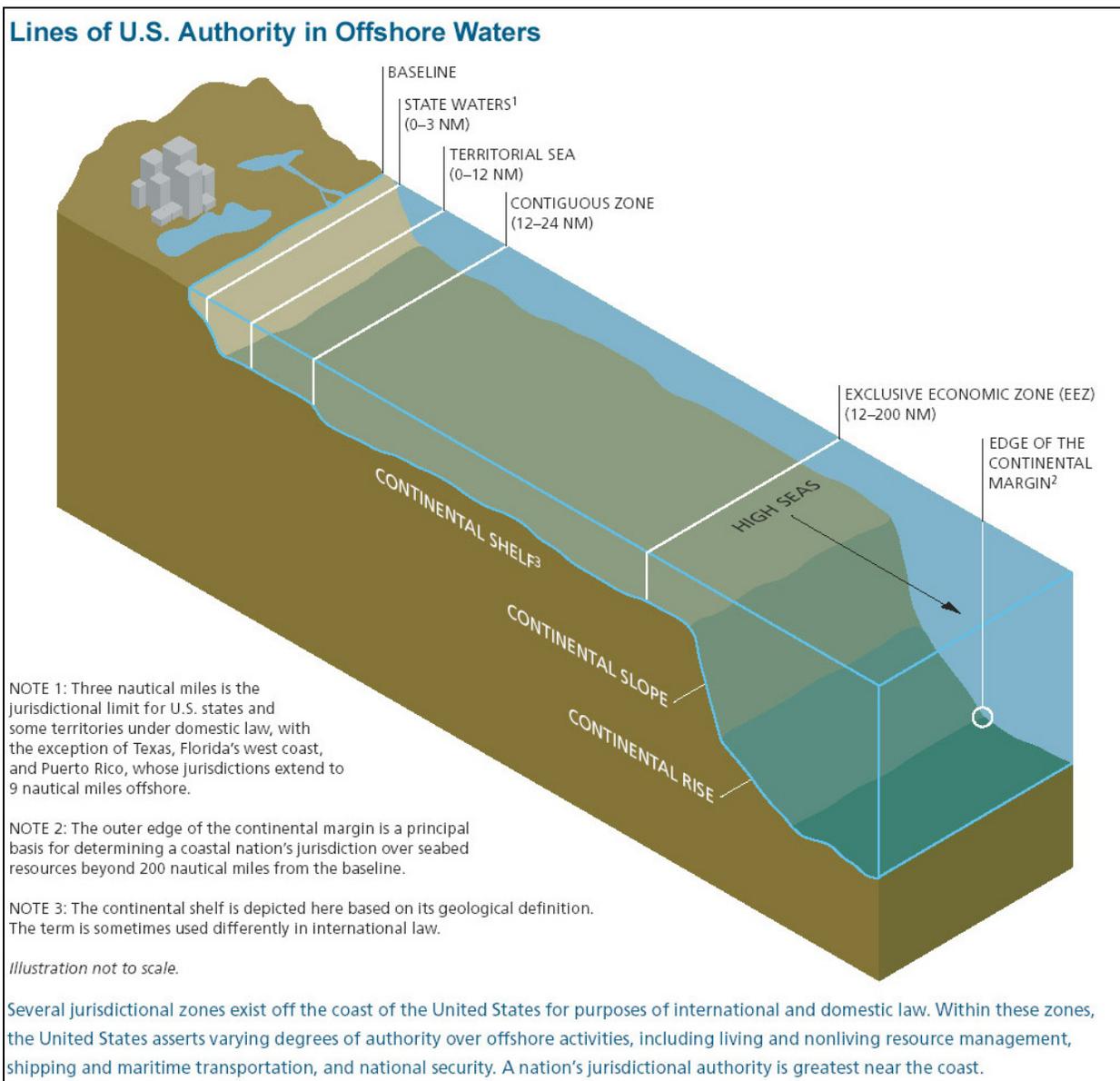
<sup>14</sup> Letter by President William J. Clinton, Transmittal letter to the U.S. Senate, Washington, DC, October 6, 1994. In United States: President’s Transmittal of the United Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of Part XI to the U.S. Senate with Commentary, October 7, 1994. U.S. Department of State Dispatch Supplement, Volume 6, Supplement No. 1 (February 1995).

<sup>15</sup> As is explained further below, many freedoms formerly considered as high-seas freedoms continue to pertain in the EEZ as well as in areas beyond national jurisdiction.

<sup>16</sup> 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639.

<sup>17</sup> UNCLOS, Articles 3-16.

<sup>18</sup> National Oceanic and Atmospheric Administration, Coastal Services Center. *Federal Geographic Data Committee Marine Boundary Working Group: U.S. Marine Cadastre —Seabed and Subsoil Boundaries*. December 31, 2002. Available at [http://www.csc.noaa.gov/mbwg/htm/cad\\_sla.htm](http://www.csc.noaa.gov/mbwg/htm/cad_sla.htm) (accessed January 14, 2004).



### ***The Territorial Sea (0 to 12 Nautical Miles)***

Under international law, every coastal nation has sovereignty over the air space, water column, seabed, and subsoil of its *territorial sea*, subject to certain rights of passage for foreign vessels.<sup>19</sup> The territorial sea is located adjacent to and seaward of the nation's land territory and internal waters.

The United States asserted a 3-mile territorial sea in 1793, when Secretary of State Thomas Jefferson sent two diplomatic notes to the British and French ambassadors to the United States.<sup>20</sup> After U.S. ratification of the

<sup>19</sup> UNCLOS, Article 2 *et seq.*

<sup>20</sup> See *e.g.*, diplomatic note from Secretary of State Thomas Jefferson to the French ambassador to the U.S. on November 8, 1793, see, American State Papers, I Foreign Relations 183 (1832). In 1794, Congress enacted a statute that gave federal district courts authority over complaints filed concerning captures of vessels and their property within a marine league (3 nautical miles) of the

1958 U.N. Convention on the Territorial Sea and the Contiguous Zone,<sup>21</sup> the United States based its 3-mile territorial sea claim on that convention. Until 1988, the U.S. territorial sea generally overlapped with state waters from 0 to 3 miles offshore and shared a common seaward boundary with most states.<sup>22</sup> In 1988, President Reagan proclaimed a 12-mile territorial sea for the United States,<sup>23</sup> the maximum breadth consistent with UNCLOS.<sup>24</sup> The proclamation extended the United States territorial sea only for purposes of international law, and explicitly stated that it did not alter existing federal or state law.<sup>25</sup>

### ***The Contiguous Zone (12 to 24 Nautical Miles)***

International law recognizes a *contiguous zone* adjacent to and seaward of the territorial sea of each coastal nation. Within its contiguous zone, a nation can assert authority to prevent or punish infringement of its customs, fiscal, immigration, and sanitary laws that apply in its territory or territorial sea. Under the 1958 United Nations Convention on the Territorial Sea and the Contiguous Zone, the United States formerly claimed a contiguous zone extending from 3 to 12 miles offshore.<sup>26</sup> In 1999, eleven years after President Reagan extended the U.S. territorial sea to 12 miles, President Clinton proclaimed a contiguous zone from 12 to 24 miles offshore for the United States,<sup>27</sup> consistent with UNCLOS,<sup>28</sup> and thereby enhanced the authority of the U.S. Coast Guard to take enforcement actions against foreign flag vessels in this zone.

### ***The Exclusive Economic Zone (12 to 200 Nautical Miles)***

The 1982 UNCLOS confirms the right of each coastal nation to establish a zone, known as the *exclusive economic zone* (EEZ), adjacent to the territorial sea and extending a maximum of 200 miles seaward from the baseline from which the territorial sea is measured, within which the coastal nation has sovereign rights for the purpose of exploring, exploiting, conserving, and managing the natural resources, both living and nonliving, of the ocean waters, the seabed, and subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents, and winds. The coastal nation also has jurisdiction in the EEZ over artificial islands or other installations and structures having economic purposes, as well as the protection and preservation of the marine environment.<sup>29</sup>

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coast of the United States; this is considered to be the first statutory assertion of a United States territorial sea, the assertion being implicit in the wording of the statute. See, § 6 of the Act of June 5, 1794, 1 Stat. 381, at 384.

<sup>21</sup> 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639. The U.S. became a party to the convention on September 10, 1964.

<sup>22</sup> Seaward boundaries of the U.S. states, territories, and possessions are discussed in the section of this chapter entitled Submerged Lands Act and other Law Establishing State Seaward Boundaries.

<sup>23</sup> Presidential Proclamation 5928 of December 27, 1988. *The Territorial Sea of the United States of America*. 54 Fed. Reg. 777 (Jan. 9, 1989).

<sup>24</sup> UNCLOS, Article 3.

<sup>25</sup> Some confusion in the application of federal law has resulted from the fact that for purposes of international law the United States' territorial sea extends 12 miles offshore, while some U.S. statutes still define the term "territorial sea" as extending only 3 miles. The geographic jurisdictional scope of certain international law terms has been modified over time. Since these terms have been used in U.S. statutes over the years, it is likely that Congress needs to enact amendments to some U.S. laws to ensure the legislation reflects the intended territory as currently defined under international law. For a further discussion of this issue, see the section in this chapter entitled Some Confusing Jurisdictional Terminology.

<sup>26</sup> 516 U.N.T.S. 205; 15 U.S.T. 1606; T.I.A.S. 5639. The U.S. declared its contiguous zone in State Department Public Notice 358 of June 1, 1972, 37 Fed. Reg. 11,906 (June 15, 1972).

<sup>27</sup> Presidential Proclamation 7219 of September 2, 1999. "The Contiguous Zone of the United States." 64 Fed. Reg. 48,701 (Sept. 8, 1999).

<sup>28</sup> UNCLOS, Article 33.

<sup>29</sup> UNCLOS, Article 55 *et seq.*

President Reagan proclaimed an EEZ for the United States in 1983,<sup>30</sup> consistent with international law as reflected in UNCLOS.<sup>31</sup> The U.S. EEZ, as originally established, occupied a belt of ocean between 3 and 200 miles offshore. The 1988 presidential proclamation on the territorial sea had the effect of changing the width of the U.S. EEZ to between 12 and 200 miles offshore for international purposes. Consistent with international law, the U.S. EEZ proclamation did not assert any control over vessel traffic (surface or submarine), aircraft overflight, or the laying of cables and pipelines on the ocean floor, which generally are traditional high-seas freedoms (high seas are described below). Generally, the United States does not regulate marine scientific research in the U.S. EEZ, although it does require advance consent for marine scientific research if any portion of the research is conducted within the U.S. territorial sea, involves the study of marine mammals, requires taking commercial quantities of marine resources, or includes contact with the U.S. continental shelf.<sup>32</sup>

### ***The Continental Shelf (12 to 200 Nautical Miles or Outer Edge of Continental Margin)***

The legal concept of the continental shelf has evolved over the last sixty years. As noted above, the 1945 Truman Proclamation first asserted a United States claim to resources of its continental shelf.<sup>33</sup> The proclamation set a precedent for other coastal nations to assert similar claims over resources far from their shores. The need to establish greater uniformity among such claims was one of the driving forces behind the 1958 United Nations Convention on the Continental Shelf.<sup>34</sup> However, the 1958 Convention showed limited vision, defining the continental shelf based on a nation's ability to physically recover resources from the seabed.<sup>35</sup> As technological capabilities improved over the years, uncertainty about the seaward boundary of a nation's exclusive rights to continental shelf resources was renewed.

<sup>30</sup> Presidential Proclamation 5030 of March 10, 1983. "The Exclusive Economic Zone of the United States of America." 48 Fed. Reg. 10,605 (Mar. 14, 1983).

<sup>31</sup> UNCLOS, Article 55 *et seq.*

<sup>32</sup> Procedures for applying for advance consent to conduct these four types of research are found on the U.S. Department of State's Web site, "Foreign-Flag Vessels Seeking Authorization to Conduct MSR in U.S. Waters" *available at* <http://www.state.gov/oes/ocns/rvc/3503.htm> (accessed May 27, 2004).

<sup>33</sup> Presidential Proclamation 2667 of September 28, 1945. "Policy of the United States with Respect to the Natural Resources of the Subsoil and Sea Bed of the Continental Shelf." 10 Fed. Reg. 12,303 (Oct. 2, 1945). The Secretary of the Interior was designated to administer the OCS, through authority of Executive Order 9633 of September 28, 1945. In 1953, the Truman Proclamation was basically codified in the Outer Continental Shelf Lands Act (43 U.S.C. §§ 1331 *et seq.*). The Truman Proclamation extended the U.S. claim to submerged lands and offshore resources of the continental shelf for conservation and prudent development of the natural resources of the seabed, without reference to any specific depth of water or distance from shore. The Proclamation explained that:

"[t]he exercise of jurisdiction over the natural resources of the subsoil and sea bed of the continental shelf by the contiguous nation is reasonable and just . . . since the continental shelf may be regarded as an extension of the land-mass of the coastal nation and thus naturally appurtenant to it, [and] since these resources frequently form a seaward extension of a pool or deposit lying within the territory."

The Truman Proclamation specifically preserved the right to free and unimpeded navigation on the high seas of the waters above the continental shelf.

<sup>34</sup> 499 U.N.T.S. 311; 15 U.S.T. 471; T.I.A.S. 5578.

<sup>35</sup> The 1958 Convention provides that the continental shelf refers to:

"[T]he sea-bed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 meters or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas."

The "exploitability criterion" of the 1958 Continental Shelf Convention, however, itself created considerable uncertainty as to how far seaward a country was entitled to exclusive rights over the resources of the shelf.

With passing decades, the evolving international consensus began to coalesce around the concept of coastal nations' rights to, and jurisdiction over, all natural resources of the seabed, subsoil, and water column out to 200 miles offshore. When the UNCLOS convention was concluded in 1982, it established the EEZ regime out to 200 miles from the baseline, and modified the legal concept of the continental shelf.

The 1982 UNCLOS defines the *continental shelf* for purposes of international law as the seafloor and subsoil (not the water column) that extend beyond the territorial sea throughout the natural prolongation of a coastal nation's land territory to the outer edge of the continental margin (with some limitations), or to 200 miles from the baseline if the continental margin does not extend that far.<sup>36</sup> Reflecting the geomorphology of submerged lands, UNCLOS notes that the continental margin includes the seabed and subsoil of the continental shelf, the slope, and the rise. The legal definition of the continental shelf thus substantially overlaps geographically with the EEZ, although the continental shelf does not include the water column.

Where a coastal nation can demonstrate that its continental margin extends beyond 200 miles, UNCLOS has a complex process for asserting such claims internationally. The U.S. continental margin extends beyond 200 miles in numerous regions, including the Atlantic Coast, the Gulf of Mexico, the Bering Sea, and the Arctic Ocean. However, because the United States is not a party to UNCLOS, it cannot assert its claims to extended continental shelf jurisdiction through the UNCLOS mechanism.

### ***The High Seas (Areas Seaward of National Jurisdictions)***

For several centuries, international law has considered areas of the ocean (including the water column and the seabed) beyond national jurisdiction to be the *high seas*. On the high seas, all nations have certain traditional freedoms, including the freedom of surface and submerged navigation, the freedom to fly aircraft over the water, harvest fish, lay submarine cables and pipelines, conduct scientific research, and construct artificial islands and certain other installations. Some of these freedoms are subject to certain qualifications, such as the duty to conserve living resources and to cooperate with other nations toward this end. In addition, a nation exercising its high seas freedoms must give "due regard" to the interests of other nations in its exercise of these freedoms.<sup>37</sup>

The *high seas* were formerly defined by the 1958 Convention as the area beyond the territorial seas of coastal nations.<sup>38</sup> Today, they are defined by UNCLOS as the area seaward of the territorial seas and EEZs of coastal nations.<sup>39</sup> Sixty percent of the world's oceans remain high seas and, in general, the traditional freedoms of the high seas still prevail.<sup>40</sup> With a few exceptions, such as natural resource management-related matters and scientific research, many high-seas freedoms also apply in the EEZ.

Even on and above the high seas beyond the EEZ, the United States and other coastal nations have some limited ability to exercise governmental jurisdiction and legal authority to make or enforce law. For example, U.S. citizens on the high seas remain subject to U.S. law, as do people on U.S.-flagged vessels and aircraft.

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<sup>36</sup> UNCLOS, Article 76 *et seq.*

The 1982 UNCLOS convention discards the "exploitability criterion" definition of the continental shelf from the 1958 Convention, in favor of expanded objective limits and a method for establishing their permanent location. This change was designed to accommodate coastal nation interests in broad control of resources and in supplying the certainty and stability of geographic limits necessary to promote investment and avoid disputes. Adapted From United States: President's Transmittal of the United Nations Convention on the Law of the Sea and the Agreement Relating to the Implementation of Part XI to the U.S. Senate with Commentary, October 7, 1994 (U.S. Department of State Dispatch Supplement, Volume 6, Supplement No. 1 (February 1995)).

<sup>37</sup> UNCLOS, Article 86 *et seq.*

<sup>38</sup> 1958 United Nations Convention on the High Seas; 450 U.N.T.S. 82; 13 U.S.T. 2312; T.I.A.S. 5200.

<sup>39</sup> UNCLOS, Article 86.

<sup>40</sup> UNCLOS, Article 86 *et seq.*

Also, a coastal nation has the right of hot pursuit onto the high seas, provided that the pursuit was commenced in a geographic zone subject to the coastal nation's jurisdiction over the activity in question.

### Some Confusing Jurisdictional Terminology

As noted, beginning in 1983, Presidents Reagan and Clinton issued a series of proclamations that changed the geographic extent and substantive nature of U.S. jurisdiction over the oceans for purposes of international jurisdiction, consistent with the 1982 UNCLOS convention. The changes—beginning with President Reagan's proclamation of a U.S. EEZ to 200 miles and followed by his extension of the territorial sea to 12 miles and President Clinton's extension of the contiguous zone to 24 miles—have not been comprehensively reflected in domestic law. Also, other legal terms, such as “high seas,” now have a different geographic scope in international law under UNCLOS; such changes in international law have not always been accounted for in domestic law.

The public policy concern regarding these changes in international jurisdiction and terminology is that federal jurisdiction over, and management and enforcement regimes for, ocean resources, environmental protection, and national security are established by statutes that sometimes reference geographic jurisdictions that may be outdated and thus could limit effective implementation of the law. For example, the Clean Water Act and the Oil Pollution Act each define the seaward limit of the “territorial seas” at 3 miles<sup>41</sup>; to date, that definition has not caused a major problem in the implementation or enforcement of either law, but the discrepancy remains. Inconsistencies or ambiguities in geographic jurisdiction definitions, for example, concerning the intended breadth of the contiguous zone for the purpose of a particular statute, have also caused problems in federal civil and criminal cases not related to natural resources, such as the regulation of offshore gambling.

It may not be necessary or desirable to amend every single U.S. statute to conform the terminology or breadth of its geographic zones to the new international jurisdictional zones. Notably, a number of U.S. federal statutes distinguish clearly between federal and state ownership or management of ocean resources, based on the division of jurisdiction and authority established in the SLA; these laws include the OCSLA, the Magnuson-Stevens Act, and the CWA. Amending these laws to conform state jurisdiction over resources, now usually seaward to 3 miles, to the geographic area encompassed by the 12 mile territorial sea that the United States asserts for international purposes, would in large part rewrite the SLA and affect a very significant change in federal-state legal, political, and economic relationships.

Although certain statutes reflect, either through original enactment or subsequent amendment, President Reagan's Proclamation that extended the U.S. territorial sea to 12 miles for purposes of international law, relatively few domestic laws have been amended to be consistent with that change.<sup>42</sup> Thus, in some U.S. statutes, the territorial sea is still defined or referred to as a 3 mile zone.<sup>43</sup>

Several shipping and vessel safety provisions apply within a seaward geographic area that is more, or less, than 3 miles from the baseline from which the U.S. territorial sea is measured, without expressly asserting a 3 mile U.S. territorial sea for purposes of the particular statute.<sup>44</sup>

<sup>41</sup> The term *territorial seas* is defined as a 3 mile belt of sea in the Clean Water Act (see 33 U.S.C. § 1362(8)) and the Oil Pollution Act of 1990 (see 33 U.S.C. § 2701(35)).

<sup>42</sup> The Proclamation expressly did not alter any federal or state law. The discussion presented in this section is illustrative only and is *not* a thorough review of federal laws that refer to the territorial sea.

<sup>43</sup> *E.g.*, in the Clean Water Act and the Oil Pollution Act of 1990, as noted above.

<sup>44</sup> These include: Shipping: Uninspected Vessels, 46 U.S.C. § 4102; Shipping: Uninspected Commercial Fishing Vessels, 46 U.S.C. §§ 4502, 4506; and Shipping: Manning of Vessels: Pilots, 46 U.S.C. §§ 8502, 8503.

Some federal laws, particularly those related to maritime commerce and shipping and maritime law enforcement, do specifically reflect or assert, either in the law's original enactment or by amendment, a 12 mile U.S. territorial sea.<sup>45</sup> At least one federal law uses the term *territorial sea* but does not define it.<sup>46</sup>

Other laws refer to or seem to allude to a 12 mile zone based on the baselines from which the territorial sea is measured, without expressly asserting a 12 mile U.S. territorial sea for purposes of the particular statute.<sup>47</sup> Finally, at least one statute references the right of a coastal nation to assert a 12 mile territorial sea under international law, but does not expressly establish a U.S. 12 mile territorial sea for purposes of the particular statute.<sup>48</sup>

This complex situation concerning the geographic reach of the term *territorial sea* (3 miles versus 12) has analogs in federal statutes that use other international law terms, such as *contiguous zone* and *high seas*, whose scope also have changed over the years, but have not been formally amended.

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<sup>45</sup> For example, the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA), enacted in 1990, defines *territorial sea* as "the belt of the sea measured from the baseline of the United States determined in accordance with international law, as set forth in Presidential Proclamation Number 5928, dated December 27, 1988." See 16 U.S.C. § 4702(14). See also § 4702(16), defining the term *waters of the United States* for purposes of NANPCA as "the navigable waters and the territorial sea of the United States," i.e., as including the 12 mile territorial sea proclaimed by President Reagan, as referenced in the law's definition of territorial sea.

The *territorial sea* also is defined as 12 miles in the following statutes: Crimes and Criminal Procedure: Shipping: violence against maritime fixed platforms, see 18 U.S.C. §§ 2280, 2281; and Crimes and Criminal Procedure: Terrorism, Acts of terrorism transcending national boundaries, see 18 U.S.C. § 2332b.

In 1998, Congress amended the Ports and Waterways Safety Act, and defined the term *navigable waters of the United States* to include "all waters of the territorial sea of the United States as described in Presidential Proclamation 5928 of December 27, 1988." See 33 U.S.C. § 1222(5), as amended by the Coast Guard Authorization Act of 1998, Pub. L. 105-383, Title III, § 301(a).

Also in 1998, Congress amended Subtitle II of Title 46, U.S. Code to establish that the term *navigable waters of the United States* as used in those laws includes the 12 mile territorial sea as proclaimed by President Reagan. See Coast Guard Authorization Act of 1998, Pub. L. 105-383, Title III, § 301(b).

Similarly, the Vessel Bridge-to-Bridge Radiotelephone Act was amended in 2002 to extend its jurisdiction from 3 to 12 miles, by revising reference to *the navigable waters of the United States* to include "all waters of the territorial sea of the United States as described in Presidential Proclamation 5928 of December 27, 1988." See 33 U.S.C. § 1203(b), as amended by § 321 of the Maritime Transportation Security Act of 2002, Pub. L. 107-295.

The Act of June 15, 1917, as amended, sometimes referred to as the Espionage Act, as amended by the Magnuson Act of 1950 also was amended in 2002, to add a definition of the term *territorial waters*, as follows: "The term 'territorial waters of the United States' includes all waters of the territorial sea of the United States as described in Presidential Proclamation 5928 of December 27, 1988." See 50 U.S.C. § 195, as amended by § 104 of the Maritime Transportation Security Act of 2002, Pub. L. 107-295.

Similarly, the 1996 amendments to the Antarctic Conservation Act of 1978 define the term *import* with reference to "any place subject to the jurisdiction of the United States, including the 12 mile territorial sea of the United States." See 16 U.S.C. § 2402(8).

<sup>46</sup> For example, the Ocean Dumping Act (Title I of the Marine Protection, Research, and Sanctuaries Act, ODA), see 33 U.S.C. §§ 1401 *et seq.* The ODA defines the term *ocean waters* to mean "those waters of the open seas lying seaward of the base line from which the territorial sea is measured, as provided for in the [1958] Convention on the Territorial Sea and the Contiguous Zone [ . . . ]." See 33 U.S.C. § 1402(b). This indicates that Congress intended a 3 mile territorial sea and a contiguous zone extending seaward to 12 miles. However, although the term *territorial sea* is used in the "Prohibited acts" section of the statute and is crucial to enforcing the statute in certain circumstances, see 33 U.S.C. § 1411(b), the term is not specifically defined in the ODA.

<sup>47</sup> A navigation law dealing with demarcation lines for high seas and inland waters refers to lines that are not more than 12 miles seaward from the baseline from which the territorial sea is measured; see 33 U.S.C. § 151.

The Atlantic Salmon Convention Act of 1972, as amended, makes it unlawful for any person or vessel subject to the jurisdiction of the United States "to conduct directed fishing for salmon in waters seaward of twelve miles from the baselines from which the breadths of territorial seas are measured," in certain waters of the Atlantic Ocean; see 16 U.S.C. § 3606(a)(1).

See also the definition of "Agreement Area" in the Eastern Pacific Tuna Licensing Act of 1984, at 16 U.S.C. § 972(2).

<sup>48</sup> See e.g., Condemnation of Cuban attack on American aircraft, 22 U.S.C. § 6046.

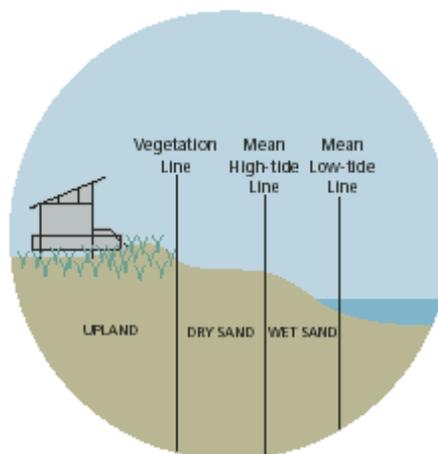
Furthermore, federal laws sometimes use imprecise or inconsistent terms to refer to ocean jurisdictions, including *navigable waters*, *coastal waters*, *ocean waters*, *territory and waters*, *waters of the United States*, and *waters subject to the jurisdiction of the United States*. These terms can have disparate meanings in different statutes and sometimes are not defined at all.

There has been no comprehensive and systematic effort to review and evaluate U.S. statutes and regulations to make corrections, either to conform to changed international geographic jurisdictions or to revise and conform confusingly different geographic terminology. When considering whether and how to amend each such law to update the scope of its geographic jurisdiction, care is needed to ensure that any amendment does not inadvertently alter the division of legal jurisdiction and authority between the federal and state governments concerning resources and activities in the ocean as established in the SLA and other statutes.

## U.S. FEDERAL AND STATE JURISDICTION

In general, lands under tidewaters are held by the state in a special capacity—in trust for the benefit of the public, pursuant to what is referred to as the public trust doctrine. Under this doctrine, which has evolved from ancient Roman law and English common law, governments have an obligation to protect the interests of the general public (as opposed to the narrow interests of specific users or any particular group). Public interests have traditionally included navigation, fishing, and commerce. In recent times, the public has also looked to the government to protect their interests in recreation, environmental protection, research, and preservation of scenic beauty and cultural heritage.

The division between private and public ownership varies somewhat from state to state. Generally, legal title to land located above the mean high-tide line (illustrated in the figure) will be held in private ownership. Title to the lands below the mean high-tide line will be held by the state as public trust lands. While there can be private ownership or other property interests in public trust lands, the state has a duty to ensure that the public's interest in those lands is protected.



### Establishment of State Seaward Boundaries

Until the 1940s, the common understanding was that states owned the submerged lands under the waters off their shores, and many coastal states had laws in place that established offshore boundaries.<sup>49</sup> Several state constitutions and federal acts admitting states to the Union described state boundaries as extending a marine league or more offshore.<sup>50</sup>

Controversies emerged in the 1930s regarding oil recovered from, and the ownership of mineral rights in, submerged lands. In *United States v. California*,<sup>51</sup> the United States sought declaration in the U.S. Supreme Court that the federal government was the owner of the seabed and minerals from the mean low water line to 3 miles seaward. California argued that because the original colonies had acquired from the Crown of

<sup>49</sup> Christie, Donna R. and Richard G. Hildreth. *Coastal and Ocean Management Law, 2<sup>nd</sup> Edition*. St. Paul, MN: West Group, 1999.

<sup>50</sup> *Id.*

<sup>51</sup> *United States v. California*, 332 U.S. 19 (1947).

England all lands under navigable waters, including all marginal seas within their boundaries, these lands also vested in California upon admission to the Union by virtue of the equal footing doctrine as an element of sovereignty.

The Supreme Court quickly dismissed California's arguments, concluding that "acquisition...of the three-mile belt [had] been accomplished by the National Government," rather than by the English Crown or the colonies.<sup>52</sup> The Court depicted the federal government's role not as merely a property owner, but as the entity responsible for the security and defense of the marginal seas and for the conduct of foreign relations.

The Supreme Court determined that states had no title to, or property interest in, the submerged lands off their coasts. The Court held "that California is not the owner of the three-mile marginal belt along its coast, and that the Federal Government rather than the state has paramount rights in and power over that belt, an incident to which is full dominion over the resources of the soil under that water area, including oil."<sup>53</sup>

After the *United States v. California* holding, the United States brought suit against both Texas and Louisiana on the basis that the broad principles of the *California* case also dictated federal ownership or control of the oil fields of the Gulf of Mexico.<sup>54</sup> The United States prevailed against both states.

Congress responded in 1953 by enacting the Submerged Lands Act (SLA),<sup>55</sup> which essentially quitclaimed to the coastal states federal proprietary rights over a zone extending 3 miles seaward from the baseline (commonly referred to as *state waters* and *state submerged lands*) and rights to the natural resources in such lands and waters.<sup>56</sup> The SLA gives states the authority to manage, develop, and lease the natural resources throughout the water column and on and under the seabed.<sup>57</sup>

Under the SLA, the federal government retains the right, authority, and jurisdiction to regulate commerce, navigation, power generation from the water, national defense, and international affairs throughout state waters.<sup>58</sup>

Although one of the purposes of the SLA was to relieve both state and federal governments of the extensive litigation initiated by *United States v. California*, aspects of the boundary provisions of the SLA created additional legal problems. For example, the SLA left it to the courts to determine whether a state could establish a historic claim beyond 3 miles. Only Texas and Florida have been able to establish such claims. In 1960, the Supreme Court recognized the 3 marine league (equivalent to 9 miles) boundaries in the Gulf of Mexico of both Florida, based on congressional approval of its 1868 constitution,<sup>59</sup> and Texas, based on its historic claim when an independent republic before joining the United States.<sup>60</sup> In 1969, the United States

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<sup>52</sup> *Id.* at 34.

<sup>53</sup> *Id.* at 38-39.

<sup>54</sup> *United States v. Texas*, 339 U.S. 707 (1950).

<sup>55</sup> The Submerged Lands Act of 1953 is Pub. L. 83-31, 67 Stat. 29, May 22, 1953 (codified at 43 U.S.C. §§ 1301 *et seq.*). Sometimes also cited as the Act of May 22, 1953, ch. 65, title I.

<sup>56</sup> See 43 U.S.C. §§ 1311 and 1314(a).

<sup>57</sup> As discussed above in The Public Trust Doctrine section of this chapter, states have similar authorities on the land side of the baseline, usually up to the mean high tide line, an area often referred to as *state tidelands*.

<sup>58</sup> See 43 U.S.C. §§ 1301(e), 1311(d), and 1314(a).

<sup>59</sup> *United States v. Florida*, 363 U.S. 121 (1960).

<sup>60</sup> *United States v. Louisiana*, 363 U.S. 1 (1960). See also National Oceanic and Atmospheric Administration, Coastal Services Center. Federal Geographic Data Committee Marine Boundary Working Group: *U.S. Marine Cadastre — Seabed and Subsoil Boundaries*. December 31, 2002; available at [http://www.csc.noaa.gov/mbwg/htm/cad\\_sla.htm](http://www.csc.noaa.gov/mbwg/htm/cad_sla.htm) (accessed June 1, 2004).

brought an action against the thirteen states bordering the Atlantic Ocean, in which the Supreme Court upheld the reasoning in *California* and precluded state claims beyond 3 miles.<sup>61</sup>

Some U.S. territories and possessions also have the equivalent of state waters and submerged lands. Congress granted Puerto Rico a 9 mile jurisdictional boundary by statute in 1917.<sup>62</sup> In 1974, Congress granted the U.S. Virgin Islands, Guam, and American Samoa jurisdiction out to 3 miles by statute.<sup>63</sup>

The federal government’s management regime for outer Continental Shelf mineral resources, located in a broad expanse of ocean beyond U.S. state seaward boundaries, was enacted in the Outer Continental Shelf Lands Act (OCSLA)<sup>64</sup> a few months after the enactment of the SLA. The OCSLA is discussed in Chapter 5, *Fuels, Minerals, and Energy Production from the Ocean*.

## IMPOSING ENVIRONMENTAL RESPONSIBILITIES ON FEDERAL AGENCIES: THE NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA)<sup>65</sup> has been called many things through its three decades of existence, including the Magna Carta or centerpiece of environmental law, and the “most important [of our] environmental legislation.”<sup>66</sup> Signed into law in 1970 with the inspiring goal to “create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans,”<sup>67</sup> NEPA “sets forth a ringing and vague statement of purposes.”<sup>68</sup> This vagueness grew into a powerful tool for challenging federal agency actions that ignored potential environmental impacts. Federal agencies’ obligation to comply with NEPA is a common issue in federal environmental and natural resources law, including ocean and coastal law. This chapter addresses NEPA’s requirements in general, and several subsequent chapters refer to particular cases in which an agency’s compliance with NEPA has been at issue in carrying out ocean and coastal statutes.

Aside from its statements of policy objectives, NEPA’s “action-forcing” mechanism is in Section 102, which requires all federal agencies to include a detailed statement of the environmental impact of all “major federal actions significantly affecting the quality of the human environment.”<sup>69</sup> A “major” federal action is one that requires substantial planning, time, resources, or expenditure that a federal agency proposes or permits. Through conducting Environmental Assessment (EA) and Environmental Impact Statement (EIS) reviews,

<sup>61</sup> *United States v. Maine*, 420 U.S. 515 (1975).

<sup>62</sup> 48 U.S.C. § 749.

<sup>63</sup> 48 U.S.C. § 1705.

<sup>64</sup> Pub. L. 83-212, 67 Stat. 462, August 7, 1953 (codified at 43 U.S.C. §§ 1331 *et seq.*).

<sup>65</sup> National Environmental Policy Act of 1969, Pub. L. 91-190, 83 Stat. 852, January 1, 1970 (codified at 42 U.S.C. §§ 4321 *et seq.*).

<sup>66</sup> Arthur W. Murphy, *The National Environmental Policy Act and the Licensing Process: Environmentalist Magna Carta or Agency Coup de Grace?*, 72 Colum. L. Rev. 963, 965 (1972). For a thorough review of NEPA, see William H. Rodgers, Jr., *Environmental Law*, Chapter 9 (1994); James W. Spensley, *National Environmental Policy Act*, in *Environmental Law Handbook* 321 (J. Gordon Arbuckle et al. Eds., 12<sup>th</sup> ed. 1993); Michael C. Blumm, *A Primer on Environmental Law and Some Directions for the Future*, 11 VA. Envtl. L.J. 381, 382 (1992).

<sup>67</sup> 42 U.S.C. § 4331(a).

<sup>68</sup> Rodgers at 801.

<sup>69</sup> 42 U.S.C. § 4332(2)(C).

federal agencies are required to consider environmental impacts before action is taken.<sup>70</sup> Federal agencies are also required to consider the direct, indirect, and cumulative impacts of regulated federal activities.<sup>71</sup>

In addition, NEPA mandates coordination and collaboration among federal agencies. Specifically, “[p]rior to making any detailed statement, the responsible federal official shall consult with and obtain the comments of any federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved.”<sup>72</sup> Many federal agencies, including those with substantial ocean and coastal programmatic responsibilities, such as NOAA, EPA, and the U.S. Department of the Interior’s Fish and Wildlife Service (USFWS)—and state agencies, nongovernmental organizations, and members of the public—frequently comment on NEPA documents. The Council on Environmental Quality (CEQ) in the Executive Office of the President, established under NEPA, plays the role of interagency dispute resolution mediator when necessary.

This is where NEPA’s mandates end. The Supreme Court has declared that NEPA’s reach is procedural rather than substantive: NEPA cannot “mandate particular results but only prescribe the necessary process.”<sup>73</sup> Thus, once a federal agency has completed the detailed statement that NEPA requires, the agency may continue its proposed activity regardless of the actual impact upon the receiving environment, although other legal authorities still apply and might preclude or limit the federal agency’s action. For example, the information provided in the NEPA process may indicate that a proposed activity is not consistent with applicable enforceable policies of a state’s federally approved coastal zone management program.

A federal district court has found that NEPA applies to federal actions that may affect the environment in the U.S. EEZ.<sup>74</sup> This case involved the U.S. Navy’s Littoral Warfare Advanced Development (LWAD) program, which develops and tests active sonar technology for detecting submarines. The Navy argued that its activities in the EEZ are not subject to environmental review under NEPA. The court held that while the United States does not exercise the same jurisdiction in the EEZ as in the territorial sea, the United States does exercise certain sovereign rights within the EEZ “for the purposes of exploring, exploiting, conserving and managing natural resources.”<sup>75</sup> “Because the United States exercises substantial legislative control of the EEZ

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<sup>70</sup> The Environmental Impact Statement is a detailed statement prepared by the responsible official within the relevant federal agency that addresses:

- (i) the environmental impact of the proposed action;
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented;
- (iii) alternatives to the proposed action;
- (iv) the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity; and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.” 42 U.S.C. § 4332(2)(C).

Where there is a question as to whether a particular government action requires an environmental analysis, regulations implementing NEPA promulgated by the Council on Environmental Quality (CEQ) require the federal agency seeking to undertake the action to prepare an Environmental Assessment (EA). An EA is a document that “[b]riefly provide[s] sufficient evidence for determining whether to prepare an . . . [environmental analysis] or a finding of no significant impact.” After preparation of the EA, if the agency makes a finding of no significant impact (FONSI), then preparation of an EIS is not necessary. CEQ’s NEPA regulations are at 40 C.F.R. Part 1500 *et seq.*

<sup>71</sup> See 40 C.F.R. §§ 1502.16, 1508.7, and 1508.8.

<sup>72</sup> 42 U.S.C. § 4332(2)(C).

<sup>73</sup> *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350 (1989); see also *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, 435 U.S. 519, 548 (1978); *Kleppe v. Sierra Club*, 427 U.S. 390 (1976). The Court stated that once an agency has made a decision subject to NEPA’s procedural requirements, “[t]he only role for a court is to ensure that the agency has taken a ‘hard look’ at the environmental consequences; it cannot ‘interject itself within the area of discretion of the executive as to the choice of the action to be taken.’” *Id.* at 410.

<sup>74</sup> *Natural Resources Defense Council v. United States Department of the Navy*, No. CV-01-07781; 2002 WL 32095131. Slip op. at 21. (C.D. Cal. Sept. 19, 2002). The Court’s decision was not appealed.

<sup>75</sup> *Id.* at 20, citing President Reagan’s Proclamation 5030 on the EEZ.

in the area of the environment stemming from its ‘sovereign rights’ for the purpose of conserving and managing natural resources, the Court finds that NEPA applies to federal actions which may affect the environment in the U.S. EEZ.”<sup>76</sup> The court noted that the kind of general planning in which the LWAD engages apart from planning associated with the organization of particular sea tests does not call for or create activities which impact the environment and is not an irreversible commitment of resources. In contrast, the individual sea tests conducted as part of the LWAD process are federal actions, which may affect the environment. Accordingly, the court held that the Navy’s “LWAD program, as distinct from its component parts, is not subject to NEPA review,”<sup>77</sup> while “[i]ndividual LWAD sea tests will still be subject to NEPA requirements.”<sup>78</sup>

This chapter describes the mosaic of international, national, and state marine boundaries and legal authorities that define the institutions which have the responsibility to manage ocean and coastal resources. The scope ranges from the Great Lakes, coastal watersheds and margins to the high seas and encompasses estuaries, beaches, the coastal zone, and offshore federal waters. The following chapters describe the origin and evolution of the basic laws, regulations, and procedures that are currently in place to govern the nation’s oceans and coasts.

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<sup>76</sup> *Id.* at 21.

<sup>77</sup> *Id.* at 27.

<sup>78</sup> *Id.* at 32.

## CHAPTER 2 COASTAL MANAGEMENT

### INTRODUCTION

Management of the nation's coastal areas is influenced by numerous laws and programs at the local, state, and federal levels of government. This chapter begins with a summary of a number of the federal laws that are relevant to coastal management. The primary focus, however, is an overview of the Coastal Zone Management Act. It should be noted that laws and programs discussed in the other chapters of this Appendix are also relevant to coastal management, including the Clean Water Act, Magnuson-Stevens Fishery Conservation and Management Act, Outer Continental Shelf Lands Act, Oil Pollution Act, Marine Mammal Protection Act, Endangered Species Act, and many others. In particular, readers are advised to consult Chapter 4, *Ocean and Coastal Pollution from Land-Based Sources*, for a discussion of water pollution prevention and habitat protection, and Chapter 5, *Fuels, Minerals, and Energy Production*, for a discussion of the Coastal Zone Management Act and its relation to oil and gas development on the outer Continental Shelf.

### GOVERNING STATUTES

#### Coastal Zone Management Act

In its 1969 report, the Commission on Marine Sciences, Engineering, and Resources (Stratton Commission), found that the value of the coast was threatened by increasing population and commercial, recreational, and residential development.<sup>1</sup> As a result of the Stratton Commission's findings, a number of other studies on estuaries, and a national debate about comprehensive land use planning, Congress enacted the Coastal Zone Management Act of 1972 (CZMA). The CZMA was designed "to preserve, protect, develop, and where possible, to restore or enhance, the resources of the nation's coastal zone for this and succeeding generations."<sup>2</sup> Enacted during the same period as other major federal environmental legislation, the CZMA differed substantially from legislation like the Clean Air Act or the Clean Water Act. The CZMA set the ground rules for a voluntary partnership between federal and coastal state governments, with a goal of balancing the conservation of the coastal environment with the responsible development of economic and cultural interests.

Administered by the National Oceanic and Atmospheric Administration (NOAA), the CZMA provides incentives for coastal states to voluntarily develop and conduct coastal management programs, financial and technical assistance, and what is referred to as "federal consistency" authority. This provision assures a state that, with certain exceptions, federal agency activities, and those that are sponsored or permitted by the

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<sup>1</sup> Commission on Marine Science, Engineering, and Resources. *Our Nation and the Sea: A Plan for National Action*. Washington, DC: U.S. Govt. Print. Office, 1969.

<sup>2</sup> 16 U.S.C. § 1452.

federal government, will be consistent with the enforceable policies of state-developed and federally approved coastal management programs.

Under the CZMA, participating states are given the flexibility to design programs that address their individual priorities; however, the Act does direct states to develop policies in several areas, including: protecting natural and cultural resources; protecting people and property from natural hazards; giving development priority to coastal-dependent uses and revitalizing waterfronts; facilitating public access to ocean and coastal areas; and, improving coastal water quality.<sup>3</sup>

The CZMA also created the National Estuarine Research Reserve System.<sup>4</sup> The purpose of the program is to encourage states and territories to set aside representative estuaries for long-term research, education, and stewardship purposes. State governors nominate areas for inclusion in the program, and NOAA designates an estuarine area upon finding that it is a representative estuarine ecosystem suitable for long-term research and that state laws provide sufficient protection and an appropriate environment for research. Once an area is designated, federal financial assistance is available for property acquisition, management, research, and educational activities. NOAA is responsible for overseeing state management of the twenty-six estuarine research reserves (as of 2004) that have been designated in coastal states and territories.<sup>5</sup>

The CZMA has been amended a number of times. The Arab oil embargo in 1973 and energy crisis of the mid-1970s led to major amendments to the Act in 1976 to address energy facility siting and other coastal development issues. One of the primary provisions of the amendments was the establishment of the Coastal Energy Impact Program, providing coastal states with loans and direct grants to address the economic, coastal, and environmental impacts from offshore oil and gas activities. The amendments in 1976 also clarified the process for determining whether offshore energy activities in federal waters were consistent with state CZM programs (discussed more extensively below).

The Coastal Zone Management Improvement Act of 1980 reflected a continuing concern that coastal states incorporate national interests in coastal planning. One of the key premises of the modifications was that the CZMA program was ready to move from an exclusive focus on process to one that strengthened state efforts at implementation of their programs. New program goals and policies were introduced to enhance coastal management and a section with modest financial assistance was added to help states meet low cost construction, land acquisition, and shoreline stabilization efforts.<sup>6</sup> In 1985, amendments included new procedures for the review and modification of state coastal programs, a number of administrative and housekeeping changes, and a five year reauthorization of the various components of the program, some at reduced levels.<sup>7</sup>

The last major amendments to the CZMA were the Coastal Zone Act Reauthorization Amendments of 1990.<sup>8</sup> The amendments clarified the scope and application of the federal consistency provision, specifically reversing the effect of the U.S. Supreme Court decision in *Secretary of the Interior v. California*.<sup>9</sup> A new Coastal

<sup>3</sup> 16 U.S.C. § 1452.

<sup>4</sup> 16 U.S.C. § 1461.

<sup>5</sup> Additional information about the National Estuarine Research Reserve System *available at* <http://noaa.nerrs.gov> (accessed May 21 2004).

<sup>6</sup> Pub. L. 96-464.

<sup>7</sup> Pub. L. 99-272.

<sup>8</sup> Pub. L. 101-508, tit. VI, subtit. C, 104 Stat. 1388.

<sup>9</sup> 464 U.S. 312 (1984). For a discussion of the federal consistency provision and *Secretary of the Interior v. California*, see the CZMA Federal Consistency Requirement section in this chapter.

Zone Enhancement Grant Program was initiated to encourage states to improve their programs in one or more of several areas of coastal concern, including coastal wetlands protection, management of development in high hazard areas, public access, control of marine debris, studying cumulative and secondary impact of coastal development, special area management planning, ocean resources planning, and siting of coastal energy and government facilities.<sup>10</sup> The 1990 amendments also established a requirement that state coastal management programs incorporate enforceable policies to enable them to implement a new Coastal Nonpoint Pollution Control Program.<sup>11</sup> For discussion of the Coastal Nonpoint Pollution Control Program, see Chapter 4, *Ocean and Coastal Pollution from Land-Based Sources*. Amendments to the CZMA enacted in 1996 did not make major substantive changes.

## National Flood Insurance Act

The establishment of the National Flood Insurance Program (NFIP) by the National Flood Insurance Act of 1968<sup>12</sup> led to widespread adoption of minimum federal building standards for flood-prone areas, including coastal regions. Administered by the Federal Emergency Management Agency (FEMA), the program is the federal government's primary tool for managing natural hazards through incentives and regulation. Under the program, FEMA maps the flood-prone areas throughout the nation, and provides flood insurance (or backs the private providers of flood insurance) to owners of commercial and residential structures if their communities have adopted standards for the construction of buildings in those areas. The program is intended to reduce federal flood disaster relief by supplying guaranteed insurance coverage to communities that adopt building standards and land use controls which minimize flood damages and property losses. State and local regulation may be stricter than federally imposed safety and building standards, and governments are encouraged to adopt land use regulations that guide development away from flood hazard areas.<sup>13</sup>

In addition to guaranteeing flood insurance for communities that participate in the program, the NFIP also imposes disincentives for nonparticipation. If a community with areas susceptible to flooding does not join the program, federal agencies, like the Small Business Administration and the Department of Veterans Affairs, are prohibited from providing federal assistance for development in flood-prone areas.<sup>14</sup>

## Coastal Barrier Resources Act

The Coastal Barrier Resources Act<sup>15</sup> was passed in 1982 and established the John H. Chafee Coastal Barrier Resources System (CBRS) to minimize the loss of human life, wasteful federal expenditures, and damage to fish, wildlife, and other natural resources associated with coastal barriers, such as barrier islands. The Act defines coastal barriers as "bay barriers, barrier islands, and other geological features composed of sediment that protect landward aquatic habitats from direct wind and waves."<sup>16</sup> As part of the program, which is administered by the U.S. Fish and Wildlife Service, the federal government discourages development on designated coastal barriers by restricting certain federal financial assistance, including flood insurance coverage, loans, funding for U.S. Army Corps of Engineers development projects, and construction of sewer systems, water supply systems, and transportation infrastructure.

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<sup>10</sup> 16 U.S.C. § 1456b(a).

<sup>11</sup> *Id.* § 1455b.

<sup>12</sup> 42 U.S.C. §§ 4001-4128.

<sup>13</sup> See e.g., Fla. Stat. § 161.55(1)(d) (requiring major coastal structures to withstand wind velocities of 110 miles per hour and structures in the Florida Keys to withstand winds of 115 miles per hour).

<sup>14</sup> See 42 U.S.C. § 4106(a).

<sup>15</sup> 16 U.S.C. §§ 3501-3510.

<sup>16</sup> 16 U.S.C. §§ 3501-3510.

The CBRS is specifically designated on maps maintained by the Secretary of the Interior. The Secretary is directed to review and update the maps every five years to reflect the changes in size or location of any of the barriers. Nearly 1.3 million acres of land, wetlands, and water along the East Coast, Great Lakes, and Gulf of Mexico are part of the “full system unit,” with “otherwise protected areas” covering an additional 1.8 million acres of coastal barriers already held for conservation or recreational purposes. The program does not ban development in these areas; rather, it creates disincentives by denying federal subsidies and imposing the full costs of development on the developer or property owner.

## SELECTED ISSUES

### State Coastal Management Program Development, Approval, and Review

Under the CZMA, states are charged with directly implementing the national coastal management program through coastal programs developed at the state level. The premise behind choosing states as the principal implementing bodies was that state and local governments can most effectively manage human activities because historically they have had primary jurisdiction over land use of nonfederal property. Although each state coastal program is different, collectively the programs address the broad spectrum of coastal issues identified by Congress. In reality, the national impact of the coastal management program is the result of many thousands of individual state and local decisions that impact the way coastal areas are developed.

The CZMA requires that environmental protection, access to natural and cultural resources, and economic development be essential parts of each program. In some states, one state agency has the responsibility to address all of these activities, while others are based on networking among state agencies and local governments. States use a variety of different tools to manage human activities, including regulation, zoning, financial incentives, outreach, and education. States develop plans that reflect their priorities regarding resources to be protected or enhanced and the methods for doing so, and then submit these plans to the Secretary of Commerce for approval.

The methods for creating the internal partnerships needed to develop and implement state coastal management programs vary by state, yet generally involve the governors, several state agencies, local governments, and public participation in the form of citizen advisory groups within each coastal area. Different state constitutions and statutory frameworks assign land and water use management responsibilities to state agencies and local governments in diverse ways. The geographic definition of the coastal zone also varies, ranging from the entire state as in Florida, Delaware, Rhode Island, and Hawaii, or as in California, to narrow areas that range from a few hundred feet in some places to several miles in others.

Currently, 99 percent of the nation’s marine and Great Lakes coasts are governed by state coastal management programs; thirty-four out of thirty-five coastal and Great Lakes states (as well as the territories of Puerto Rico, the Northern Marianas, the U.S. Virgin Islands, Guam, and American Samoa) have federally approved coastal management programs. Only Illinois is not participating in the federal program.<sup>17</sup>

Early in the CZMA program, the California Coastal Management Program was challenged that it lacked the specificity necessary to meet statutory requirements and that the program did not adequately consider the national interest in the siting of energy facilities in the coastal zone. The federal appeals court determined that Congress did not intend for the states to include detailed criteria of such specificity that a private user of the

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<sup>17</sup> Coastal Zone Management: Celebrating Thirty Years of the Coastal Zone Management Act *available at* <http://coastalmanagement.noaa.gov/czm/> (accessed May 21, 2004).

coastal zone would have a high level of predictability that its activities would be consistent with the state's program.<sup>18</sup> Instead, the program is intended to create a framework within which each state can make rational decisions balancing competing interests.

The CZMA offers a state the flexibility to adopt the management approach for the coastal zone most compatible with that state's general process of land use regulation and management. For example, if the focal point of the state's approach is local decision making, the coastal management program can use that method. States relying more on centralized controls may use that process, either through direct state control or through state review of local and regional decisions.<sup>19</sup>

The CZMA also exhibits flexibility in terms of geographic emphasis and intensity of the program.<sup>20</sup> States may focus regulatory efforts on particular areas that will experience more development or require a greater degree of protection. Finally, the CZMA allows states to recognize that actions outside the coastal zone boundary may affect coastal resources and require attention in their program.<sup>21</sup>

Federally approved state coastal management programs are subject to continuing review by NOAA to determine the extent to which the state is implementing and enforcing the program. Often, NOAA will include "necessary actions" in its evaluation of state programs that the state addresses in subsequent grants. Also, program approval may be withdrawn or financial assistance may be suspended under certain circumstances, a process that was clarified by the 1990 amendments to the CZMA. If a state fails to adhere to its approved program or the terms of a grant, financial assistance may not be suspended until NOAA provides the state's governor with specifications and a schedule for compliance. Program approval may not be withdrawn unless the state fails to take the actions required for compliance.<sup>22</sup>

### **CZMA Federal Consistency Requirement**

The CZMA's federal consistency provision is found at Section 307 of the Act,<sup>23</sup> and has been a major incentive for states to join the national coastal management program, providing them an important tool for facilitating cooperation and coordination with federal agencies. Federal consistency reviews are the responsibility of the lead state agency that implements or coordinates the state's federally approved coastal management program.<sup>24</sup>

Federal consistency provides that federal actions that have reasonably foreseeable effects on land use, water use, or natural resources in the coastal zone must be consistent with the enforceable policies of a state's federally approved coastal management program. An enforceable policy is legally binding under state law (e.g., through constitutional provisions, laws, regulations, land use plans, ordinances, or judicial or administrative decisions), and by which a state exerts control over private and public coastal uses and resources, and which are incorporated in the state's federally approved program. Federal actions include

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<sup>18</sup> American Petroleum Institute v. Knecht, 456 F. Supp. 889 (C.D.Cal.1978), *affirmed* 609 F.2d 1306 (9th Cir. 1979).

<sup>19</sup> 16 U.S.C. § 1455(d)(ii); 15 C.F.R. § 923.42-923.44.

<sup>20</sup> J.B. Ruhl, *Biodiversity Conservation and the Ever-expanding Web of Federal Laws Regulating Nonfederal Lands: Time for Something Completely Different?* 66 U. COLO. L. REV. 555, 619 (1995).

<sup>21</sup> This is in contrast to the Clean Water Act Section 404, for example, that would not address an activity potentially harmful to a wetlands area if the activity takes place outside the wetlands and involves no fill into the wetlands. *Id.* at 620.

<sup>22</sup> See 16 U.S.C. § 1458 (c)-(d).

<sup>23</sup> 16 U.S.C. § 1456.

<sup>24</sup> This section taken in part from NOAA, *Federal Consistency Requirements*, July 31, 2003, available at <http://coastalmanagement.noaa.gov/pdf/fedconreqmts.pdf>. (accessed May 21, 2004).

federal agency activities such as development projects carried out by a federal agency, federal license or permit activities, and federal financial assistance to state and local governments.

At the heart of the federal consistency provision is the “effects test.” The 1990 amendments to the CZMA:

Establish...a generally applicable rule of law that any federal agency activity (regardless of its location) is subject to [the consistency requirement] if it will affect any natural resources, land uses, or water uses in the coastal zone. No federal agency activities are categorically exempt from this requirement.<sup>25</sup>

The 1990 amendments added the new “effects” language to replace previous statutory language that referred to activities “directly affecting the coastal zone.” The amendments also reflect congressional intent to supercede *Secretary of the Interior v. California*,<sup>26</sup> and further to:

eliminate “categorical exemptions” from consistency, and instead to establish a uniform threshold standard requiring federal agencies to make a case-by-case factual determination of reasonably foreseeable effects on the coastal zone. The amendments to section 307(c)(1) were intended to leave no doubt that all federal agency activities meeting the “effects” standard are subject to the CZMA consistency requirement; that there are no exceptions or exclusions from the requirement as a matter of law; and that the new “uniform threshold standard” requires a factual determination, based on the effects of such activities on the coastal zone, to be applied on a case-by-case basis.<sup>27</sup>

### ***Section 307(c)(1) Consistency: Federal Activities***

The CZMA Section 307(c)(1) states:

Each federal agency activity within or outside the coastal zone that affects any land or water use or natural resource of the coastal zone shall be carried out in a manner which is consistent to the maximum extent practicable with the enforceable policies of approved state management programs. A federal agency activity shall be subject to this paragraph unless it is subject to paragraph (2) [federal development projects] or (3) [federally licensed or permitted activities and OCS exploration and development plans].<sup>28</sup>

The CZMA requires federal agency activities to be consistent to the maximum extent practicable with the enforceable policies of a state’s federally approved program. NOAA’s regulations interpret that to mean fully

<sup>25</sup> Conference Report to 1990 CZMA Amendments, H.R. Conf. Rep. No. 964, 101st Cong., 2d Sess., 970-972 (1990).

<sup>26</sup> 464 U.S. 312 (1984). In that case, the U.S. Supreme Court held that OCS lease sales were not subject to the federal consistency provision of the CZMA. The 1990 amendments to the CZMA superceded that decision, clarifying in the Conference Report that such sales are subject to a state consistency review, and making a number of other changes to the interpretation of the federal consistency provision. As a result, NOAA issued a final rule incorporating those changes in 2000. See 65 Fed. Reg. 77,123-77,175 (Dec. 8, 2000).

<sup>27</sup> Conference Report to 1990 Amendments at 970-71. The Conference Report provides further clarification as follows, “[t]he question of whether a specific federal agency activity may affect any natural resource, land use, or water use in the coastal zone is determined by the federal agency. The conferees intend this determination to include effects in the coastal zone which the federal agency may reasonably anticipate as a result of its action, including cumulative and secondary effects. Therefore, the term “affecting” is to be construed broadly, including direct effects which are caused by the activity and occur at the same time and place, and indirect effects which may be caused by the activity and are later in time or farther removed in distance, but are still reasonably foreseeable.”

<sup>28</sup> 16 U.S.C. § 1456(c)(1).

consistent unless federal legal requirements prohibit full consistency. This ensures that federal agencies are able to meet their legally authorized mandates, even though the activity may not be fully consistent with a state's enforceable policy. If a federal agency has the discretion to meet a state's enforceable policy, then it needs to be consistent with that policy. However, federal law may limit a federal agency's discretion and an agency may also deviate from full consistency due to "exigent circumstances" such as an emergency or unexpected situation requiring the agency to take quick or immediate action. Section 307(c)(1) also provides a mechanism to exempt certain aspects of a federal agency's activities from compliance if "the President determines that the activity is in the paramount interest of the United States."<sup>29</sup> To date, this mechanism has not been used.

Consistent to the maximum extent practicable and exigent circumstances refer to consistency with a state program's substantive requirements as well as the procedural requirements of NOAA's regulations. There may be times that a federal legal requirement or an emergency situation requires a federal agency to act sooner than the end of the 90-day period for a state to issue a consistency decision. On the other hand, a federal agency cannot use a lack of funds as a basis for not being consistent to the maximum extent practicable. Thus, federal agencies are encouraged to consult early with states to ensure that the federal agency has budgeted for meeting enforceable policies in the state's program.

### ***Section 307(c)(3)(A) Consistency: Federally Licensed or Permit Activities***

The CZMA Section 307(c)(3)(A) provides in part:

any applicant for a required federal license or permit to conduct an activity, in or outside of the coastal zone, affecting any land or water use or natural resource of the coastal zone of that state shall provide in the application to the licensing or permitting agency a certification that the proposed activity complies with the enforceable policies of the state's approved program and that such activity will be conducted in a manner consistent with the program.<sup>30</sup>

A private individual or business, state or local government agency, or any other type of nonfederal entity, applying to the federal government for a required permit or license or any other type of an approval or authorization, needs to follow the requirements of CZMA Section 307(c)(3)(A).<sup>31</sup> All federal license or permit activities occurring in the coastal zone are deemed to affect coastal uses or resources, if the state coastal management program has listed the particular federal license, permit, or approval in its federally approved program document. For a listed activity occurring in the coastal zone, the applicant shall submit a consistency certification to the approving federal agency and the state. In addition to the certification, the applicant must provide the state with the necessary data and information required by NOAA's regulations to allow the state to assess the project's effects.<sup>32</sup>

Within six months after receiving a copy of the consistency certification, the state is to notify the federal agency concerned that it concurs with or objects to such certification. If the state fails to submit a notification within the six month period, its concurrence is conclusively presumed. The federal agency may not grant the requested license or permit unless the state concurs or is conclusively presumed to concur with the

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<sup>29</sup> 16 U.S.C. § 1456 (c)(1)(B).

<sup>30</sup> 16 U.S.C. § 1456(c)(3)(A).

<sup>31</sup> 16 U.S.C. § 1456(c)(3)(A). See also 15 C.F.R. pt. 930, subparts A, B and D, as revised by 65 Fed. Reg. 77,123-77,175 (Dec. 8, 2000).

<sup>32</sup> 15 CFR § 930.58.

certification.<sup>33</sup> An aggrieved applicant may appeal the non-concurrence to the Secretary of Commerce and request an override of the state's decision or the Secretary may initiate his or her own review.<sup>34</sup>

If a state wants to review an unlisted activity, it must seek NOAA approval on a case-by-case basis.<sup>35</sup> For listed activities outside the coastal zone, the applicant must submit a consistency certification to the state and the federal agency if the activity falls within the geographic location described in the state program document for listed activities outside the coastal zone. For such activities where the state has not described the geographic location, the state must follow the unlisted activity procedure described above, if it wants to review the activity.

***Section 307(c)(3)(B) Consistency: Outer Continental Shelf Exploration and Development Activities***

The CZMA Section 307(c)(3)(B) provides in part:

any person who submits to the Secretary of the Interior any plan for the exploration or development of, or production from, any area which has been leased under the Outer Continental Shelf Lands Act. . . shall, with respect to any exploration, development, or production described in such plan and affecting any land or water use or natural resource of the coastal zone of such state, attach to such plan a certification that each activity . . . complies with the enforceable policies of such state's approved management program and will be carried out in a manner consistent with such program.<sup>36</sup>

A private person or business applying to the U.S. Department of the Interior's Minerals Management Service (MMS) for outer Continental Shelf (OCS) exploration, development, and production activities must follow the requirements of CZMA Section 307(c)(3)(B). Any person who submits to MMS an OCS plan for the exploration, development, or production of any area leased under the Outer Continental Shelf Lands Act<sup>37</sup> (OCSLA), must certify to the relevant state coastal management program that any activities described in detail in such OCS plans will be conducted in a manner consistent with the enforceable policies of the state's program. The process and requirements for this section generally mirror those of federal license or permit activities discussed above. In addition, the Section 307(c)(3)(B) consistency obligation is specifically reinforced and repeated in the OCSLA regarding Department of the Interior approval of lessee exploration, and development and production plans.<sup>38</sup>

With respect to an OCS exploration plan, the Secretary of the Interior, through MMS, shall not approve a license or permit for any activity described in detail in such plan that affects the resources of a state's coastal zone unless the state concurs with, or is conclusively presumed to concur with, the consistency certification attached to the plan, or the Secretary of Commerce overrides the state based on the criteria established under the CZMA.<sup>39</sup> Because of certain deadlines in the OCSLA, it is common practice for MMS to approve an exploration plan subject to the consistency review by the state. For a development and production plan, however, MMS is directed to disapprove such plan if any of the activities described in it that affect the coastal

<sup>33</sup> 16 U.S.C. 1456(c)(3)(A).

<sup>34</sup> 16 U.S.C. § 1456(c)(3)(A)-(B) and (d).

<sup>35</sup> See 15 C.F.R. § 930.54.

<sup>36</sup> 16 U.S.C. § 1456(c)(3)(B).

<sup>37</sup> Pub. L. 83-212, 67 Stat. 462, August 7, 1953 (codified at 43 U.S.C. §§ 1333 *et seq.*).

<sup>38</sup> 43 U.S.C. § 1340(c)(2) and § 1351(h)(1).

<sup>39</sup> 43 U.S.C. 1340(c)(2).

zone and require a federal license or permit do not receive concurrence by the state with respect to the consistency certification attached to the plan. The conclusive presumption and Secretarial override exceptions that pertain to the exploration plan also apply to this development and production plan process.<sup>40</sup>

### ***Federal Assistance to State and Local Governments***

The CZMA Section 307(d) provides in part:

State and local governments submitting applications for Federal assistance under other Federal programs, in or outside of the coastal zone, affecting any land or water use of natural resource of the coastal zone shall indicate the views of the appropriate state or local agency as to the relationship of such activities to the approved management program for the coastal zone....Federal agencies shall not approve proposed projects that are inconsistent with the enforceable policies of a coastal state's management program, except upon a finding by the Secretary that such project is consistent with the purposes of this chapter or necessary in the interest of national security.<sup>41</sup>

States list in their coastal management programs the federal financial assistance activities that are subject to review, and the state may also notify an applicant agency and the appropriate federal agency that it will review an unlisted activity. NOAA approval is not required for the review of unlisted federal financial assistance activities. NOAA regulations allow state programs to develop flexible procedures for reviewing and concurring with federal assistance activities. A federal agency may not issue funding until the relevant state management program has concurred. If the state coastal agency does not concur, the applicant state agency or local government may appeal the state objection to the Secretary of Commerce.

### ***Other Federal Actions***

A federal action that will have reasonably foreseeable coastal effects, but that does not fall under requirements for a federal license or permit, OCS plans, or financial assistance to a state agency or local government, is a federal agency activity that must follow the requirements of the CZMA and its implementing regulations. For example, if a federal agency is providing funds to a private citizen for disaster relief from a hurricane, and the funds will be used for an activity with coastal effects, then the federal agency must follow the requirements for federal agency activities and provide the state coastal management program with a consistency determination.<sup>42</sup>

### ***Secretarial Appeals and Mediation***

The CZMA provides two procedures for addressing disagreements concerning state consistency objections: a mediation process for disagreements between federal agencies and coastal states;<sup>43</sup> and a secretarial appeal process for federal licenses or permits, OCS exploration and development plans, or federal assistance to state agencies and local governments that are found by a state to be inconsistent with the state program.<sup>44</sup>

In the event of a disagreement between a state management program and a federal agency, either party may request that the Secretary of Commerce mediate the dispute. All parties must agree to participate, agreement

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<sup>40</sup> 43 U.S.C. 1351(h)(1).

<sup>41</sup> 16 U.S.C. § 1456(d); 15 CFR pt 930, subparts A, B, and F (as revised by 65 Fed. Reg. 77,123-77,175 (Dec. 8, 2000)).

<sup>42</sup> NOAA, *Federal Consistency Requirements*, July 31, 2003 at 9.

<sup>43</sup> 16 U.S.C. § 1456(h).

<sup>44</sup> 16 U.S.C. § 1456(c)(3)(A)-(B) and (d).

to participate is nonbinding, and either party may withdraw from the mediation at any time. Secretarial mediation is a formal process that includes a public hearing, submission of written briefs, and meetings between the parties. A hearing officer, appointed by the Secretary, will propose a solution. Secretarial mediation is only for states and federal agencies and exhaustion of the mediation process is not a prerequisite to judicial review. The availability of secretarial mediation or litigation does not preclude the parties from informally mediating the dispute through NOAA's Office of Ocean and Coastal Resource Management, or another facilitator.

In the case of a federal license or permit, an OCS exploration or development plan, or an application for federal financial assistance, the applicant may request that the Secretary of Commerce override the state's consistency objection if the activity is consistent with the objectives of the CZMA (Ground I), or is otherwise necessary in the interest of national security (Ground II).<sup>45</sup> If the requirements of either Ground I or Ground II are met, the Secretary overrides the state's objection.<sup>46</sup> The Secretary's inquiry into whether the grounds for an override have been met is based upon an administrative record developed for the appeal. While the Secretary will review the state objection for CZMA compliance, e.g., whether the objection is based on enforceable policies, the Secretary does not review the objection for compliance with state laws and policies.

If the Secretary overrides the state's objection, the authorizing federal agency may permit or fund the activity. A secretarial override does not obviate the need for an applicant to obtain any state permits or authorizations. The secretarial appeal process is a final federal agency action under the Administrative Procedure Act and is a necessary administrative action prior to litigation.<sup>47</sup>

Related to the appeal process is the question of who has authority to appeal or even enforce consistency decisions. Courts have found that the CZMA does not create a right for private citizens or local governments to sue to enjoin construction of developments that are inconsistent with a federally approved state management program.<sup>48</sup>

### ***Interstate Consistency***

The federal consistency provisions can also lead to interstate conflicts when an applicant's activity in one state, which requires a federal permit or approval, is not consistent with the coastal program policies of another state. The CZMA does not specifically address whether the consistency process applies in such situations, but courts have reviewed the possibility. For example, in 1994, the state of North Carolina objected to water being drawn from Lake Gaston, on the boundary between it and Virginia, to provide water to Virginia Beach. On the appeal of North Carolina's finding that the activity was inconsistent with its coastal program, the Secretary of Commerce found that the plain language of the statute required that the federal government apply the consistency provision to such activities. The Secretary stated:

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<sup>45</sup> *Id.*

<sup>46</sup> The requirements for appeals are found at 15 C.F.R. pt. 930, subpart H, as revised by 65 Fed. Reg. 77,123-77,175 (Dec. 8, 2000).

<sup>47</sup> NOAA, *Federal Consistency Requirements*, July 31, 2003, at 9.

<sup>48</sup> *City of Sausalito v. O'Neil*, No. C-01-01819 (U.S. Dist. Ct., N.D. Cal. July 3, 2002; *Lincoln City v. U.S.*, Civil No. 99-330-AS (D.C. Ore. April 17, 2001); See also *Town of North Hempstead v. Village of North Hills*, 482 F. Supp. 900 (E.D.N.Y. 1979) (finding the CZMA "is neither a jurisdictional grant, nor a basis for stating a claim upon which relief can be granted," the court dismissed a CZMA claim against a village by neighboring town). See also *Save Our Dunes v. Alabama Dep't of Env'tl. Management*, 834 F.2d 984 (11th Cir. 1987) (holding plaintiffs had no standing to appeal a coastal permit decision); *But see City and County of San Francisco v. United States*, 443 F. Supp. 1116 (N.D. Cal 1977), *affirmed*, 615 F.2d 498 (9th Cir. 1980).

While the CZMA does not give one state direct authority to control activities in another state, the CZMA does grant to states with federally approved coastal management programs the right to seek conditions on or prohibit the issuance of federal permits and licenses that would “affect” their state. Thus, Congress has, in effect, granted to states with a federally approved coastal management program, in exchange for their protecting the nation’s coasts, the right to ensure that federal permittees and licensees will not further degrade those coasts. The ability to prevent the granting of federal permits and licenses is a federal authority, which has been granted to coastal states, not a state authority which has been usurped from the states. However, as a safeguard to a state’s unrestrained use of this authority, an applicant can, as the City has, appeal for an override by the Secretary of Commerce.<sup>49</sup>

Ultimately, the Secretary of Commerce did override North Carolina’s objection, thereby allowing the City of Virginia Beach to obtain federal permits to build a pipeline for the withdrawal of water from Lake Gaston.<sup>50</sup>

Regulations adopted in 2000 endorse interstate use of the consistency process.<sup>51</sup> The regulations were revised to provide a process for a coastal state to review a federal action occurring in another state that will have coastal effects in the reviewing coastal state.<sup>52</sup>

## Regulation of Coastal Development

Coastal places—including beaches, dunes, and barrier islands—are sensitive natural areas, but are also among the most attractive for recreation and development. Development on beaches and dunes can cause serious erosion, resulting in the loss of recreation areas, habitat, and storm protection. Federal, state, and local governments have, perhaps inadvertently, encouraged growth in sensitive coastal areas by providing funding and assistance for activities such as construction of roads, bridges, and other infrastructure, flood insurance, and disaster relief.

Governments can employ several different methods for regulating development on beaches, dunes, and barrier islands. Withholding infrastructure funding and other types of governmental support for development on barrier islands is an indirect way of controlling growth that government subsidies often stimulate. Governments also regulate growth directly through land use planning and by restricting or prohibiting structures in sensitive or hazard-prone areas.

### *Infrastructure Funding*

Much of the burgeoning development in coastal areas could not happen without federal and state assistance and subsidies. As discussed earlier in this chapter, through the passage of the Coastal Barrier Resources Act (CBRA)<sup>53</sup> and establishment of the John H. Chafee Coastal Barrier Resources System (CBRS), Congress expressed its intent to minimize the loss of human life, wasteful federal expenditures, and damage to fish, wildlife, and other natural resources associated with coastal barriers, such as barrier islands. Under the Act, the federal government discourages development on designated coastal barriers by restricting certain federal financial assistance, covering a broad range of flood insurance and public works benefits, including U.S. Army

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<sup>49</sup> See *City of Virginia Beach v. Brown*, 858 F. Supp. 585 (E.D. Va. 1994).

<sup>50</sup> In the Consistency Appeal of the Virginia Electric and Power Company from an Objection by the North Carolina Department of Environment, Health and Natural Resources, U.S. Department of Commerce, Office of the Secretary (1994).

<sup>51</sup> See 15 C.F.R. § 930.150.

<sup>52</sup> The interstate regulations are found at 15 C.F.R. pt. 930, subpart I, as revised by 65 Fed. Reg. 77,123-77,175 (Dec. 8, 2000).

<sup>53</sup> 16 U.S.C. §§ 3501-3510.

Corps of Engineers projects. The program is designed to impose the full costs of development on the developer or property owner.

While the CBRA has slowed growth and discouraged development on coastal barrier islands, the extent to which its approach is working is mixed. Some states have followed the lead of CBRA, limiting state expenditures on coastal barrier islands.<sup>54</sup> Other state and local governments, however, thwart the intent of CBRA by creating their own subsidies that encourage potentially unwise development that may otherwise not have been possible. In addition, CBRA's geographic range is limited, and some areas have been exempted from the system by acts of Congress.<sup>55</sup> Additionally, CBRA does not limit federal expenditures for coastal barriers that were developing or already developed at the time of the Act's passage,<sup>56</sup> prevent private developments within the CBRS, nor constrain the issuance of federal permits necessary for development. Also, as noted, it does not prevent states from providing financial assistance for projects that are within the CBRS. As a result, private developments, while slowed in many areas, have continued in others despite the withdrawal of federal support.<sup>57</sup>

### ***Coastal Construction Regulation***

Coastal states have attempted to protect coastlines from harmful development using a number of different regulatory tools. In many instances, they have developed permit systems to restrict development in fragile coastal regions, although laws vary considerably from state to state with respect to stringency, focus, and clarity. Some states set forth explicit directives, such as requiring a permit for certain designated activities, or for all activities within a designated coastal region. Others have detailed provisions to conserve specific resources or provide public beach access.

Many coastal states have implemented a retreat policy to some degree by creating zones at the ocean's edge where development is prohibited or strictly regulated. Referred to as setback restrictions, they generally prohibit or limit construction in areas within a prescribed distance from a baseline, usually the mean high water line, the vegetation line, or a line associated with the primary dune.

### **Coastal Management and the Takings Issue**

The "takings" clause of the Fifth Amendment to the U.S. Constitution prohibits the government from taking private property for public use without just compensation.<sup>58</sup> When there has been a permanent physical invasion of land by the government, it is generally incontrovertible that there has been a taking of private property that requires compensation.<sup>59</sup>

In addition to instances of physical invasion or government confiscation of property, a government regulation, such as a limitation on coastal development, may be recognized as a taking if it "goes too far."<sup>60</sup> The U.S. Supreme Court has recognized that "government hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law...when

<sup>54</sup> Fla. Stat. § 380.27(1).

<sup>55</sup> For example, see Pub. L. 106-116, Section 1 (1999); Pub. L. 106-128 (1998); Pub. L. 105-277 (1998).

<sup>56</sup> Rutherford H. Platt, *Disasters and Democracy: The Politics of Extreme Natural Events*, at 30 (Island Press 1999).

<sup>57</sup> Coastal Barrier Resources System Fact Sheet, available at <http://www.fws.gov/cep/cbrfact.html> (accessed June 4, 2004).

<sup>58</sup> U.S. CONST. amend. V.

<sup>59</sup> *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982).

<sup>60</sup> *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

it reaches a certain magnitude, in most if not all cases, there must be an exercise of eminent domain and compensation to sustain the act.”<sup>61</sup> More recent Supreme Court cases have placed emphasis on the economic impact of the regulation on the property owner and the degree to which the owner’s distinct investment-backed expectations have been frustrated.<sup>62</sup>

Determining the appropriate balance between regulation of coastal lands and private property interests makes takings issues a significant policy dilemma for coastal managers. Beachfront property owners often find there is little flexibility for locating structures on their land. Setback lines and other restrictive zones may encompass the entire lot. In addition, coastal construction regulations may disproportionately affect unimproved lots in developed coastal areas. All of these factors make regulation of coastal construction particularly susceptible to claims that a regulation equals a taking of beachfront property.

While no set formula exists for determining when a government regulation of private property amounts to a regulatory taking, the Supreme Court has held that when the landowner has lost all economically beneficial use of the property, a taking has occurred. In *Lucas v. South Carolina Coastal Council*,<sup>63</sup> developer David Lucas sued South Carolina for denying him the right to build residential homes on two waterfront lots on a South Carolina barrier island. The South Carolina Coastal Council denied his building permit under authority of the state’s Beachfront Management Act, which limited development behind the setback line, effectively prohibiting Lucas from building any structures on the property. The Court held that a taking had occurred because the state’s actions had deprived the land of all of its economic viability.

### Public Access to Beaches and Shores

Coastal population growth and increased tourism have accelerated public demand for beach access. At the same time, fewer shoreline areas are available as they are developed or set aside to protect sensitive habitats. Although the geographic definition is subject to some variability from state to state, generally the beach below the high tide line is held by the state in trust for the public, and is open to all for swimming, recreation, fishing, and other uses.

As a general rule, lateral or horizontal access along the wet sand area is a public right. While the area above the high tide line is subject to private ownership, the public may acquire the right to use perpendicular access routes to reach the wet sand area or to use the dry sand area. These rights arise under common law doctrines, including public easements by prescription, dedication, or customary use.

In addition, many states have created rights of public access through legislation or regulation. The CZMA encourages states to provide for public access for recreational purposes in their state coastal management programs.<sup>64</sup> Before the Secretary of Commerce can approve a state’s program, the program must define the term “beach” and have a planning process for access to public beaches and “other public coastal areas of environmental, recreational, historical, esthetic, ecological, or cultural value.”<sup>65</sup>

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<sup>61</sup> *Id.* at 413.

<sup>62</sup> *Penn Central Transportation Co. v. City of New York*, 438 U.S. 104 (1978).

<sup>63</sup> *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992). See also John Tibbetts, *Beachfront Battles over Seawalls*, 12 Coastal Heritage 3 (1997) (discussing the current issue between regulators in South Carolina and North Carolina prohibiting the building of seawalls and beachfront property owners claiming that seawalls are the only method of saving their property from falling into the sea due to extreme erosion).

<sup>64</sup> 16 U.S.C. § 1452 (2)(E).

<sup>65</sup> 16 U.S.C. § 1455(d)(2)(G).

Statutory and regulatory access requirements have, however, been subject to challenges that authorizing access across private property constitutes a “taking.” In *Nollan v. California Coastal Commission*,<sup>66</sup> owners of beachfront property objected to the California Coastal Commission’s conditioning a permit to demolish a small house on the property to replace it with a larger house on the owners granting an easement for lateral public access across the property above the high water mark. The Supreme Court held that the condition would constitute a taking because it was not sufficiently related to the legitimate purposes underlying the state’s authority to restrict development. In *Dolan v. City of Tigard*,<sup>67</sup> the Court applied the standard of a clear nexus between the government interest to be advanced and the regulation imposed. In that case, the Court held that if the state has both a legitimate interest, such as preventing erosion or protecting a floodplain, and the exactions bear a relationship to the impact of the proposed development, then the state’s requirements will not be considered a taking.<sup>68</sup>

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<sup>66</sup> *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987).

<sup>67</sup> *Dolan v. City of Tigard*, 512 U.S. 374 (1994). For a complete analysis of *Dolan*, see James H. Freis, Jr. & Stefan V. Reyniak, *Putting Takings Back into the Fifth Amendment: Land Use Planning After Dolan v. City of Tigard*, 21 Colum. J. Envtl. L. 103 (1996).

<sup>68</sup> *Id.* For a complete analysis of *Dolan*, see James H. Freis, Jr. & Stefan V. Reyniak, *Putting Takings Back into the Fifth Amendment: Land Use Planning After Dolan v. City of Tigard*, 21 Colum. J. Envtl. L. 103 (1996).

## CHAPTER 3 LIVING MARINE RESOURCES

### INTRODUCTION

Managing living marine resources ranges from assuring that the resource is maintained at sustainable levels for food and other uses, to protecting the health and biodiversity of an ecosystem, to preventing extinction of certain species. When attempting to manage individual species in the marine environment, these goals may collide: an exploitable species becomes endangered; an endangered species requires an exploitable species for food or its habitat to survive; harvesting one species has secondary impacts on a protected species or its habitat; or the harvesting of one species impacts the viability of another in the ecosystem. This chapter discusses the primary federal statutes enacted to manage living marine resources and addresses some of the difficult balancing goals inherent in this area of marine policy.

### GOVERNING STATUTES

The Magnuson-Stevens Fishery Conservation and Management Act requires management of fisheries to conserve the resource to produce a sustainable yield. The Endangered Species Act (ESA) attempts to protect threatened and endangered species and provide for their recovery. The Marine Mammal Protection Act (MMPA) protects marine mammals that are in danger of extinction or depletion, and also controls the taking of healthy populations to keep them at optimum sustainable levels. These statutes interact with other federal and state laws and international treaties as they are applied to living marine resources.

#### Magnuson-Stevens Fishery Conservation and Management Act

Prior to 1977, states were the primary managers of U.S. fisheries. Since colonial times, states regulated fisheries in inland waters, the 3 mile territorial sea, and beyond. The Submerged Lands Act of 1953<sup>1</sup> confirmed state jurisdiction by specifically granting the states “title to and ownership of . . . natural resources,” including the “right and power to manage, administer, lease, develop and use” marine resources within their boundaries, generally up to 3 miles offshore.<sup>2</sup> In *Skiriotes v. Florida*,<sup>3</sup> the U.S. Supreme Court also recognized the right of a state to regulate the activities of its citizens outside territorial waters, stating:

If the United States may control the conduct of its citizens upon the high seas, we see no reason why the state of Florida may not likewise govern the conduct of its citizens upon the high seas with respect to matters in which the state has a legitimate interest and where there is no conflict with acts of Congress. Save for the powers committed by the Constitution to

<sup>1</sup> Pub. L. 83-31, 67 Stat. 29 (1953), (codified at 43 U.S.C. §§ 1301-1315 (2002)).

<sup>2</sup> 43 U.S.C. § 1311(a). Florida’s and Texas’ state waters extend 9 miles in the Gulf of Mexico.

<sup>3</sup> 313 U.S. 69 (1941).

the Union, the state of Florida has retained the status of a sovereign. . . .  
. . . . When its action does not conflict with federal legislation, the sovereign authority of the state over the conduct of its citizens upon the high seas is analogous to the sovereign authority of the United States over its citizens in like circumstances.

In addition, citizens are subject to regulation by other states within the waters of such states. State regulation cannot, however, unreasonably discriminate against citizens of other states.<sup>4</sup> Less clear has been the extent to which a state can regulate citizens of other states beyond state waters. Indirect regulation of citizens of other states can occur through state use of landing and possession laws to enforce its regulations. In addition to regulating state citizens and other fishermen within state waters, these types of laws indirectly and incidentally affect fisheries and fishermen outside the state. Prior to 1977, the Supreme Court upheld these laws when necessary for effective enforcement of state fishery legislation, in spite of the impacts on interstate commerce.<sup>5</sup> Some states, notably Alaska, have asserted jurisdiction to directly regulate citizens of other states beyond state waters. Although the U.S. Supreme Court has not addressed this issue, the Alaska Supreme Court has held that legitimate state interests can justify direct state regulation of activities beyond state boundaries.<sup>6</sup>

Foreign fishing in seas off U.S. coasts increased dramatically in the decades after World War II. Developments in fishing technology and the growth of offshore foreign fishing fleets resulted in significantly increasing fish catches. Countries like the United States and Canada were seeing the overexploitation of resources off their shores by growing foreign fishing fleets and finding that their relatively small and unsophisticated fleets were at a severe competitive disadvantage. Multilateral treaties and regional fishery organizations attempted to address the depletion of fish stocks. However, neither international agreements nor the creation of a 12 mile fishing zone around the United States in 1964<sup>7</sup> were slowing the depletion of fish stocks. Freedom of the high seas was quickly leading to a classic tragedy of the commons.<sup>8</sup>

By the early 1970s, a number of countries were asserting extended fishery jurisdiction. As the United Nations convened the Third United Nations Conference on the Law of the Sea (UNCLOS III) in 1973, issues concerning coastal nation jurisdiction and the conservation of fish stocks were of central concern.

<sup>4</sup> See *Toomer v. Witsell*, 334 U.S. 385 (1948) (South Carolina law that charged a \$25 fee for a shrimping license for residents and a \$2500 license fee for nonresidents violated the Privileges and Immunities Clause of the Constitution); *Torao Takahashi v. Fish & Game Comm'n*, 334 U.S. 410 (1948) (California law prohibiting "persons ineligible for citizenship" from obtaining commercial fishing licenses violated the Equal Protection Clause when applied to discriminate against resident aliens); *Douglas v. Seacoast Prods., Inc.*, 431 U.S. 265 (1977) (discrimination against vessels not meeting a Virginia statute's citizenship requirements was preempted by federal licensing and enrollment statutes).

<sup>5</sup> *Bayside Fish Flour Company v. Gentry*, 297 U.S. 422 (1936) (upholding a landing law on sardines to prevent waste and conserve the fish within California waters even though the state law indirectly regulated beyond state waters and had some effect on interstate commerce).

<sup>6</sup> *State v. Bundrant*, 546 P.2d 530 (Alaska 1976) (state had legitimate interest in regulation of the offshore crab fishery and the regulation was necessary in light of the importance of conservation of the fishery).

<sup>7</sup> See e.g., *Bartlett Act*, Pub. L. No. 88-308, 78 Stat. 194 (1964) (previously codified at 16 U.S.C. §§ 1081-86) (3 mile territorial sea jurisdiction); Pub. L. No. 89-658, 80 Stat. 908 (1966) (previously codified at 16 U.S.C. §§ 1091-94) (3 to 12 mile conservation zone jurisdiction) (both repealed by the Magnuson Act, title IV, § 402(a), (b), 90 Stat. at 360).

<sup>8</sup> The tragedy of the commons is a parable used to explain the decline of resources held in common with other people, focusing on a pasture that herders use in common for grazing their cattle. Problems arise when the number of animals reaches the carrying capacity of the pasture but in order to gain extra profits, herders add additional animals to the common pasture. The continual addition of animals eventually leads to overgrazing of the pasture. The end result is the destruction of the pasture. Garrett Hardin, *The Tragedy of the Commons*, *SCI.*, Dec. 13, 1968, at 1243, 1245. See also Patrick A. Nickler, *A Tragedy of the Commons in Coastal Fisheries: Contending Prescriptions for Conservation, and the Case of the Atlantic Bluefin Tuna*, 26 *B.C. Envtl. Aff. L. Rev.* 549 (1999).

Early in UNCLOS III negotiations, substantial consensus was reached that coastal nations should have sovereign rights over fishery resources to 200 miles offshore, but it was clear that conclusion of the conference was nowhere in sight. The concern of Congress that negotiations were proceeding too slowly to prevent the decimation of offshore fisheries and the U.S. fishing industry led to passage in 1976 of the Fishery Conservation and Management Act, now named the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).<sup>9</sup> The Act extended exclusive U.S. fishery jurisdiction to 200 miles offshore, a distance that became coterminous with the outer limit of the U.S. exclusive economic zone (EEZ).<sup>10</sup> For purposes of applying the Act, the inner boundary of the EEZ is defined as a line coterminous with the seaward boundary of each of the coastal states,<sup>11</sup> which is 3 miles offshore except for the 9 mile boundaries of Texas, Florida in the Gulf of Mexico, and Puerto Rico.<sup>12</sup>

Within the EEZ, as defined in the Magnuson-Stevens Act, the United States claims exclusive authority to manage and regulate all fisheries. Management authority over anadromous species spawning inside the United States (e.g., salmon) is claimed throughout their migratory range in the high seas beyond the EEZ. The Act originally excluded tuna from the EEZ management regime; however, amendments in 1990 extended the Act's jurisdiction to include all fish in the EEZ, but committed the United States to cooperate with international organizations to manage highly migratory species throughout their range. The policies and purposes of the Act address the conservation, development, and management of fishery resources and also the development of domestic commercial and recreational fishing.

The Magnuson-Stevens Act established eight regional fishery management councils (RFMCs) to develop management plans<sup>13</sup> that are implemented and enforced through regulations established by the National Marine Fisheries Service (NMFS), an agency within the U.S. Department of Commerce. The RFMCs include a NMFS regional director and state fishery management officers, as well as non-governmental representatives from each affected state who are recommended by state governors and appointed by the Secretary of Commerce. The appointed council members, who constitute more than half of the membership, must be knowledgeable about fishery conservation and management, commercial or recreational fishing, or the fishery resources of a region.

The Act contains detailed descriptions of the required and optional elements of fishery management plans (FMPs) and includes ten national standards that provide overarching principles to guide the entire fishery management process. FMPs, their amendments, and proposed regulations, are approved by the Secretary of Commerce if they are consistent with the Magnuson-Stevens Act and other laws.

Although a major impetus for the Magnuson-Stevens Act was the eventual exclusion of foreign fishermen, the law allows foreign fishing in the U.S. EEZ to the extent that the yield in fisheries exceeds domestic harvesting capacity (as determined in the FMP) and then only when pursuant to a fishing treaty or international agreement. The combination of a growing U.S. effort and declining stocks quickly pushed foreign fishermen from the U.S. EEZ.

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<sup>9</sup> 16 U.S.C. §§ 1801-1882 (2002).

<sup>10</sup> The Act originally designated the management area a fishery conservation zone, but it was later amended to reflect the 1983 U.S. claim to a 200 mile EEZ that incorporated fishery management jurisdiction.

<sup>11</sup> 16 U.S.C. § 1802 (11).

<sup>12</sup> As noted in Chapter 1, the 1953 Submerged Lands Act gave states title to the submerged lands 3 miles from their coastline, with a few exceptions. Submerged Lands Act, Pub. L. 83-31, 67 Stat. 29 (1953), (codified as amended at 43 U.S.C. §§ 1301-1315). In the Gulf of Mexico, Florida and Texas both claim 9 miles. Puerto Rico has a 9 mile territorial sea pursuant to 48 U.S.C. § 749.

<sup>13</sup> Management plans for Atlantic Highly Migratory Species are developed by NOAA and are an exception to the council management system.

Two important terms that are used with reference to U.S. fishery management are *maximum sustainable yield* (MSY) and *optimum yield* (OY). The Magnuson-Stevens Act uses MSY as a tool to measure the fish that can be sustainably harvested. MSY is defined as the largest average catch that can be taken continuously from a stock under average environmental conditions. OY is defined as the harvest level for a species that achieves the greatest overall benefits, including economic, social, and biological considerations; in contrast, MSY considers only the biology of the species.

Although the Magnuson-Stevens Act continued to evolve in the decades after its enactment, reauthorization legislation in 1996 arguably brought about the most significant changes to the law since its passage in 1976. The Sustainable Fisheries Act (SFA)<sup>14</sup> carried a number of major modifications and added several new concepts and requirements to the Magnuson-Stevens Act. These included major changes and new elements in the fishery management process and reflected international developments in resource management principles. Some of the most important new elements are:

- Requiring that RFMCs define and develop plans to prevent overfishing and restore stocks that are already overfished.
- Providing that MSY creates a ceiling on OY.
- Requiring FMPs to identify essential fish habitat (EFH) for each fishery, minimize to the extent practicable the adverse impact of fishing activities on EFH, and identify other actions to conserve and enhance EFH.
- Incorporating three new national standards: Standard 8 concerning the economic impact of regulatory measures on fishing communities; Standard 9 requiring FMPs to minimize to the extent practicable the bycatch of non-target species; and Standard 10 promoting the safety of human life at sea.

The SFA amendments imposed ambitious timelines for implementation of these far-reaching reforms. NMFS and the RFMCs have made progress in implementing the provisions of the SFA amendments, but problems such as scarce funding, lack of adequate scientific information, and frequent litigation over SFA amendment provisions have contributed to significant delays in implementation of some provisions.

In general, an indicator of the complexity and difficulty in implementation of fishery management measures is the increase in fishery litigation. More lawsuits were filed in 1997 than in any of the prior years of the Magnuson-Stevens Act's history and the number of challenges has remained at a high level.

NMFS and the RFMCs have been criticized by the fishing industry, environmental groups, and some members of Congress over the implementation of the SFA amendments. Among the complaints are that NMFS has been excessively slow in providing guidance to the RFMCs and lax in its oversight. The RFMCs have been accused of only minimally implementing or failing to comply with the standards of the Magnuson-Stevens Act, particularly as amended by the SFA. The fishing industry has challenged new regulations and quotas as unsupported by sufficient scientific evidence and disregarding economic impacts. The courts have also joined the critics. In *Conservation Law Foundation v. Evans*, for example, a federal district court reprimanded the agency for its "record of inaction and delay."<sup>15</sup>

### Marine Mammal Protection Act

Congress passed the Marine Mammal Protection Act (MMPA)<sup>16</sup> in 1972, motivated in part by public concern for the increasing mortality of marine mammals. The MMPA is different in the sense that it uses management principles that focus on the health of marine mammal populations, rather than yield, and in its fundamental

<sup>14</sup> Pub. L. 104-297 (Oct. 11, 1996), 110 Stat. 355 (codified at 16 U.S.C. § 1801 *et seq.*).

<sup>15</sup> 209 F. Supp. 2d 1, 10 (D.D.C. 2001).

approach of establishing a moratorium on the taking of all marine mammals in U.S. waters and by U.S. citizens on the high seas. This moratorium is not absolute, however, and contains a waiver provision, an exemption for Alaskan Natives, and a number of other exceptions.

The MMPA authorizes two agencies to manage marine mammal populations. NMFS has jurisdiction over cetaceans, which include whales, dolphins, porpoises, seals, and sea lions.<sup>17</sup> The U.S. Department of the Interior's U.S. Fish and Wildlife Service (USFWS) is responsible for all other marine mammals, including polar bears, walruses, sea otters, manatees, and dugongs.<sup>18</sup>

The starting point for the protection afforded by the MMPA is a moratorium on the taking and importation of marine mammals and marine mammal products. The Act defines the term 'take' to mean "to harass, hunt, capture, or kill . . . or to attempt to engage in any such conduct."<sup>19</sup> To authorize a waiver of the moratorium, the Secretary of Commerce or the Interior must determine that a species or stock is at its "optimum sustainable population" (OSP)<sup>20</sup> and that the waiver will not disadvantage the population, i.e., that it will not reduce the population below that level. Waivers on the importation of marine mammals or products require the Secretary to certify that the program for taking marine mammals in the country of origin is "consistent" with the MMPA. Taking marine mammals subject to a waiver of the moratorium is procedurally complex, requiring formal rulemaking. If regulations are promulgated, permits are issued that set out the number and kind of animals to be taken, the time period and place, and other conditions.

The MMPA also contains several significant statutory exceptions to the moratorium:

- The Secretary may issue permits "for purposes of scientific research, public display, photography for educational or commercial purposes, or enhancing the survival or recovery of a species or stock."<sup>21</sup> Applicants must justify the need for taking the animal. Permits for lethal research are issued only in limited circumstances when alternatives are not feasible. Public display permits are limited to applicants who meet Animal Welfare Act licensing requirements and who offer public programs with education or conservation purposes that are based on professionally recognized standards in the public display community. A permit for public display may not be issued for a stock which has been designated by the Secretary as depleted.
- Another exception, added by amendments in 1981, authorizes the Secretary to permit the unintentional taking of "small numbers of marine mammals" incidental to activities other than fishing, such as outer Continental Shelf (OCS) oil and gas development, seismic survey activity, and military activities.<sup>22</sup> The Secretary is required to make specific findings that the incidental taking will have a "negligible impact" on the species. Small take authorizations are allowed even for depleted species.
- Amendments to the Act enacted in 1994 added an exception to the moratorium for taking marine mammals incidental to commercial fishing operations.<sup>23</sup>

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<sup>16</sup> Pub. L. 92-522, (Oct. 21, 1972), 86 Stat 1027 (codified at 16 U.S.C. § 1361 *et seq.*).

<sup>17</sup> 16 U.S.C. § 1362(12)(A)(i).

<sup>18</sup> 16 U.S.C. § 1362(12)(A)(ii).

<sup>19</sup> 16 U.S.C. § 1362(13).

<sup>20</sup> The term *optimum sustainable population* means, with respect to any population stock, the number of animals that will result in the maximum productivity of the population or the species, keeping in mind the carrying capacity of the habitat and the health of the ecosystem of which they form a constituent element.

<sup>21</sup> 16 U.S.C. § 1371 (a)(1).

<sup>22</sup> 16 U.S.C. § 1371(a)(5).

<sup>23</sup> 16 U.S.C. § 1371(a)(2).

- Other exceptions allow marine mammals to be taken for their protection or welfare, or for the protection of the public health and welfare, to deter marine mammals from damaging property (including fishing gear and catch), or when necessary to protect human life.<sup>24</sup>

The MMPA also contains an exemption from the moratorium on takings by Alaskan Natives (Indian, Aleut, or Eskimo) if the taking is for subsistence purposes or creating “authentic native articles of handicrafts and clothing” and is not accomplished in a wasteful manner.<sup>25</sup>

Since its enactment in 1972, the MMPA and the management of marine mammals has been governed by a single focus—maintenance of a species or stock at its OSP. Amendments in 1981 added the current definition of OSP and clarified the definition of “depleted” to refer to a population below OSP. The 1994 amendments reconciled the provisions of the MMPA with the impact of incidental taking of marine mammals in commercial fishing operations. A 1988 judicial ruling had threatened to close numerous major fisheries because the court found that incidental take permits were required for the fisheries, but that permits could not be issued for healthy stocks if it were likely that marine mammals from depleted stocks or of unknown status would also be taken.<sup>26</sup> In response to that ruling, Congress enacted a five-year interim exemption on the incidental take provisions while NMFS developed a management regime concerning the effects of commercial fishing on marine mammals.

The 1994 amendments authorized the continued taking of marine mammals incidental to commercial fishing, but with an immediate goal of reducing mortality to less than the stocks’ potential biological removal (PBR) level<sup>27</sup> and a longer term goal of reducing mortality and serious injury to marine mammals in the course of such operations to “insignificant levels approaching zero mortality and serious injury rate.”<sup>28</sup> PBR was introduced as an alternative mechanism of setting acceptable take levels that would allow depleted stocks to recover without undue delay and would maintain healthy stocks within their OSP range.

The amendments included requirements to:

- Prepare assessments for all marine mammals in U.S. waters.
- Develop and implement take reduction plans for “strategic stocks of marine mammals which interact with commercial fisheries that the Secretary has determined have frequent or occasional incidental mortality and serious injury of marine mammals.”<sup>29</sup>
- Study pinniped-fishery interactions.

While the 1994 amendments have been considered by some commentators to signal a change in the dominant policy of the MMPA from one of preservation to one of resource management, the PBR approach is confined to incidental taking by commercial fisheries and designed to assure that stocks stay within OSP or recover without appreciable delay.

<sup>24</sup> Specifically, the statute provides for permits for photography for educational or commercial purposes and for importation of polar bear parts taken in sport hunts in Canada, 16 U.S.C. § 1371(a)(1), 16 U.S.C. § 1374(c)(5), (6); the use of measures by certain listed people to deter marine mammals for listed purposes, 16 U.S.C. § 1371(a)(4); import of a marine mammal product under listed circumstances in conjunction with travel or cultural exchange, 16 U.S.C. § 1371(a)(6); taking in defense of self or others, 16 U.S.C. § 1371(c); the good Samaritan exemption, 16 U.S.C. § 1371(d); any marine mammal or marine mammal product taken before the effective date of the Act, 16 U.S.C. § 1372(e); and taking of marine mammals as part of official duties, 16 U.S.C. § 1379(h).

<sup>25</sup> 16 U.S.C. § 1371(b).

<sup>26</sup> *Kokechick Fishermen’s Association v. Secretary of Commerce*, 839 F.2d 795 (D.C. Cir. 1988).

<sup>27</sup> The term *potential biological removal level* means the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population.

<sup>28</sup> 16 U.S.C. § 1371(a)(2).

<sup>29</sup> 16 U.S.C. § 1387(f).

Numerous major amendments to the MMPA specifically addressed dolphin mortality in commercial tuna fishing. The 1981 amendments required that dolphin mortality be reduced to “insignificant levels.” In 1988 amendments, Congress required observers on all U.S. tuna boats and provided for trade sanctions for countries that did not reduce dolphin mortality in their tuna fisheries to levels comparable to the United States. The International Dolphin Conservation Act of 1992 imposed a five-year moratorium on tuna harvesting with purse seines and lifted embargoes against countries committing to the moratorium and international cooperation in the reduction of dolphin mortality.

The National Defense Authorization Act for Fiscal Year 2004 (NDAA) made three significant changes to the Marine Mammal Protection Act. First, the NDAA modified the definition of “harassment” as it applies to military readiness activities and scientific research conducted by or on behalf of the federal government. This modification affects whether a particular activity will be considered a “taking” under the MMPA. Second, the NDAA modified the review process for “incidental take” permits by requiring the reviewing Secretary, in consultation with the U.S. Department of Defense (DOD), to consider impacts on the effectiveness of the military readiness activity that may result in the taking. Under this provision DOD is also exempt from certain standards for evaluating the impact of its military readiness activities on marine mammals. Third, the NDAA granted the Secretary of Defense broad authority to exempt any actions undertaken by DOD from compliance with any requirement of the MMPA for a period of up to two years if necessary for “national defense.” This exemption may subsequently be renewed every two years thereafter for an indefinite period of time. The Secretary of Defense is required to consult with the appropriate Secretary under the MMPA prior to approving the original exemption and any subsequent extensions.<sup>30</sup>

## Endangered Species Act

The Endangered Species Act of 1973 (ESA)<sup>31</sup> created the current regulatory regime for threatened and endangered species, providing for the conservation of species that are in danger of extinction throughout all or a significant portion of their range.<sup>32</sup> “Species” includes a species, a subspecies or, for vertebrates only, a distinct population segment. Species that are determined likely to become endangered in the foreseeable future are listed as “threatened.”<sup>33</sup> USFWS administers ESA activities for terrestrial and freshwater species; NMFS is responsible for marine and anadromous species. The discussion in this chapter focuses on the role of NMFS, although USFWS also has authority to manage a number of species found within the marine environment.

Any individual or organization may petition to have a species considered for listing as endangered or threatened under the ESA. Within ninety days of the filing of a listing petition, the agency must determine whether the petition presents substantial information that listing may be warranted. A status review of the species is then triggered. NMFS or USFWS can also initiate a status review of a species independently. A species is to be listed if it is threatened or endangered by any of the following circumstances:

- Present or threatened destruction, modification, or curtailment of its habitat or range.
- Overutilization for commercial, recreational, scientific, or educational purposes.
- Disease or predation.

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<sup>30</sup> National Defense Authorization Act for Fiscal Year 2004, Pub L. 108-136, 117 Stat 1392, § 319: Military Readiness and Marine Mammal Protection (2003).

<sup>31</sup> 16 U.S.C. §§ 1531-1544.

<sup>32</sup> 16 U.S.C. § 1532(6).

<sup>33</sup> 16 U.S.C. § 1532(20).

- Inadequacy of existing regulatory mechanisms.
- Other natural or manmade factors affecting its continued existence.<sup>34</sup>

The listing decision must be based solely on the best scientific and commercial data available, not on economic factors. When a species is listed, NMFS or USFWS is required to develop and implement a recovery plan for the conservation and survival of the species.

To the “maximum extent prudent and determinable,” the Secretary of Commerce or the Interior must make critical habitat designations concurrently with the listing of a species. “Critical habitats” for endangered or threatened species are areas that are “essential to the conservation of the species” that may require “special management considerations or protection.” Designation of critical habitat must be based on “the best scientific data,” but unlike listing decisions, is to consider the economic impact of the designation. Areas can be excluded from critical habitat designation when the economic impacts of the designation outweigh the benefits of including the areas, unless the failure to designate the critical habitat will result in extinction of the species.

Section 9 of the ESA prohibits any person subject to U.S. jurisdiction from “taking” any endangered species within the territorial sea or on the high seas and from importing or exporting such species.<sup>35</sup> The term “take” means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect. . . or attempt to engage in any such conduct.”<sup>36</sup> Prohibited takings include significant habitat modifications that kill or injure listed species by altering their essential behavior patterns.<sup>37</sup>

The ESA contains a number of exceptions to the takings prohibition. NMFS or USFWS may issue permits for scientific purposes, to enhance survival, and for the establishment of experimental populations. Like the MMPA, the ESA contains an exemption for the taking of endangered or threatened species by Alaska Natives, who may also sell the non-edible byproducts of the wildlife when incorporated into “authentic native articles of handicrafts and clothing.”<sup>38</sup>

Amendments to the ESA passed in 1982 created an incidental take exception. NMFS or USFWS may permit a taking of an endangered species that is “incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.”<sup>39</sup> Applicants for an incidental taking permit must submit a conservation plan that specifies: 1) the impact of the taking; 2) a mitigation plan that specifies measures to be taken to minimize the impacts and that assures adequate funding is available; and 3) the alternative actions considered and why they were not adopted. After the opportunity for public comment, the permit may be issued if the Secretary finds that the applicant has adequate funding to implement the conservation plan and that “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.” The ESA also contains a separate incidental taking exception for actions funded, authorized, or carried out by federal agencies under similar circumstances.<sup>40</sup>

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<sup>34</sup> 16 U.S.C. § 1533(a)(1).

<sup>35</sup> While the statute does not define the term *territorial sea* specifically, it was enacted in 1973, before the presidential proclamation in 1988 that extended the territorial sea from 3 to 12 miles for international purposes only.

<sup>36</sup> 16 U.S.C. § 1532(19).

<sup>37</sup> See *Sweet Home v. Babbitt*, 515 U.S. 687 (1995).

<sup>38</sup> 16 U.S.C. § 1539(e)(1)(B).

<sup>39</sup> 16 U.S.C. § 1539(a)(1)(B).

<sup>40</sup> 16 U.S.C. § 1539 (b)(4).

Section 7 of the ESA requires all federal agencies to consult with NMFS or USFWS under certain circumstances. The Act provides that:

Each federal agency shall, in consultation with and with the assistance of the Secretary, insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined by the Secretary . . . to be critical. . . .<sup>41</sup>

After initiation of consultation . . . the federal agency and the permit or license applicant shall not make any irreversible or irretrievable commitment of resources . . . which has the effect of foreclosing the formulation or implementation of any reasonable and prudent alternative measures . . . .<sup>42</sup>

When a formal consultation is required, NMFS or USFWS must prepare a “biological opinion” to determine whether the activity will jeopardize an endangered species or adversely modify its critical habitat. If the opinion makes a “jeopardy finding,” NMFS or USFWS will recommend “reasonable and prudent alternatives” to avoid the jeopardy to the species or adverse modification of its critical habitat. The action agency is not required to follow the specific recommendations, but the agency must still ensure that its action will not jeopardize the continued existence of a species or destruction or adverse modification of its habitat. The action agency must also inform NMFS or USFWS how it intends to implement the reasonable and prudent alternatives. This consultation process can result in complicated issues between agencies with respect to when consultation is required and how it is implemented.<sup>43</sup>

The ESA also establishes the Endangered Species Committee (sometimes referred to as the “God squad”) which is made up of the Secretaries of Agriculture, Army, and the Interior, the Chairman of the Council of Economic Advisors, the Administrator of the U.S. Environmental Protection Agency (EPA), the Administrator of NOAA, and an individual from each affected state appointed by the President.<sup>44</sup> The Endangered Species Committee, upon application from a federal agency, the governor of a state in which the agency action will occur, or a federal permit applicant, may determine whether an agency may be exempted from the requirement to ensure that its action to fund, authorize, or carry out any activity will not “be likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of [critical] habitat.”<sup>45</sup> The committee has only been used once.<sup>46</sup>

The NDAA, referred to earlier in the section on the MMPA, also amended the ESA to allow military lands to be conditionally exempt from certain requirements. Since 1997, DOD has been required to prepare an Integrated Natural Resources Management Plan (INRMP) for each military installation in the United States having significant natural resources. The Act grants the Secretary of the Interior authority to exclude military

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<sup>41</sup> 16 U.S.C. § 1536(a)(2).

<sup>42</sup> 16 U.S.C. § 1536(d).

<sup>43</sup> See Jeffrey S. Kopf, Comment, *Steamrolling Section 7(d) of the Endangered Species Act: How Sunk Costs Undermine Environmental Regulation*, 23 B.C. Envtl. Aff. L. Rev. 393 (1996) (discussing issues of sunk costs, the practice of irreversibly committing resources during consultation in order to foreclose the adoption of alternatives); and Nathan Baker, *Water, Water, Everywhere, and At Last a Drop for Salmon? NRDC v. Houston Heralds New Prospects Under Section 7 of the Endangered Species Act*, 29 Envtl. L. 609 (1999) (discussing issues of agencies narrowly interpreting the types of events that trigger consultation and delay).

<sup>44</sup> 16 U.S.C. § 1536(e)(1)-(2).

<sup>45</sup> 16 U.S.C. § 1536(e)-(o).

<sup>46</sup> This was in the case of the spotted owl. See John Lowe Weston, *The Endangered Species Committee and the Northern Spotted Owl: Did the “God Squad” Play God?*, 7 Admin. L.J. Am. U. 779 (1994).

lands from designation as critical habitat upon determining that the required INRMP already provides a “benefit” to the species that was to be protected. The Act also requires the appropriate Secretary to consider the “impact on national security,” in addition to economic and other impacts, when designating critical habitat. However, the Act explicitly states that DOD must continue to comply with the ESA consultation requirements and with the prohibitions against the taking of endangered and threatened species.<sup>47</sup>

Listing of a species can have budget and economic implications for NMFS regarding the development and implementation of recovery plans, and potentially serious economic impacts for the activities that may affect the listed species. These potential economic impacts can have major political implications. The fact that NMFS plays multiple roles under the ESA, MMPA, and Magnuson-Stevens Act adds yet another factor to the complexity of the current situation. It is not surprising that the courts have, in some cases, scrutinized agency actions closely when NMFS has been both the agency seeking consultation and the agency issuing the biological opinion, or the agency considering the listing of a species that may be affected by an FMP implemented by NMFS.

## SELECTED ISSUES

This section will address the major legal issues affecting management tools and agency actions, starting with federal and state authority for managing living marine resources. Because many living marine resources have a wide or changing geographic distribution during their life, jurisdiction over them can be ambiguous, with state, federal, and international claims to management and allocation. Once jurisdiction is established (for the most part at the federal level), agencies must then balance the mandates of various living marine resources legislation and the management tools laid out in each.

### State and Federal Jurisdictional Issues and Native American Rights

Issues of federalism and jurisdiction are significantly different in fishery management from those in the MMPA and the ESA. Because the states had historically managed fisheries both within and outside state waters, a significant proportion of fishery resource activities occur within state waters, and management decisions have significant local economic and social impacts, states were reluctant to relinquish authority for fishery management to the federal government.

The Magnuson-Stevens Act generally preserved the jurisdiction of states to regulate fisheries within their waters, allowing for federal intervention only if the Secretary of Commerce finds that state action or inaction with regard to a fishery within state waters will “substantially and adversely affect” an FMP covering a fishery that is predominately within the EEZ.<sup>48</sup>

States also continued to have jurisdiction over vessels “registered under the laws of that state” even in the EEZ beyond state waters,<sup>49</sup> but the Act prohibited regulation by the state of a vessel in the EEZ that is not registered in that state. The original provision lacked important definitions and left major questions about preemption and the continuing scope of state authority after RFMCs began developing and implementing FMPs. The SFA amendments substantially amended the relevant section, but left major issues unresolved.

Because the original provisions of the Act did not define the term “registered,” states were left with apparent discretion concerning its meaning. Several courts have rejected the interpretation that the term refers to

<sup>47</sup> Pub L. 108-136, 117 Stat 1392, § 318: Military Readiness and Conservation of Protected Species (2003).

<sup>48</sup> 16 U.S.C. § 1856(b).

<sup>49</sup> 16 U.S.C. § 1856.

federal licensing and enrollment.<sup>50</sup> States have applied creative interpretations that substantially expanded the definition beyond citizens of the state and vessels which are homeported or principally used in that state. As a result, a vessel fishing in the EEZ can be concurrently “registered” under the definitions of several states with different, possibly conflicting, regulations.

The SFA amended the section to provide that a state may regulate a fishing vessel outside its boundaries when a fishing vessel is registered under the laws of that state, and one of two conditions apply: (1) there is no fishery management plan or other applicable federal fishing regulations for the fishery in which the vessel is operating; or (2) the state’s laws and regulations are consistent with the fishery management plan and applicable federal fishing regulations for the fishery in which the vessel is operating.<sup>51</sup> Although language was introduced to define “registered,” no definition was included in the SFA amendments as enacted.

The 1996 SFA amendments attempted to address the question of when states would be preempted by federal fishery management plans from regulating registered vessels in the EEZ. However, substantial confusion continued because the amendments did not entirely preempt state regulation when a federal plan and regulations were in place. States could still regulate state-registered vessels if their laws and regulations were “consistent” with “the fishery management plan and applicable federal fishing regulations.”<sup>52</sup> The significant term “consistent” was not defined, however. While it is clear that less restrictive regulation would not be consistent with the conservation regime of FMPs, it is not entirely clear that more restrictive state regulations are consistent. Several courts have held that because the purposes of the Magnuson-Stevens Act include development of the fishing industry, state regulations that restrict fishing in the EEZ beyond the level allowed in federal FMPs are not consistent.<sup>53</sup>

Less directly, questions have arisen about whether state laws that prohibit landings of fish that can be legally harvested in the EEZ under an FMP are consistent.<sup>54</sup> The language in the original Act concerning no “indirect regulation” in the EEZ of vessels not registered in the state called into question the use of landing laws, the most effective and efficient state enforcement mechanism. Although these laws operate indirectly to regulate vessels beyond state jurisdictions, such landing laws had long been held to be necessary for enforcement and have been found to be constitutional.<sup>55</sup>

Most states have made the issue moot, however, by defining *registered* for purposes of the Act to include vessels owned by parties who have landing or wholesale licenses. The 1996 revisions to the provision deleted the language concerning direct or indirect regulation. Instead, the amendments included a number of circumstances in which a state could regulate fisheries beyond state waters. For example, the amendments contain provisions under which states, in the absence of an FMP, have jurisdiction and authority to regulate vessels in specifically designated areas of the EEZ, even when the vessels are not registered in the state.<sup>56</sup> In addition, in certain cases, states can be delegated authority under an FMP to regulate beyond state waters if the state’s laws and regulations are consistent with the FMP. Again, the term “consistent” is not defined. Thus, fishing vessels find themselves subject to the jurisdiction of not only federal regulations when fishing in the EEZ, but also to the potential jurisdiction of several states.

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<sup>50</sup> See *People v. Weeren*, 607 P.2d 1279 (Cal. 1980), *cert. denied* 449 U.S. 839 (1980).

<sup>51</sup> 16 U.S.C. § 1856(3)(A).

<sup>52</sup> 16 U.S.C. § 1856(2)(A).

<sup>53</sup> See *e.g. Southeastern Fisheries Ass’n., Inc. v. Chiles*, 979 F.2d 1504 (11<sup>th</sup> Cir. 1992); *State v. Sterling*, 448 A.2d 785 (R.I. 1982); *Vietnamese Fishermen Ass’n. of America v. California Dept. of Fish and Game*, 816 F. Supp. 1468 (N.D. Cal. 1993).

<sup>54</sup> In one case, although redfish could be harvested in the Gulf of Mexico under the FMP, four out of five Gulf states prohibited or restricted landing of the fish. *Southeastern Fisheries Ass’n. v. Mosbacher*, 773 F. Supp. 435 (D.D.C. 1991).

<sup>55</sup> See *Bayside Fish Flour Co. v. Gentry*, 297 U.S. 422 (1936).

<sup>56</sup> 16 U.S.C. § 1856(3)(B)-(C).

### *State Jurisdiction under the MMPA and ESA*

The MMPA provides that “[n]o State may enforce . . . any State law or regulation relating to the taking of any species of . . . marine mammal within the State unless the Secretary has transferred authority for the conservation and management of that species . . . to the State.”<sup>57</sup> However, any state may enter into a cooperative arrangement or agreement with the appropriate federal agency for the delegation of the administration and enforcement of the MMPA. The Secretary may also provide funding to develop or administer state programs that assist with the conservation and management of marine mammals. The MMPA also sets out requirements for states to have management authority delegated for a species. However, this process involves lengthy procedures, including a formal public hearing. Only two states have ever applied to have management authority transferred, but in neither case was the authority delegated.<sup>58</sup>

In spite of clear preemption of state law, several states and territories have passed statutes regulating the taking of marine mammals.<sup>59</sup> However, state attempts to regulate takings have been successfully challenged as preempted by the MMPA. In 2004, a federal court found that a Hawaii statute imposing a seasonal ban on parasailing in certain areas, although passed with the “laudable goal” of protecting humpback whales, specifically conflicted with an MMPA provision allowing approaches up to 100 yards from a whale, and was also contrary to the MMPA’s express preemption clause. For these reasons, the court determined that the Hawaii statute was preempted absent any evidence that the federal government had transferred appropriate authority to the state.<sup>60</sup>

The ESA also provides for conservation agreements with states to protect listed species. The ESA provides that “the Secretary shall cooperate to the maximum extent practicable with States.”<sup>61</sup> Upon finding that a state’s conservation program meets the requirements of the ESA for “an adequate and active program for the conservation of endangered species and threatened species,” the Secretary is required to enter into a cooperative management agreement with the state.<sup>62</sup>

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<sup>57</sup> 16 U.S.C. § 1379 (a).

<sup>58</sup> California first applied for a transfer of management authority over sea otters shortly after the MMPA was enacted, but withdrew its application when the sea otter was listed as “threatened” under the ESA. See J. Armstrong, *The California Sea Otter: Emerging Conflicts in Resources Management*, 16 San Diego L. Rev. 249 (1979). Management of walrus was transferred to Alaska in 1975. However, in *People of Togiak v. United States*, 470 F. Supp. 423 (D.D.C. 1979), the court found the transfer preempted Alaska regulations on subsistence hunting by Alaskan Natives. The court succinctly stated the basic policy conflict as follows:

Substantively, two major competing policy considerations are . . . the need for protecting marine mammals from depletion, on the one hand, and the responsibility of the federal government to protect the way of life of the Alaskan Natives, including their tradition of hunting marine mammals for their subsistence, on the other. What emerges vividly from an examination of the total statutory scheme is that the Congress carefully considered these competing considerations and deliberately struck a balance which permits continued hunting by the Alaskan Natives as long as this is done in a non-wasteful manner, is restricted to the taking of non-depleted species, and is accomplished for specified, limited purposes. It is also clear that, to the extent that it was necessary to do so, Congress intended to preempt the field so as to eliminate inconsistent state regulation while permitting regulation which complements the statute’s design.

<sup>59</sup> Following are some state marine mammal take prohibitions: Fla. Stat. sec. 370.12 (Florida Manatee Sanctuary Act—prohibits take of manatees and provides other protections beyond ESA and MMPA); Cal. Fish & Game Code sec. 4500 (prohibits take of marine mammals except in accordance with MMPA); Alaska Stat. sec. 16.05.905 (prohibits take of marine mammals from state’s territorial waters by aliens); Ala. Code sec. 9-11-394 (prohibits take of marine mammals from Alabama’s lands or waters); N.H. Rev. Stat. sec. 210:3-b (prohibits take of marine mammals except in accordance with MMPA and other state statutes).

<sup>60</sup> *UFO Chuting of Hawaii, Inc. v. Young*, 327 F. Supp. 2d 1220 (2004).

<sup>61</sup> 16 U.S.C. § 1535(a).

<sup>62</sup> 16 U.S.C. § 1535(c).

### *Alaska Native Exemptions and Other Native Rights*

The MMPA contains an exemption from the moratorium on takings by Alaska Natives (Indian, Aleut, or Eskimo) unless the Secretary of Commerce or the Interior imposes limits on harvest of a species determined to be depleted. The exemption only applies if the taking is for subsistence purposes or “for purposes of creating and selling authentic native articles of handicrafts and clothing” and, “in each case, is not accomplished in a wasteful manner.”<sup>63</sup> The ESA contains an almost identical provision to exempt certain Alaska Natives.<sup>64</sup>

The concept of “subsistence” continues to be a controversial issue, with some environmental groups maintaining that the take of some species under the subsistence exemptions is excessive and unwarranted. The Secretary of Commerce or the Interior has authority under the MMPA to regulate the Alaska Native take of depleted species<sup>65</sup> and under the ESA to regulate take when “such taking materially and negatively affects the threatened or endangered species.”<sup>66</sup> In addition, the Alaska Native take of endangered and threatened species arguably is subject to Alaska state regulation, and the management of non-depleted marine mammals may be better addressed through cooperative management.

The 1994 MMPA amendments clarified the authority of the Secretary of Commerce and the Interior to enter into agreements with Alaska Native organizations to facilitate:

- Collecting and analyzing data on marine mammal populations.
- Monitoring the harvest of marine mammals for subsistence use.
- Participating in marine mammal research conducted by the federal government, states, academic institutions, and private organizations.
- Developing marine mammal co-management structures with federal and state agencies.

These provisions allow for enhanced cooperation and the sharing of information concerning subsistence harvesting. They also provide research opportunities and data on the animals harvested, contributing to better assessments of stocks and the information base about marine mammals.

An important element of these provisions is the authorization for co-management agreements. The Secretary of Commerce or the Interior may only regulate subsistence harvest if a marine mammal species is depleted, but through co-management agreements, the Secretary can work with Alaska Native organizations to manage subsistence take of non-depleted stocks to assure the continued health of the stock and the ecosystem. A number of co-management agreements have been enacted, and a Memorandum of Agreement signed with the Indigenous People’s Council for Marine Mammals provides a framework for the development of co-management agreements. Compliance with any harvest limit established under such a cooperative agreement is voluntary.

The Magnuson-Stevens Act does not exempt Alaska Natives or other Native Americans from fishery management regulation. The Act does require, however, that FMPs contain a description of the nature and extent of Indian treaty fishing rights in a fishery. Several cases in the Ninth Circuit Court of Appeals have addressed certain treaties agreed to in the mid-1850s that give tribes the right to take fish, whales, and seals “at usual and accustomed grounds” in common with other U.S. citizens. Tribes are not entitled to a specific allocation under these treaties, but a right to a “fair share.” The right to fish in “usual and accustomed” areas

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<sup>63</sup> 16 U.S.C. § 1371(b).

<sup>64</sup> 16 U.S.C. § 1539(e).

<sup>65</sup> 16 U.S.C. § 1371.

<sup>66</sup> 16 U.S.C. § 1539(e)(4).

has been interpreted by the courts as not restricted to any species, nor dependent on whether the species was historically exploited by the tribe.

The interest of Northwest tribes in fishery management and allocation has been recognized by Congress in the SFA amendments by requiring the appointment of one representative to the Pacific RFMC of “an Indian tribe with Federally recognized fishing rights from California, Oregon, Washington, or Idaho from a list of not less than 3 individuals submitted by the tribal governments.”<sup>67</sup> The tribes have also been given authority to manage their fishery allocations, which has been recognized as making the tribes co-managers of a shared resource.

## Habitat Protection

This section discusses in greater detail the habitat-related aspects of the principal federal laws discussed above and of other marine protection initiatives.

### *Critical Habitat and Essential Fish Habitat*

A species cannot prosper if the habitat necessary for important parts of its life cycle is lost. The ESA requires the designation and protection of critical habitat for endangered species. Critical habitat was defined by 1978 amendments to the ESA to include not only areas occupied by the species at the time of listing and essential to conservation of the species, but also areas outside the occupied area “essential for the conservation of the species.”<sup>68</sup> The ESA anticipates that critical habitat will be designated at the time of the listing of a species. The Secretary has considerable discretion in the designation of critical habitat to the “maximum extent prudent and determinable.” The ESA does not define *prudent* or *determinable*, but does require the Secretary to make the determination based on the “best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat.” In *Sierra Club v. U.S. Fish & Wildlife Service*, the court noted that by the frequent use of the “not prudent” exception, the NMFS and USFWS disregarded the “intent of Congress that a ‘not prudent’ finding regarding critical habitat would only occur under ‘rare’ or ‘limited’ circumstances.”

Habitat protection considerations have also been incorporated into fishery management. In the 1996 SFA amendments to the Magnuson-Stevens Act, Congress concluded that:

[o]ne of the greatest long-term threats to the viability of commercial and recreational fisheries is the continued loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States.<sup>69</sup>

The SFA amendments introduced the concept of essential fish habitat (EFH), which is defined as “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity.”<sup>70</sup> FMPs must now describe and identify “essential fish habitat for the fishery . . . , minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat . . . .”<sup>71</sup>

<sup>67</sup> 16 U.S.C. § 1852(b)(5)(A). Representation is to be rotated among the tribes.

<sup>68</sup> 16 U.S.C. §§ 1532(5).

<sup>69</sup> 16 U.S.C. § 1801(a)(2).

<sup>70</sup> 16 U.S.C. § 1802(10).

<sup>71</sup> 16 U.S.C. § 1853(a)(7).

The broad definition of EFH in the SFA amendments has led to difficulties in determining what areas of the ocean should be defined as essential. Distinguishing “essential” habitat from “nonessential” habitat has been difficult with the amount of information available; nonetheless, EFHs have been established throughout the entire range of almost every federally managed fishery, based generally on distributions and density of stock population. The usefulness of EFH as a management tool is compromised if truly essential habitat cannot be ascertained or distinguished. If the RFMCs are to recommend effective measures to address adverse effects from fishing that will not be subject to challenges in legal and political forums, the measures should apply only to areas that can be justified as “essential.”<sup>72</sup>

A step in this direction is the guidance from NMFS for RFMCs to encourage identification of “habitat areas of particular concern” (HAPC) which are EFHs that are of major importance for the long-term productivity of one or more species, or are particularly vulnerable to human activities and development.<sup>73</sup> This approach still suffers from the lack of available information, but it does provide a clearer focus for conservation.

The SFA amendments required that FMPs must minimize adverse effects on EFH from fishing “to the extent practicable.”<sup>74</sup> However, until recently, no measures were actually incorporated into plans to mitigate fishing impacts. NMFS had taken the position that the Magnuson-Stevens Act requires site-specific scientific evidence and “there was virtually no information connecting fishing gear or activities to destruction of [particular] EFHs . . . nor was there any information on the efficacy of methods to reduce any adverse effects.”<sup>75</sup>

When a coalition of environmental groups challenged five FMPs that lacked any measures to address fishing impacts on EFHs, the court found NMFS’ interpretation reasonable, but held that the agency failed to meet NEPA requirements by not describing and discussing the environmental impacts of fishing practices on the particular EFHs, and by not considering a broader range of feasible alternatives.<sup>76</sup>

### ***Sensitive Areas and Coral Reefs***

Significant habitat protection is also implemented under other statutes and federal programs. The National Marine Sanctuary System and National System of Marine Protected Areas are two key examples and are useful in protecting coral reefs both as living marine resources and as significant marine habitat. For more discussion of National Marine Sanctuaries and marine protected areas see Chapter 6, *Other Uses of Offshore Federal Waters*.

In 2002, NOAA, in coordination with the International Maritime Organization (IMO), created a 3,000 square nautical mile “Particularly Sensitive Sea Area” in the Florida Keys, stretching from Biscayne National Park to the Tortugas and encompassing all of NOAA’s Florida Keys National Marine Sanctuary.<sup>77</sup> Since December 1,

<sup>72</sup> See generally, Kristen M. Fletcher and Sharonne E. O’Shea. *Essential Fish Habitat: Does Calling It Essential Make It So?*, 30 *Envtl. L.* 51 (2000).

<sup>73</sup> See 50 C.F.R. § 600.81, which identifies considerations for identification of HAPCs as follows:

- (i) The importance of the ecological function provided by the habitat.
- (ii) The extent to which the habitat is sensitive to human-induced environmental degradation.
- (iii) Whether, and to what extent, development activities are, or will be, stressing the habitat.

<sup>74</sup> 16 U.S.C. § 1853(a)(7).

<sup>75</sup> See *American Oceans Campaign v. Daley*, 183 F. Supp. 2d 1, 8 (D.D.C. 2000).

<sup>76</sup> *Id.* For a discussion of NEPA, see Chapter 1, *Setting the Stage*.

<sup>77</sup> Press Release, National Oceanic and Atmospheric Administration, Florida Keys Coral Reefs First in U.S. to Receive International Protection (November 13, 2002) available at <http://www.noaa.gov/stories/s1062.htm> (accessed May 24, 2004).

2002, ships greater than 50 meters (164 feet) in length transiting the zone have been held to internationally accepted and enforceable rules, which direct ship captains to avoid certain areas and abide by three no-anchoring areas within the zone.

In the Florida Keys, four voluntary “areas to be avoided” have been created that prohibit large ships from traveling too close to the coral reefs. Another measure declares three mandatory no-anchoring areas that protect fragile reefs in the Tortugas. While the areas to be avoided and no-anchoring areas have been in place in the United States for several years, adoption by the IMO would mean that these areas would appear on international charts. This wider publication will result in greater awareness of these measures within the international shipping community, increased compliance, and more effective enforcement. The five other IMO particularly sensitive sea areas are: the Great Barrier Reef, Australia; the Sabana-Camaguey Archipelago, Cuba; Malpelo Island, Colombia; the Wadden Sea, off of Denmark, Germany, and the Netherlands; and Paracas National Reserve, Peru.

### **Consultation in Marine Resources Management**

Many environmental laws require federal agencies to consult with each other to understand the potential and probable impacts of agency activities on the environment, a species, or habitat. For example, existing federal statutes, such as the Fish and Wildlife Coordination Act, Endangered Species Act, and National Environmental Policy Act, require consultation or coordination between NMFS and other federal agencies regarding the effect of federal actions on certain marine habitat. Therefore, although the Magnuson-Stevens Act added consultation provisions in regard to essential fish habitat, the need for federal agencies to consult regarding the effects of their actions on fish habitat is not a new concept.

#### ***Section 7 Consultation under the Endangered Species Act***

Section 7 of the ESA requires federal agencies to “insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence” or “result in the destruction or adverse modification of habitat” critical to listed species.<sup>78</sup> To accomplish this objective, an agency must consult with the Secretary of Commerce or the Interior if the agency determines that the proposed action may affect listed species or critical habitat. In the case of consultation required in the development of FMPs, the Secretary of Commerce consults with himself.

When a consultation is required, the Secretary must prepare a biological opinion. The biological opinion is to include a “detailed discussion of the effects of the action on listed species or critical habitat” and the Secretary’s “opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat” (a “jeopardy opinion”), or whether the proposed action poses no threat of jeopardy or adverse modification (a “no jeopardy opinion”). The biological opinion must, again, be based on the best scientific and commercial data available. In the case of biological opinions, courts have found that NMFS has a duty to conduct independent research to provide information upon which to base its findings.

At least two lines of cases (concerning monk seals and Steller sea lions) demonstrate that the courts are willing to review closely the scientific bases and methodologies used by NMFS to justify policy decisions in biological assessments and the consultation process. In both cases, the Alaskan groundfish trawl fishery operating within critical habitat of Steller sea lions and Hawaiian lobster fisheries operating in critical habitat of monk seals, courts enjoined the fisheries, requiring NMFS to complete adequate consultation and biological opinions.

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<sup>78</sup> 16 U.S.C. § 1536(a)(1).

In *Greenpeace Foundation v. Mineta*,<sup>79</sup> the court addressed issues related to the lack of adequate information in the consultation process to determine whether a species is likely to be jeopardized or whether habitat will be adversely affected by an activity. The court held that “when an agency concludes after consultation that it cannot ensure that the proposed action will not result in jeopardy, and yet proceeds to implement such action, the agency has flouted the plain requirements of Section 7. . . . NMFS cannot speculate that no jeopardy to monk seals or adverse modification of their critical habitat will occur because it lacks enough information regarding the impact of the fishery on seals.”<sup>80</sup>

In *Greenpeace v. NMFS*,<sup>81</sup> the court found that the proper scope of the biological opinion is crucial to the adequacy of the opinion. The biological opinion must be “coextensive” with, and address all aspects of, the agency action. The case held that FMPs in their entirety require “a comprehensive biological opinion coextensive with the scope” of the FMP. In the case of the groundfish FMP, the court held that cumulative effects of the FMP in its entirety on the Steller sea lion and its habitat had to be analyzed.

### ***Consultation on Actions Affecting Essential Fish Habitat***

Direct impact on habitat by fishing activity is only one cause of habitat loss or destruction. Other activities that can adversely affect EFH include coastal development; dredging, filling and excavation; activities that result in nonpoint source pollution and sedimentation; discharges, including thermal discharges; mining; impoundment or water diversions; introduction of hazardous materials or exotic species; and aquatic habitat conversion. None of these activities are within the scope or jurisdiction of the Magnuson-Stevens Act, the Secretary, or the RFMCs. The Act provides that “[e]ach Federal agency shall consult with the Secretary with respect to any action . . . by such agency that may adversely affect any essential fish habitat identified under this Act.”<sup>82</sup>

The Magnuson-Stevens Act imposes a number of requirements on the Secretary to protect EFH identified by the RFMCs, including:

- Providing other federal agencies with information that will further the conservation and enhancement of essential fish habitat.<sup>83</sup>
- Creating an interagency consultation process for other federal agencies to consult with the Secretary regarding actions they propose to authorize, fund or undertake “that may adversely affect any essential fish habitat identified under this Act.”<sup>84</sup>

RFMCs may make recommendations to the Secretary and to federal or state agencies on actions that they believe may affect the “habitat, including essential fish habitat, of a fishery resource under their authority.” If the Secretary receives information from an RFMC or other agency, or determines from other sources that a proposed or undertaken action by a federal or state agency threatens an identified EFH, the Secretary is required to recommend measures to the responsible agency to conserve that habitat. A federal agency undertaking or proposing the action is not required to follow the recommendations, but it must provide a detailed response to the RFMC and the Secretary explaining the reasons for not following the

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<sup>79</sup> 122 F. Supp. 2d 1123 (D. Hawaii 2000).

<sup>80</sup> 122 F. Supp. 2d at 1133.

<sup>81</sup> 80 F. Supp. 2d 1137 (W.D. Wash. 2000).

<sup>82</sup> 16 U.S.C. § 1855(b)(2).

<sup>83</sup> 16 U.S.C. § 1855(b)(1)(D).

<sup>84</sup> *Id.* § 1855(b)(2).

recommendations and describing the measures it will take to avoid, mitigate, or offset the impact of the activity on the EFH.<sup>85</sup>

RFMCs and the Secretary are authorized to comment upon state actions that may adversely affect EFH, but unlike federal agencies, state agencies are under no obligation to consult with the Secretary, or to respond to comments of the Secretary or the RFMCs.

## Managing the Allocation of Fishery Resources

RFMCs have the obligation to prepare FMPs that protect fishery resources while optimizing opportunities for domestic commercial and recreational fishing at sustainable levels of effort and yield. To accomplish this, each RFMC identifies fish species and species groups that are in danger of overfishing, or are in need of management. With the help of its staff and committees, the RFMC then analyzes the biological, environmental, economic, and social factors affecting these fisheries, and prepares and modifies, as needed, FMPs and regulations for domestic and foreign fishing in the region.

### *Regional Fishery Management Councils and the Decision-making Process*

The Magnuson-Stevens Act requires that appointed members of the RFMCs “be individuals, who, by reason of their occupational or other experience, scientific expertise, or training, are knowledgeable regarding the conservation and management, or the commercial or recreational harvest, of the fishery resources of the geographic area concerned.”<sup>86</sup> The Act requires the Secretary in making appointments to ensure a “fair and balanced apportionment . . . of the active participants in the commercial and recreational fisheries,”<sup>87</sup> but does not require the Secretary to ensure participation of other interested stakeholders.

Perhaps the most often heard criticism of the Magnuson-Stevens Act concerns the conflict of interest issues within RFMCs. At the root of the issue is the widely held perception that a person with a vested financial interest can never be totally impartial. Congress has already incorporated financial disclosure<sup>88</sup> and recusal provisions<sup>89</sup> into the Act, but concerns persist. Council members are not subject to federal rules on conflict of interest that apply to other agencies and advisory groups.

### *Preventing Overfishing*

In the Magnuson-Stevens Act, National Standard 1 requires that FMPs “prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the U.S. fishing industry.”<sup>90</sup> The Act defines the terms *overfishing* and *overfished* to mean “a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.”<sup>91</sup> Each FMP must contain measures to prevent overfishing and rebuild overfished stocks, including criteria for determining when a fishery is

<sup>85</sup> *Id.* § 1855(b)(3)-(4).

<sup>86</sup> 16 U.S.C. § 1852(b)(2)(A).

<sup>87</sup> 16 U.S.C. § 1852(b)(2)(B).

<sup>88</sup> Nominees, appointees, and voting members of the RFMCs must disclose financial interests of themselves, their immediate family or partner, and any organization with which the council member has a position as “an officer, director, trustee, partner, or employee.” 16 U.S.C. § 1852(j).

<sup>89</sup> The Act requires that a council member may “not vote on a Council decision which would have a significant and predictable effect on such financial interest.” *Id.*

<sup>90</sup> 16 U.S.C. § 1851(a)(1).

<sup>91</sup> 16 U.S.C. § 1802(29).

overfished and, if a fishery is nearing such condition or is already overfished, measures to prevent or end overfishing and rebuild the fishery.<sup>92</sup>

The Secretary of Commerce must report annually to Congress and the RFMCs on the status of fisheries and identify fisheries that are either overfished or are approaching a condition of being overfished.<sup>93</sup> Within one year of receiving notice that a fishery is overfished, the relevant RFMC must submit a plan, plan amendment or proposed regulations to end or prevent overfishing and to rebuild the affected stock. RFMCs must establish a time period to end overfishing and rebuild the stock that is “short as possible, taking into account the status and biology [of the stocks], the needs of fishing communities, recommendations of international organizations . . . , and the interaction of the overfished stock of fish within the marine ecosystem.” The time period is not to exceed ten years except where “the biology of the stock, other environmental conditions, or management measures under an international agreement . . . dictate otherwise.”<sup>94</sup> If a RFMC does not submit a plan, plan amendment, or regulations to stop overfishing or to rebuild the affected stocks within one year, the Secretary of Commerce is required to prepare a plan, plan amendment, or any accompanying regulations within nine months to stop overfishing and rebuild the stocks.<sup>95</sup>

The complex nature of fishery interactions complicates implementation. Fishing at MSY for one species may result in the overfishing of another species. NMFS has been criticized by environmental groups for dealing with this issue by creating regulatory exemptions that permit overfishing in certain circumstances.<sup>96</sup>

Some courts are finding a tension between the need to set quotas at a level that will prevent overfishing and the requirement, discussed below, to alleviate economic impacts on fishing communities. Courts have found that NMFS must adopt quotas with at least a fifty percent probability of reaching targets that will prevent overfishing.<sup>97</sup> Courts have rejected quotas with only an eighteen percent likelihood of meeting targets as “unreasonable, plain and simple,”<sup>98</sup> while upholding a very restrictive quota with an estimated eighty percent probability of success when supported by the best available science and adequately justified under the circumstances.<sup>99</sup>

### ***Bycatch and Bycatch Mortality***

The SFA amendments included the addition of new National Standard 9 that requires FMPs “to the extent practicable, (a) minimize bycatch and (b) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.”<sup>100</sup> Bycatch is defined in the Act to include all fish harvested that are not sold or kept for personal use, and includes economic and regulatory discards.<sup>101</sup> Because bycatch in this context is being

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<sup>92</sup> 16 U.S.C. § 1853(a).

<sup>93</sup> “A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.” 16 U.S.C. § 1854(e)(1).

<sup>94</sup> 16 U.S.C. § 1854(e)(3).

<sup>95</sup> 16 U.S.C. § 1854(e)(5).

<sup>96</sup> See 50 CFR § 600.310(d)(6), which permits overfishing if it will result in long term benefits, if mitigating measures have been considered, and if the level of fishing will not cause any species to require protection under the ESA.

<sup>97</sup> NRDC v. Daly, 209 F. 3d 747 (D.C. Cir. 2000).

<sup>98</sup> *Id.*, 754.

<sup>99</sup> See, e.g., Fisherman’s Dock Cooperative v. Brown, 75 F. 3d 164 (4<sup>th</sup> Cir. 1996).

<sup>100</sup> 16 U.S.C. § 1851(a)(9).

<sup>101</sup> 16 U.S.C. § 1802(2). The Magnuson-Stevens Act also defines economic discards as fish targeted by the fishery, but discarded because of undesirable size, sex or quality, *id.* at § 1802(9); and regulatory discards as those fish discarded as required by

considered for fishery management purposes, non-fish bycatch (e.g., sea birds) is not included in the definition, although some commentators suggest that incidental catch of other living resources should also be included.

Bycatch increases the uncertainty concerning fishing-related mortality and consequently increases the difficulty of achieving goals related to preventing overfishing and rebuilding stocks. Under the 1996 Magnuson-Stevens Act amendments, FMPs were required by 1998 to “establish standardized reporting methods to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable . . . (A) minimize bycatch; and (B) minimize the mortality of bycatch which cannot be avoided.”<sup>102</sup> The efforts of RFMCs and NMFS to meet this requirement have been described as minimal, and numerous cases to enforce this requirement have been filed since the 1998 deadline.

Problems exist in the collection of accurate data and with the financial burden data collection may impose. While some point to the unreliability of self-reporting by fishermen to estimate bycatch levels,<sup>103</sup> others note that even NMFS observers must estimate bycatch.

There also is a problem with treating all bycatch equally. Some critics suggest the separate consideration of regulatory and non-target discards. Requiring regulatory discards of target fish contributes to fishing mortality, encourages highgrading (discarding fish to ensure that only the highest-value fish are landed and counted against quota), exacerbates mortality rates, and demoralizes fishermen who must discard marketable, dead fish. Because most discarded bycatch is dead, regulatory bycatch must be included and ultimately counted against total allowable catch quotas for fishing mortality rates to be accurately calculated. This creates an additional disincentive for fishermen to report bycatch.

### ***Individual Fishing Quotas***

Quotas are fundamental tools for fishery management, but fishery-wide quotas do not seem to eliminate problems associated with the tragedy of the commons. Quotas can encourage “derby fishing,” where fishermen compete to catch as many fish as fast as possible, often putting the lives of fishermen in danger before the quota is exceeded and the fishery is closed. Because fish flood the market during the beginning of a quota period, prices are often depressed as well. Some argue that by allocating individual fishing quotas, the derby is eliminated and markets are more stable because fishermen can take their allocated quotas at any time during the designated period.

Individual transferable quotas (ITQs) and individual fishing quotas (IFQs) were in use for years before the SFA amendments provided a federal definition of an IFQ:

The term “individual fishing quota” means a federal permit under a limited access system to harvest a quantity of fish, expressed by a unit or units representing a percentage of the total allowable catch of a fishery that may be received or held for exclusive use by a person.<sup>104</sup>

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regulation, *id.* at § 1802(33).

<sup>102</sup> 16 U.S.C. § 1853(a)(11).

<sup>103</sup> See *Conservation Law Foundation v. Evans*, 209 F. Supp. 2d 1 (D.D.C. 2001), citing the conclusions of the New England Council MSMC that vessel trip reports are insufficient to estimate bycatch because “fishermen unlawfully under-report bycatch in vessel trip reports.”

<sup>104</sup> 16 U.S.C. § 1802(21).

Under the statute, a “person” is any individual, corporation, or federal, state or local government.<sup>105</sup> Because the right under an IFQ is expressed as a percentage of the total allowable catch, no person receives an entitlement to a certain amount of fish. The IFQ system creates the opportunity for fleet consolidation, allowing for increased stability for a fishery, as well as the potential for eliminating derby fishing and increasing vessel and crew safety. The flip side of an IFQ system is a danger of inequity because those with the capital to own and operate vessels are the ones who potentially receive a financial windfall of a quota award. For crewmembers saving to buy a vessel, the IFQ can represent another barrier. Unless carefully designed to ensure broad participation, the system can lead to monopolistic behavior, making it easier for a small group to obtain power at the harvesting or processing level. Finally, critics of IFQs also claim they do little to address the problems of enforcing closed areas, using illegal equipment, and monitoring landings.

The SFA amendments placed a moratorium on the development of FMPs using IFQs<sup>106</sup> and directed the National Academy of Sciences (NAS) to study the options for a national policy on IFQs. The resulting NAS report, *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas*,<sup>107</sup> recommends that the moratorium be removed. The report further proposes that Congress leave considerable discretion and flexibility<sup>108</sup> to design and implement IFQ programs at the regional level. The NAS report recommends that RFMCs define “excessive share” and set limitations on accumulation of quota shares,<sup>109</sup> and have authority to establish standards for concentration limits, transferability, and distribution of shares based on the nature of the fisheries and the objectives of the specific FMPs. The NAS report also supports a requirement for fees to be imposed for initial quota allocation, first sales and leases of IFQs, as well as an annual tax. The IFQ moratoria has expired; however, most RFMCs are awaiting the reauthorization of the Magnuson-Stevens Act to see whether Congress provides guidance or legislation regarding the development and implementation of IFQ programs.

### ***Review under National Standard 8 and the Regulatory Flexibility Act***

National Standard 8 was added by the SFA amendments and states that “conservation and management measures shall, consistent with the conservation requirements of this chapter (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.”<sup>110</sup> The contents of an FMP must include a “fishery impact statement for the plan” to “assess, specify, and describe the likely effects . . . [on] participants in the fisheries and fishing communities affected by the plan or amendment . . .”<sup>111</sup> In *NRDC v. Daley*,<sup>112</sup> however, the Court of Appeals emphasized that the duty to prevent overfishing under Standard 1 takes precedence over Standard 8. Regulations provide that the effect of Standard 8 is that, all things being equal, when two alternatives achieve similar conservation goals, the agency will choose the alternative that better achieves Standard 8 goals as well.<sup>113</sup>

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<sup>105</sup> *Id.* at (31).

<sup>106</sup> The moratorium was extended by Congress in 2000 until October 1, 2002.

<sup>107</sup> National Academy of Sciences. *Sharing the Fish: Toward a National Policy on Individual Fishing Quotas*. Washington, DC: National Academy Press, 1999.

<sup>108</sup> For example, commercial fishermen suggest that authorization of IFQs should be broad enough and flexible enough to incorporate alternatives, such as cooperative fishing quotas.

<sup>109</sup> Standard 4 requires that any fishery allocation be fair and prevent any individual or group to obtain an excessive share.

<sup>110</sup> 16 U.S.C. § 1851(8).

<sup>111</sup> 16 U.S.C. § 1853(9).

<sup>112</sup> 209 F.3d 747 (D.C. Cir. 2000).

<sup>113</sup> See 50 C.F.R. § 666.345(b).

*Fishing community* is defined as “a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew and U.S. fish processors that are based in such community.”<sup>114</sup> In application, this definition has left wide latitude for interpretation of the term “community” and led to litigation over the meaning of the term.<sup>115</sup> In *A Guide to the Sustainable Fisheries Act*, the NOAA General Counsel interpreted the provision as including “any place where vessel owners, operators, and crew or U.S. fish processors are based.”<sup>116</sup> This has been seen as an extremely narrow view of fishing communities, and some commercial fishermen are concerned that such communities may be harmed by being limited to a shared geographic place, rather than considering shared interests. In its 1999 study *Sustaining Marine Fisheries*, the National Academy of Sciences reports that some fishermen and social scientists recommend that the definition include “virtual communities;” that is, the scope of the fishing community should include not only fishermen and processors, but businesses and services that rely heavily on fishing activities for their livelihood.<sup>117</sup>

Regulations adopted in 1998 to implement Standard 8 take a broad view of the members of a fishing community while continuing to focus on the community as a place. The regulations define *fishing communities* as:

a community that is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and fish processors that are based in such communities. A fishing community is a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries-dependent services and industries (for example, boatyards, ice suppliers, tackle shops).<sup>118</sup>

NMFS has interpreted fishing communities to include both commercial and recreational communities.<sup>119</sup>

All of the above definitions address who are members of the *community*, but continue to leave the geographical context of the term undefined. In *North Carolina Fisheries Association, Inc. v. Daley*, the federal district court rejected the agency’s analysis of the impacts that “considered the entire state of North Carolina as one fishing community,” and found that “analysis of impacts on fishing communities should have been grounded in a geographical context.”<sup>120</sup> In *Ace Lobster Co., Inc. v. Evans*,<sup>121</sup> however, the court found that the Secretary had complied with Standard 8 even though NMFS did not make an individualized assessment of impact on Rhode Island, the state with the smallest number of lobster vessels. In *Little Bay Lobster Co. v. Evans*, the court noted that there was “no authority for the proposition that National Standard 8 required NMFS to conduct, and document, an analysis of the potential impacts of each element of the management plan on each

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<sup>114</sup> 16 U.S.C. § 1702 (116).

<sup>115</sup> It should be noted that a similar issue arises in defining the “relevant universe” of small businesses under the RFA.

<sup>116</sup> NOAA Office of General Counsel, *A Guide to the Sustainable Fisheries Act*, Public Law 104-297 (1997) *available at* <http://www.nmfs.noaa.gov/sfa/sfaguide/index.html> (accessed May 28, 2004).

<sup>117</sup> National Academy of Sciences. *Sustaining Marine Fisheries* (1999). Washington, DC: National Academy Press, 1999.

<sup>118</sup> 50 C.F.R. § 600.345(b)(3) (2002).

<sup>119</sup> See *Recreational Fishing Alliance v. Evans*, 172 F. Supp. 25 (D.D.C. 2001).

<sup>120</sup> 27 F. Supp. 2d 650, 663 (E.D. Va. 1998).

<sup>121</sup> 165 F. Supp. 2d 148 (D.R.I. 2001).

potentially impacted fishing community rather than conducting an analysis of the impact of the plan as a whole.”<sup>122</sup>

Because such a large proportion of U.S. commercial fisheries would also fall within the category of “small business,” the analysis required under the Regulatory Flexibility Act (RFA)<sup>123</sup> is directly related to Standard Eight and the fishery impact statement (FIS). The purpose of the RFA is to assure that agencies take into account the disproportionate impacts regulations may have on small businesses and to require agencies to consider less burdensome alternatives if the impact on small businesses is significant.<sup>124</sup> The RFA is primarily procedural; it does not require the agency to take specific substantive measures. The RFA is intended to require the agency to explain the bases of its actions and assure serious consideration of alternatives that minimize significant economic impacts on small businesses.

### ***The Fisheries Management Plan Development and Approval Process***

Once the FMP has been written, incorporating the requirements of the ten national standards and relevant research about the fishery, the plan must be approved by the Secretary of Commerce. Many groups have complained that delays in agency approval and implementation of FMPs and plan amendments are damaging fishery resources and the livelihood of commercial fishermen. These delays seem to be attributable to a number of factors. The sheer number and complexity of the amendments to existing FMPs required by the SFA amendments created an enormous amount of work that was supposed to be addressed in a short time period. The complexity of the amendments has led to a high volume of litigation, which has in turn created further delays.

Management plans and plan amendments developed by the RFMCs must be submitted to the Secretary. The Secretary is directed to approve the plan if it is consistent with applicable law. If Secretarial review finds that a plan or amendment submitted by the RFMC is inconsistent with the national standards, other provisions of the Magnuson-Stevens Act, or other applicable law, the plan or amendment can be disapproved or only partially approved by the Secretary. Unless the Secretary notifies the RFMC of the plan’s inadequacies within thirty days of the end of the comment period for reviewers, the plan “shall take effect as if approved.” If a plan is not approved or partially approved, the RFMC may submit a revised plan or amendment that will then be reviewed under the same process.<sup>125</sup> The Act puts no time limit on the RFMCs to take action, nor does it limit the number of times a plan or amendment may go through this review exercise.

The Secretary has independent authority to prepare an FMP in certain circumstances. When a RFMC does not submit a plan for rebuilding an overfished fishery within one year of notification by the Secretary of the overfished status of the fishery, the Secretary is required to prepare a plan.<sup>126</sup> When a RFMC fails to develop and submit a plan “after a reasonable period” and when a RFMC fails to resubmit a revised plan or amendment after the Secretary has disapproved or partially disapproved the plan or amendment, the Secretary “may prepare” an FMP.<sup>127</sup> Because the Magnuson-Stevens Act sets no specific time limits except in some limited circumstances, RFMCs may not act in a timely manner, but may still view any exercise of the Secretary’s independent discretionary authority in these circumstances as usurping their authority.

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<sup>122</sup> 2002 DNH 96, 2002 U.S. Dist. LEXIS 8978, at \*82 (2002).

<sup>123</sup> 5 U.S.C. §§ 601-612.

<sup>124</sup> See generally M. Jean McDevitt, *Comment: Impact of the Regulatory Flexibility Act on the Implementation and Judicial Review Provisions of the Magnuson-Stevens Fishery Conservation and Management Act*, 6 *Ocean & Coastal L. J.* 371 (2001).

<sup>125</sup> 16 U.S.C. § 1854(a). Similar procedure applies to regulations to implement the FMP. *Id.* at (b).

<sup>126</sup> 16 U.S.C. § 1854(e)(5).

<sup>127</sup> 16 U.S.C. § 1854(c).

### ***The Role of Aquaculture***

The National Aquaculture Act (NAA),<sup>128</sup> passed in 1980, established a national policy of encouraging development of aquaculture in the United States. The NAA called for the creation of a National Aquaculture Development Plan to identify species with significant commercial potential and include research and development, technical assistance, and training programs as necessary. The NAA also established an interagency coordinating group, called the Joint Subcommittee on Aquaculture (JSA), chaired by the U.S. Department of Agriculture (USDA). Its purpose is to increase the effectiveness and productivity of federal aquaculture programs, to assess the industry and its potential, and to report to Congress. Finally, the Act created a National Aquaculture Information Center and called for a review of regulatory constraints that may have a negative impact on the industry.

For ocean aquaculture in offshore waters, the U.S. Army Corps of Engineers has a primary review responsibility through its permit authority under the Rivers and Harbors Act. In addition, the U.S. Environmental Protection Agency must issue permits for those activities that discharge into waters of the United States under the Clean Water Act. NMFS and USFWS have review and commenting responsibilities under the ESA and MMPA. NMFS also has authority over the activity as a harvest of a fish resource under the Magnuson-Stevens Act, and RFMCs have review authority under that Act. The U.S. Coast Guard has authority over the marking and lighting of cages or other structures for navigational safety. Finally, a federally-permitted project affecting the coastal resources of a state must be consistent with the enforceable policies of that state's federally-approved coastal management program under the federal consistency requirements of the Coastal Zone Management Act.

### **Management of Take under the MMPA and ESA**

“Take” is the term used in both the MMPA and ESA to define a prohibited activity under each statute as a tool to limit the mortality or harassment of marine mammals or endangered species.

#### ***Taking by Harassment***

The term “take” in the MMPA is defined to include harassment of marine mammals. The 1994 amendments defined “harassment” and divided the term into two categories. “Harassment” means any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal or marine mammal stock in the wild (Level A harassment) or has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering (Level B harassment).<sup>129</sup> Questions have been raised about when scientific research, anthropogenic noise, and other human interactions with marine mammals rise to the level of harassment and result in a prohibited taking or require a permit under the MMPA.

Because marine mammals use sound in communicating, navigating, and feeding, environmental groups have expressed concern about the possible harm to marine mammals and the effects on the ecosystem of the many types of scientific study that use sound in the marine environment. Oceanographers and other scientists use sound for a variety of purposes not directly related to marine mammal research, including assessing fish stocks, measuring ocean bathymetry, communicating and transmitting data to the surface, studying ocean currents, and measuring ocean temperature. The 1994 amendments to the MMPA provide for a general authorization for scientific research that limits its impacts to Level B harassment of marine mammals.<sup>130</sup> The

<sup>128</sup> 16 U.S.C. §§ 2801-2810.

<sup>129</sup> 16 U.S.C. § 1362(18).

<sup>130</sup> 16 U.S.C. § 1374(c)(3)(C).

Department of Commerce has issued regulations to implement this provision.<sup>131</sup> The two-part definition of harassment has proved to be difficult to interpret and apply, however, in determining what activities fall within the general authorization provisions. The threshold is not clear with respect to determining when anthropogenic “noise” becomes Level B harassment or when its impact is great enough to be Level A harassment. Some scientists have criticized the threshold and limits for Level B harassment as being too low; it restricts scientific research that may cause a detectable reaction in marine mammals, but does not significantly effect behavior. The National Research Council proposes that Level B harassment be redefined as follows:

Level B has the potential to disturb a marine mammal or marine mammal stock in the wild by causing *meaningful disruption of biologically significant activities*, including, but not limited to, migration, breeding, care of young, predator avoidance or defense, and feeding. (Emphasis added.)<sup>132</sup>

Amendments to the MMPA in 1994 were intended to expedite small take authorizations by Level A and B harassment. A *small take* is a portion of a marine mammal species or stock whose taking would have a negligible impact on that species or stock. NMFS issued interim rules allowing for authorizations to be issued pursuant to general rules addressing small takes by harassment. Thus, NMFS would not issue specific rules for each individual activity that may result in a small take of marine mammals.<sup>133</sup> Many of the authorizations under these rules are for seismic-related activities. The rules do not distinguish between Level A and Level B harassment for these authorizations. The MMPA sets out a relatively expedited procedure for issuing scientific research permits for studies on or directly benefiting marine mammals, including depleted species.

The issue of anthropogenic “noise” as harassment has been particularly controversial with regard to noise generated by sonar from naval ships. While these military activities do not qualify for Level B harassment authorization for scientific research, authorization may still be received under the MMPA provisions for takes of small numbers of marine mammals.<sup>134</sup> Authorizations may be issued upon request for incidental, but unintentional, takings during activities other than commercial fishing that have “negligible impact.” Regulations specific to the activity must be issued to address mitigation, monitoring, and reporting. Illustrative of the controversy is the 2002 issuance of a Letter of Authorization by NOAA under this provision for the U.S. Navy to take small numbers of marine mammals by Level A and B harassment incidental to the use of Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA). A coalition of environmental groups headed by the Natural Resources Defense Council immediately brought suit to challenge the action.<sup>135</sup> The court issued a preliminary injunction, noting the likelihood that the environmental groups would prevail on several grounds, including: that the authorization violated the “small numbers” limitation and impermissibly narrowed the definition of harassment; and that NMFS acted arbitrarily and capriciously in choosing the specified geographic regions identified in the Final Rule. The court also noted that the NMFS action likely was in violation of NEPA and ESA provisions.<sup>136</sup>

Taking into account the importance of the sonar for national security, the court concluded that “a carefully tailored preliminary injunction should issue, which permits the use of LFA sonar for testing and training in a

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<sup>131</sup> 50 CFR § 216.45.

<sup>132</sup> National Research Council, *Marine Mammals and Low-Frequency Sound: Progress Since 1994*. Washington, DC: National Academy Press, 2000.

<sup>133</sup> 61 Fed. Reg. 15,884 (Apr. 10, 1996).

<sup>134</sup> Small take authorizations may be issued for both depleted and non-depleted species.

<sup>135</sup> *NRDC v. Evans*, 232 F. Supp. 2d 1003 (N.D. Cal. 2002).

<sup>136</sup> 232 F. Supp. 2d at 1013.

variety of ocean conditions, but provides additional safeguards to reduce the risk to marine mammals and endangered species.”<sup>137</sup>

In August 2003, the U.S. District Court for the Northern District of California issued its order in the case, found violations of MMPA, ESA and NEPA, and barred the planned Navy deployment of sonar.<sup>138</sup> The case was subsequently impacted by the amendments to the MMPA and ESA contained in the National Defense Authorization Act, and further court action awaits a review of the ramifications of the new legal provisions.<sup>139</sup>

Controversy has also arisen over the extent to which marine mammal viewing and direct human interactions constitute harassment as defined under the MMPA and ESA. Marine wildlife viewing is allowed, but has to be conducted in a way that, by itself or in combination with other activities, does not result in a “take” by harassment. Level A “harassment” is prohibited under both statutes and includes any act of pursuit, torment, or annoyance which has the potential to injure a marine mammal stock in the wild.

In comparison to activities involving direct interaction (Level A), it is less clear when marine wildlife viewing should be considered Level B harassment. While feeding or attempting to feed marine mammals in the wild is prohibited in regulations, other contacts, such as swimming with dolphins, interactions with boats, kayaks and personal watercraft, and approaching seals and sea lions on land, are not specifically prohibited. These activities may result in Level B harassment and in several circumstances, NMFS has issued regulations governing viewing of marine mammals in the wild. The agency proposed, but subsequently withdrew, minimum approach rules for marine mammal viewing. Currently, all six NMFS regional offices have developed guidelines for viewing marine mammals in the wild. In 2002, NMFS also published an advance notice of proposed rulemaking to address human interactions with marine mammals, including consideration of codifying viewing guidelines, establishing minimum approach rules, and amending the definition of take to specifically include certain activities, such as swimming with or coming into contact with a marine mammal.<sup>140</sup> Final action on these regulations is still pending.

### *Taking for Display*

NMFS may issue permits that authorize the take or import of a marine mammal for purposes of public display. To qualify for such a permit, an applicant must offer an education or conservation program that is assessed by NMFS using the “professionally recognized standards in the public display community.”<sup>141</sup> Prior to the 1994 amendments to the MMPA, NMFS shared authority with the USDA over marine mammals kept in captivity. The 1994 amendments clarified that USDA has exclusive authority to manage most aspects of the care of marine mammals in public display facilities under the Animal Welfare Act.<sup>142</sup> USDA developed rules for such facilities through a negotiated rulemaking process.

<sup>137</sup> 232 F. Supp. 2d at 1013.

<sup>138</sup> *Natural Resources Defense Council v. Evans*, No. C-02-3805-EDL, (N.D. Cal. Aug. 26, 2003).

<sup>139</sup> The federal agencies appealed the District Court’s decision to the U.S. Court of Appeals for the Ninth Circuit. The Ninth Circuit stayed the appeal until the agencies have an opportunity to request the District Court to vacate certain portions of its opinion that may have been rendered moot by recent amendments to the MMPA included in the National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136, November 24, 2003, NDAA). Section 319 of the NDAA amended the MMPA with regard to “military readiness activities” in several ways, including eliminating the requirements under 16 U.S.C. § 1371(a)(5) that such activities occur “within a specified geographical region” and that they involve the taking “of small numbers” of marine mammals of a species or population stock.

<sup>140</sup> See 67 Fed. Reg. 4379 (Jan. 30, 2002).

<sup>141</sup> 16 U.S.C. § 1374(c)(2)(A)(i).

<sup>142</sup> 7 U.S.C. §§ 2131-2159.

USDA authorizes numerous programs for dolphin/human interactions, including feeding pools and swim-with-dolphin programs. Critics claim these programs put the dolphins and humans at risk and that allowing such programs also sends mixed signals to the public who are prohibited from having similar interactions with dolphins in the wild.

At least twenty-one marine parks have closed in the last decade, and problems are emerging with respect to dealing with their surplus animals. Rehabilitation of animals for release may be feasible, but expensive, and finding alternative sites and transporting animals to other parks or research facilities also involve substantial costs. Rehabilitation also raises other problems, including training to extinguish behavior learned in captivity, disease transmission, and genetic contamination of wild stocks. An insurance requirement has been proposed to provide funds in the event a facility closes.<sup>143</sup> In addition, NMFS has also proposed that a permit be required for release of captive animals into the wild. Release of unrehabilitated marine mammals is currently considered a *taking* and subject to penalties if not authorized.<sup>144</sup>

### ***Taking for Deterrence***

The MMPA allows the use of deterrents to discourage marine mammals from damaging fish catch, gear, or other private property, and to deter marine mammals from endangering human safety, as long as the deterrents do not result in the death or serious injury of any marine mammal. One commonly used deterrent is an acoustical harassment device. Like other noise in the environment, little is known about the broader or long term ecological effects of the use of such devices. The burden of proof is currently on the government to establish whether particular deterrents have “significant adverse effects” that would justify prohibiting their use. In light of the insufficiency of scientific information, many groups have suggested that the law take a more precautionary approach and require manufacturers to demonstrate that specific deterrents have negligible effects before NMFS can authorize their use.

The 1994 amendments to the MMPA deleted a provision that allowed fishermen to kill certain pinnipeds as a last resort when deterrents did not work.<sup>145</sup> Seals and sea lions can be very aggressive, and deterrents (and even removal) have not always proved effective. There are concerns that increasing populations of California sea lions and West Coast harbor seals may not only interfere directly with fishing operations, but adversely affect other marine resource populations (e.g., salmon), the development of aquaculture, and coastal land uses. Some commentators advocate the reinstatement of a limited lethal take provision for “nuisance animals,” culling “over-populated” areas, and allowing local officials to deal with site specific conflicts involving the species. These actions may currently be undertaken only under the MMPA’s cumbersome and seldom-used waiver provisions.

### **Regulation of Take under the ESA**

The MMPA identifies the specific species that it protects; for a species to be protected under the ESA, it must be “listed” through an administrative process. The protections under the MMPA and ESA can be similar, and many species categorized as depleted under the former may also qualify to be listed as endangered or threatened under the latter. One significant difference in the laws is that the ESA provides for emergency procedures in certain circumstances.<sup>146</sup> As one court has pointed out, however, “listing [a species

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<sup>143</sup> *Id.* at 25.

<sup>144</sup> See Department of Commerce, Annual Report on Administration of the Marine Mammal Protection Act, 1999-2000, at 28 (2002).

<sup>145</sup> *Cf.* 16 U.S.C. § 1379(h), which still allows lethal takes by federal, state or local officials if done in a humane manner for the protection or welfare of the animal, and for the protection of public health or welfare. The Secretary may permit the intentional taking of pinnipeds in accordance with 16 U.S.C. § 1389 for applications by a state for the intentional lethal taking of individually identifiable pinnipeds that are having a significant negative impact salmonid fishery stocks.

<sup>146</sup> 16 U.S.C. § 1533(b)(7).

as depleted] under the MMPA does not have the regulatory, economic, and environmental fallout of a listing as ‘threatened’ or ‘endangered’ under the ESA.”<sup>147</sup>

### ***ESA Listing***

Despite ESA language that mandates listing a species if any of five factors requiring designation exists, courts have allowed the agencies considerable discretion in determining whether listing is warranted. In the case of Cook Inlet beluga whales,<sup>148</sup> NMFS was considering listing the species as both depleted under the MMPA and endangered or threatened under the ESA (which also automatically triggers “depleted” status). A month after NMFS promulgated a final rule designating the Cook Inlet beluga whale as depleted under the MMPA, the agency determined that listing under the ESA was not warranted.<sup>149</sup> The ESA requires that the decision be made solely on the basis of the best scientific evidence available, and agency experts found that the evidence supported the listing of the species. Nonetheless, the court accepted the agency’s determination that, under the depleted designation and a legislative moratorium on taking, the whale would no longer be overutilized and did not warrant listing as endangered.<sup>150</sup>

In assessing whether a species should be listed, the Secretary is required to use the best scientific and commercial data available, but apparently has no duty to perform additional research if data are insufficient. The requirement merely prohibits the Secretary from disregarding available scientific evidence that is in some way better than the evidence upon which the Secretary relied.<sup>151</sup> On the other hand, the fact that data are “inconclusive” does not preclude the Secretary from listing a species as endangered or threatened under the ESA.

### ***Prohibited Take under the ESA***

As in the MMPA, prohibiting taking of protected species under Section 9 of the ESA is the starting point for regulation. The ESA defines the term “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such activity.”<sup>152</sup> NMFS (and USFWS) regulations provide that the term “harm” includes significant alteration or destruction of the habitat of a listed species. The regulation further provides that take includes actions that change or degrade the habitat of a listed species where it actually kills or injures the species by significantly impairing essential behavior patterns, including breeding, spawning, rearing, migrating, feeding, and sheltering.<sup>153</sup>

These taking prohibitions have been found to extend to governmental entities that authorize or license activities that result in prohibited takings of marine endangered species – for example, a county’s authorization of driving on beaches in turtle nesting areas or a state’s licensing of fishermen to use gear in areas that would cause entanglement of endangered Northern Right whales.

Recently, a court addressed whether NMFS’ adoption of a plan for a lobster fishery takes endangered monk seals by adverse modification of habitat, such as the removal of an essential prey species. Although the court

<sup>147</sup> Cook Inlet Beluga Whale v. Daley, 156 F. Supp. 2d 16 (D.D.C. 2001).

<sup>148</sup> Alaska Native harvesting of the Cook Inlet beluga whales was leading to a decline in the stock of Cook Inlet whales. Until the population was actually designated as depleted, however, NMFS could not regulate the Native taking under the MMPA.

<sup>149</sup> Available at <http://www.epa.gov/fedrgstr/EPA-SPECIES/2000/May/Day-31/e13371.htm>.

<sup>150</sup> Cook Inlet Beluga Whale v. Daley, 156 F.Supp. 2d 16, 22 (D.D.C. 2001).

<sup>151</sup> Southwest Center for Biological Diversity v. Babbitt, 215 F.3d 58, 60 (D.C. Cir. 2000).

<sup>152</sup> 16 U.S.C. § 1538(a)(1).

<sup>153</sup> 50 C.F.R. § 222.102.

found that the scientific data were insufficient for it to rule as a matter of law that lobster is so essential to the monk seal diet that the FMP constitutes “harm,” the NMFS was criticized for making such a determination based on inadequate data.<sup>154</sup>

Two other provisions are important in the scheme of protection afforded under the ESA. NMFS and USFWS have authority to issue regulations to prevent takings<sup>155</sup> and “as . . . necessary and advisable, to provide for the conservation of [threatened] species.”<sup>156</sup> The most conspicuous use of these provisions is the requirement for turtle excluder devices imposed on shrimpers. The other important provision is the requirement for the Secretary to “develop and implement plans for the conservation and survival” of listed species.<sup>157</sup> Almost all courts have found recovery plans not to be directly enforceable, offering only discretionary guidance.

### **Fishery Interactions with Marine Mammals**

While the MMPA provides for a permit to authorize takes of marine mammals in the course of fishing activities, other statutory obligations and international activities complicate the management of marine mammal populations that interact with fishing activities. At or near the top of the food chain, marine mammals are often in direct competition with fishermen for the same resources. They may be injured or killed by becoming entangled or caught in fishing gear, often in an attempt to take bait or fish caught on the lines or in nets; they can destroy or damage gear and may be harassed to deter them from taking catch or harming gear. Prior to 1988, taking of marine mammals incidental to fishing operations could be authorized under three provisions of the MMPA: 1) a permit under a waiver; 2) a permit for take incidental to commercial fishing operations; or 3) a small take permit through informal rulemaking if the total taking has “negligible impact” on the species or stock.<sup>158</sup> Importantly, none of these sections provided authority for permitting a taking in fishing operations of depleted species.

#### ***Interactions under the MMPA***

In *Kokechik Fishermen’s Association v. Secretary of Commerce*,<sup>159</sup> fishermen and environmentalists challenged the issuance of a permit to the Japan Salmon Fisheries Cooperative Association to take Dall’s porpoises in the course of their salmon fishing in the North Pacific. The permit did not include northern fur seals and other marine mammals that would foreseeably be taken. The Secretary had concluded that it was not possible to make a finding as to whether the potentially affected northern fur seal populations were at or above OSP. (For the definition of OSP, see footnote 20.) The D.C. Circuit Court of Appeals held that issuance of the permit was contrary to the MMPA because “it allowed incidental taking of various species of protected marine mammals without first ascertaining as to each such species whether or not the population of that species was at the OSP level.”<sup>160</sup>

The court’s decision had a number of immediate ramifications for both domestic and foreign fishermen. With no authority in the MMPA for issuing permits for the incidental take of depleted species, the Secretary’s ability to issue incidental take permits for any fishery was put into question. First, no permit could be issued if

<sup>154</sup> *Greenpeace Foundation v. Mineta*, 122 F. Supp.2d 1123 (D. Haw. 2000). In the same case, the court found that the interactions between the bottom fish fishery and monk seals had resulted in takes.

<sup>155</sup> 16 U.S.C. § 1538(a).

<sup>156</sup> 16 U.S.C. § 1533(d).

<sup>157</sup> 16 U.S.C. § 1533(f).

<sup>158</sup> 16 U.S.C. § 1387.

<sup>159</sup> 839 F.2d 795 (D.C. Cir. 1988).

<sup>160</sup> 839 F.2d at 802.

it was known that even small numbers of depleted species would be taken in a fishery. Second, in almost any fishery, the Secretary would likely be unable to make the findings required by the Act for all species taken in a fishery and to issue a permit, either because information was inadequate to determine which animals were likely to be taken incidentally, or because data were insufficient to determine whether an identified population was at OSP and would not be disadvantaged.

Congress responded in 1988 by enacting a five-year interim exemption to allow commercial fisheries to operate while information necessary for the management of interactions was compiled. The 1994 MMPA amendments set up a regime for dealing with the impacts of commercial fisheries on marine mammals with a goal that incidental kill and serious injury of marine mammals “be reduced to insignificant levels approaching a zero mortality and serious injury rate.”<sup>161</sup> Initially, the Secretary of Commerce and Secretary of the Interior had to prepare assessments on all marine mammal stocks that occur in U.S. waters.<sup>162</sup> The assessments categorized each stock as either strategic or non-strategic, i.e., at a level where human-caused mortality and serious injury is likely or not likely to cause the stock to be reduced below its OSP. The Secretaries must also prepare and annually revise a list of fisheries classified on the basis of whether the fishery has frequent (Category I), occasional (Category II), or remote (Category III) likelihood of incidentally taking marine mammals. Owners of vessels operating in fisheries listed in Category I or II must register for authorizations for incidental takings and comply with any regulations required to reduce takes. Vessels in these fisheries are also required to carry observers upon request.

The Secretary Commerce must develop and implement take reduction plans to assist in the recovery or prevent the depletion of designated strategic stocks of marine mammals that interact with Category I or Category II fisheries. The take reduction plans are developed by take reduction teams composed of representatives of the commercial fisheries and conservation communities, scientists, members of appropriate RFMCs, and others, consisting of “to the maximum extent practicable, . . . an equitable balance among representatives of resource user interests and nonuser interests.” The plans must recommend regulatory or voluntary measures for reducing marine mammal death and injury. The goal of the plans is to reduce incidental take levels to below the potential biological removal level for these stocks within six months and to insignificant levels approaching zero within five years. The Secretary may implement an approved plan and set fishery-specific limits on takes, which can include time and area restrictions on fishing operations. If a plan fails to achieve these targets, the Secretary must revise it and establish regulations to meet the goals.

NOAA has noted that the taking of marine mammals in the course of non-commercial fishing is also a problem in some instances. In some non-commercial fisheries, for example, the gear used is identical in design, manner, and location of deployment to commercial fishing gear.

Because of the large amount of information that had to be compiled and generated (stock assessments, determinations of OSP and PBR, etc.), implementation of the 1994 amendments dealing with the interactions of marine mammals and commercial fisheries has been slow. Insufficiency of scientific data contributes to the difficulty in developing and implementing the plans. Convening take reduction teams also turned out to be controversial and has slowed the process of plan development. In general, however, implementation has not proceeded to the point that specific issues with the amendments or regulations have become apparent, with one exception.

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<sup>161</sup> 16 U.S.C. § 1387.

<sup>162</sup> 16 U.S.C. § 1386.

### ***Steller Sea Lion***

Circumstances surrounding the Steller sea lion near Alaska uniquely embody some of the difficulties in managing both marine mammals and fisheries. The Steller is the largest of the sea lions and is found in coastal waters along the Pacific Rim. Its main food sources are groundfish, such as pollock and mackerel, and cephalopods, including octopus and squid. Over the last thirty years, the western population of Steller Sea Lions near Alaska has declined by up to 80 percent, resulting in the stock being listed as endangered under the ESA in 1997. NMFS is responsible for managing both the Steller sea lion stock and the Alaskan fisheries, which, at times, results in conflicting statutory obligations. In 1991, Greenpeace and other environmental organizations sued NMFS, asserting that the agency failed to adequately consider the role of commercial fishing in the continuing decline of the Steller sea lion stock. The lack of information on sea lion behavior, the impact of commercial fishing on Steller sea lions, and the role of environmental changes in the Gulf of Alaska and Bering Sea ecosystems, have resulted in considerable uncertainty and competing scientific views, constraining the ability of courts to resolve legal issues and make decisive rulings. The relationship between NMFS' concurrent responsibilities to protect marine mammals under the MMPA while simultaneously managing commercial fisheries under the Magnuson-Stevens Act is not made clear in either act. Further, the listing of the Steller sea lion under the ESA and the different procedural requirements and timeframes of these laws, as well as NEPA, have further challenged the agency's capacity to address such multiple obligations and have been the focus of numerous legal challenges.<sup>163</sup>

### ***Tuna-Dolphin Controversy***

The dolphin mortality rate resulting from tuna fishing practices in the eastern tropical Pacific Ocean spurred a provision in the MMPA to allow dolphins to be taken in the fishery "by a continuation of the application of the best . . . safety techniques and equipment that are economically and technologically practicable."<sup>164</sup> During the 1980s, regulation of U.S. fishing activity greatly reduced the mortality of marine mammals, but high mortality associated with growing foreign fleets led to preservationists and US tuna fishermen pressuring Congress to adopt additional statutory restrictions. Thus, in 1988, Congress amended the MMPA, providing trade sanctions against nations that did not reduce dolphin mortality in the tuna fishery to levels comparable to the U.S. fishery. This action precipitated the controversy, ultimately leading to determinations under international trade law that the United States had improperly mandated foreign compliance with its MMPA provisions.

The International Dolphin Conservation Act of 1992 amended the MMPA by imposing a five-year moratorium on the harvesting of tuna with purse seine nets, and lifting tuna embargos in place against those nations making a commitment to implement the moratorium and take further steps to reduce dolphin mortality.<sup>165</sup> The same year, the United States entered into the La Jolla Agreement, a non-binding international agreement to reduce dolphin mortality in the eastern tropical Pacific (ETP), and to allow purse seine fishing with dolphin mortality caps. This agreement led to the United States and eleven other nations signing the Panama Declaration of 1995 to strengthen the protection of dolphins by: reducing dolphin mortality to levels approaching zero, with the goal of eliminating dolphin mortality in the ETP; establishing annual dolphin mortality limits; avoiding bycatch of immature yellowfin tuna and other non-target species such as sea turtles; strengthening national scientific advisory committees; establishing a system of incentives for vessel captains to continue to reduce dolphin mortality; and enhancing the compliance of participating nations to these commitments. The Panama Declaration initiated negotiations for an agreement to establish the International Dolphin Conservation Program on the basis that the United States amend its laws to lift the

<sup>163</sup> See Marc Halpern, *Steller Sea Lions: The Effects of Multi-Statute Administration on the Role of Science in Environmental Management*, 19 UCLA J. Envtl. L & Pol'y 449 (2001/2002).

<sup>164</sup> 16 U.S.C. § 1378(a)(2)(B).

<sup>165</sup> Pub. L. 102-5231, 106 Stat. 3425 (1992).

MMPA embargoes imposed, permit the sale of both dolphin-safe and non-dolphin safe tuna in the U.S., and change the definition of “dolphin-safe tuna” from tuna harvested without dolphin purse seine encirclement to “tuna harvested without dolphin mortality.”<sup>166</sup> In 1997, in response to the Panama Declaration, Congress passed the International Dolphin Conservation Program Act, which became effective March 3, 1999. The Act primarily amends the MMPA to provide exceptions to the import prohibitions on yellowfin tuna for those nations participating in the International Dolphin Conservation Program in the eastern tropical Pacific Ocean.

## INTERNATIONAL ISSUES

As just shown in the context of the fisheries’ interactions with marine mammals, the United States’ management of marine resources often overlaps, and sometimes conflicts with, international law affecting such resource management, protection, or trade. The United States is a party to numerous treaties relating to international living marine resource management, including the primary agreements listed below.

### Treaties

#### *The United Nations Convention on the Law of the Sea*

As noted in Chapter 1, the United Nations Convention on the Law of the Sea (UNCLOS),<sup>167</sup> concluded in 1982, provides a comprehensive legal framework governing uses of the oceans and the rights and obligations of nations. Though the United States is not a party to the Convention, it has recognized most non-seabed mining provisions of UNCLOS as reflecting international law. President Reagan’s 1983 Ocean Policy Statement, accompanying the proclamation of the U.S. EEZ, states that the United States would follow the non-seabed mining provisions of UNCLOS because they reflect “traditional uses of the oceans” and “generally confirm existing maritime law and practice.”<sup>168</sup>

#### *The General Agreement on Tariffs and Trade*

The General Agreement on Tariffs and Trade (GATT)<sup>169</sup> creates the framework for the international free trade regime. Originally drafted in 1947, GATT now has over 100 parties and is administered through the World Trade Organization, established in 1994.<sup>170</sup> The purpose of GATT is to expand international trade by removing barriers and eliminating discriminatory and protectionist practices. GATT also provides a forum for settling international trade disputes through consultations, and when consultations are unsuccessful, through a formal dispute resolution process.

The most fundamental proscription of GATT is the prohibition on quotas. Article XI of GATT provides, in relevant part, that:

[n]o prohibitions or restrictions . . . whether made effective through quotas, import or export licenses or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party . . .

<sup>166</sup> See generally Department of Commerce, Annual Report on Administration of the Marine Mammal Protection Act, 1999-2000 at 61-67 (2002).

<sup>167</sup> U.N. Doc. A/CONF.62/122, *opened for signature*, Dec. 10, 1982, *reprinted in* 21 I.L.M. 1261.

<sup>168</sup> President Ronald Reagan’s Ocean Policy Statement, 19 Weekly Comp. Pres. Doc. 383 (Mar. 10, 1983).

<sup>169</sup> General Agreement on Tariffs and Trade, *opened for signature* Oct. 30, 1947, 61 Stat. A3, 55 U.N.T.S. 14 (hereinafter GATT).

<sup>170</sup> See Marrakesh Agreement Establishing the World Trade Organization, April 15, 1994, 33 I.L.M. 1125.

However, GATT does contain exceptions, including measures that are necessary to protect human, animal, and plant life or health; or that “relat[e] to the conservation of exhaustible natural resources.”<sup>171</sup> The United States uses State trade restrictions as an economic tool to advance the protection of marine species in a number of statutes. Challenges to some of these restrictions have resulted in adverse decisions under GATT, although the United States has worked to resolve the conflicts.

### ***Agreement on the Conservation and Management of Straddling Stocks and Highly Migratory Stocks (U.N. Fish Stocks Agreement)***

UNCLOS contemplated that future agreements would be necessary to deal with issues related to highly migratory and straddling fish stocks. Although fishing is recognized as a freedom of the high seas, fishing near EEZ boundaries and fishing for stocks that migrate between EEZs, and between EEZs and high seas, have the potential to render EEZ conservation efforts ineffective.

Negotiations spurred by the recommendations of the United Nations Conference on Environment and Development during the Rio Summit in July 1992 resulted in the *Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Stocks* (U.N. Fish Stocks Agreement)<sup>172</sup>. Under the Agreement, countries that fish for straddling or highly migratory species are obligated to cooperate through existing treaties and international arrangements or by the creation of regional fishery organizations. The Agreement elaborates on Articles 63 and 64 of UNCLOS and provides a basis for reconciling fishery management beyond and within EEZs. The Agreement requires compatible management to be implemented based on “the conservation and management measures adopted and applied . . . by the coastal [nations] within areas under national jurisdiction” and further “ensure[s] that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures [within the EEZ].”<sup>173</sup>

The U.N. Fish Stocks Agreement was adopted in August 1995 and came into force on December 11, 2001, after ratification by thirty signatory nations. Although the United States is not a party to UNCLOS, it was among the first countries to ratify the Agreement in August 1996.

### **Meeting International Responsibilities and Implementing Federal Laws**

Federal agencies may encounter significant challenges in attempting to meet mandates under federal laws while not violating U.S. responsibilities under international agreements. As shown below, U.S. actions must be based on domestic authority and also meet international commitments under UNCLOS, the Fish Stocks Agreement, and other international trade agreements.

### ***Compatibility of U.S. Living Marine Resources Management with the United Nations Convention on the Law of the Sea***

In the allocation of rights and responsibilities of coastal nations in the EEZ, UNCLOS provides for exclusive coastal jurisdiction of nations over fisheries with sovereign rights to explore and exploit those resources. In return, coastal nations are to ensure “proper conservation and management” of the living resources of the EEZ to assure they are “not endangered by over-exploitation.” The primary obligations of coastal nations in

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<sup>171</sup> GATT at Article XX(b) and XX(g).

<sup>172</sup> U.N. Doc. A/CONF.164/37 (1995), done Sept. 8, 1995, reprinted in 34 I.L.M. 1542 (1995).

<sup>173</sup> U.N. Fish Stocks Agreement, art. 7(2)(a).

managing fishery resources of their EEZ are set out in Articles 61 and 62 of UNCLOS. Article 61 addresses the principles applicable to conservation of living resources, which include:

- The determination of allowable catch by the coastal nation.
- Use of the best available scientific information.
- Adoption of measures to prevent overexploitation.
- Maintenance of stocks to produce maximum sustainable yield (MSY), as qualified by relevant environmental and economic factors.
- Consideration of associated or dependent stocks.

The requirement to prevent overexploitation is the clearest obligation created for coastal nations by Article 61.

Many of the UNCLOS provisions anticipated that there would be a surplus of harvestable fish beyond domestic capacity, and the Convention requires access by agreement with other nations to surplus. However, the right to set the harvest level—optimum yield—rests exclusively with the coastal nation. No country has the right under UNCLOS’ compulsory dispute resolution provisions to challenge the setting of optimum yield at conservative limits or at the level of domestic harvesting capacity. The U.S. fishery management RFMCs have set the yield of all fisheries at or below domestic harvesting capacity for over a decade. There is currently no identified exploitable surplus for foreign fishing.

Article 61(2) directs coastal nations to “tak[e] into account the best scientific evidence available” in management of the living resources of the EEZ. This language is generally considered to be facilitative, authorizing fishery management regulation even when scientific information is inadequate or unavailable.

Article 61(3) of UNCLOS provides that conservation measures be designed to “produce the maximum sustainable yield, as qualified by relevant environmental and economic factors.” This formulation authorizes coastal nations to adjust MSY to meet the specific interests of the nation. The Convention does not limit adjustments to set the catch below MSY, as the Magnuson-Stevens Act currently does. In fact, the list of factors that may be taken into account in qualifying MSY includes “the economic needs of coastal fishing communities and the special needs of developing States.”

The fundamental approaches to fishery management in UNCLOS and the Magnuson-Stevens Act are quite similar because they were being developed at the same time. Each reflects developments in the negotiation of the other. The Magnuson-Stevens Act, while completely compatible with the UNCLOS EEZ management principles, provides a much better-defined and stronger framework for fishery management.

UNCLOS also addresses management and jurisdiction over some particular types of marine living resources. Consistent with United States law, Articles 66 and 67 provide for coastal nation jurisdiction over anadromous and catadromous stocks, and generally limit the harvesting of these species to waters landward of the EEZ limit. The United States also meets the obligations of these sections to cooperate internationally as a party in other agreements, including the Convention for the Conservation of Anadromous Stocks in the North Pacific Ocean and the Convention for Conservation of Salmon in the North Atlantic.

UNCLOS does not specifically limit management by coastal nations of highly migratory species within the EEZ, but Article 64 requires nations that fish in the region to cooperate to effectively manage the species throughout their range. After 1990, the United States asserted exclusive jurisdiction over all highly migratory species within the EEZ, and has also continued to seek global cooperation as a member of international and regional organizations, including the Inter-American Tropical Tuna Commission, the Indo-Pacific Fisheries Commission, the International Convention for the Conservation of Atlantic Tunas, the Convention for the

Prohibition of Fishing with Long Driftnets in the South Pacific, and the Agreement on the International Dolphin Conservation Program.

Finally, UNCLOS recognizes the right of coastal nations to provide special protections for marine mammals. Article 65 provides that “[n]othing in this Part restricts the right of a coastal [nation] or the competence of an international organization, as appropriate, to prohibit, limit or regulate the exploitation of marine mammals more strictly than provided for in this Part.”

### ***The U.N. Fish Stocks Agreement***

The obligation for cooperation under the Agreement can be implemented through existing treaties and international arrangements or by the creation of new regional fishery organizations. The obligation to cooperate affects not only parties to the treaty, but also non-parties. Article 8(3) and (4) provide that non-parties may not participate in the management of high seas fisheries unless they are members of the regional fishery organization or accept the organization’s management measures. Articles 17(4) and 33(2) call for parties to take “measures consistent with the Agreement and international law” to deter non-parties from undermining the effectiveness of regional management measures.

With regard to management of highly migratory and straddling stocks within national jurisdiction, the Agreement heightens the degree of obligation on the coastal nation imposed by Article 61 of UNCLOS. Terms used in Article 61, such as “take into account” and “consider,” are generally replaced in the Agreement with “shall” adopt, ensure and protect. Effective management of coastal nations is further encouraged by Article 7(a)(2) of the Agreement, which requires compatible fishery management beyond national jurisdiction, taking into account “the conservation and management measures adopted and applied . . . by the coastal [nations] within areas under national jurisdiction and ensur[ing] that measures established in respect of such stocks for the high seas do not undermine the effectiveness of such measures.”

The U.N. Fish Stocks Agreement expands upon the conservation and management concepts of UNCLOS, such as qualified maximum sustainable yield. The Agreement specifically incorporates more contemporary management concepts recommended by UNCED and the Food and Agriculture Organization of the United Nations on sustainability, ecosystem management, and integrated management, including requirements to: adopt measures to assure long-term sustainability of straddling and migratory fish stocks; adopt measures to protect species within the same ecosystem; take measures to prevent or eliminate overfishing and excess capacity to ensure fishing effort that will allow sustainable use of fishery resources; minimize pollution, waste, discards, and impact on associated or dependent species; protect biodiversity of the marine environment; and assess the impact of fishing, other human activities, and environmental factors on target stocks, associated and dependent species, and other species in the ecosystem.<sup>174</sup> The Agreement also requires application of a precautionary approach.<sup>175</sup> The 1996 Sustainable Fisheries Act amendments to the Magnuson-Stevens Act led to major progress toward meeting the management goals of the Agreement.

Since the Agreement came into force, the United States has been actively promoting the development of new regional fishery arrangements to facilitate its implementation. In particular, the United States in November 1995 joined the Northwest Atlantic Fisheries Organization and has been instrumental in the organization’s adoption of the principles of the U.N. Fish Stocks Agreement as rules governing member compliance and non-member fishing activities. The United States also participated in negotiation of the recently concluded Western and Central Pacific Fisheries Convention, which establishes conservation and management measures for all countries and vessels operating in the region. A new regime has also been negotiated under the Convention on the Conservation and Management of Fishery Resources in the Southeast Atlantic Ocean.

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<sup>174</sup> U.N. Fish Stocks Agreement, Articles 5(a)-(h).

<sup>175</sup> U.N. Fish Stocks Agreement, Articles 5(c), 6.

Like other new regional high seas organizations, the governing principles incorporate elements of the U.N. Fish Stocks Agreement. The United States has participated in the South Pacific Tuna Treaty since 1988 and has been a member of the International Commission for the Conservation of Atlantic Tunas (ICCAT) since 1976. ICCAT has also recently incorporated important principles of the U.N. Fish Stocks Agreement into rules for members and for non-member nations fishing within the region.<sup>176</sup>

### ***International Trade and Protection of Living Marine Resources***

The United States is party to a number of international treaties and international organizations that use trade sanctions to bolster the effectiveness of the treaties by creating an enforcement mechanism for protecting high seas resources, ensuring the compliance of parties, and constraining free riders. The Convention on International Trade in Endangered Species,<sup>177</sup> for example, prohibits trade in species listed as endangered in its Appendix I as well as certain species protected unilaterally within certain jurisdictions. ICCAT<sup>178</sup> does not directly provide for trade measures, but resolutions taken by ICCAT have contained trade restrictions. Under the Atlantic Tunas Convention Act,<sup>179</sup> the Secretary of Commerce is directed to promulgate regulations necessary and appropriate to carry out ICCAT recommendations.<sup>180</sup> In a recent action to implement a recommendation of the ICCAT, for example, NMFS is banning the import of undersized Atlantic swordfish. Those types of regional and multilateral approaches to solving such transnational problems have been generally encouraged.

Unilateral protection of a marine species within a nation's jurisdiction can have limited success if the species has a wide migratory range (e.g., whales) or is impacted by activities outside of national boundaries. Because of the economic power the United States wields as one of the world's largest markets, it would seem that all of these issues could be addressed if the United States simply restricts imports from countries that do not

<sup>176</sup> A useful reference concerning the status of international negotiations is found at the NOAA Web site on International Agreements, <http://www.nmfs.noaa.gov/sfa/International> (accessed May 28, 2004).

<sup>177</sup> Convention on International Trade in Endangered Species of Wild Fauna and Flora, *done* March 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243.

<sup>178</sup> International Convention for the Conservation of Atlantic Tunas, *done* 14 May 1966, *entered into force*, 21 Mar 1969, 673 U.N.T.S. 63.

<sup>179</sup> 16 U.S.C. §§ 971-971i.

<sup>180</sup> The Atlantic Tunas Conventions Act, section 971c, also provides that:

(4) Upon the promulgation of regulations [to implement ICCAT Commission resolutions], the Secretary shall promulgate, with the concurrence of the Secretary of State . . . additional regulations which shall become effective simultaneously . . . which prohibit

(A) the entry into the United States of fish in any form of those species which are subject to regulation pursuant to a recommendation of the Commission and which were taken from the Convention area in such manner or in such circumstances as would tend to diminish the effectiveness of the conservation recommendations of the Commission; and

(B) the entry into the United States, from any country when the vessels of such country are being used in the conduct of fishing operations in the Convention area in such manner or in such circumstances as would tend to diminish the effectiveness of the conservation recommendations of the Commission, of fish in any form of those species which are subject to regulation pursuant to a recommendation of the Commission and which were taken from the Convention area.

(5) In the case of repeated and flagrant fishing operations in the Convention area by the vessels of any country which seriously threaten the achievement of the objectives of the Commission's recommendations, the Secretary with the concurrence of the Secretary of State, may by regulations . . . prohibit the entry in any form from such country of other species covered by the Convention as may be under investigation by the Commission and which were taken in the Convention area. Any such prohibition shall continue until the Secretary is satisfied that the condition warranting the prohibition no longer exists, except that all fish in any form of the species under regulation which were previously prohibited from entry shall continue to be prohibited from entry.

provide comparable environmental protections. Although this approach has been subject to challenge, WTO rulings have recognized that conservation can be a legitimate objective of trade policy.

As noted above, laws attempting to protect marine resources internationally were first challenged under GATT when the United States banned importation of tuna from Mexico because dolphins were not comparably protected in the Mexican tuna fishery. Although a trade ban is a *per se* violation of GATT's Article XI prohibition on quotas, there are exceptions. Trade restrictions may be justified, for example, by exceptions under Article XX(b) and (g), which allow trade measures "necessary to protect human, animal or plant life or health" and "relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption."

In 1994, the establishment of the WTO to administer GATT resulted in changes in its dispute resolution process. Most important, an Appellate Body was created to review panel decisions about violations of the trade agreement. In 1998, a WTO panel found the United States in violation for prohibiting imports of shrimp from countries whose harvesting techniques may adversely affect sea turtles. The United States appeal of the panel's decision to the WTO's Appellate Body yielded important new interpretations of the Article XX(g) exceptions. Specifically, it held that: (1) along with nonliving resources, living resources such as the five species of sea turtles protected by the U.S. import prohibition are "exhaustible natural resources;" (2) the U.S. prohibition is a measure "relating to the conservation of" such resources; and (3) the prohibition is a measure "made effective in conjunction with restrictions on domestic production."<sup>181</sup> The Appellate Body did not find that the exceptions cannot apply extraterritorially (although the Body did seem to suggest there was a requisite "nexus"), and it did not prohibit regulations that go to the means of production and not just the product. The decision is hailed as restoring a balance between free trade principles and environmental protection.

In the years following the tuna/dolphin decisions by the GATT panels, the United States has primarily pursued dolphin protection in the tuna fishing industry through international negotiations and has significantly amended the MMPA trade restriction provisions to reflect international agreements and GATT requirements.

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<sup>181</sup> United States Import Prohibition of Certain Shrimp and Shrimp Products, *adopted* Oct. 12, 1998, Appellate Body Report No. AB-1998-4. The Appellate Body invalidated the U.S. prohibition under Article XX's introductory clauses (chapeau), however, which require that measures otherwise justifiable under Article XX(g) are "not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail."



## CHAPTER 4 OCEAN AND COASTAL POLLUTION FROM LAND-BASED SOURCES

### INTRODUCTION

A variety of pollutants, from a multitude of sources, can have serious adverse effects on the quality of ocean and coastal waters.<sup>1</sup> Pollution arises from distinct *point source* discharges, such as municipal wastewater treatment plants and industrial outfall pipes, from diffuse *nonpoint sources*, such as runoff from agricultural or urban areas, and from atmospheric deposition from distant sources such as coal-burning power plants. This chapter presents the federal legal authority enacted to protect water quality and control pollution in ocean and coastal waters from land-based sources, and includes a discussion of some of the current issues associated with those authorities. The legal regime and issues related to other types of water pollution, such as oil releases or spills, vessel wastewater discharges, and ballast water containing nonindigenous species, are discussed in Chapter 7, *Marine Operations*.

### GOVERNING STATUTES

The primary federal statute that addresses control of water pollution from land-based point and nonpoint sources is the Clean Water Act (CWA). The authority for addressing nonpoint source pollution of ocean and coastal waters is also found in Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA). The legal regime for addressing pollution from atmospheric deposition is found in the Clean Air Act (CAA).

Along with the CWA, CZARA, and CAA, several other laws addressing pollution from land-based sources and its effects on U.S. waters include the Ocean Dumping Act, the Comprehensive Environmental Response, Compensation, and Liability Act, and the Resource Conservation and Recovery Act. Other efforts to address ocean and coastal pollution are more recent, including the Beaches Environmental Assessment and Coastal Health Act of 2000 (an amendment to the CWA), attempts to revise the implementation of the total maximum daily load provisions of the CWA, and increased funding for conservation programs in the 2002 Farm Bill. These laws use a variety of tools, ranging from regulatory controls to incentive-based measures, as means for improving the quality of the nation's waters.

### Clean Water Act

Congress enacted the Clean Water Act (CWA) to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”<sup>2</sup> The CWA set forth national goals: to make all waters “fishable” and

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<sup>1</sup> The overall national coastal condition was rated in the *National Coastal Condition Report* in 2001 as being from “fair” to “poor,” varying from region to region. Reports of states and tribes under § 305(b) of the CWA indicate that the leading stressors on receiving waters are pathogens, oxygen-depleting substances, metals, and nutrients. U.S. EPA, *National Coastal Condition Report*, September 2001, EPA-620/R-01/005, available at <http://www.epa.gov/owow/oceans/nccr/> (accessed May 6, 2004).

<sup>2</sup> Pub. L. 92-500; 86 Stat. 816; October 18, 1972. (codified at 33 U.S.C. §§ 1251 *et seq.*) The quoted goal is at 33 U.S.C. § 1251(a).

“swimmable” by 1983; and to eliminate the discharge of pollutants into the waters of the United States by 1985.<sup>3</sup> The CWA, which is administered primarily by the U.S. Environmental Protection Agency (EPA), significantly strengthened pre-existing federal legal authority to control water pollution, and established a national program with both federal and state roles to achieve the goals of the Act. Previously, federal water pollution law relied almost entirely on state planning and management. Provisions of the CWA primarily relating to water pollution from land-based sources are described below.

Under the CWA, Congress has enacted programs to establish:

- National discharge standards for criteria pollutants.
- National effluent standards for major industrial categories.
- The National Pollutant Discharge Elimination System permit program.
- State planning and implementation of state authorities to control nonpoint sources.
- Development of water quality standards and total maximum daily load determinations, and allocations among point and nonpoint sources to meet water quality standards, where needed in addition to the discharge and effluent limitations for point sources.
- Federal funding to assist states in implementing those programs.
- Federal funding to upgrade publicly owned wastewater treatment works.

As these broad elements of the CWA make clear, the law depends in large part upon state planning and implementation.<sup>4</sup>

The CWA provides for federal, technology-based standards to be imposed on point sources, such as municipal wastewater treatment plants and industrial facilities, through “end-of-the-pipe” quantitative restrictions on discharge.<sup>5</sup> EPA establishes effluent limitation standards by industrial categories, through notice and comment rulemaking. Under the Act’s National Pollutant Discharge Elimination System (NPDES) regulatory program, these standards are incorporated into permits issued to individual point sources by EPA or by a state that has been delegated authority by EPA.<sup>6</sup> The NPDES program also regulates discharges of stormwater from municipal separate storm sewer systems, certain categories of industrial facilities, and many construction sites. Congress has provided for exemptions from the requirement for a permit for certain point sources, including agricultural irrigation return flows and agricultural stormwater discharges.<sup>7</sup>

Section 401 of the CWA authorizes states to require federal agencies to obtain certification, or require permit applicants to do so, from the state before issuing permits that would result in increased pollutant loads to waters and wetlands. The certification is issued only if such increased loads would not cause or contribute to violations of the state’s water quality standards. States may grant, deny, or condition these certifications.<sup>8</sup>

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<sup>3</sup> 33 U.S.C. §§ 1251(a)(1)-(2).

<sup>4</sup> An exception is that discharges of one category of pollutants—dredged or fill material—are regulated primarily by the USACE under Section 404 of the CWA. The 1987 amendments to the CWA allow states to take over the responsibility for the Section 404 permit program but very few states have chosen to do so.

<sup>5</sup> 33 U.S.C. § 1311. As adopted in 1972, the CWA required that all discharges of pollutants (other than those from publicly owned treatment works (POTWs)) were to be treated with the “best practicable control technology” (BPT) by July 1, 1977, and with the “best available technology economically achievable” (BAT) by July 1, 1983. Under Title II, the sewage treatment level at POTWs was to be increased (typically from none) to a minimum of “secondary treatment” by 1977, and “best practicable waste treatment over the life of the works” by 1983 (although this was eliminated in 1981). See 33 U.S.C. §§ 1311(b)(1)(A), (b)(2)(A).

<sup>6</sup> 33 U.S.C. § 1342.

<sup>7</sup> *Id.* § 1362(14).

<sup>8</sup> 33 U.S.C. § 1341.

Congress created the Clean Water State Revolving Fund (SRF) program as part of extensive amendments to the CWA in 1987<sup>9</sup> in an effort to shift from outright federal grants to states and localities to build sewage treatment plants, to a more self-sustaining system of state-administered revolving loan funds. Congress, through appropriations to EPA, has provided capitalization grants to all fifty states and Puerto Rico. States must match part of the federal capitalization grants and set the priorities for making loans from the SRFs. Loans usually finance major public infrastructure such as construction of municipal wastewater treatment plants and correction of wet-weather sewer overflows, but also can be made for stormwater control and nonpoint source pollution control activities.<sup>10</sup>

Diffuse sources, such as polluted runoff, are addressed by the CWA Section 319 National Nonpoint Source Pollution Program, in which EPA provides matching grants to states to develop and implement statewide programs for managing nonpoint sources of water pollution. States must prepare an assessment of waters where the control of nonpoint source pollution is necessary to meet water quality standards, identify the significant sources of that pollution, and specify control measures. States also must develop a program that sets forth the best management practices necessary to remedy the problems.<sup>11</sup>

Another important part of efforts to address nonpoint sources is the Total Maximum Daily Load (TMDL) program. Section 303(d) of the CWA requires states to ensure that their waters meet water quality standards, identify and prioritize their waters according to the level of pollution, and then establish TMDLs for those waters. TMDL refers to the maximum amount of a pollutant, from point or nonpoint sources, that can be present in a waterbody while still maintaining water quality standards. States must develop a TMDL for each pollutant of concern, and develop and implement plans to achieve and maintain TMDLs by allocating reductions among point and nonpoint sources.<sup>12</sup>

Section 304(a) of the CWA also plays a role in addressing nonpoint source pollution, as it requires EPA to develop risk-based criteria for water quality that accurately reflect the latest scientific knowledge and address the impact of pollutant concentrations on the environment and human health. Section 304(a) also provides guidance to states for developing the 303 water quality standards. Under the CWA, states must review these standards at least once every three years and revise them as appropriate. Revisions determined to be less stringent must receive approval from EPA prior to use in CWA programs.<sup>13</sup>

Section 404 of the CWA is the primary federal regulatory program providing protection for the nation's wetlands, prohibiting the discharge of dredged or fill material into waters of the United States without a permit.<sup>14</sup> Under the regulations implementing the CWA, the term "waters of the United States" includes some wetlands.<sup>15</sup> Section 404 permits are issued by the U.S. Army Corps of Engineers (USACE) after application of its regulatory review standards, as well as guidelines developed by EPA.<sup>16</sup> EPA, which implements all other sections of the CWA at the

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<sup>9</sup> The 1987 amendments to the CWA are in the Water Quality Act of 1987, Pub. L. 100-4, 101 Stat. 60, February 4, 1987.

<sup>10</sup> For additional information on the State Revolving Fund program, see *Financing America's Clean Water Since 1987*, U.S. EPA, Office of Water, EPA-832-R-00-011, May 2001, available at <http://www.epa.gov/owm/cwfinance/cwsrf/progress.pdf> (accessed April 22, 2004).

<sup>11</sup> 33 U.S.C. § 1329.

<sup>12</sup> See <http://www.epa.gov/owow/tmdl>.

<sup>13</sup> General information is available at <http://www.epa.gov/wqsdatabase> (accessed June 1, 2004). Individual state water quality standards are available at <http://www.epa.gov/ost/wqs> (accessed June 1, 2004).

<sup>14</sup> 33 U.S.C. § 1344.

<sup>15</sup> 33 C.F.R. §§ 328.3(a) and (b).

<sup>16</sup> 40 C.F.R. Part 230.

federal level, has joint responsibility with the USACE to administer Section 404, ultimate authority to interpret the statute, and authority to veto a Section 404 permit that the USACE issues.<sup>17</sup>

Under Section 404, USACE can also issue general permits on a state, regional, or national basis.<sup>18</sup> Rather than applying for an individual permit, a person may qualify to discharge dredged or fill material into waters of the United States under one of these general permits, issued for projects with minimal adverse effects, by agreeing to comply with certain regulations.<sup>19</sup> General permits decrease the administrative burden for the federal and state regulatory agencies, but controversy exists about their use.

The law governing the definition of “waters of the United States” has been in flux as a result of recent Supreme Court rulings, notably *Solid Waste Agency of Northern Cook County (SWANCC) v. U.S. Army Corps of Engineers*.<sup>20</sup> In that case, the Supreme Court restricted the previous geographic scope of jurisdiction under CWA Section 404, to exclude “non-navigable, isolated, intrastate” waters or wetlands from the category of “waters of the United States” under the CWA if the sole basis for considering such waters to be “waters of the United States” is because they may be used as habitat by migratory birds. After the Supreme Court’s ruling in *SWANCC*, EPA and the USACE issued an Advance Notice of Proposed Rulemaking designed to clarify the scope of federal jurisdiction over isolated, intrastate waters, but the agencies subsequently decided not to elaborate on the *SWANCC* ruling.<sup>21</sup>

Section 311 of the CWA provides the primary mechanism for enforcing oil pollution control standards and establishing responsibility and liability for oil spill and hazardous substance cleanup and damages.<sup>22</sup> Although the Oil Pollution Act of 1990<sup>23</sup> replaced most of the CWA legal provisions for responsibility for cleanup costs and damages for oil spills, Section 311 continues to provide the framework for civil and criminal enforcement by the federal government for oil spills and for notification to EPA or the U.S. Coast Guard when a spill of oil or a hazardous substance occurs.<sup>24</sup>

Section 320 of the CWA, added by amendments to the Act in 1987, established the National Estuary Program (NEP), which focuses on point and nonpoint source pollution in high priority estuaries.<sup>25</sup> EPA assists state, regional, and local governments in developing a watershed-based, Comprehensive Conservation and Management Plan (CCMP) that “recommends priority corrective actions and compliance schedules addressing point and

<sup>17</sup> 33 U.S.C. § 1344(c); see also Jurisdiction of Dredge and Fill Program, Memorandum of Understanding between the Environmental Protection Agency and the Army Corps of Engineers, 45 Fed. Reg. 45,018 (1980).

<sup>18</sup> 33 U.S.C. § 1344(a), (e). USACE authorizes projects involving the discharge of dredged or fill material into waters of the United States using either individual permits or general permits. However, even when a party applies for an individual permit, USACE regulations state that USACE District Engineers “should” look for possible eligibility under a general permit. 33 C.F.R. § 330.1(f) (1998).

<sup>19</sup> *Id.*

<sup>20</sup> 531 U.S. 159 (2001). See also *American Mining Congress v. U.S. EPA*, 497 U.S. 1003 (1997).

<sup>21</sup> The agencies’ discussion of possible ways to implement the *SWANCC* decision is found at Advance Notice of Proposed Rulemaking of the Clean Water Act Regulatory Definition of “Waters of the United States,” 68 Fed. Reg. 1991-1998 (Jan. 15, 2003). The decision not to issue a new rule concerning federal regulatory jurisdiction over isolated wetlands is found at *EPA and Army Corps Issue Wetlands Decision*, USACE press release, December 16, 2003, available at [http://www.usace.army.mil/net/functions/cw/hot\\_topics/16dec\\_epa.htm](http://www.usace.army.mil/net/functions/cw/hot_topics/16dec_epa.htm) (accessed November 9, 2004). Further discussion of wetlands law is beyond the scope of this document.

<sup>22</sup> 33 U.S.C. § 1321.

<sup>23</sup> Pub. L. 101-380; discussed in Chapter 7 of this Appendix.

<sup>24</sup> The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, which includes the program commonly known as Superfund) establishes a parallel legal regime to CWA § 311 and the Oil Pollution Act of 1990 for hazardous substances (not including petroleum). See 42 USC §§ 9601 *et seq.* Section 311 of the CWA is also discussed in Chapters 5 and 7.

<sup>25</sup> 33 U.S.C. § 1330.

nonpoint sources of pollution to restore and maintain” estuarine water quality, fish populations, and other designated uses of the estuary.<sup>26</sup> Implementation of the CCMPs depends on the jurisdiction, mechanisms, and authorities of multiple players, including federal and state agencies, towns, counties, nongovernmental organizations, and industry representatives. In addition to the NEP program, estuarine management and protection programs are authorized by the CWA for the Chesapeake Bay,<sup>27</sup> the Great Lakes,<sup>28</sup> and Long Island Sound,<sup>29</sup> and EPA established a similar program for the Gulf of Mexico.<sup>30</sup>

In 2000, the Beaches Environmental Assessment and Coastal Health Act (BEACH Act),<sup>31</sup> amended the Clean Water Act to require states to set pathogen water quality standards for their coastal waters. The BEACH Act was passed to counteract the growing problems of increased beach closures and incidences of infectious diseases in recreational areas, and is, in essence, a national plan to protect the health of the people who visit the nation’s beaches.<sup>32</sup>

The BEACH Act requires states with coastal recreation waters to adopt water quality criteria and standards for pathogen levels in those waters, and to develop pathogen indicators with published criteria. Coastal recreation waters are defined as “the Great Lakes [and] marine coastal waters (including coastal estuaries) that are designated under [Clean Water Act Section 303(c)] by a State for use for swimming, bathing, surfing, or similar water contact activities.”<sup>33</sup> The Act, and EPA’s program implementing it, seek to improve the following areas: strengthening beach water quality standards, monitoring, and testing; providing faster laboratory test methods; predicting pollution; investing in health and methods research; and better informing of the public.<sup>34</sup> The success of the BEACH Act has yet to be determined, but EPA has indicated that enhanced state monitoring programs will be necessary in order for EPA and states to understand (and address) the true extent of this problem.

### Coastal Zone Act Reauthorization Amendments of 1990

As noted in Chapter 2, the Coastal Zone Management Act of 1972 (CZMA) was enacted during the same period as the Clean Water Act and other major federal environmental legislation. In contrast to many of these other laws, the CZMA is voluntary and does not impose regulatory requirements on states.

When Congress reauthorized and amended the CZMA through the Coastal Zone Act Reauthorization Amendments of 1990 (CZARA),<sup>35</sup> it perceived that the CZMA’s goal of “control[ing] land use activities which have a direct and significant impact on the coastal waters” had not been achieved.<sup>36</sup> To help meet this goal, Congress created the Coastal Nonpoint Pollution Control Program, more commonly known as the CZARA Section 6217 program.<sup>37</sup> The Section 6217 program is intended to enhance state and federal coordination,

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<sup>26</sup> 33 U.S.C. § 1330(b)(4).

<sup>27</sup> 33 U.S.C. § 1267.

<sup>28</sup> 33 U.S.C. § 1268.

<sup>29</sup> 33 U.S.C. § 1269.

<sup>30</sup> The Gulf of Mexico Program 2001 Stakeholders Report is available at [http://www.epa.gov/gmpo/welcome/pdf/Gulf2001\\_sec1.pdf](http://www.epa.gov/gmpo/welcome/pdf/Gulf2001_sec1.pdf) (accessed June 1, 2004).

<sup>31</sup> Pub. L. 106-284, 114 Stat. 870, October 10, 2000.

<sup>32</sup> The BEACH Act amended (through additions) part or all of the CWA sections 104, 303, 406, 502, and 518. A detailed discussion of these new additions is available at <http://www.epa.gov/waterscience/beaches/act.html> (accessed April 22, 2004).

<sup>33</sup> 33 U.S.C. § 1362(21)(A).

<sup>34</sup> See Overview, available at <http://www.epa.gov/waterscience/beaches/about.html> (accessed April 22, 2004).

<sup>35</sup> Coastal Zone Act Reauthorization Amendments of 1990, Pub. L. 101-508, Title VI, Subtitle C, 104 Stat. 1388. November 5, 1990.

<sup>36</sup> 136 Cong. Rec. 26,033 (Sept. 26, 1990).

<sup>37</sup> 16 U.S.C. § 1455b.

promote stronger links between state coastal management programs and state water quality programs, and enhance state and local land use management efforts aimed at protecting coastal water quality, particularly with respect to nonpoint source pollution. To facilitate development of state coastal nonpoint programs and ensure coordination among states, Congress assigned administration of the program at the federal level to NOAA and EPA.

Under Section 6217, every state with a federally-approved coastal management program must develop and submit a coastal nonpoint pollution control plan to NOAA and EPA for approval. In these plans, the coastal state is required to identify land uses that contribute to coastal water quality degradation and critical coastal areas. Congress further required that state programs provide for implementation of best management practices compiled by EPA, and directed the states to identify enforceable policies and mechanisms that will allow them to implement those measures and others as part of the state's federally-approved coastal management program.<sup>38</sup> Federal financial assistance to a state's program depends upon the approval of both NOAA and EPA.

### Clean Air Act

Congress passed comprehensive amendments to the Clean Air Act (CAA) in 1970 to regulate air pollution from stationary and mobile sources.<sup>39</sup> The CAA establishes a number of mechanisms and programs to address air pollution, including health- and welfare-based ambient standards that are implemented through air quality management programs administered by the states, technology-based standards, and market-based "cap-and-trade" programs. The establishment of National Ambient Air Quality Standards (NAAQS) is the foundation of the CAA. Under the CAA, EPA is charged with establishing primary and secondary NAAQS for all "criteria pollutants" (those pollutants that EPA has determined endanger the public health or welfare). Primary NAAQS are directed at protecting the public health, while secondary NAAQS are concerned with protecting the public welfare.

The six criteria pollutants currently regulated under the CAA include particulates, sulfur dioxide, nitrogen oxides, lead, carbon monoxide, and ozone (with hydrocarbons rescinded in 1982). After establishing the primary and secondary NAAQS levels for the criteria pollutants, these amounts must still be translated into emission limitations on individual sources. It is at this stage in the implementation process that responsibility under the CAA shifts to the states, which are required to develop State Implementation Plans (SIPs) stringent enough to achieve the NAAQS by a statutorily-set deadline and maintain them thereafter. In some situations, the CAA authorizes regulatory controls to be imposed at the federal level by EPA through a detailed Federal Implementation Plan when states fail to satisfy their obligations under the Act. The CAA also provides for financial disincentives, notably reduction in federal highway funds, for states that do not meet the NAAQS as required. Deadlines for compliance with the NAAQS standards were extended in the 1977 amendments to the CAA, as Congress grappled with conflicting concerns for economic growth, technological capability, and air quality. The deadlines were again extended in the 1990 CAA amendments, which also made numerous other changes to the basic statute.<sup>40</sup>

Because the air transports pollutants into the ocean, improving water quality depends on improvements in air quality, including limiting interstate and international trans-boundary air pollution. The CAA has included programs to address such issues since 1970, but due to their cumbersome nature, EPA for many years chose not to implement them. Although CAA Section 110 requires states to consider the effects that major source emissions may have on other states, when it was challenged, courts held that there is no statutory duty on behalf of EPA to

<sup>38</sup> 16 U.S.C. § 1455(d)(16).

<sup>39</sup> Pub. L. 91-604, 84 Stat. 1676, December 31, 1970. (codified at 42 U.S.C. §§ 7401 *et seq.*, as amended.)

<sup>40</sup> Pub. L. 101-549, 104 Stat. 2399, November 15, 1990.

address interstate pollution problems.<sup>41</sup> As information on the dangers to human health and the adverse effects on the environment from interstate and international trans-boundary pollution grew, however, so too did pressure for action.

The 1990 amendments to the CAA include acid rain control provisions that impose controls on sulfur dioxide and nitrogen oxides emissions from fossil fuel-burning power plants and industrial facilities. The 1990 amendments also established a new program of technology-based standards for toxic air pollutants mandating maximum achievable control technology (MACT) on at least 189 designated hazardous chemicals, including mercury, dioxins, and PCBs. This amendment was prompted in part by research indicating that atmospheric deposition of toxic pollutants, particularly mercury, and its corresponding bioaccumulation<sup>42</sup> in fish and other marine life, was becoming a matter of serious concern.

The 1990 amendments to the Act also attempted to more effectively address the long distance transportation of pollutants by expanding the category of sources subject to interstate pollution enforcement. None of these provisions regarding transport of air pollutants, however, specifically addresses impacts of air pollution on waterbodies. The amendments authorize EPA to set up interstate transport regions—areas where a particular pollutant emitted from one or more states contributes significantly to a NAAQS violation in one or more other states. EPA must then establish a transport commission consisting of EPA and representatives from all states involved. The transport commission is charged with assessing the degree of interstate pollution and strategies for mitigating such pollution, and eventually recommending prevention measures to EPA.<sup>43</sup> To date, such trans-boundary efforts have been used only occasionally; thus, it remains to be seen whether they will significantly reduce interstate and trans-boundary pollution problems, including ocean and coastal pollution.

In addition to emission limits on stationary sources, the CAA also contains national, technology-forcing emission limitations on mobile sources (including cars, trucks, and heavy off-road vehicles, and engines for recreational and commercial vessels). While the original regulations imposed on the automotive industry in 1970 proved unachievable, the 1990 amendments of the CAA were deemed more realistic and attainable. The 1990 amendments strengthened vehicle emission standards and provided for a variety of additional measures, including: stronger inspection and maintenance programs; anti-tampering penalties; encouragement and development of alternative clean fuels and clean vehicles; controls on fuel volatility and evaporative emissions and sulfur content in gasoline and diesel fuel; and regulations for off-road vehicles.<sup>44</sup> In 2004, EPA announced new initiatives designed to improve air quality through a combination of emission controls and cleaner fuels for certain marine diesel engines and other nonroad engines. (See Chapter 7, *Marine Operations*.)

EPA's Office of Water and Office of Air and Radiation have developed an Air-Water Interface Work Plan detailing an array of actions that EPA will take over the next several years to address atmospheric deposition of pollutants—including nitrogen compounds and toxics—into waterbodies nationally, using the authorities of both the CAA and the CWA.<sup>45</sup>

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<sup>41</sup> See e.g., *Connecticut v. EPA*, 656 F.3d 902 (2nd Cir. 1981).

<sup>42</sup> *Bioaccumulate* means to accumulate in a biological environment, including within aquatic organisms and the animals that consume them, including humans. Obviously, this is problematic when bioaccumulating substances are toxic to the organisms, animals, or people who consume them.

<sup>43</sup> 42 U.S.C. § 7506a, as amended by the Clean Air Act Amendments of 1990, Pub. L. 101-549, § 102(f)(1).

<sup>44</sup> See generally "The Plain English Guide to the Clean Air Act, Mobile sources (cars, trucks, buses, off-road vehicles, planes, etc.);" available at [http://www.epa.gov/oar/oaqps/peg\\_caa/pegcaa04.html#topic4a](http://www.epa.gov/oar/oaqps/peg_caa/pegcaa04.html#topic4a) (accessed May 3, 2004).

<sup>45</sup> Air-Water Interface Work Plan is available at [http://www.epa.gov/owow/oceans/airdep/airwater\\_plan16.pdf](http://www.epa.gov/owow/oceans/airdep/airwater_plan16.pdf) (accessed April 29, 2004).

Examples of actions to control nitrogen compounds include:

- CAA Title IV Acid Rain Program Nitrogen Oxide (NO<sub>x</sub>) Reductions.
- NO<sub>x</sub> SIP Call, § 126 Petitions, and Federal Implementation Plans (CAA).
- New Source Performance Standards (CAA) (new power plants).

## Farm Bill Conservation Programs

Prior to 1985, there were numerous federal programs in different agencies designed to control soil erosion. All of these programs were voluntary and moderately funded, with no direction or targeting of funds to the most erosive soils. The 1985 Farm Bill signified a major turning point in agriculture programs by introducing the original Conservation Reserve Program to preserve and protect highly erodible soil. The law also introduced two other new conservation programs—known as the Sodbuster and Swampbuster programs—designed to pay farmers to remove highly erodible soils and wetlands from agricultural production for an agreed number of years. The 1996 Federal Agricultural Improvement and Reform Act consolidated the Agricultural Conservation Program, Great Plains Program, Water Quality Incentives Program, and the Colorado River Salinity Program into one cost-sharing conservation program: the Environmental Quality Incentives Program (EQIP). Under EQIP, cost-sharing, incentive payments, technical assistance, and educational assistance are provided to farmers and ranchers who enter into contracts of generally five to ten years to install best management practices on their lands.

While Congress made several changes to the conservation programs covered in the 2002 Farm Bill, the substantial increase in funding for conservation and commodity programs sparked considerable interest.<sup>46</sup> In addition to farming and livestock subsidies, the 2002 Farm Bill dramatically increased the budget for conservation programs, for example, increasing EQIP funding from roughly \$200 million per year to \$5.8 billion over a six-year period (fiscal years 2002-07).<sup>47</sup> It also created a new Conservation Security Program, which will provide financial and technical assistance to farmers and ranchers who implement certain conservation practices.

Many of the changes in the EQIP program were made because of concern about the agricultural community's ability to comply with other government programs, including the CWA NPDES requirement for the largest animal feeding operations to prepare and implement comprehensive nutrient management plans, and the CWA TMDL program that affects nonpoint sources. Congress intended that the U.S. Department of Agriculture's (USDA) implementation of the Farm Bill conservation programs ensure better integration with the other federal environmental programs.<sup>48</sup> For example, the 2002 Farm Bill directs that 60 percent of EQIP funds be targeted at

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- Mobile Source Control (CAA) (NOx reductions for new cars, SUVs, others).
  - Concentrated Animal Feeding Operations (CAFOs) (a few CAFOs are regulated pursuant to the CAA).

Examples of actions to control air toxics include:

- National Technology-Based Standards (CAA "Maximum Achievable Control Technology" standards for 188 CAA Hazardous Air Pollutants from stationary sources).
- Solid Waste Combustion Standards (CAA) (municipal combustors, medical, industrial, and other incinerators emitting mercury, lead, dioxins, others).
- Area Source Standards (CAA) (drycleaners, gas stations, POTWs, others).
- Utility Determination and Actions (EPA study of cost/effectiveness of technologies for mercury reduction and pollution prevention from coal-fired electric utilities).
- Water Quality Criteria and Standards (CWA) (EPA is studying the possible need to revise human health and aquatic life protective criteria (such as the reference dose) for methylmercury, which is the biologically-transformed, highly toxic form of atmospheric deposition mercury).

<sup>46</sup> The 2002 Farm Bill is officially entitled the Farm Security and Rural Investment Act of 2002, Pub. L. 107-171, signed into law May 13, 2002.

<sup>47</sup> U.S. Department of Agriculture, Economic Research Service, Conservation Programs, *available at* <http://www.ers.usda.gov/features/farmbill/analysis/conservationoverview.htm>, (accessed April 23, 2004).

<sup>48</sup> Notably, § 2301 of the 2002 Farm Bill amended the Food Security Act of 1985 (16 U.S.C. §§ 3839aa *et seq.*), at § 1240, to state—in federal law—the following purposes for the Environmental Quality Incentives Program (EQIP):

The purposes of the EQIP established by this chapter are to promote agricultural production and environmental quality as compatible goals, and to optimize environmental benefits, by

- (1) *assisting producers in complying with local, State, and national regulatory requirements* concerning
- (A) soil, water, and air quality;

practices relating to livestock production, with specific goals such as improving water quality and meeting Clean Water Act standards through the reduction of excess nutrients, pollutants, and salinity associated with animal feeding operations.<sup>49</sup>

## Ocean Dumping Act

Title I of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA), known as the Ocean Dumping Act (ODA),<sup>50</sup> provides for the regulation of the ocean disposal of wastes by persons or vessels, within U.S. jurisdiction. The ODA uses a permitting program to regulate intentional disposal or dumping of all materials into ocean waters. Related provisions of the MPRSA authorize research into ocean disposal and its effects.

Four federal agencies have responsibilities under the ODA: USACE, EPA, the U.S. Coast Guard, and NOAA. The ODA prohibits the transportation by any vessel from the United States, or by U.S. flag vessels from any location, of any material for the purpose of dumping it into ocean waters, except as may be authorized by a permit. It also prohibits the dumping, without a permit, of material transported from a location outside the United States into the U.S. territorial sea or into the contiguous zone to the extent that it may affect the territorial sea or the territory of the United States.<sup>51</sup>

Ocean waters are defined as waters of the open seas lying seaward of the baseline from which the territorial sea is measured.<sup>52</sup> Material is broadly defined as matter of any kind or description, including, but not limited to, dredged material, solid waste, incinerator residue, garbage, sewage, sewage sludge, munitions, radiological, chemical, and biological warfare agents, radioactive materials, chemicals, biological and laboratory waste, wrecked or discarded equipment, rock, sand, excavation debris, and industrial, municipal, agricultural, and other waste. It does not include sewage from vessels regulated under Section 312 of the CWA, and oil within the meaning of Section 311 of the CWA is included only to the extent that it is taken on board a vessel or aircraft for the purpose of dumping.<sup>53</sup> Dumping is defined as a disposition of material, but does not include a routine discharge of effluent incidental to the propulsion of, or operation of motor driven equipment on, vessels or the disposition of material from any outfall structure that is regulated by the CWA, Section 13 of the Rivers and Harbors Act of 1899, or the Atomic Energy Act of 1954.<sup>54</sup> Furthermore, dumping does not mean the construction of any fixed structure or artificial island nor the intentional placement of any device in ocean waters or on or in the submerged land

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(B) wildlife habitat; and

(C) surface and ground water conservation;

(2) *avoiding, to the maximum extent practicable, the need for resource and regulatory programs by assisting producers in protecting soil, water, air, and related natural resources and meeting environmental quality criteria established by Federal, State, tribal, and local agencies;*

[. . .] and

(5) *consolidating and streamlining conservation planning and regulatory compliance processes to reduce administrative burdens on producers and the cost of achieving environmental goals.*

Pub. L. 107-171, § 2301 (emphasis supplied).

These statutory purposes demonstrate that Congress intends for the Farm Bill conservation programs to be substantially bolstered, specifically in hopes of avoiding the need for regulatory programs addressing agricultural producers who are adversely affecting the nation's natural resources, including estuaries and coastal waters.

<sup>49</sup> Food Security Act of 1985 (16 U.S.C. § 3839aa *et seq.*), § 1240B(g), as amended by § 2301 of the 2002 Farm Bill.

<sup>50</sup> Pub. L. 92-532, 86 Stat. 1052, October 23, 1972. (Title I, the ODA, is codified at 33 U.S.C. §§ 1401 *et seq.*).

<sup>51</sup> 33 U.S.C. § 1411.

<sup>52</sup> 33 U.S.C. § 1402(b).

<sup>53</sup> 33 U.S.C. § 1402(c).

<sup>54</sup> The ODA definition of "dumping" is found at 33 U.S.C. § 1402(f).

beneath such waters, for a purpose other than disposal, when such construction or placement is otherwise regulated.<sup>55</sup>

The Ocean Dumping Ban Act of 1998, which made it unlawful to dump sewage sludge or industrial waste into ocean waters after December 31, 1991, amended the ODA. All those engaged in dumping these materials when the statute was enacted were required to enter into compliance and enforcement agreements with EPA, and those continuing to dump after the 1991 deadline were subject to substantial civil penalties. This regime effectively ended the dumping of sewage sludge and industrial waste into ocean waters.<sup>56</sup> In addition, high-level radioactive wastes, medical wastes, and radiological, chemical, and biological warfare agents, were not permitted for ocean dumping under any circumstances.<sup>57</sup>

Virtually all material dumped in the oceans in the United States is dredged material removed from the bottom of waterbodies to maintain navigation channels and berthing areas. Other materials that are currently disposed of in the oceans include fish waste, human remains, and vessels. In the case of dredged material, the decision to issue a permit is made by the USACE using EPA's environmental criteria and subject to EPA's concurrence. For all other materials, EPA is the permitting agency. EPA is also responsible for designating recommended ocean dumping sites for all types of materials.

### Comprehensive Environmental Response, Compensation, and Liability Act

The federal environmental statutes that were enacted in the 1970s were oriented mainly to preventing or reducing current pollution from ongoing activities. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA),<sup>58</sup> as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA),<sup>59</sup> established a mechanism for responding to the health and environmental dangers posed by toxic materials that may have been released, discharged, or buried prior to the adoption of laws regulating these practices or which were illegally deposited. CERCLA and the Resource Conservation and Recovery Act (RCRA, discussed below) are the principle federal laws with the goal of preventing and cleaning up pollutants that may be introduced to ocean and coastal waters via the groundwater pathway.<sup>60</sup>

<sup>55</sup> *Id.*

<sup>56</sup> Pub. L. 100-688, November 18, 1988 (codified at 33 U.S.C. §§ 1414b).

<sup>57</sup> 33 U.S.C. §§ 1412.

<sup>58</sup> Pub. L. 96-510, December 11, 1980, as amended (codified at 42 U.S.C. §§ 9601 *et seq.*)

<sup>59</sup> Pub. L. 99-499, October 17, 1986.

<sup>60</sup> Superfund sites located in, or affecting, marine waters: Callahan Mine, Brooksville, Maine; Portsmouth Naval Shipyard, Kittery, Maine; New Bedford Site, New Bedford, Massachusetts; Atlas Tack Corp., Fairhaven, Massachusetts; Newport Naval Education and Training Center, Newport, Rhode Island; Aberdeen Proving Ground, Aberdeen, Maryland; Patuxent River Naval Air Station, St. Mary's County, Maryland; Indian Head Naval Surface Warfare Center, Indian Head, Maryland; Mattiace Petrochemical Co., Glen Cove, New York; North Sea Municipal Landfill, North Sea, New York; Fort Eustis (Army) Newport News, Virginia; Norfolk Naval Base, Norfolk, Virginia; Naval Amphibious Base Little Creek, Virginia Beach, Virginia; Norfolk Naval Shipyard, Portsmouth, Virginia; Parris Island Marine Corps Recruit Depot, Beaufort, South Carolina; Brunswick Wood Preserving, Brunswick, Georgia; LCP Chemicals Georgia, Brunswick, Georgia; Tyndall Air Force Base, Panama City, Florida; Pensacola Naval Air Station, Pensacola, Florida; American Creosote Works, Pensacola, Florida; Bayou Bonfouca, Slidell, Louisiana; Star Lake Canal, Port Neches, Texas; Palmer Barge Line, Port Arthur, Texas; State Marine of Port Arthur, Jefferson County, Texas; Malone Service Company, Texas City, Texas; MOTCO, Inc., La Marque, Texas; Brio Refining, Inc., Friendswood, Texas; Patrick Bayou, Deer Park, Texas; GulfCo Marine Maintenance, Freeport, Texas; Brine Service Company, Corpus Christi, Texas; Camp Pendleton Marine Corps Base, San Diego County, California; Fort Ord, Marina, California; Treasure Island Naval Station-Hunters Point Annex, San Francisco, California; Concord Naval Weapons Station, Concord, California; Commencement Bay, South Tacoma Channel, Tacoma, Washington; Commencement Bay, Nearshore/Tideflats, Pierce County, Washington; Harbor Island (LEAD), Seattle, Washington; Naval Undersea Warfare Engineering Station, Keyport, Washington; Old Navy Dump/Manchester Laboratory (EPA/NOAA), Kitsap County, WA; Puget Sound Naval Shipyard Complex, Bremerton, Washington; Port Hadlock Detachment (Navy), Indian Island, Washington;

The principle focus of CERCLA is remedial and corrective, rather than preventative, which distinguishes it from most other federal environmental statutes. However, concerns about potentially large financial liabilities under CERCLA for the improper handling of hazardous chemicals and wastes provide a strong incentive for industrial users of chemicals and generators of wastes to comply with other pollution control and prevention laws.

The Act uses two complementary approaches. It gives governmental authorities and private parties the legal tools to respond to containment and cleanup problems presented by hazardous waste sites and spills, and it imposes financial liability for cleanup on responsible parties. CERCLA gives federal agencies, notably EPA and the Coast Guard, authority to respond in an emergency or other manner to releases of hazardous substances into the environment, and seeks, in both the short and long term, to abate and clean up hazardous wastes in existing uncontrolled disposal sites. However, despite the use of the term “compensation” in the name of the statute, CERCLA contains no private right of action for consequential damages. For example, private citizens may not be compensated under CERCLA for economic or personal injuries suffered as a result of exposure to toxic waste sites.

CERCLA is unusual because of its funding mechanism and the fact that it is administered at the federal rather than the state level. Wherever possible, CERCLA places the ultimate financial burden of toxic waste cleanup on those responsible for creating the harmful conditions—fashioned under a “polluter pays” principle—although as the amount of operating funds obtained from polluters decreases, taxpayers pay more of the program costs.

Under CERCLA, funds are derived from a special tax on the petroleum and chemical feedstock industries and placed in a dedicated funding account in the U.S. Treasury (known as the Superfund) that is also replenished through cost recovery actions.<sup>61</sup> The federal government may use the Superfund to finance governmental response activities, to pay claims arising from the response activities of private parties, and to compensate federal or state governmental entities for damage caused to natural resources.<sup>62</sup> CERCLA also provides that the federal government, state governments, and private parties may sue those responsible for the generation, transportation, or disposal of hazardous substances when there has been a release or threatened release of hazardous substances.<sup>63</sup> Courts have uniformly imposed strict, joint and several, and retroactive<sup>64</sup> liability in construing the liability provisions in Section 107(a) of CERCLA. Limited defenses are available, such as if the release of a hazardous substance is caused solely by an act of God, an act of war, or an act or omission by a third party unrelated to the defendant.<sup>65</sup>

## Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (RCRA)<sup>66</sup> was enacted to protect both ground and surface water from poorly managed disposal of solid and hazardous wastes. The Act reflects an increasing federal interest in addressing hazardous and nonhazardous waste disposal in all states, embracing a regulatory structure that sets

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Tulalip Landfill, Marysville, Washington; Naval Air Station Whidbey Island, Whidbey Island, Washington; Pearl Harbor Naval Complex, Pearl Harbor, Hawaii. See <http://www.epa.gov/superfund/sites/npl/npl.htm> (accessed June 22, 2004).

<sup>61</sup> The corporate environmental tax and taxes on the petroleum and chemical feedstock industry expired in 1995, and Congress has not extended the collection of those taxes. Since 1995, the Superfund has been operating on the interest from existing funds, cleanup costs paid to EPA by private parties, and appropriations from the general Treasury.

<sup>62</sup> 42 U.S.C. § 9611(a).

<sup>63</sup> *Id.* § 9607(a).

<sup>64</sup> *I.e.*, the fact that disposal activities were legal at the time they occurred, including before enactment of CERCLA, does not provide a defense against liability pursuant to CERCLA.

<sup>65</sup> 42 U.S.C. § 9607(b).

<sup>66</sup> Pub. L. 94-580, 90 Stat. 2796, October 21, 1976 (codified at 42 U.S.C. §§ 6901 *et seq.*).

federal protective minimum standards, but relies on state implementation. RCRA's primary goals are "to protect human health and the environment from the dangers of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner."<sup>67</sup>

Congress significantly expanded the scope and requirements of RCRA in 1984, when the Hazardous and Solid Waste Amendments (HSWA) to RCRA were enacted.<sup>68</sup> The HSWA places an outright ban on the disposal of liquid hazardous wastes in landfills in an effort to cease the contamination of groundwater supplies caused by the release of such liquids.<sup>69</sup> In addition, under the HSWA, owners or operators of treatment, storage, or disposal (TSD) facilities are responsible for investigating and, if required, cleaning up releases from their facilities, regardless of when such releases occurred. The 1984 amendments also establish more stringent performance schedules for EPA's administration of its hazardous waste program, require increased design and performance standards for hazardous waste landfills to minimize leaking, and contemplate the complete phasing out of land disposal of hazardous waste. The mandated transformation from land disposal to treatment alternatives—known as the *Land Ban*—is accompanied by stringent statutory fallback requirements referred to as the *hammer provisions*, which trigger automatically to prohibit land disposal with respect to certain waste categories if EPA fails to set treatment standards by specified deadlines.<sup>70</sup>

### U.S./Canada Great Lakes Water Quality Agreement

Beginning with the Boundary Waters Treaty of 1909, Canada and the United States have officially cooperated to address issues of water quality within the Great Lakes basin.<sup>71</sup> In the early 1970s, however, various biological indicators demonstrated that segments of the Great Lakes were in grave danger. Perhaps the most dramatic incident was when the Cuyahoga River, which flows into Lake Erie near Cleveland, caught fire because of debris and oil on its surface.<sup>72</sup> Algal blooms, diminishing fish populations, high levels of chemicals, human and animal wastes, minerals from manufacturing plants, municipal sewage, urban and farmland runoff, and other activities had seriously deteriorated the quality of water in the Great Lakes.<sup>73</sup>

In an attempt to gain control of the situation, in 1972 the United States and Canada entered into the U.S./Canada Great Lakes Water Quality Agreement (GLWQA). Last amended in 1987, the GLWQA has served as a framework for managing and achieving environmental results, and for conserving and rebuilding the Great Lakes ecosystem.<sup>74</sup> The GLWQA has achieved numerous, impressive environmental successes, including reducing the amount of discharged nutrients and many persistent toxic substances, as well as improving the Lakes ecosystem and promoting the recovery of several key species (most notably the osprey, the bald eagle, and the lake trout). However, it proved insufficient in addressing other key environmental issues. Levels of certain persistent toxic substances remained unacceptably high, long-range atmospheric transportation of contaminants was not being

<sup>67</sup> EPA, Corrective Action, Background, available at <http://www.epa.gov/epaoswer/hazwaste/ca/backgnd.htm> (accessed June 1, 2004). See also 42 U.S.C. § 6902.

<sup>68</sup> Pub. L. 98-616, 98 Stat. 3224, November 8, 1984.

<sup>69</sup> 42 U.S.C. § 6924(c).

<sup>70</sup> *Id.* § 6924(g).

<sup>71</sup> EPA Press Release, U.S., Canada Move to Eliminate Toxics in Great Lakes, available at <http://www.epa.gov/history/topics/canada/04.htm> (accessed June 1, 2004).

<sup>72</sup> Great Lakes Water Quality Agreement, A Short History of the Great Lakes Water Quality Agreement, available at <http://www.on.ec.gc.ca/glwqa/sht-history-e.html> (accessed June 1, 2004).

<sup>73</sup> *Id.*

<sup>74</sup> EPA Press Release, U.S., Canada Move to Eliminate Toxics in Great Lakes, available at <http://www.epa.gov/history/topics/canada/04.htm> (accessed June 1, 2004).

adequately addressed, non-native species continued to be introduced, and changing populations and land uses around the Great Lakes region were not being adequately planned or managed.

To more fully address these remaining issues, the Great Lakes Binational Toxics Reduction Strategy: Canada-United States Strategy for the Virtual Elimination of Persistent Toxic Substances in the Great Lakes, was signed by EPA and Environment Canada on April 7, 1997.<sup>75</sup> This agreement marked the first time that leaders from both countries had agreed to specific reductions for toxic pollutants in the Great Lakes, targeting 2006 as the year by which significant reductions in persistent toxic substances would be achieved.<sup>76</sup> This new plan is primarily based on voluntary pollution prevention activities, but continues to build on the older regulatory scheme of the GLWQA.<sup>77</sup> Its focus is on bilateral cooperation between the two countries in addressing trans-boundary air pollution and cleanup of contaminated sediment, as well as increased cooperation in research and technological efforts.<sup>78</sup>

The International Joint Commission (IJC) for the Great Lakes Agreement has recently advocated that the U.S. and Canadian governments abide by their mandate to perform regular status reports on the forty-three areas of concern identified in the 1987 agreement. The IJC has argued that without this information it is impossible for it to assess the overall impact of cleanup efforts or to determine what still remains to be done. In addition, the IJC has called for identification of more clearly defined geographic areas in need of restoration, as well as improving accountability and responsibility.<sup>79</sup>

### United Nations Convention on the Law of the Sea

The United Nations Convention on the Law of the Sea (UNCLOS)<sup>80</sup> was adopted and opened for signature in 1982 and came into force on November 16, 1994. Some 59 of its 320 articles pertain to environmental protection and conservation. At least six sources of ocean pollution are addressed in UNCLOS:

- Land-based and coastal activities.
- Continental-shelf drilling.
- Potential seabed mining.
- Ocean dumping.
- Vessel-source pollution.
- Pollution from or through the atmosphere.

UNCLOS provides that nations shall take measures necessary to protect fragile ecosystems and the habitat of depleted and threatened species. Nations are also required to notify others in cases where the marine environment is in imminent danger of being damaged. Throughout Part XII of UNCLOS, the duty to cooperate is emphasized and nations are called on to keep under surveillance any permitted activities that may cause significant and harmful changes to the marine environment.

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<sup>75</sup> See <http://www.epa.gov/glnpo/p2/bns.html> (accessed June 4, 2004).

<sup>76</sup> EPA Press Release, *U.S., Canada Move to Eliminate Toxics in Great Lakes*, available at <http://www.epa.gov/history/topics/canada/04.htm> (accessed June 1, 2004).

<sup>77</sup> *Id.*

<sup>78</sup> *Id.*

<sup>79</sup> Menyasz, P. *Binational Commission Cites Lack of Data On Cleanup of Polluted 'Hot Spots' in Lakes*, 34 *Env't Rep.* (BNA) 1067 (May 9, 2003).

<sup>80</sup> 1982 United Nations Convention on the Law of the Sea (UNCLOS) (21 I.L.M. 1261 *et seq.* 1982).

Part XII of the Convention looks primarily to flag nation enforcement of pollution from vessels, but also provides for port nation enforcement in specific circumstances. Careful safeguards for vessels and nations are specified to assure an appropriate balance between protection of the marine environment and freedom of navigation.

In addition, Article 194 specifically authorizes measures “designed to minimize to the fullest possible extent [...] the release of toxic, harmful, or noxious substances, especially those which are persistent, from land-based sources, from or through the atmosphere or by dumping [...]” Article 210 further provides that all nations must adopt measures “to prevent, reduce and control pollution of the marine environment by dumping.”

Although not a signatory, the United States has for the past two decades conducted its domestic and international environmental protection and natural resources conservation activities in accordance with the legal principles set forth in UNCLOS. (Aspects of UNCLOS are also discussed in Chapter 1, *Setting the Stage*, and Chapter 7, *Marine Operations*.)

## SELECTED ISSUES

Successfully addressing coastal and ocean pollution from land-based sources will require improved enforcement and upgraded technological controls with regard to point sources, enhanced legal authority to address nonpoint sources, improved responses to the problem of atmospheric deposition, and sustained funding. The following discusses some of the issues related to these challenges.

### Nonpoint Source Pollution

While the United States has made tremendous advances in the past twenty-five years in cleaning up the aquatic environment by controlling pollution from industrial point sources and sewage treatment plants, nonpoint source pollution remains the nation’s largest source of water quality problems. The *National Water Quality Inventory 2000 Report*<sup>81</sup> indicates that agriculture and urban runoff are the two leading contributors to nonpoint source pollution.

Common nonpoint source pollutants include sediments and nutrients (nitrates and phosphates) that are washed from agricultural lands,<sup>82</sup> animal feeding operations, construction sites, urban and suburban lawns and golf courses, and other areas.<sup>83, 84</sup> Release of nitrogen from anthropogenic sources along the Atlantic Coast and Gulf

<sup>81</sup> Available at <http://www.epa.gov/305b/2000report/> (accessed June 1, 2004).

<sup>82</sup> One of the most notorious examples of impairment due to nitrogen runoff is the *dead zone* in the Gulf of Mexico, which presents a striking example of the destructive impact of hypoxia. Excess nitrogen, primarily from agricultural runoff, has caused extensive algal growth in the Gulf, triggering the growth of a large hypoxic zone that varies in size up to as large as 12,000 square miles, recurring every spring and summer off the mouth of the Mississippi and extending through the Mississippi River watershed. Committee on Environment and Natural Resources. *Integrated Assessment of Hypoxia in the Northern Gulf of Mexico*. Washington, DC: National Science and Technology Council, 2000. The Gulf of Mexico Hypoxia Action Plan, developed by federal and state officials, concludes that about 90 percent of the nitrate load to the Gulf is from nonpoint sources. Mississippi River/Gulf of Mexico Watershed Nutrient Task Force. *Action Plan for Reducing, Mitigating, and Controlling Hypoxia in the Northern Gulf of Mexico*, Washington, DC: 2001. See also National Research Council, *Clean Coastal Waters: Understanding and Reducing the Effects of Nutrient Pollution*, Washington DC, 2000; Nancy N. Rabalais et al., *Hypoxia in the Gulf of Mexico*, 30 J. Env. Quality 320-29 (2000).

<sup>83</sup> Changes in flows and habitat disruption caused by dams, channelization, and other forms of hydromodification are another source of impairment. These changes in flow also cause erosion of stream banks and bottoms and contribute to suspended solids in the water column and downstream sedimentation.

<sup>84</sup> Also, a recent National Academy of Sciences report *Oil in the Sea III: Inputs, Fates, and Effects* suggests that oil runoff from urban streets and driveways that ultimately reaches the estuaries and oceans may need to be included among nutrients, pesticides, and mercury, as serious threats to the coastal environment from nonpoint source pollution. National Research Council, *Oil in the Sea III: Inputs, Fates, and Effects* (Washington DC, 2002).

of Mexico has increased fivefold since the preindustrial era, and is expected to increase by another 30 percent by the year 2030 if current practices continue unchanged.<sup>85</sup>

Growing development of coastal areas and the accompanying increases in nutrient and other runoff, airborne pollutants, and toxic contaminants present a significant threat to water quality in oceans and estuaries. The spread of urban surfaces—paved roads, parking lots, rooftops—replaces naturally permeable surfaces with impervious ones and greatly increases the problems of runoff.<sup>86</sup> As a result, the pattern and rate of flow of rainwater and snowmelt to waterbodies is affected; more significantly, this runoff collects pollutants and rapidly transports them into nearby waterbodies.<sup>87</sup>

### ***Total Maximum Daily Loads***

Although established in the 1972 CWA, the Total Maximum Daily Load (TMDL) program was given little attention while the states and EPA emphasized the implementation of the CWA's National Pollutant Discharge Elimination System (NPDES) program to control point sources. Beginning in the 1980s, a series of citizen suits challenged EPA's inaction on TMDLs and nonpoint sources, and the courts held that the continued nonsubmission of TMDLs by a state eventually equates to no TMDL submission. This failure required EPA to step in and either direct the states to establish TMDLs or promulgate acceptable TMDLs on their behalf.<sup>88</sup>

Those citizen suits illustrate that the TMDL program, with its requirement to allocate waste loads among point and nonpoint sources, is, and for years has been, politically controversial. The history of EPA's efforts to revise and strengthen the regulations for the TMDL program in the 1990s and the early years of this century offers a sense of how controversial the program is and how difficult it is to make legally-binding progress toward controlling nonpoint source pollution.

In 1996, EPA convened a committee pursuant to the Federal Advisory Committee Act (FACA)<sup>89</sup> to bring a diversity of viewpoints to resolving several problems concerning the TMDL program and to addressing nonpoint source pollution.<sup>90</sup> Despite reaching agreements on a number of difficult issues, the committee failed to achieve a consensus on whether the TMDL process should be used to address nonpoint source pollution.<sup>91</sup> EPA then proceeded to integrate the recommendations into its revision of the existing TMDL regulations.<sup>92</sup> As EPA was working on its revision, a congressional subcommittee also conducted hearings on the TMDL program and the proposed changes. Following these hearings, Congress asked the General Accounting Office (GAO) to determine whether EPA's water quality data were reliable and representative of water quality conditions nationwide, and whether the available data were sufficient to allow state officials to make key decisions. GAO raised concerns on both issues in its report of March 2000.<sup>93</sup>

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<sup>85</sup> Howarth, R.W. et al., *Nitrogen Use in the United States from 1961-2000 and Potential Future Trends*, 31(2) *Ambio* 88-96 (2002).

<sup>86</sup> Beach, D. *Coastal Sprawl: The Effects of Urban Design on Aquatic Ecosystems in the United States*, Arlington, VA: Pew Oceans Commission 2002.

<sup>87</sup> *Id.*

<sup>88</sup> See *Scott v. City of Hammond*, 530 F. Supp. 288 (N.D. Ill. 1981), *aff'd in part, rev'd in part*, 741 F.2d 992, 14 ELR 20,631 (7th Cir. 1984); *Northwest Env'tl. Defense Ctr. v. Thomas*, No. 86-1578PA (D. Or. complaint filed Dec. 12, 1986); *Alaska Ctr. for the Env't v. Reilly*, 762 F. Supp. 1422, 21 ELR 21,305 (W.D. Wash. 1991), *injunctive relief granted*, 796 F. Supp. 1374, 22 ELR 21,204 (W.D. Wash. 1992), *aff'd sub nom. Alaska Ctr. for the Env't v. Browner*, 20 F.3d 981, 24 ELR 20,702 (9th Cir. 1994).

<sup>89</sup> Pub. L. 92-463, 86 Stat. 770, October 6, 1972 (codified at 5 U.S.C. Appendix).

<sup>90</sup> Houck, O.A. *TMDLs III: A New Framework for the Clean Water Act's Ambient Standards Program*, 28 ELR 10,415, 10,422 (Aug. 1998).

<sup>91</sup> *Id.*

<sup>92</sup> Rogers, B. & A. Hazlett, *TMDLs: Are They Dead Letters?*, Agric. L. Update, Aug. 2001, at 4.

<sup>93</sup> See General Accounting Office, *Water Quality, Key EPA and State Decisions Limited by Inconsistent and Incomplete Data*, GAO/RCED-00-54 (Mar. 2000).

Despite GAO's concerns, EPA promulgated its revised final TMDL rule in July 2000<sup>94</sup> that substantially altered the TMDL process. For example, nonpoint sources of pollution were explicitly included within the 2000 TMDL framework.<sup>95</sup> States were to schedule the establishment of TMDLs within ten years after July 10, 2000.<sup>96</sup> Moreover, this regulation required that all impaired waterbodies, even those for which TMDLs were not yet required, be placed on a four-part list and prioritized.<sup>97</sup> States were further required to provide an implementation plan and a "reasonable assurance" that TMDL waste loads and load allocations would be met.<sup>98</sup>

Some of the changes included in the 2000 rule were controversial, especially the inclusion of nonpoint sources and the revisions to the TMDL schedule, and both legal and political challenges resulted.<sup>99</sup> The American Farm Bureau Federation, concerned about the implications of the inclusion of nonpoint sources in the TMDL program, immediately filed a lawsuit to challenge the new regulation.<sup>100</sup> Other agricultural organizations, states, and industrial associations also sued.<sup>101</sup> Interested parties persuaded Congress not only to prohibit EPA from using any appropriations from fiscal years 2000 or 2001 to implement the new regulations,<sup>102</sup> but also insisted that EPA hire the National Academy of Sciences (NAS) to analyze the TMDL program and the new regulation.<sup>103</sup> The NAS determined that there is enough scientific information available to implement the TMDL program, finding that any uncertainty could easily be compensated for in the process of fulfilling the program's goals; such uncertainties must simply be acknowledged and taken into account.<sup>104</sup>

On March 13, 2003, EPA formally withdrew the July 2000 TMDL rule, stating that the rule was "unworkable."<sup>105</sup> EPA indicated that it needed additional time beyond April 30, 2003 (when the rule was last scheduled to take effect) to determine how best to revise the TMDL program to achieve the goals of the CWA. Thus, the TMDL program now operates under rules that were promulgated in 1985 and last amended in 1992,<sup>106</sup> and a 1997 guidance document.<sup>107</sup>

<sup>94</sup> Revisions to the Water Quality Planning and Management Regulation and Revisions to the National Pollutant Discharge Elimination System Program in Support of Revisions to the Water Quality Planning and Management Regulation, 65 Fed. Reg. 43,586 (July 13, 2000).

<sup>95</sup> *Id.* at 43,588.

<sup>96</sup> Or, the due date on the first list on which the waterbody appeared, although this schedule may be extended for five years if the original deadline cannot be met despite expeditious action. *Id.* at 43,591.

<sup>97</sup> *Id.* at 43,590.

<sup>98</sup> *Id.* at 43,591.

<sup>99</sup> Rogers & Hazlett, at 5.

<sup>100</sup> American Farm Bureau Fed'n v. Browner, No. 00-1320 (D.C. Cir. July 18, 2000).

<sup>101</sup> See Bruninga, S. *Nine Petitions Filed in Major Fight Over Final Rule Revising TMDL Program*, 31 Env't Rep. (BNA) 2618 (Dec. 15, 2000).

<sup>102</sup> Military Construction Appropriations Act, Pub. L. 106-246; 114 Stat. 511 (2000).

<sup>103</sup> Department of Veteran Affairs, Housing and Urban Development, and Independent Agencies Act, Pub. L. 106-377, 114 Stat. 1441, 1441A-3 (2000).

<sup>104</sup> National Research Council. *Assessing the TMDL Approach to Water Quality Management*, Washington, DC: National Academy Press, 2001.

<sup>105</sup> 68 Fed. Reg. 13,607-13,614 (Mar. 19, 2003). See also, "Final Withdrawal of 2000 TMDL Rule Takes Effect; Existing Rules Make Progress Cleaning Up Impaired Waters," U.S. EPA Headquarters Press Release, R-068, March 13, 2003, available at <http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/601385d1f25da12485256ce800824d38?OpenDocument> (accessed May 5, 2004).

<sup>106</sup> 40 C.F.R. Part 130, § 130.7.

<sup>107</sup> See, 68 Fed. Reg. 13,607-13,614 (Mar. 19, 2003).

The scope of the TMDL program was clarified in *Pronsolino v. Nastro*, in which the U.S. Court of Appeals for the Ninth Circuit affirmed that Section 303(d) imposes TMDL requirements even on waterbodies impaired *solely* by nonpoint source pollution.<sup>108</sup> On June 16, 2003, the U.S. Supreme Court denied *certiorari*, letting the Ninth Circuit decision in *Pronsolino* stand. The Ninth Circuit's decision concludes not only that EPA's application of the TMDL requirements to waterbodies impaired by nonpoint source pollution was reasonable, but also that the statutory scheme mandated such application.

### ***Clean Water Act Section 401***

Section 401 of the CWA requires that every applicant for a federal license or permit for any activity that may result in a "discharge" into navigable waters receive certification from the state that the discharge will comply with state water quality standards.<sup>109</sup> The Supreme Court, in a decision involving point source discharges, has broadly interpreted the state water quality requirements to include a minimum instream flow (water *quantity*) requirement that the state deemed necessary to meet its designated use for the stream segment affected.<sup>110</sup> However, the Ninth Circuit has held that the certification requirement does not apply to nonpoint source discharges from federally issued grazing permits.<sup>111</sup>

The Supreme Court upheld state-imposed requirements when necessary to meet the criteria or *use* contained in a water quality standard. In addition, it suggested in *dicta* that an even broader range of restrictions might be imposed whenever necessary to support the designated use, such as for fishing or recreation. The Ninth Circuit, in contrast, concluded that Congress intended to limit the reach of Section 401 to point source discharges in 1972 when it incorporated into the provision (originally enacted in 1948) the specific statutory references. The court did not find the reference to state water quality standards in Section 301(b)(1)(C) sufficient to bring nonpoint source discharges into the coverage of Section 401. The court emphasized that Section 303 does not itself regulate nonpoint sources, and that in fact there is "no direct mechanism" to regulate nonpoint source pollution in the CWA.

In addition, the Ninth Circuit reaffirmed a prior holding that the citizen suit provision of the CWA only authorizes suits to compel compliance with point source requirements included within the definition of "effluent standard or limitation."<sup>112</sup> These judicial decisions make clear that, although EPA must provide guidance for nonpoint source pollution control, EPA lacks the legal authority to impose limits and controls on nonpoint dischargers.

### ***Clean Water Act Section 319***

CWA Section 319 mandates a two-step implementation process to address nonpoint sources. First, states must prepare an assessment of navigable waters where the control of nonpoint source pollution is necessary to meet water quality standards, and identify the significant sources of nonpoint source pollution of these waters. Control measures must also be identified. Second, states are directed to prepare a management program that sets out the Best Management Practices (BMPs) necessary to remedy the problems. EPA must approve or disapprove both steps, but it has limited authority to act if a state fails to act. Significantly, Section 319 does not require that states

<sup>108</sup> 291 F.3d 1123 (9th Cir. 2002), *cert denied*, 2003 U.S. Lexis 4608 (U.S. Supreme Court, June 16, 2003).

<sup>109</sup> 33 U.S.C. § 1341. Section 401 of the CWA gives the state the opportunity to certify that the discharge will be in compliance with state standards for activities under CWA Section 301 (BPT, BAT and BCT), Section 302 (federal water quality standards), Section 303 (state water quality standards), Section 306 (new source performance standards), and Section 307 (pretreatment standards).

<sup>110</sup> See PUD No. 1 of Jefferson County v. Washington Dept. of Ecology, 511 U.S. 700, 114 S. Ct. 900 (1994) (finding, with the authority of CWA Section 303 and Section 401(d), that state water quality standards adopted pursuant to Clean Water Act were among the "other limitations" with which a state could ensure compliance through a certification process).

<sup>111</sup> Oregon Natural Desert Ass'n v. Dombeck, 151 F.3d 945 (9th Cir. 1998).

<sup>112</sup> *Id.* at 1097, *citing with approval* Oregon Natural Resources Council v. U.S. Forest Service, 834 F.2d at 842 (9th Cir. 1987).

actually enforce the BMPs or any other mandatory controls in their management programs, and does not give EPA authority to mandate or enforce BMPs if the state fails to do so.

### ***Coastal Zone Act Reauthorization Amendments: Nonpoint Source Pollution Control Program***

The CZARA Section 6217 Coastal Nonpoint Pollution Control Program seeks to combine the expertise of state water quality agencies with the land use expertise of coastal management agencies to more effectively manage nonpoint source pollution in coastal areas. The CZARA Section 6217 program is similar to the CWA Section 319 in that it delegates program implementation and control to the states. To facilitate development of state coastal nonpoint programs and ensure coordination between states, administration of the Section 6217 program at the federal level was assigned to NOAA and EPA.

Arguably, enforceability of the CZARA Section 6217 program should be more effective than that of the CWA Section 319 program, because the former requires states to employ enforceable policies and mechanisms to implement the BMPs and management measures.<sup>113</sup> Yet, there are concerns about the program's administration and implementation. Focus to date has been on developing approvable, enforceable state plans, with less emphasis on implementation. In addition, if a state fails to develop an adequate CZARA plan, or fails to implement an approved plan, the only recourse for NOAA and EPA is to withhold CWA or CZMA grant funds, creating the counterproductive result of decreasing states' ability to address nonpoint source pollution problems. Finally, the lack of adequate congressional funding has been a significant restraint on the CZARA Section 6217 program.

### ***Agricultural Conservation Programs***

The 1985 Farm Bill introduced the Sodbuster, Swampbuster, and Conservation Reserve Programs, designed to pay farmers to remove highly erodible soils and wetlands from agricultural production for designated terms. Prior to the enactment of that legislation there were no meaningful sanctions that could be imposed on a landowner who contributed to or failed to control excessive erosion. The 1985 Farm Bill altered this slightly, by making any person who produces an agricultural commodity on a field in which highly erodible land is predominant (without an approved conservation plan) ineligible for USDA program payments. Nevertheless, these programs are considered to be "carrots," not "sticks," because of their reliance on voluntary participation of landowners. The 1985, 1996, and 2002 Farm Bills show a clear increase in emphasis on agricultural conservation policy and funding for farm conservation programs; however, the conservation characterization of some of these programs has been questioned.<sup>114</sup> For example, conservation measures may include the construction of waste lagoons by large livestock producers. The conservation programs also include many exemptions, including a hardship exemption and, for wetlands, an exemption for prior-converted cropland.

The legal context of agricultural nonpoint source conservation programs<sup>115</sup> is built on incentives and on the farm price support program, rather than command and control pollution laws such as the NPDES permitting requirements of the CWA. Congress has determined that agriculture should remain exempt from many types of pollution laws and that U.S. national policy is to provide technical and financial assistance to farmers and ranchers to achieve desirable national goals, such as the restoration and conservation of certain lands and wetlands and improvement in water quality by addressing agricultural nonpoint source pollution. Despite the predominantly voluntary nature of the Farm Bill programs, there appears to be a consensus that the conservation provisions first

<sup>113</sup> See 16 U.S.C. § 1455(d)(16).

<sup>114</sup> See John H. Davidson, *Sustainable Development and Agriculture in the United States*, 32 ELR 10,543 (May 2002).

<sup>115</sup> Some sources of agricultural pollution that would be considered point sources (if they were not agriculture-based) subject to regulation under the NPDES program are discussed below. Some agricultural sources, notably concentrated animal feeding operations, are subject to the CWA NPDES point source regulatory program, as also discussed below.

adopted in the 1985 legislation and since expanded and enhanced are effective in reducing nonpoint source pollution on agricultural land and remain a useful tool for improving and maintaining water quality, restoring wetlands, retaining land as farmland in lieu of urban development, and achieving other environmentally desirable results.<sup>116</sup>

### ***Water Pollutant Trading***

On January 13, 2003, EPA issued its water pollutant trading policy for impaired and unimpaired waters.<sup>117</sup> While the pollutant trading policy is a voluntary, incentive-based approach, EPA remains hopeful that it will enable greater efficiency in the protection and restoration of impaired waterbodies, pursuant to the CWA and implementing regulations.<sup>118</sup>

Water pollutant trading has been under consideration since both before and after the Clean Air Act Amendments of 1990, when air pollutant trading was codified into law. EPA has used a water pollutant trading policy since the 1990s, primarily among and between publicly owned treated works, i.e., point source to point source, but also in some water pollutant trading programs in the Great Lakes and Long Island Sound areas. The 2003 policy is particularly significant, however, because it elevates water pollutant trading as a viable option for a broader range of sources, with the ultimate goal of reducing impacts to receiving waters. Under the trading policy, if a source reduces its pollutant loading below the amount allocated in its permit, it would have a credit that could be traded (sold) to another source on that waterbody. This may encourage pollution reduction by nonpoint sources to create credits that could be sold to point sources. For example, a farmer could create credits by changing cropping practices to reduce use of nitrogen fertilizer, and a wastewater treatment plant could then acquire those nitrogen credits to meet water quality limits.

### **Point Source Pollution**

Clean Water Act permits, and the technology-based limitations they incorporate, are required only for point source discharges into navigable waters. “Point source” is broadly defined by the Act to include any discrete conveyance, including an urban stormwater runoff pipe, sewage treatment plant discharge outfall, or factory pipe that discharges pollutants to a waterbody. The definition excludes, however, “agricultural stormwater discharges and return flows from irrigated agriculture.”<sup>119</sup>

A 2003 report by EPA, *A Pilot for Performance Analysis of Selected Components of the National Enforcement and Compliance Assurance Program*, indicates that while most point source discharges are regulated by NPDES permits, the necessary enforcement of such permits, as well as accompanying penalties for violations, may be lacking.<sup>120</sup>

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<sup>116</sup> Linda A. Malone, *Environmental Regulation of Land Use* 5:8 (2002).

<sup>117</sup> 68 Fed. Reg. 1608-1613 (Jan. 13, 2003).

<sup>118</sup> *Id.*

<sup>119</sup> 33 U.S.C. § 1362(14).

<sup>120</sup> Bruninga, S. *Most Large Industrial Sites Not Penalized for Violations of Their Discharge Permits*, 34 *Env't Rep.* (BNA) 1339 (June 19, 2003).

Of the 6,652 major industrial facilities regulated by the NPDES program, approximately 1,670 (25 percent) are classified by EPA as being in significant noncompliance with the CWA. “Significant noncompliance” can include paperwork violations; however, in 2001 nearly half of the industries that violated their NPDES permits exceeded allowable levels by 100 percent, while 13 percent of violators discharged toxic pollutants that exceeded allowable levels by 1000 percent. This rate of noncompliance among major industrial facilities has remained constant since about 1994. Despite this noncompliance, the majority of major industrial facilities are not undergoing enforcement proceedings or receiving penalties from EPA. During the past two years, only 24 percent of major facilities listed as being in significant noncompliance faced either formal or informal enforcement proceedings, with 27 percent of “repeat significant noncompliance” facilities and 32 percent of “perpetual significant noncompliance” facilities facing similar proceedings.

### ***Publicly Owned Treatment Works***

The CWA originally required that all publicly owned treatment works (POTWs) achieve a minimum of secondary treatment by 1977 to remove specific amounts of suspended solids and other wastes that deplete the oxygen in water.<sup>121</sup>

While technology exists to significantly reduce sewage pollution, particularly nitrogen, far beyond those levels currently achieved by the majority of POTWs, upgrading sewage treatment plants beyond secondary treatment levels has not been common. Technology is now available that allows for wastewater treatment facilities to substantially reduce the total nitrogen discharge.<sup>122</sup> However, the primary focus of secondary treatment is on lowering the biological oxygen demand<sup>123</sup> in the wastewater, rather than on nitrogen removal. To reduce the nitrogen levels of receiving waters, upgrading POTWs to tertiary treatment may be necessary.

### ***Stormwater Discharges***

Stormwater is regulated under the CWA differently depending on whether the discharge into surface water is from a combined sewer system, a sanitary sewer system, or a separate stormwater system. Combined sewer systems are designed to collect sanitary sewage, industrial and commercial wastewater, and stormwater runoff in a single pipe for transport to and treatment at a POTW before discharge to a receiving waterbody. Combined sewer systems must comply with the technology- and water quality-based requirements of the CWA and not cause or contribute to exceeding applicable state water quality standards. Combined sewer systems are a concern because storm or other events can result in flows that exceed a system's capacity, resulting in overflows that discharge untreated wastes into waterbodies.

In 1994, EPA issued its Combined Sewer Overflow (CSO) Control Policy.<sup>124</sup> Codified in 2000, that policy provides clear direction on how EPA and states are to address CSO control within the NPDES program. Under a NPDES permit or other enforceable mechanism, communities with CSOs are required to implement nine minimum technology-based control measures (specified in the policy) and develop and implement long-term control plans (LTCs) that ultimately meet appropriate health and environmental objectives and requirements. In

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EPA has indicated it has no plans to formally publish the report, as it was conducted as an internal assessment of compliance and enforcement issues. *Id.*

<sup>121</sup> Approximately forty POTWs have waivers from EPA allowing them to operate at less than secondary treatment levels. In total, these forty POTWs serve 5.1 million persons within the U.S.; about half are served by treatment systems in San Diego and Orange Counties, California. After passage of the CWA in 1972, some large cities with POTWs discharging into marine waters maintained that the requirement for secondary treatment was unnecessarily stringent, as POTWs discharging into deep oceanic waters with strong currents benefit from greater mixing and dispersion of pollutants than POTWs discharging into shallow fresh waters. As a result, Congress amended section 301(h) of the CWA in 1977 (and again in 1981 and 1987) to allow for a case-by-case review of treatment requirements for marine dischargers. After the review, EPA may waive the secondary treatment requirements for the conventional pollutants of pH, biochemical oxygen demand, and suspended solids, and allow a POTW that discharges into marine waters to utilize specified less-than-secondary treatment and other pollution controls such as industrial pretreatment in lieu of full secondary treatment. EPA's review is to determine whether certain statutory environmental criteria have been met, including a showing that the discharge will not harm the habitat and community of marine life. See *generally* 40 C.F.R. Part 125, Subpart G.

<sup>122</sup> See Governor of Maryland, Executive Order: Nutrient Pollution Reduction Goals for Chesapeake Bay, available at [http://www.dnr.state.md.us/bay/tribstrat/enr\\_exec\\_order.pdf](http://www.dnr.state.md.us/bay/tribstrat/enr_exec_order.pdf) (accessed June 1, 2004); see also Point Source Pollution: Status & Trends, available at <http://www.chesapeakebay.net/info/pointsource.cfm> (accessed June 1, 2004).

<sup>123</sup> Biological oxygen demand (BOD) is a measure of the oxygen used by microorganisms to decompose organic matter in aquatic environments. Runoff nutrients, such as fertilizers from farms and lawns, can cause an explosion in the growth and subsequent death of aquatic plants and algae, in turn triggering an upsurge of bacteria that decompose these materials and consume a large amount of dissolved oxygen in the process. When less dissolved oxygen is available in the water, fish and other aquatic organisms may experience increased disease and death.

<sup>124</sup> 59 Fed. Reg. 18,688 (Apr. 19, 1994).

2001, EPA published a Final Guidance entitled *CSO Long-Term Planning with Water Quality Standards Reviews*.<sup>125</sup> The Guidance provides “that the LTCP should be coordinated with the review and revision, as appropriate, of water quality standards and implementation procedures on CSO-impacted waters. The process is intended to ensure that the long-term controls will be sufficient to meet water quality standards under the CWA.<sup>126</sup> These controls generally involve considerable sums of money to correct existing infrastructure or to build new facilities to contain the sewer flow until it can be routed to a POTW for appropriate treatment.

A second category of sewers associated with POTWs—sanitary sewers that are designed to transport only sanitary waste and not stormwater—also can overflow in wet weather if the sewer has water infiltration, and for other reasons. Correcting these overflows also requires considerable sums of money to repair and replace the infrastructure.

Regulation of discharges “entirely of stormwater” was addressed by Congress in 1987 by adding Section 402(p) of the CWA.<sup>127</sup> In response, EPA published regulations in 1990 that required permits for discharges “associated with industrial activity,” discharges from large and medium municipal separate storm sewer systems, and discharges that have been identified and designated by the state or EPA as causing a violation of water quality standards or otherwise significantly contributing pollutants to waters of the United States.<sup>128</sup>

### ***Concentrated Animal Feeding Operations***

Although legal authority to regulate them has existed in the CWA since 1972, concentrated animal feeding operations (CAFOs) have been largely unregulated by EPA until recently. CAFOs contribute to serious water quality problems throughout much of the United States. USDA estimates that operations that confine livestock and poultry produce an estimated 500 million tons of manure per year, which is more than three times the amount of sanitary waste that EPA estimates is produced by humans in the United States.<sup>129</sup> Water quality impairment from CAFOs arises largely through improper management, which results in discharge and runoff of manure and nutrients, and volatilization and atmospheric deposition into waterbodies of ammonia from the onsite manure and urine.

In December 2002, EPA issued a final rule to regulate large and problematic animal feeding operations (AFOs).<sup>130</sup> The final rule revised the more than twenty-five year old regulations that previously applied to CAFOs, retaining many of the basic features of the 1976 NPDES regulations, including the existing structure for determining which AFOs are large enough to be considered CAFOs. Three new features of the final rule bear mentioning. First, all CAFOs (i.e., all animal feeding operations exceeding a specified number of animals onsite, the number varying by type of animal) have a mandatory duty to apply for an NPDES permit, thus removing any ambiguity as to whether a facility needs a discharge permit, even if the facility only discharges in the event of a large storm. Second, the final rule includes large poultry operations, regardless of whether the litter is managed in wet or dry form or the type of waste disposal system employed by the facility. Third, all CAFOs covered by the NPDES permits must develop and implement nutrient management plans. Effluent limitation guidelines (ELGs) will continue to apply

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<sup>125</sup> Notice of Availability: Final Guidance: Coordinating CSO Long-Term Planning With Water Quality Standards Reviews. 66 Fed. Reg. 42,226 (Aug. 10, 2001).

<sup>126</sup> *Id.*

<sup>127</sup> See 33 U.S.C. § 1342(p).

<sup>128</sup> EPA stormwater regulations, as amended numerous times since 1990, are codified at 40 C.F.R. § 122.26.

<sup>129</sup> National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitation Guidelines and Standards for Concentrated Animal Feeding Operations (CAFOs). 68 Fed. Reg. 7175-7274 (Feb. 12, 2003), at p. 7180. The final rule was signed December 15, 2002 (codified at 40 C.F.R. Parts 9, 122, 123, and 412). The EPA CAFO Final Rule is available at <http://cfpub1.epa.gov/npd/es/afo/cafofinalrule.cfm> (accessed May 10, 2004).

<sup>130</sup> *Id.*

only to CAFOs with 1,000 or more animal units, although the requirements for existing sources and new sources fluctuate depending on the type of animal being raised. ELGs prohibit the discharge of manure and/or wastewater pollutants, with an allowance for certain discharges due to excessive rainfall. ELGs also require the minimization of phosphorus and nitrogen transport from field to receiving waterbodies, and regulated facilities must use BMPs for the production and land application areas.

## Atmospheric Deposition

Atmospheric deposition of nitrogen, mercury, and other pollutants is a problem of growing concern.<sup>131</sup> Mercury and nitrogen are of particular concern to marine environments; mercury is the most frequently listed reason for issuance of fish advisories, while nitrogen is a direct contributor to eutrophication of waterways. Approximately two-thirds of the nation's estuaries and bays are either moderately or severely degraded as a result of eutrophication.<sup>132</sup> The atmosphere is a significant means of transportation of pollutants to marine waters, with roughly 10-40 percent of the nitrogen reaching East and Gulf Coast estuaries being transported and deposited through the atmosphere.<sup>133</sup>

Although the statutory frameworks of the CAA and CWA are not specifically designed to address the problem of air pollution from land-based sources contaminating water resources, there have been significant efforts through the years under the CAA to control some pollutants that travel long distances—notably controls on nitrogen oxides to reduce ozone precursors and on sulfur dioxide to reduce acid rain.

In January 2001, EPA's Office of Water and Office of Air and Radiation developed an Air-Water Interface Work Plan.<sup>134</sup> As the plan notes, many of the current CAA regulatory programs aimed at reducing toxic and nitrogen pollution, such as the maximum achievable control technology (MACT) standards for toxic pollutants, the nitrogen oxides (NO<sub>x</sub>) reductions under the Acid Rain Program, the NO<sub>x</sub> SIP call (an EPA rule requiring large power plants across twenty-two states to substantially reduce their summertime NO<sub>x</sub> emissions), and mobile sources controls (NO<sub>x</sub> Budget Trading Program), have not been fully implemented.<sup>135</sup> In its November 14, 2002 annual report, however, EPA indicated that the Acid Rain Program had reduced emissions of both sulfur dioxide and nitrogen oxides in 2001.<sup>136</sup>

Because of the potential range of atmospheric dispersion—both international transboundary and intercontinental—international cooperation is needed.<sup>137</sup> Recent studies have demonstrated that air pollution from human activities in Asia is carried to western North America by prevailing mid-latitude winds and has a significant

<sup>131</sup> For example, approximately 32 percent of the nitrogen introduced to the Chesapeake Bay comes from atmospheric deposition. Chesapeake Bay Program, *The State Of The Chesapeake Bay* (July 2002), available at <http://www.chesapeakebay.net/pubs/sob/index.cfm> at p. 42 of the report (accessed May 10, 2004). For more information, see EPA, *National Coastal Condition Report*, available at <http://www.epa.gov/owow/oceans/nccr/> (accessed June 1, 2004).

<sup>132</sup> S.B. Bricker et al., *National Estuarine Eutrophication Assessment: Effects of Nutrient Enrichment in the Nation's Estuaries*, Silver Spring, MD: National Oceanic and Atmospheric Administration, 1999.

<sup>133</sup> Valigura, R.A., et al., eds. *Nitrogen Loading in Coastal Water Bodies: An Atmospheric Perspective*. Coastal and Estuarine Studies No. 57. Washington, DC: American Geophysical Union, 2000.

Valigura, R.A., et al. *Atmospheric Nutrient Inputs to Coastal Areas: Reducing the Uncertainties*. NOAA Coastal Ocean Program Decision Analysis Series No. 9. Silver Spring, MD: National Oceanic and Atmospheric Administration, 1996.

<sup>134</sup> EPA Air-Water Interface Work Plan, available at [http://www.epa.gov/owow/oceans/airdep/airwater\\_plan16.pdf](http://www.epa.gov/owow/oceans/airdep/airwater_plan16.pdf) (accessed April 29, 2004).

<sup>135</sup> Available at <http://www.epa.gov/ttncaaa1/t3/reports/combined.pdf> (accessed June 1, 2004).

<sup>136</sup> 33 Env't Rep. (BNA) 2503 (Nov. 22, 2002).

<sup>137</sup> See e.g., U.S. Environmental Protection Agency, International Issues & U.S. Air Quality, available at <http://www.epa.gov/airtrends/international.html> (accessed June 4, 2004).

impact on the concentration and number of air pollutants in North American coastal areas, impacting ecosystem health, including human health. This impact is likely to increase along with the growth of Asian economies. In the Caribbean, studies are underway to assess impacts in a number of areas, from human to coral reef health, caused by hundreds of millions of tons of dust carried from Africa each year.<sup>138</sup>

The United States is a party to the Convention on Long-Range Transboundary Air Pollution (LRTAP),<sup>139</sup> under the auspices of the United Nations Economic Commission for Europe, which establishes a broad framework for cooperative action on air pollution in North America and Europe. The Convention establishes a process for negotiating specific measures to control air pollution through legally binding protocols. LRTAP initially focused on reducing the effects of acid rain through the control of sulfur emissions. Later protocols have addressed the formation of ground-level ozone, persistent organic pollutants (POPs), and heavy metals. These multilateral efforts have established a foundation of international cooperation and understanding that has significantly advanced the ability to understand and address transboundary air pollution.

International action to control POPs and other toxic substances that persist in the environment and are readily transported via air pollution pathways across borders and oceans is carried out under the United Nations Environment Programme implementing the Stockholm Convention on Persistent Organic Pollutants.<sup>140</sup> This treaty will help reduce the public health and environmental effects of pollutants such as DDT, chlordane, dioxins, and PCBs. In 2001, the United States joined 151 other countries in signing the Stockholm Convention, and in April 2002 the Convention was transmitted to the U.S. Senate for advice and consent to ratification.<sup>141</sup> Although the United States is not a party, the Stockholm Convention entered into force on May 17, 2004.<sup>142</sup>

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<sup>138</sup> See e.g., Garrison, G. *Caribbean Coral-Reef Ecologist Studies Dust from the African Sahel*. USGS Coral Reef Studies, News Archive, March 2002, available at <http://coralreefs.wr.usgs.gov/archive0302.html> (accessed June 4, 2004).

<sup>139</sup> Done at Geneva, November 13, 1979, entered into force March 16, 1983, T.I.A.S. 10541. For further information on the LRTAP Convention, see <http://www.unece.org/env/lrtap/> (accessed June 4, 2004).

<sup>140</sup> Done at Stockholm, May 22-23, 2001. The text of the convention is available at [http://www.pops.int/documents/convtext/convtext\\_en.pdf](http://www.pops.int/documents/convtext/convtext_en.pdf) (accessed June 8, 2004).

<sup>141</sup> U.S. Environmental Protection Agency. *President Bush Sends the Stockholm Convention on Persistent Organic Pollutants to Senate for Ratification; Submits Legislation to Congress to Implement Treaty*. Press release. April 11, 2002, available at <http://yosemite.epa.gov/opa/admpress.nsf/b1ab9f485b098972852562e7004dc686/cd4fa7597611989185256b980057b5cf?OpenDocument> (accessed June 4, 2004).

<sup>142</sup> See <http://www.pops.int/documents/press/EIF/> (accessed June 4, 2004).



## CHAPTER 5 FUELS, MINERALS, AND ENERGY PRODUCTION FROM THE OCEAN

### INTRODUCTION

#### Historical Background

Since the late nineteenth century, the United States has recognized that the submerged lands off its coasts contain valuable nonliving resources, and by the middle of the twentieth century, those resources began to play a significant role in U.S. national security and economic development. New technology and the discovery of rich petroleum deposits farther offshore made oil and gas production possible in areas beyond the 3-mile territorial sea. In September 1945, President Truman issued two proclamations regarding the oceans policy of the United States affecting areas beyond its three-mile territorial sea. The better known pronouncement asserted the nation's "jurisdiction and control" over the seabed and "natural resources" of the "continental shelf."<sup>1</sup> Less known is the proclamation asserting the power of the United States to create coastal fisheries "conservation zones" in which fishing activities would be "subject to the regulation and control of the United States."<sup>2</sup>

The Truman Proclamation on the continental shelf carefully disavowed any effect on the rights of state governments within the federal system to assert jurisdiction for purposes of domestic law.<sup>3</sup> Less than one month after President Truman issued his proclamation, however, the Solicitor General of the United States instituted proceedings in the U.S. Supreme Court to resolve the issue of ownership of the seabed and its minerals.<sup>4</sup>

In a series of decisions, the Supreme Court ruled that the federal government, and not the individual states, owned and controlled the submerged lands and ocean waters immediately adjacent to individual states, even where states had been managing some areas for decades.<sup>5</sup> The coastal states pursued a series of efforts in Congress to have the submerged lands transferred from federal to state ownership. The states partially succeeded in 1953 as Congress passed the Submerged Lands Act (SLA), which established state title in such lands, generally out to three miles.<sup>6</sup> A

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<sup>1</sup>In Proclamation No. 2667, dated September 28, 1945, President Truman stated:

the Government of the United States regards the natural resources of the subsoil and sea bed of the continental shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States, subject to its jurisdiction and control. . . . The character as high seas of the waters above the continental shelf and the right to their free and unimpeded navigation are in no way thus affected.

10 Fed. Reg. 12,303 (Oct. 2, 1945). Executive Order 9633 placed the continental shelf "under the jurisdiction and control of the Secretary of the Interior for administrative purposes, pending the enactment of legislation." Exec. Order 9633, 10 Fed. Reg. 12,305 (Oct. 2, 1945).

<sup>2</sup> Proclamation No. 2668, 10 Fed. Reg. 12,304 (Oct. 2, 1945).

<sup>3</sup> 10 Fed. Reg. at 12,303.

<sup>4</sup> United States v. California, 332 U.S. 19, 22-23 (1947).

<sup>5</sup> See *id.*; United States v. Texas, 339 U.S. 707 (1950); United States v. Louisiana, 339 U.S. 699 (1950).

<sup>6</sup> Submerged Lands Act, Pub. L. 83-31, 67 Stat. 29 (1953) (codified as amended at 43 U.S.C. §§ 1301-1315); see also Poe Leggett, *The Framework of Law for the Outer Continental Shelf*, Offshore Petroleum Installations Law and Financing 12

few months later that same year, Congress passed the Outer Continental Shelf Lands Act (OCSLA), vesting in the U.S. Secretary of the Interior the authority to manage the vast area of continental shelf submerged lands that extend beyond the relatively narrow belt of state submerged lands.<sup>7</sup> For additional discussion of the jurisdiction of offshore areas, see Chapter 1, *Setting the Stage*.

## Overview of Mineral and Energy Resources

A variety of mineral and non-mineral energy resources from the United States continental shelf have been considered by government and the private sector for exploitation. Best known, of course, are oil and natural gas, found or suspected to exist off many coastal states. Approximately 30 percent of the nation's domestic oil and 25 percent of its natural gas supply comes from the outer Continental Shelf (OCS). In 2002 and 2003, OCS lands managed by the Minerals Management Service (MMS), (noted in Chapter 1 as the bureau within the U.S. Department of the Interior (DOI) charged with the administration of offshore leasing), produced more than 600 million barrels of oil annually and some 4.5 trillion cubic feet of natural gas.<sup>8</sup>

Less familiar are other marine minerals, including: manganese crusts offshore of Hawaii and Johnston Island; phosphorites offshore of North Carolina; heavy mineral placers and phosphorites offshore of Georgia; sand and gravel resources offshore of the Atlantic and Gulf coast states; heavy mineral placers and gold offshore of Alaska; black sand deposits offshore of Oregon; and salt and sulfur deposits in the Gulf of Mexico. Other energy resources include the prospect of ocean thermal energy conversion off Hawaii and other tropical areas, and harnessing the energy of offshore waves and currents and offshore winds to generate electricity.

Methane is a potent energy source, and many believe the seabed's vast methane hydrate deposits will play a vital role in the planet's energy future—if the considerable technological, economic, and environmental risks of recovery can be overcome.<sup>9</sup> These whitish, ice-like hydrates composed of water and methane have been found on the seabed at depths of greater than two kilometers and embedded in the seabed greater than 750 meters.<sup>10</sup> While the exact concentration of methane hydrates is uncertain,<sup>11</sup> MMS estimates that the deposits contained off the coast of South Carolina alone would supply enough natural gas to sustain the United States at 1996 consumption levels for 105 years.<sup>12</sup> On May 2, 2000, Congress enacted a five-year, \$47.5 million gas hydrate research and development program for the United States.<sup>13</sup>

In addition, seabed mineral prospecting, exploration, and exploitation activities will likely occur in the foreseeable

(International Bar Ass'n 1986) (noting that one of Eisenhower's campaign pledges in 1952 was to return ownership of the submerged lands to the states). The state submerged lands off the gulf coasts of Florida and Texas extend approximately nine miles pursuant to their original sovereign charters. See *United States v. Florida*, 363 U.S. 121 (1960); *United States v. Louisiana, et al.*, 363 U.S. 1 (1960).

<sup>7</sup> Outer Continental Shelf Lands Act, Pub. L. 83-212, ch. 345, 67 Stat. 462 (1953) (codified as amended at 43 U.S.C. §§ 1331-1356).

<sup>8</sup> Minerals Management Service, U.S. Department of the Interior, *Total OCS Gas Production*, available at [http://www.mms.gov/stats/PDFs/OCSNaturalGasProduction\\_March2004.pdf](http://www.mms.gov/stats/PDFs/OCSNaturalGasProduction_March2004.pdf) (accessed March 11, 2004) and *Federal Offshore Crude and Condensate Production:1992-2003*, available at [http://www.mms.gov/stats/PDFs/FederalOffshoreCrudeCondensateProduction92-03\\_March2004.pdf](http://www.mms.gov/stats/PDFs/FederalOffshoreCrudeCondensateProduction92-03_March2004.pdf) (accessed March 11, 2004).

<sup>9</sup> USGS Fact Sheet FS-021-01, *Natural Gas Hydrates—Vast Resource, Uncertain Future* (Mar. 2001), available at <http://pubs.usgs.gov/fs/fs021-01/fs021-01.pdf>, (accessed May 13, 2004).

<sup>10</sup> Dr. Carolyn Ruppel, *Gas Hydrates Offshore Southeastern United States*, NOAA Ocean Explorer, available at <http://oceanexplorer.noaa.gov/explorations/03windows/background/hydrates/hydrates.html>.

<sup>11</sup> USGS Fact Sheet at 2.

<sup>12</sup> Minerals Management Service Gulf of Mexico OCS Region, United States Department of the Interior, OCS Report MMS 2000-017: *Oceanic Gas Hydrate Research and Activities Review* (Feb. 2000).

<sup>13</sup> Methane Hydrate Research and Development Act of 2000, Pub. L. 106-193, 114 Stat. 234 (2000).

future at or near active or extinct hydrothermal vent fields. The principal deep-sea minerals of interest to mining companies include polymetallic (manganese) nodules, cobalt crusts, nickel, copper, and polymetallic sulfide (PMS) deposits. Sources of each have been located within and beyond areas of national jurisdiction. None of the minerals beyond national jurisdiction are currently mined, nor is mining activity expected in the immediate future.<sup>14</sup>

Finally, the oceans contain valuable deposits of sand, gravel, and other minerals. OCS sand deposits are important sources for beach nourishment for many coastal communities.<sup>15</sup> As land and near-shore supplies of sand and gravel become less available, industry is turning to the OCS as an alternate source of these important building materials.<sup>16</sup> The OCS also contains deposits of strategic minerals such as gold, titanium, and other metals that will, at some indeterminate point in the future, become more important as an alternate source to land deposits.<sup>17</sup>

## GOVERNING STATUTES

The following is a summary of laws governing exploration and exploitation of offshore fuels, minerals, and energy resources, followed by a discussion of selected issues that have arisen over the years. Many of these laws are described in other chapters of this Appendix, but are also presented here because of their relevance to the management of fuels, minerals, and other energy production from ocean waters.

### Submerged Lands Act

The Submerged Lands Act (SLA)<sup>18</sup> established state “title to and ownership of” the offshore lands “beneath navigable waters” extending three miles from a state’s coastline (and established a mechanism allowing a claim of three marine leagues for Texas and the Gulf coast of Florida).<sup>19</sup> The Act also reaffirmed the federal claim to the OCS, which consists of those submerged lands seaward of state jurisdiction, and limited states’ claims to inside the landward boundary of the OCS.<sup>20</sup> The federal government also reserved authority over navigation and flood control.<sup>21</sup> The vesting of title and ownership of the submerged lands landward of the OCS conferred on the receiving states “the right and power to manage, administer, lease, and develop, and use the . . . lands and natural resources [within the lands and navigable waters above them] . . . in accordance with state law.”<sup>22</sup> The SLA defined the term “natural resources” to include “without limiting the generality thereof, oil, gas, and all other minerals, and fish, shrimp, oysters, clams, crabs, lobsters, sponges, kelp, and other marine animal and plant life but

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<sup>14</sup> Nodules on the seabed may contain commercial amounts of nickel, copper, cobalt, and manganese, and other minerals with important industrial uses. However, the National Oceanic and Atmospheric Administration (NOAA) advises that no commercial deep seabed mining is currently being conducted, and none is anticipated in the near future. NOAA has issued four licenses for exploration of seabed areas in the Clarion-Clipperton Fracture Zone in the south Pacific Ocean, two of which have lapsed and two of which remain in effect. Deep Seabed Mining: Approval of Extension and Revision of Exploration License, 67 Fed. Reg. 50,631 (Aug. 5, 2002) (Deep Seabed Mining Exploration License USA-1 extended through 2004); Deep Seabed Mining; Lapse of Exploration License, 64 Fed. Reg. 35,631 (July 1, 1999) (Deep Seabed Mining Exploration Licenses USA-2 & 3 lapsed in 1997 and 1999); Deep Seabed Mining; Issuance of Exploration License, 59 Fed. Reg. 66,942 (Dec. 28, 1994) (Deep Seabed Mining Exploration License USA-4 issued to Ocean Minerals Company).

<sup>15</sup> Offshore Minerals Management Sand and Gravel Program, at <http://www.mms.gov/sandandgravel/> (accessed May 26, 2004).

<sup>16</sup> Minerals Management Service, 1998 Year of the Ocean (Introduction), available at [http://www.yoto98.noaa.gov/yoto/meeting/energy\\_316.html](http://www.yoto98.noaa.gov/yoto/meeting/energy_316.html) (accessed May 26, 2003).

<sup>17</sup> *Id.*

<sup>18</sup> Submerged Lands Act, Pub. L. 83-31, 67 Stat. 29 (1953) (codified at 43 U.S.C. §§ 1301 *et seq.*)

<sup>19</sup> *Id.* §§ 1301, 1311.

<sup>20</sup> *Id.* § 1302.

<sup>21</sup> *Id.* § 1311(d).

<sup>22</sup> *Id.* § 1311(a).

. . . not . . . water power, or the use of water for the production of power.”<sup>23</sup> Several states (Alabama, Alaska, Louisiana, Mississippi, and Texas) have active mineral leasing or production programs on state submerged lands.<sup>24</sup>

## Outer Continental Shelf Lands Act

The jurisdiction, management, and regulation of OCS mineral development (including oil and gas development) are governed by fifty years worth of statutes, amendments, executive orders, agency regulations, and cases.

### *Outer Continental Shelf Lands Act of 1953*

Originally enacted into law on August 7, 1953, the OCSLA established federal jurisdiction over submerged lands on the OCS for the purpose of mineral leasing.<sup>25, 26</sup> It gave the Secretary of the Interior responsibility for administering exploration and development on the OCS of both energy and non-energy minerals.<sup>27</sup> The OCSLA defined *outer Continental Shelf* to include all submerged lands “lying seaward and outside of” those granted to the states pursuant to the SLA and “of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.”<sup>28</sup> It gave the federal government a mandate to develop OCS resources, stating that there was “an urgent need for further exploration and development of the oil and gas deposits of the submerged lands of the outer Continental Shelf.”<sup>29</sup>

The Act vested authority in the Secretary of the Interior “[to] administer the provisions of this Act relating to the leasing of the outer Continental Shelf, and . . . prescribe such rules and regulations as may be necessary to carry out [OCS leasing].”<sup>30</sup> The Act was primarily focused on the leasing of lands for the exploration and development of oil and gas deposits<sup>31</sup> and sulfur deposits.<sup>32</sup> However, it also included provisions for the leasing of lands for the development of “any mineral other than oil, gas, and sulfur.”<sup>33</sup>

The OCSLA required competitive bidding for oil, gas, sulfur, and other mineral leases. For oil and gas leases, OCSLA set out specific requirements, maintaining that “bidding . . . be (1) by sealed bids, and (2) . . . on the basis of a cash bonus with a royalty fixed by the Secretary at not less than 12 1/2 per centum in amount or value of the production saved, removed or sold, or on the basis of royalty, but at not less than the per centum above mentioned, with a cash bonus fixed by the Secretary.”<sup>34</sup> Each oil and gas lease was not to cover an area in excess of five thousand seven hundred and sixty acres. They were to last for a primary term of not more than five years, unless production in paying quantities occurred, or drilling and well working activities approved by the Secretary

<sup>23</sup> *Id.* § 1301(e) (definition of “natural resources”).

<sup>24</sup> See Ala. Code §§ 9-17-1 *et seq.*; Alaska Stat. § 38.05.180; Alaska Admin. Code tit. 11 § 82; La. Rev. Stat. tit. 30, § 148.2; Miss. Code Ann. § 53-3-71, § 29-7-3; Tex. Nat. Res. Code Ann. § 52.011, § 33.001 *et seq.*

<sup>25</sup> Outer Continental Shelf Lands Act, Pub. L. 83-212, ch. 345, 67 Stat. 462 (1953) (codified at 43 U.S.C. §§ 1331 *et seq.*).

<sup>26</sup> See *Treasure Salvors, Inc. v. The Unidentified Wrecked and Abandoned Sailing Vessel*, 569 F.2d 330, 339 (5th Cir. 1978) (“[T]he Outer Continental Shelf Act was enacted for the purpose, primarily, of asserting ownership and control over the minerals in and under the Continental Shelf.”) (*quoting* *Guess v. Read*, 290 F.2d 622, 625 (5th Cir. 1961)).

<sup>27</sup> See definition of “minerals” at 33 U.S.C. § 1331(q).

<sup>28</sup> *Id.* § 2 (codified at 43 U.S.C. § 1331(a)).

<sup>29</sup> *Id.* § 8 (codified at 43 U.S.C. § 1337).

<sup>30</sup> *Id.* § 5 (codified at 43 U.S.C. § 1334). Within DOI, that authority has been delegated to the Minerals Management Service (MMS).

<sup>31</sup> *Id.* § 8(a).

<sup>32</sup> *Id.* §§ 8(c) and (d).

<sup>33</sup> *Id.* § 8(e).

<sup>34</sup> *Id.* § 8(a).

continued beyond five years. In those cases the lease would continue in existence for as long as the production in paying quantities or the drilling and well working activities continued.<sup>35</sup> Sulfur leases were to be sold in a similar bid process and to contain similar provisions, except that there was no acreage restriction, the maximum primary term was set at ten years, and the minimum royalty was set at “5 per centum of the gross production or value of the sulfur at the wellhead.”<sup>36</sup>

By contrast to the specificity applicable to oil and gas and sulfur lease sales and lease terms, for leases of other minerals the OCSLA gave the Secretary of the Interior broad discretion “to grant to the qualified persons offering the highest cash bonuses on a basis of competitive bidding leases of any mineral other than oil, gas, and sulfur . . . upon such royalty, rental, and other terms as the Secretary may prescribe at the time of offering the area for lease.”<sup>37</sup> For minerals other than oil, gas, or sulfur, the OCSLA left the details of the sale process and lease primary terms and royalty entirely to the Secretary’s discretion.<sup>38</sup>

In addition to its provisions regarding the administration of leasing, the OCSLA provided that the Secretary could “at any time prescribe and amend such rules and regulations as he determines to be necessary and proper in order to provide for the prevention of waste and conservation of natural resources of the outer Continental Shelf, and the protection of correlative rights therein.”<sup>39</sup> Regarding “[t]he enforcement of conservation laws, rules, and regulations the Secretary [was] authorized to cooperate with the conservation agencies of the adjacent states.”<sup>40</sup> The Secretary was not obligated to conduct such a consultation, however, and in fact the Act did not constrain in any significant way the Secretary’s discretion regarding the administration of leasing activities by an obligation to consult with other agencies of the federal government or any state or local governments.

A few agencies other than DOI, however, had authority to regulate certain specific activities that occurred incidentally to the mineral leasing of the OCS. The “head of the Department in which the Coast Guard is operating” received authority to “promulgate and enforce such reasonable regulations with respect to lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property on the [artificial] islands and structures [used in OCS leasing activities].”<sup>41</sup> And the statute extended “[t]he authority of the Secretary of the Army to prevent obstruction to navigation in the navigable waters of the United States” to “artificial islands and fixed structures located on the outer Continental Shelf.”<sup>42</sup>

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<sup>35</sup> *Id.* § 8(b).

<sup>36</sup> *Id.* § 8(d).

<sup>37</sup> *Id.* § 8(e).

<sup>38</sup> The Minerals Management Service has established a three-tiered regulatory regime for offshore minerals other than oil, gas and sulfur. MMS’ regulations govern prospecting activities, leasing activities, and operations on offshore mineral leases. See 30 C.F.R. Parts 280, 281, and 282 (2002). Together, the regulations outline the requirements for data and information gathering ventures associated with prospecting and scientific research. They also establish leasing procedures, basic mineral lease conditions, and general procedures to govern discovery, development, and production activities on a lease. 30 C.F.R. Parts 281 and 282. With the cooperation of adjacent coastal states, joint federal-state task forces assess leasing potential of an offshore area. 30 C.F.R. § 281.13 (2002). If leasing is determined to be economically feasible, resource and environmental studies follow. The task forces recommend appropriate action to the Secretary and the state governor(s). Federal decisions to proceed to lease sales are made by the Secretary of the Interior, with review and comment from the state governors and other interested parties. *Id.* § 281.14.

<sup>39</sup> Pub. L. 83-212, ch. 345, § 5(a)(1) (codified at 43 U.S.C. § 1334(a)(1)).

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* § 4(e)(1) (codified at 43 U.S.C. § 1333(d)(1)).

<sup>42</sup> *Id.* § 4(f) (codified at 43 U.S.C. § 1333(e)).

### *1978 Amendments to the Outer Continental Shelf Lands Act*

Secretarial discretion in the administration of OCS leasing became more constrained, however, with the rise of environmental law. The 1978 amendments retained the OCSLA's purpose of furthering expedited exploration and development but introduced a heightened duty of environmental protection and consultation with coastal states.<sup>43</sup> For example, the amendments directed the Secretary to develop a five-year OCS leasing program and stipulated a number of factors that needed to be considered in putting together a schedule of offshore sales.<sup>44</sup> Close consultation with Governors and local officials from affected coastal states was one of the key requirements carried by the amendments, specifically calling for the consideration of laws, policies, and CZMA programs in such states in the development of the federal offshore schedule. From the first five-year program promulgated by Secretary of the Interior Andrus in the Carter Administration and the second by Secretary Watt in the Reagan Administration, a number of programs have been challenged in court, some successfully and some on the grounds that an inadequate environmental impact statement had been prepared.<sup>45</sup> In part, because the litigation ultimately made clear what the courts were looking for in the development of the leasing program, MMS has now institutionalized its process to such an extent that it is generally no longer the subject of legal challenges.<sup>46</sup>

Importantly, Congress' passage of the Coastal Zone Management Act (CZMA),<sup>47</sup> in 1972, and, in particular, its major energy-related amendments to that Act enacted in 1976, provided an even clearer institutional mechanism by which coastal states would be brought into the OCSLA decision-making process. This particular mechanism is the federal consistency provision of the CZMA, discussed in Chapter 2, *Coastal Management*. The original consistency language required that the activities authorized in each federal license and permit affecting a state's coastal zone be subject to a concurrence by such state that the activities are consistent with its coastal management program. If the state did not concur, the federal agency was prohibited from granting the authorization unless overridden by the Secretary of Commerce.<sup>48</sup>

Because the state had six months to respond to each license and permit, the 1976 amendments to the CZMA added a new OCS-specific provision to the federal consistency section to consolidate a series of individual OCS permit decisions into offshore exploration and development and production plans submitted by private lessees to the Secretary of the Interior. With the new provision, the state would have a single concurrence decision to make on an entire offshore plan.<sup>49</sup> The 1978 amendments cross referenced the applicable CZMA consistency process, as revised in 1976, and incorporated them into the appropriate sections (on exploration and development plans) of the OCSLA. Moreover, by contrast with the 1953 version of Section 5 of the OCSLA, which had merely "authorized" the Secretary to coordinate with states,<sup>50</sup> the 1978 amendments required the Secretary's cooperation with federal agencies and states. The amendments stipulated that "[i]n the enforcement of safety, environmental,

<sup>43</sup> Pub. L. 95-372, § 102, 92 Stat. 629 (1978) (§ 102 is codified at 43 U.S.C. § 1802 (2000)).

<sup>44</sup> *Id.* § 208 (adding OCSLA § 18) (codified at 43 U.S.C. sec. 1344).

<sup>45</sup> See, e.g., *Village of False Pass v. Clark*, 733 F.2d 605, 609 (9<sup>th</sup> Cir. 1984).

<sup>46</sup> For a detailed discussion of the litigation on the five-year OCS leasing program, see Edward A. Fitzgerald, *The Seaweed Rebellion: Federal-State Conflicts over Offshore Energy Development* (Lanham, Maryland: Lexington Books, 2001), chapter 4.

<sup>47</sup> 16 U.S.C. § 1451 *et seq.* The Coastal Zone Management Act (CZMA) defines the term *coastal zone* to mean "the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the lands therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches." The details of the CZMA are addressed in more depth in Chapter 2.

<sup>48</sup> See Pub. L. 92-583, (codified at 16 U.S.C. § 1456).

<sup>49</sup> Pub. L. 94-370, (codified at 16 U.S.C. § 1456(c)(3)(B)).

<sup>50</sup> Pub. L. 83-212, ch. 345, § 5.

and conservation laws and regulations, the Secretary shall cooperate with the relevant departments and agencies of the federal government and the affected states.”<sup>51</sup>

Also furthering the goal of environmental protection, the 1978 amendments placed information gathering and dissemination requirements on the Secretary. OCSLA Section 20(a) required the Secretary to conduct environmental studies of areas included in any oil and gas lease sales “in order to establish information needed for assessment and management of environmental impacts on the human, marine, and coastal environments of the outer Continental Shelf and the coastal areas which may be affected by oil and gas development in such region or area.”<sup>52</sup> Section 20(b) required additional studies subsequent to leasing or development of an area.<sup>53</sup> Moreover, under Section 26(a), lessees were required to provide data regarding their exploration for, or development or production of, oil or gas to DOI.<sup>54</sup> DOI is required to analyze and process this information and make so much of it as is not privileged or proprietary available to affected states and local governments for use in “planning for the onshore impacts of possible oil and gas development and production.”<sup>55</sup>

In addition to protecting the natural environment, the 1978 amendments were concerned with the safety of operations involving exploring for, developing, and producing OCS minerals. OCSLA Section 21 directed that, after consulting with the Secretary of the Interior regarding the existing regulatory and enforcement scheme, “[t]he Secretary of the Department in which the Coast Guard is operating shall promulgate regulations or standards applying to unregulated hazardous working conditions related to activities on the outer Continental Shelf when he determines such regulations or standards are necessary.”<sup>56</sup>

Supporting the OCSLA’s original and amended provisions, the 1978 amendments included a new statutory scheme of remedies and penalties for enforcement of the Act. These included the power to institute a civil action for injunctive relief to correct a violation of the OCSLA and civil and criminal penalties for uncorrected or knowing violations of the statute.<sup>57</sup> The amendments also included a “citizen suit” provision, which gave “any person having a valid legal interest which is or may be adversely affected” by a violation of the OCSLA the right to bring suit against an offending party, including the government or any of its agencies, to compel compliance.<sup>58</sup>

In keeping with the 1978 amendments’ recognition of state interests, a revised Section 8(g) of the OCSLA provided for the “fair and equitable division” of revenues from federal leases “within three miles of the seaward boundary of any coastal state” where the oil or gas pool to be exploited underlies both federal OCS and state submerged lands.<sup>59</sup> The Secretary of the Interior and the governor of the affected state were to agree as to the appropriate division of the revenues, with the money placed in escrow until the division. In the event that the Secretary and the governor could not reach agreement, a district court was to determine the proper division.<sup>60</sup>

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<sup>51</sup>Pub. L. 95-372, § 204, 92 Stat. 629 (1978) (codified at 43 U.S.C. § 1334).

<sup>52</sup> Pub. L. 95-372, § 208, 92 Stat. 629 (1978), adding OCSLA § 20(a)(1) (codified at 43 U.S.C. § 1346(a)(1)). To protect health, safety, property, and the environment, MMS regulations implementing OCSLA require use of “the best available and safest technology . . . whenever practical on all exploration, development, and production operations.” 30 C.F.R. § 206.107(c) (2002).

<sup>53</sup> Pub. L. 95-372, § 208, adding OCSLA § 20(b) (codified at 43 U.S.C. § 1346(b)). In conducting these statutorily required studies, the Secretary was directed “to the maximum extent practicable . . . to utilize . . . the capabilities of the Department of Commerce.” *Id.* § 208, adding OCSLA § 20(d) (codified at 43 U.S.C. § 1346(e)).

<sup>54</sup> *Id.* § 208 (adding OCSLA § 26(a)) (codified at 43 U.S.C. § 1352(a)).

<sup>55</sup> *Id.* § 208 (adding OCSLA § 26(b)) (codified at 43 U.S.C. § 1352(b)).

<sup>56</sup> *Id.* § 208 (adding OCSLA § 21(c)) (codified at 43 U.S.C. § 1347(c)).

<sup>57</sup> *Id.* § 208 (adding OCSLA § 24) (codified at 43 U.S.C. § 1350).

<sup>58</sup> *Id.* § 208 (adding OCSLA § 23) (codified at 43 U.S.C. § 1349).

<sup>59</sup> *Id.* § 205(g) (revising OCSLA § 8(g)) (codified at 43 U.S.C. § 1337(g)).

<sup>60</sup> *Id.* § 205(g)(4) (codified at 43 U.S.C. § 1337(g)(4) (2000)).

Actually deciding what constituted a “fair and equitable division” of the revenues to which Section 8(g) applied proved controversial and led to significant litigation.<sup>61</sup>

### ***The Four-Step OCS Process under the 1978 Amendments***

In summary, based on the 1978 amendments, MMS implementation regulations and other published directives to lessees, and certain judicial interpretations, the OCSLA establishes a four-stage process for the development of oil and gas leases for exploration and production.<sup>62</sup> The first stage is the development and publication of schedules of proposed lease sales.<sup>63</sup> After a five-year program schedule has been established, the second stage is the individual lease sale consultative process, which provides adjacent states and the public an opportunity to review each proposed sale and that may lead to the cancellation, delay, or modification of a proposed sale. If the Secretary decides to proceed with the sale, the stage culminates in the competitive bidding process and sale of the leases.<sup>64</sup> Each sale is considered individually and, as noted in Chapter 2, is subject to a CZM consistency review by affected coastal states (discussed in more detail in the Selected Issues section of this chapter, below).

The third stage is the filing and review of the exploration plan (EP).<sup>65</sup> At this stage, the lessee submits a proposed EP to the regional supervisor of MMS for approval. The EP must include descriptions of the exploration activities and the mobile drilling unit to be used, a map of the proposed wells, and a federal consistency certification, pursuant to CZMA Section 307(c)(3)(B). The regional supervisor must consult with the governor of any affected state, or designated representatives, and submit the EP and accompanying consistency certification and information to the state CZMA agency of the affected state(s), before approving (with state concurrence with such certification) or disapproving the licenses or permits described in detail in the proposed EP. The fourth stage is the filing and review of a development and production plan (DPP).<sup>66</sup> As is the case for the EP, the DPP must be submitted along with the lessee’s certification that each activity is consistent with the enforceable policies of the state’s coastal management program. The Secretary may not approve a DPP that does not receive the affected coastal state’s concurrence with the lessee’s certification unless the Secretary of Commerce overrides the state’s consistency objection (see Chapter 2, *Coastal Management*, for a more detailed description of the Secretary of Commerce’s override authority).

### ***Outer Continental Shelf Lands Act Amendments of 1986***

The 1986 amendments to the OCSLA resolved the dispute over the division of the 8(g) revenues. The amendments mandated that 27 percent of all revenues from production within three miles seaward of the federal-state boundary be given to the states.<sup>67</sup> They also set a schedule for distribution on revenues placed in escrow pending settlement of any jurisdictional disputes between the federal and state governments.<sup>68</sup>

<sup>61</sup> *E.g.*, *Texas v. Secretary of the Interior*, 580 F. Supp. 1197 (E.D. Tex. 1984); see Roger J. Marzulla, *Federalism Implications and OCSLA Section 8(g)*, 2 *Nat. Resources & Env’t* 26, 28-29, 70-71 (Spring, 1986) (summarizing litigation over 8(g) revenues by Texas, Louisiana, and Alaska and noting that (as of the article’s date) Alabama, Mississippi, Florida, and California “lay claim to 8(g) revenues but have not yet sued”).

<sup>62</sup> *Secretary of the Interior v. California*, 464 U.S. 312, 313 (1984).

<sup>63</sup> 43 U.S.C. § 1344.

<sup>64</sup> *Id.* § 1337.

<sup>65</sup> *Id.* § 1340(c).

<sup>66</sup> 43 U.S.C. § 1351.

<sup>67</sup> Pub. L. 99-272, § 8003, 100 Stat. 148 (1986) (amending OCSLA § 8(g)) (codified at 43 U.S.C. § 1337(g)).

<sup>68</sup> *Id.*

### ***OCSLA and the Oil Pollution Act of 1990***

Included within the Oil Pollution Act of 1990 (discussed below and in Chapter 7) was an amendment adding Section 5(j) to the OCSLA to govern “cooperative development of common hydrocarbon-bearing areas.” Concerned about the adverse effects of “unrestrained competitive production of hydrocarbons from a common hydrocarbon-bearing geological area” underlying a state-federal offshore boundary,<sup>69</sup> Congress directed the Secretary of the Interior to “prevent, through the cooperative development of an area, the harmful effects of unrestrained competitive production.”<sup>70</sup>

### ***Outer Continental Shelf Lands Act Amendments of 1994 and 1999***

The 1994 OCSLA amendments authorized the Secretary of the Interior to negotiate agreements (rather than conduct a competitive lease sale) for sand, gravel, and shell resources for use in projects undertaken by federal, state, or local governments for shore protection and beach or coastal wetlands restoration, or for use in other types of construction projects that are wholly or partly funded, or authorized, by the federal government.<sup>71</sup> Access to OCS hard minerals for purposes other than those specified in the amendments continued to be addressed through the competitive bidding process by granting a lease to the highest bidder for the extraction and use of any mineral.<sup>72</sup> The Water Resources Development Act of 1999 amended Public Law 103-426, dropping the requirement that a fee be paid by state and local governments for use of OCS sand, gravel, and shell resources.<sup>73</sup>

### ***OCS Deep Water Royalty Relief Act***

In 1995, Congress passed the OCS Deep Water Royalty Relief Act (DWRRA),<sup>74</sup> which amended Section 8 of the OCSLA, to stimulate exploration for and production of oil and natural gas in the deeper waters of the Gulf of Mexico by offering royalty relief incentives.<sup>75</sup> Pursuant to the Act, federal lease tracts in the Western and Central Planning Areas of the Gulf of Mexico, and the portion of the Eastern Planning Area encompassing whole lease blocks lying west of 87 degrees, 30 minutes West longitude of the U.S. EEZ may be eligible for royalty relief. The grant of royalty relief by the Secretary of the Interior for leases issued in lease sales held before the November 28, 1995, the date of enactment of the DWRRA depends on the Secretary’s determination that production would be uneconomic without the relief.<sup>76</sup> For leases issued in sales held more than five years after DWRRA’s enactment, the Secretary has full discretion to determine whether or not to provide royalty relief.<sup>77</sup>

The DWRRA mandated some form of royalty relief, however, for leases in deep water tracts issued pursuant to lease sales held in the five-year period following the law’s enactment (i.e., November 29, 1995 through November 29, 2000). The volume of mandatory relief was tiered such that greater relief was afforded for greater water depths: “(1) 17.5 million barrels of oil equivalent for leases in water depths of 200 to 400 meters; (2) 52.5 million

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<sup>69</sup> *Id.* § 1334(j)(1)(A).

<sup>70</sup> *Id.* § 1334(j)(2).

<sup>71</sup> Outer Continental Shelf: Sand, Gravel, and Shell Resources, Pub. L. 103-426, 108 Stat. 4371 (1994), amending OCSLA § 8 (codified at 43 U.S.C. § 1337(k)).

<sup>72</sup> See 43 U.S.C. § 1337(k).

<sup>73</sup> Water Resources Development Act of 1999, Pub. L. 106-53, Title II, § 215(b)(1), 113 Stat. 269 (1999).

<sup>74</sup> Outer Continental Shelf Deep Water Royalty Relief Act, Pub. L. 104-58, 109 Stat. 557 (1995) (codified at 43 U.S.C. § 1337 (2000)).

<sup>75</sup> See *id.*

<sup>76</sup> *Id.* § 302 (codified at 43 U.S.C. § 1337).

<sup>77</sup> 43 U.S.C. § 1337.

barrels of oil equivalent for leases in 400 to 800 meters of water; and (3) 87.5 million barrels of oil equivalent for leases in water depths greater than 800 meters.”<sup>78</sup>

## Clean Water Act

Pursuant to the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) permit program limits water pollution by regulating point sources that discharge pollutants into the waters of the United States.<sup>79</sup> *Point source* is broadly defined as “any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.”<sup>80</sup> Under the CWA, discharges from point sources are unlawful without a NPDES permit authorizing the discharges.<sup>81</sup>

CWA Section 403 requires that NPDES permits for “discharge into the territorial sea, the waters of the contiguous zone, or the oceans” be issued in compliance with guidelines promulgated by the U.S. Environmental Protection Agency (EPA),<sup>82</sup> the agency that administers the CWA. In such guidelines, EPA has provided for a general permit subcategory<sup>83</sup> for discharges from facilities engaged in offshore oil and gas extraction.<sup>84</sup>

As required by the CWA, the guidelines covering offshore oil and gas extraction point sources provide for technology-based effluent discharge limitations according to whether pollutants are produced by a “new source” or not and according to the type of pollutant. A new source is “any source [that is discharging or may discharge pollutants], the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this Section [i.e., Section 306 of the CWA, codified at 33 U.S.C. § 1316] which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.”<sup>85</sup>

Applicable guidelines must be established using “new source performance standards”<sup>86</sup> and may be more stringent than those applicable to existing sources. For existing sources, the technology-based effluent discharge standard used to develop the guidelines depends upon whether “toxic pollutants”<sup>87</sup> or “conventional pollutants”<sup>88</sup> are

<sup>78</sup> Pub. L. 104-58, § 304 (codified at 43 U.S.C. § 1337).

<sup>79</sup> See *id.* § 1342. The goals of the CWA are to be met through the control of *nonpoint sources* of pollution as well as *point sources*, see *id.* § 1251(a)(7), and to this end the statute provides for the development by states and the federal government of “nonpoint source management programs.” See *id.* § 1329. Nonpoint sources can be expected to be found onshore rather than offshore, however, and include sources such as urban or rural runoff.

<sup>80</sup> *Id.* § 1362(14).

<sup>81</sup> See *id.* §§ 1311(a) and 1342.

<sup>82</sup> *Id.* § 1343.

<sup>83</sup> See 40 C.F.R. Part 435, Subpart A (2002) (Part 435 – Oil and Gas Extraction Point Source Category, Subpart A, – Offshore Subcategory). More detail regarding the CWA and EPA permitting of point source discharges can be found in Chapter 4, *Ocean and Coastal Pollution from Land-based Sources*.

<sup>84</sup> The subcategory is defined as “facilities engaged in field exploration, drilling, well production, and well treatment in the oil and gas industry which are located in waters that are seaward of the inner boundaries of the territorial sea as defined in section 502(g) of the Clean Water Act.” 40 C.F.R. § 435.10 (2002). Section 502(g) of the CWA defines the inner boundary of the territorial sea as “the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters.” 33 U.S.C. § 1362(8).

<sup>85</sup> *Id.* § 1316; see 40 C.F.R. § 401.11(e) (2002).

<sup>86</sup> *Id.* § 1316(b)(1)(B). The discharge limitation guideline applicable to NPDES permits for new sources in the offshore oil and gas extraction subcategory is codified at 40 C.F.R. § 435.15 (2002).

<sup>87</sup> The term *toxic pollutants* is defined at 33 U.S.C. § 1362(13). EPA has listed toxic pollutants at 40 C.F.R. § 401.15 (2002).

<sup>88</sup> The term *conventional pollutants* is defined at 33 U.S.C. § 1314(a)(4) (2000). EPA has listed conventional pollutants at 40 C.F.R.

involved. Guidelines applicable to toxic pollutants must be established using the “best available technology economically achievable” (BAT) standard.<sup>89</sup> Guidelines applicable to conventional pollutants must be established using the “best conventional pollutant control technology” (BCT) standard.<sup>90</sup> The factors that must be considered by EPA in establishing BAT and BCT are listed in Section 304 of the CWA.<sup>91</sup>

## Oil Pollution Act

Since 1972, CWA Section 311 has been the primary mechanism for enforcing oil pollution control standards and establishing responsibility and liability for oil spill and hazardous substance clean up and damages.<sup>92</sup> While the Oil Pollution Act of 1990 (OPA)<sup>93</sup> replaced most of the CWA legal regime for responsibility for cleanup costs and damages for oil spill contingency planning, Section 311 still provides the framework for civil and criminal enforcement by the federal government for oil spills and notification to the federal government concerning a spill of oil or a hazardous substance.<sup>94</sup>

OPA made responsible parties (including owners, operators, and charterers) strictly liable for cleanup costs and damages for discharges of oil.<sup>95</sup> The statute contains limits on liability, which are greatly increased over those levels originally set by CWA Section 311 and were greater than limits proposed in international liability regimes at the time.<sup>96</sup> Parties can be liable for removal costs and damages for injury to, destruction of, loss of, or loss of use of, natural resources.<sup>97</sup> In addition, private parties may also bring claims for destruction of private property, loss of subsistence use, and the loss of profits or impairment of earning capacity due to the injury, destruction, or loss of property or natural resources.<sup>98</sup> Additionally, OPA provided for the creation an Oil Spill Liability Trust Fund<sup>99</sup> to cover claims where the parties responsible for a spill cannot be found or are unable to pay for cleanup costs and damages.<sup>100</sup>

Prior to the passage of OPA, MMS was responsible for oil spill prevention and response for oil and gas facilities on the OCS. Under the OPA, Executive Order 12,777, and subsequent delegations, MMS authority for oil spill prevention and response was expanded to include all offshore facilities in federal and state waters, except those covered by the Deepwater Port Act of 1974.<sup>101</sup> MMS was also delegated authority to ensure that offshore

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§ 401.16 (2002).

<sup>89</sup> See 33 U.S.C. §§ 1311(b)(2) and 1314(b)(2). The discharge limitation guideline applicable to NPDES permits for discharges of toxic pollutants in the offshore oil and gas extraction subcategory is codified at 40 C.F.R. § 435.13 (2002).

<sup>90</sup> See 33 U.S.C. §§ 1311(b)(2)(E), 1314(a)(4), and 1314(b)(4). The discharge limitation guideline applicable to NPDES permits for discharges of conventional pollutants in the offshore oil and gas extraction subcategory is codified at 40 C.F.R. § 435.14 (2002).

<sup>91</sup> 33 U.S.C. § 1314(b)(2)(B).

<sup>92</sup> *Id.* § 1321.

<sup>93</sup> 33 U.S.C. §§ 2701 *et seq.* OPA is discussed further in Chapter 7 of this Appendix.

<sup>94</sup> The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) creates a parallel legal regime to Section 311 and the Oil Pollution Act for hazardous substances to which it applies. See 42 U.S.C. §§ 9601-9675.

<sup>95</sup> See *id.* § 2702.

<sup>96</sup> See *id.* § 2704.

<sup>97</sup> See *id.* § 2702(b).

<sup>98</sup> See *id.*

<sup>99</sup> See 26 U.S.C. § 9509.

<sup>100</sup> See 33 U.S.C. § 2712; see also *id.* § 2701(11) (defining the term *Fund* used in 33 U.S.C. § 2712 to mean the Oil Spill Liability Trust Fund established pursuant to 26 U.S.C. § 9509).

<sup>101</sup> Exec. Order No. 12,777, 56 Fed. Reg. 54,757, 54,760-62 (Oct. 18, 1991); J. Manuel Saenz, *Implementation of the Oil Pollution Act of 1990: A Program Designed for Offshore California*, available at <http://www.mms.gov/omm/pacific/offshore/cz97-saenz.htm> (accessed June 1, 2004).

operators can meet their financial responsibility for oil spills from their facilities.<sup>102</sup>

MMS developed an MMS OPA implementation plan that incorporates components of several Memoranda of Agreement and Understanding (MOA/MOU) between MMS and other federal and state agencies to ensure a coordinated oil spill prevention and response program. Among other measures, this coordination provides for the sharing of technical expertise in drilling, production, pollution prevention, and other related areas of offshore operations and safety.<sup>103</sup>

### Clean Air Act

Through amendments adopted in 1978, Congress required the Secretary of the Interior to include in regulations issued under the OCSLA rules “for compliance with the national ambient air quality standards pursuant to the Clean Air Act (CAA), to the extent that activities authorized under this subchapter significantly affect the air quality of any State.”<sup>104</sup> Initially, there was some uncertainty within the executive branch over whether this provision was meant to give the Secretary exclusive authority over emissions of air pollutants from OCS facilities or whether it simply supplemented authority that EPA believed it already possessed under the CAA. That confusion was addressed in *California v. Kleppe*, in which a federal court of appeals determined that “Congress gave the Secretary authority to promulgate air quality regulations for the OCS. The plain meaning provides no suggestion that such authority is to be shared.”<sup>105</sup>

*Kleppe* resolved the legal question, but not the controversy. Focusing on the statutory command to address emissions “to the extent” OCS activities “significantly affect” onshore air quality, DOI adopted rules that first assess whether OCS emissions will cause significant increases of the concentrations of regulated pollutants once the emissions reach shore. This approach was problematic for California. There, the narrow continental shelf kept OCS activities relatively near to shore. OCS platforms and drill ships emitted pollutants into a highly populated airshed confined on the east by coastal mountains. From California’s perspective, emissions of volatile organic compounds and oxides of nitrogen—precursors in the formation of ozone—contributed equally significantly whether they came from OCS facilities or the tailpipes of automobiles onshore. To the state, OCS emissions needed to be regulated under the same criteria employed by the state under its EPA-mandated “state implementation plan” under the CAA.

From 1980 to 1990, OCS operations off California faced considerable uncertainty over what air quality standards would apply. The California Coastal Commission adopted the position that OCS exploration plans and productions plans were inconsistent with the California coastal management program unless operators agreed to abide by the requirements of the California Air Resources Board. OCS lessees and DOI asserted that the Commission’s position was contrary to law.

After attempts to negotiate a new air quality rule governing operations offshore California failed, Congress resolved the controversy by enacting Section 328 of the CAA.<sup>106</sup> Section 328 essentially supersedes Section 5(a)(8) of the OCSLA in all areas of the OCS except the central and western Gulf of Mexico.<sup>107</sup> Outside the excepted areas, emissions of air pollutants from OCS facilities are to be governed by rules issued by EPA. If the facilities

<sup>102</sup> Saenz, *Id.*

<sup>103</sup> *Id.*

<sup>104</sup> 43 U.S.C. § 1334(a)(8).

<sup>105</sup> *California v. Kleppe*, 604 F.2d 1187, 1193 (9th Cir. 1979).

<sup>106</sup> The Clean Air Act Amendments of 1990 are Pub. L. 101-549, 104 Stat. 2464, see at 2685-87 (November 15, 1990).

<sup>107</sup> 42 U.S.C. § 7627(a)(1).

are located within 25 miles of the seaward boundary of a state, EPA's rules are to be "the same as would be applicable if the source were located in the corresponding onshore area."<sup>108</sup> Section 328 invites states adjacent to the OCS to submit their own regulations to implement air pollution control, and EPA is to delegate its enforcement authority if it finds a state's proposal "adequate."<sup>109</sup>

### Statutes Protecting Living Marine Resources

The Endangered Species Act (ESA),<sup>110</sup> the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act),<sup>111</sup> and the Marine Mammal Protection Act (MMPA)<sup>112</sup> protect offshore marine life and affect the conduct of offshore mineral exploitation. In addition to prohibiting certain types of conduct having a direct negative impact on such resources, some of these statutes also place limitations on government action that may adversely affect species and habitat. Most importantly, as the agency charged with administering OCS mineral exploitation activities, DOI has responsibilities under various federal laws to consult with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) regarding OCS activities and their effect on living marine resources. These laws are discussed in more detail in Chapter 3, *Living Marine Resources*.

Section 9 of the ESA prohibits *takes* within the United States, its territorial sea, or on the high seas, of any species protected under the Act by any person subject to the jurisdiction of the United States.<sup>113</sup> Further, under Section 7(a), federal agencies must consult with NMFS or USFWS as applicable to ensure that any action "authorized, funded, or carried out . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of . . . [critical] habitat."<sup>114</sup> Once this consultation is completed, NMFS or USFWS, as applicable, prepares a "biological opinion." The biological opinion must be based on "the best scientific and commercial data available," and must include three essential findings.<sup>115</sup> The biological opinion must indicate: whether the action will jeopardize a species' survival or adversely affect critical habitat; if jeopardy or adverse critical habitat modification will occur, what "reasonable and prudent alternatives . . . can be taken by the federal agency"; and, if takings are anticipated to occur, the number of animals that may be taken and "reasonable and prudent measures" to minimize the impact.<sup>116</sup> This third finding is critical, because if a taking subsequently occurs but the "reasonable and prudent measures" described in a biological opinion have been implemented, the taking is deemed not to be unlawful under Section 9 of the ESA.<sup>117</sup>

Similar to the ESA, under the Magnuson-Stevens Act, when federal agencies such as MMS conduct activities that "may adversely affect any essential fish habitat" they must consult with NMFS to develop "measures that [they] can . . . take . . . to conserve such habitat."<sup>118</sup> *Essential fish habitat* (EFH) is defined by the Magnuson-Stevens Act to mean "those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity."<sup>119</sup>

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<sup>108</sup> *Id.*

<sup>109</sup> 42 U.S.C. § 7627(a)(3).

<sup>110</sup> 16 U.S.C. §§ 1531-1544.

<sup>111</sup> *Id.* §§ 1801-1883.

<sup>112</sup> *Id.* §§ 1361-1421h.

<sup>113</sup> *Id.* §§ 1538(a)(1)(B) and (C). A *take* is defined as all actions "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." *Id.* § 1532(19).

<sup>114</sup> *Id.* § 1536(a)(2).

<sup>115</sup> *Id.* § 1536(a)(2).

<sup>116</sup> *Id.* § 1536(b).

<sup>117</sup> *Id.* § 1536(o)(2); *cf. id.* § 1539(a)(1)(B) (authorizing the provision of permits allowing for incidental takes by private entities).

<sup>118</sup> *See id.* § 1855(b)(4).

<sup>119</sup> *Id.* § 1802(10). Regulations promulgated by the NMFS direct that:

Further, the Act requires Regional Fishery Management Councils to “describe and identify essential fish habitat based on . . . guidelines established by the Secretary [of Commerce].”<sup>120</sup>

Regarding the mandated interagency consultation, if the Secretary of Commerce receives information from a fishery management council or other agency, or determines from other sources that a proposed or undertaken action by a federal or state agency threatens an identified EFH, the Secretary is required to recommend measures to the responsible agency that can be taken to conserve that habitat. As the acting agency, DOI would not be required to follow the recommendations, but would be required to provide a detailed response in writing to explain the reasons for not following the recommendations and to describe measures to be taken to avoid, mitigate, or offset the impact of the activity on the habitat.<sup>121</sup>

Although it does not contain provisions requiring consulting, like ESA Section 9, Sections 101 and 102 of the MMPA generally prohibit the taking of any marine mammals.<sup>122</sup> OCS oil and gas operators and others engaged in offshore activities that may result in unintentional or accidental taking of marine mammals must obtain authorization for such takings. The MMPA and its implementing regulations allow United States citizens to petition the NMFS or USFWS for a letter of authorization to allow the conditional taking of marine mammals incidental to a specified activity occurring in a certain area for not more than five consecutive years.<sup>123</sup> In the absence of a letter of authorization, operators are liable for any takes that may occur.<sup>124</sup> Except for activities that have the potential to result in serious injury or mortality, NMFS or USFWS may also issue incidental harassment authorizations for activities that may result in only the incidental harassment of a small number of marine mammals.

## Deep Seabed Hard Mineral Resources Act

Enacted in 1980, the Deep Seabed Hard Mineral Resources Act (DSHMRA)<sup>125</sup> established an interim regime for deep seabed mining to govern persons subject to U.S. jurisdiction pending the adoption of an international treaty on the deep seabed. The Act applies to activities on the “deep seabed,” defined to mean the area seaward of “the Continental Shelf of any nation.”<sup>126</sup> The Act defines *Continental Shelf* using not the definition later adopted by Article 76 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS), but the definition employed by the 1958 Convention on the Continental Shelf: encompassing the “seabed and subsoil . . . to a depth of 200

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For the purpose of interpreting the definition of essential fish habitat: *Waters* include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include areas historically used by fish where appropriate; *substrate* includes sediment, hard bottom, structures underlying the waters, and associated biological communities; *necessary* means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and “spawning, breeding, feeding, or growth to maturity” covers a species' full life cycle.

50 C.F.R. § 600.10 (2002).

<sup>120</sup> 16 U.S.C. § 1853(a)(7).

<sup>121</sup> *Id.* §§ 1855(b)(3)-(4).

<sup>122</sup> *Id.* § 1371(a).

<sup>123</sup> *Id.* § 1371 (a)(5)(A); 50 C.F.R. § 216.105 (2002).

<sup>124</sup> Violators of the MMPA's prohibition on takes are subject to a civil penalty of up to \$10,000 per violation. *Id.* § 1375(a)(1). Violations that are found to be “knowing” are subject to a criminal penalty of up to \$20,000 and one year imprisonment. *Id.* § 1375(b).

<sup>125</sup> Pub. L. 96-283; 94 Stat. 553; June 28, 1980 (codified at 30 U.S.C. §§ 1401 *et seq.*).

<sup>126</sup> *Id.* § 1403(4).

meters [from the surface of the sea] or, beyond that limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of such . . . area.”<sup>127</sup>

Congress intended that the Act “should be transitional pending” either of two events: the adoption of a treaty resulting from the Third U.N. Conference on the Law of the Sea (the conference resulting in the 1982 UNCLOS) or, barring the adoption of that treaty, some other multilateral treaty respecting the deep seabed.<sup>128</sup> The premise of the Act at the time of enactment was that the development of technology needed to mine the “significant” supply of hard minerals on the floor of the deep seabed required long lead times, and therefore “must proceed at this time if deep seabed minerals are to be available when needed.”<sup>129</sup> To accommodate the need to stimulate technological development and to permit mining to proceed, the Act authorizes the U.S. Department of Commerce, through the National Oceanic and Atmospheric Administration, to issue “licenses” for exploration and “permits” for commercial recovery of hard minerals.<sup>130</sup> To assure that U.S. citizens do not behave inconsistently with the emerging law of deep seabed mining, the Act prohibits them from mining activities unless authorized under a license or permit issued under the Act, under a similar authority issued by another nation,<sup>131</sup> or under an international treaty.<sup>132</sup>

Anticipating that DSHMRA might authorize commercial recovery of deep seabed minerals before an international treaty would enter into force as to the United States, the Act established within the U.S. Treasury a Deep Seabed Revenue Sharing Trust Fund. Into that Fund the Secretary of the Treasury is to deposit sums equal to taxes received by the Treasury on deep seabed mining operations under Section 4495 of the Internal Revenue Code.<sup>133</sup>

Further anticipating that the United States would become a party to an international treaty governing deep seabed mining, DSHMRA provides that the various provisions of the Act and its implementing regulations will continue in effect, upon the treaty’s entering into force as to the United States, provided they are “not inconsistent” with the terms of the treaty.<sup>134</sup>

## Ocean Thermal Energy Conversion Act

The Ocean Thermal Energy Conversion (OTEC) Act established a licensing program for facilities and plantships that would convert thermal gradients in the ocean into electricity.<sup>135</sup> It directed the Administrator of NOAA to establish a stable legal regime to foster commercial development of OTEC,<sup>136</sup> and required “the Secretary of the Department in which the Coast Guard is operating” to promulgate regulations and enforce procedures regarding the operational safety of ocean thermal conversion facilities and plantships and the protection of the marine environment from adverse effects caused by such facilities and plantships.<sup>137</sup> It also directed that the Secretary in charge of the Coast Guard promulgate regulations and procedures “ensur[ing] that the thermal plume of an ocean thermal energy conversion plantship does not unreasonably impinge on so as to degrade the thermal gradient used

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<sup>127</sup> *Id.* § 1403(2)(A).

<sup>128</sup> *Id.* § 1441(3).

<sup>129</sup> *Id.* §§ 1401 (a)(4) and (11).

<sup>130</sup> *Id.* § 1412.

<sup>131</sup> *Id.* § 1411(a)(1)(B) (referring to authorization from a “reciprocating state”).

<sup>132</sup> *Id.* § 1411(a).

<sup>133</sup> *Id.* §§ 1472(a) and (b).

<sup>134</sup> *Id.* § 1442.

<sup>135</sup> 42 U.S.C. § 9111.

<sup>136</sup> *Id.* § 9112.

<sup>137</sup> *Id.* § 9118.

by . . . any other ocean thermal energy conversion plantship or facility.”<sup>138</sup> Coast Guard regulations were also to be promulgated to “ensure that the thermal plume of . . . an ocean thermal energy conversion plantship does not impinge on so as to adversely affect the territorial sea or area of national resource jurisdiction, as recognized by the United States, of any other nation unless the Secretary of State has approved such impingement after consultation with such nation.”<sup>139</sup>

The OTEC Act directs the NOAA Administrator and the Secretary of the Department in which the Coast Guard is operating to periodically review the regulations promulgated pursuant to OTEC “to determine the status and impact of such regulations on the continued development, evolution, and commercialization of ocean thermal energy conversion technology.”<sup>140</sup> The Secretary of Energy is to be consulted in the review process.<sup>141</sup> Revised regulations are to be promulgated as is found appropriate.<sup>142</sup>

According to NOAA:

There has been a low level of activity under the OTEC Act since its passage in 1980. Following NOAA’s initial environmental studies and implementation of a licensing program, NOAA has not received any license applications for OTEC facilities or plantships. The availability and the relatively low prices of fossil fuels, coupled with the risks to potential investors, ha[ve] limited the interest in commercial development of OTEC projects. . . . Moreover, OTEC projects have offered an unclear return on a significant investment.<sup>143</sup>

NOAA rescinded its regulations implementing the OTEC Act in 1996, mainly because no application for a commercial OTEC license had been submitted to the agency in the approximately fifteen years since it issued the regulations.<sup>144</sup>

## Rivers and Harbors Act

Section 10 of the Rivers and Harbors Act (RHA) prohibits “[t]he creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States . . . except on plans recommended by the Chief of Engineers and authorized by the Secretary of the Army.”<sup>145</sup> Section 4(f) of the OCSLA extended the authority of the Secretary of the Army under RHA Section 10 to the OCS.<sup>146</sup>

The U.S. Army Corps of Engineers (USACE) has been delegated the authority to implement the RHA. Pursuant to its authority under the RHA, USACE may issue a “Section 10 permit” for activities on the OCS that will result in the creation of obstructions to navigation.<sup>147</sup>

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<sup>138</sup> *Id.* § 9119(c).

<sup>139</sup> *Id.*

<sup>140</sup> *Id.* § 9127.

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

<sup>143</sup> NOAA Coastal Services Center, Legislative Summaries, Ocean Thermal Energy Conversion Act (42 U.S.C. §§ 9101 *et seq.*), available at <http://www.csc.noaa.gov/opis/html/summary/otec.htm> (visited June 1, 2004).

<sup>144</sup> See 61 Fed. Reg. 21,073 *et seq.*; May 9, 1996, removing 15 CFR Part 981.

<sup>145</sup> 33 U.S.C. § 403.

<sup>146</sup> See 43 U.S.C. § 1333(e); see *United States v. Ray*, 423 F.2d 16, at 19 (5th Cir. 1970).

<sup>147</sup> See *generally* 33 C.F.R. Parts. 320, 322, 325, 329, and 330 (2002).

## SELECTED ISSUES

### Application of Mineral Leasing Authority to Seabed off the Territories and Possessions

The continental shelf jurisdiction or exclusive economic zone (EEZ) jurisdiction of the United States has been extended by presidential proclamations to the seabed of U.S. territories and possessions, as well as to the seabed off the Commonwealth of Puerto Rico and the Commonwealth of the Northern Mariana Islands.<sup>148</sup> The *outer Continental Shelf*, which is subject to the leasing authorities of the OCSLA, however, is limited by definition to the continental shelf off the coasts of the states of the Union.<sup>149</sup> This means that the statutory authority governing leasing under the OCSLA does not currently apply to the continental shelf (or EEZ) off the territories and possessions. It also means that there is arguably a gap in the federal government's mineral leasing authority over the seabed areas off the territories and possessions of the United States and off the Commonwealths affiliated with the United States.

The EEZ and the continental shelf over which the United States asserts jurisdiction with respect to the Commonwealths, territories, and possessions covers a considerable amount of seabed that likely contains large quantities of minerals.<sup>150</sup>

### Development of Non-Mineral Sources of Energy within the Exclusive Economic Zone

Under customary international law and the 1982 UNCLOS, a nation has sovereign rights within its EEZ to produce energy from the water, currents, and wind. Except for the limited case of ocean thermal energy conversion, Congress has not created a use-specific statutory framework within which the United States can enjoy these sovereign rights. Recent developments respecting wind energy have highlighted this omission.

A new and growing trend in alternative energy production is the offshore wind farm. Approximately 100 sea-based wind turbines are currently operational in Europe and several European countries, including Germany, the Netherlands, and England, have begun issuing licenses.<sup>151</sup> Several projects are currently proposed for the Eastern seaboard of the United States. In particular, a proposal to site a wind farm off Cape Cod in federal waters in Nantucket Sound has raised questions regarding the role of the federal government in regulating the use of the continental shelf as a location for such structures, and has generated both political and legal controversy.

New uses that lack a specific legal or management regime like the OCSLA (for oil, natural gas, and mineral extraction), or the Magnuson-Stevens Act (for fisheries) highlight the potential complexity of federal jurisdiction over ocean-based activities. The recent proposals to install wind turbines on the OCS have accentuated the fact that no one federal agency has specific authority to comprehensively manage any new category of uses that may arise in federal offshore lands or waters, such as wind farms or offshore aquaculture facilities, and to assure that various new and existing uses are reasonably compatible with one another. For example, MMS leases federal

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<sup>148</sup> See, e.g., Proclamation No. 5030.

<sup>149</sup> 43 U.S.C. § 1331.

<sup>150</sup> In addition to the commonwealths of Puerto Rico and the Northern Mariana Islands, Guam, the U.S. Virgin Islands, and American Samoa, U.S. territories and possessions include Midway Island, Wake Island, Howland Island, Baker Island, Jarvis Island, Johnston Atoll, Palmyra Atoll, and Kingman Reef. All have EEZs, extending as far as 200 miles from each. The Department of State also lists Navassa Island in the Caribbean as being under U.S. sovereignty. See, U.S. Department of State, Fact Sheet, Bureau of Intelligence and Research, Dependencies and Areas of Special Sovereignty, dated March 26, 2004, available at <http://www.state.gov/s/inr/rls/10543.htm> (accessed May 13, 2004).

<sup>151</sup> Marlise Simons, *Wind Turbines are Sprouting off Europe's Shores*, N.Y. Times, Dec. 8, 2002.

submerged lands for mineral extraction pursuant to the OCSLA, but that Act does not apply to non-extractive facilities such as wind turbines.<sup>152</sup>

USACE, pursuant to Section 10 of the RHA, has jurisdiction to require a permit for a wind farm on the OCS as an obstruction to navigation and also coordinates the review of the proposed wind farm by all other federal and state agencies having jurisdiction over some aspect of the wind farm's siting or operations. The interagency review under the Section 10 process includes numerous federal and state agencies with applicable legal authority. USACE also must conduct a public interest review pursuant to the Section 10 program regulations, which includes consideration of over twenty-five criteria that are listed in the regulations or augmented if additional considerations arise in the Environmental Impact Statement review mandated by the National Environmental Policy Act.<sup>153</sup>

## Offshore Oil and Gas Development

### *Moratoria, Withdrawals, and Lessor-Lessee Contractual Issues*

Controversies over the leasing and development of OCS oil and natural gas have proven too intractable to be resolved under existing statutory processes of planning and consultation. The response has been to remove large areas of the OCS from consideration for oil and gas leasing. Both Congress and the President have the authority to impose moratoria. On the other hand, courts have recognized that OCS lessees may hold compensable rights with their lease contracts under certain circumstances.

Congress can enact moratoria provisions by prohibiting the expenditure of funds for various OCS activities in DOI appropriations bills or through authorizing legislation. In 1982, Congress imposed the first moratoria on OCS activity in a DOI appropriations measure by removing 736,000 acres off northern and central California from leasing. Since that time, moratoria have been established in all or portions of every OCS region,<sup>154</sup> an area now covering over 600 million acres that is off limits to leasing.

With respect to the executive branch, the OCSLA states that the "President of the United States may from time to time withdraw from disposition any unleased lands of the OCS."<sup>155</sup> A presidential withdrawal of unleased lands is a standing directive until reversed by the President.<sup>156</sup> In recent years, two Presidents have used this authority. On June 26, 1990, President George H.W. Bush withdrew from leasing, until after the year 2000, offshore areas of northern and central California, southern California (except for 87 tracts), southwest Florida, the North Atlantic Sale 96 Planning Area, and Washington/Oregon. On June 12, 1998, President Clinton exercised his authority under Section 12 of the OCSLA and withdrew certain submerged lands from possible leasing. Effective until June 30, 2012, his withdrawal encompassed those areas identified by President Bush, but also was extended to include the following planning areas: the North Aleutian Basin off Alaska, most of the eastern Gulf of Mexico, the South

<sup>152</sup> Another example of the complexity of federal law is that the OCSLA applies to a natural gas pipeline on the OCS even if the pipeline is not associated with OCS extraction activities. For example, the MMS has jurisdiction over a proposed pipeline to Florida from a liquefied natural gas regasification facility located in the Bahamas, pursuant to the OCSLA, 43 U.S.C. § 1334(e) and OCSLA implementing regulations at 30 C.F.R. Part 250, Subpart J. The Federal Energy Regulatory Commission also has jurisdiction over the same pipeline, pursuant to §§ 3 and 7 of the Natural Gas Act and authority to issue a Presidential Permit to site, construct, connect, operate, and maintain the offshore pipeline facilities at the exclusive economic zone boundary between the United States and the Bahamas, pursuant to Executive Orders 10,485 and 12,038, and the Secretary of Energy's Delegation Order No. 0204-112.

<sup>153</sup> See 33 CFR § 320.4.

<sup>154</sup> Report of the Subcommittee on Environmental Information for Select OCS Areas Under Moratoria, available at <http://www.mms.gov/mmab/policy-committee/subcommittee%20Reports/moratori.pdf>.

<sup>155</sup> OCSLA § 12; see 43 U.S.C. § 1341(a).

<sup>156</sup> One reviewer noted that this legal assertion may not be true. The OCSLA does not specifically authorize de-withdrawals; in other contexts, Congress and the President must reverse the withdrawal.

Atlantic, and the Mid-Atlantic. Additionally, “without specific expiration,” President Clinton withdrew all areas of the OCS currently designated as national marine sanctuaries.<sup>157</sup>

In terms of existing leases, the Outer Banks Protection Act (OBPA), a provision carried in OPA in 1990, prohibited, among other activities, drilling on leases located offshore North Carolina, until the Secretary of the Interior had received a report from an environmental panel and had certified to Congress that he had enough information on which to make decisions with respect to such leases under the OCSLA. Although the Secretary so certified, he also called for additional studies recommended by that panel. Further delays ensued, and the lessees eventually brought a breach-of-contract lawsuit in the Court of Federal Claims.<sup>158</sup> Although OBPA was repealed in 1996, the suit made its way to the U.S. Supreme Court. In 2000, the Court ruled that the provisions of OBPA, enacted after the North Carolina lease contracts were executed, had substantially breach such contracts and that the companies holding those leases had a right to recover their payments.<sup>159</sup>

### ***CZMA Federal Consistency Issues and the OCS***

In Chapter 2, *Coastal Management*, and in this chapter, the relationship between the CZMA federal consistency provision and oil and gas operations under the OCSLA has been delineated in some detail. Although the consistency provision has fostered a high level of cooperation among most federal agencies and coastal states, controversy has revolved around the federal consistency provisions as they relate to OCS energy development. While over the years thousands of exploration and development plans have been submitted by oil and gas companies, approved by MMS, and concurred with by coastal states, there have been a small number of cases in which states have objected, and these have been the subject of high visibility. There have been fourteen OCS oil and gas appeal decisions issued by the Secretary of Commerce, half of which overrode the state’s objection and half of which did not.<sup>160</sup> These numbers do not mean, however, that the CZMA process for OCS plans has been virtually free from controversy. Although exact statistics are not readily available, before concurring with lessees’ certifications, states often negotiate changes to their OCS plans.

As also noted in Chapter 2, the 1990 amendments to the CZMA federal consistency provisions provided some clarity, including explicit acknowledgement by Congress in the conference report accompanying the legislation that OCS lease sales are subject to the federal consistency provisions under section 307(c)(1) of the CZMA. Since enactment of the amendments, there have been a number of sales held by the Department of the Interior but only one state objection has been filed. In that case, NOAA determined that it was not based on the enforceable policies of the state’s coastal management program, and the Department of the Interior determined that it was carrying out its lease sale responsibilities consistent to the maximum extent possible with the state’s program. The lease sale proceeded.<sup>161</sup>

In 2003, after a series of negotiations between the Departments of Commerce and the Interior regarding certain issues between the CZMA and the OCSLA, the Commerce Department published a proposed rule that addressed the information needs of states, coordination of timing requirements between the two statutes, definitive time limits on the Secretary of Commerce’s appeals process, and additional procedural matters.<sup>162</sup>

Finally, one additional CZMA-OCSLA issue emerged in the late 1990s with respect to whether a decision by

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<sup>157</sup> 34 Weekly Comp. Pres. Doc. 1111 (June 12, 1998).

<sup>158</sup> *Conoco Inc. v. United States*, 35 Fed. Cl. 309 (1996).

<sup>159</sup> *Mobil Oil Corp. v. United States*, 530 U.S. 604 (2000).

<sup>160</sup> 68 Fed. Reg. at 34,853 (2003).

<sup>161</sup> 68 Fed. Reg. at 34,853 (2003).

<sup>162</sup> 68 Fed. Reg. 34,851-34,874 (June 11, 2003).

MMS to “suspend” operations or production on OCS leases is a federal action requiring consistency review under Section 307(c)(1).<sup>163</sup> Under the terms of the OCSLA, MMS has the authority to grant “suspensions” of either the primary term or the secondary term of an OCS lease upon request of the lessee for reasons such as facilitating the development of the lease plan or making arrangements for transportation facilities. MMS may also direct suspensions of the leases on its own initiative, (e.g., in the face of a threat of serious, irreparable, or immediate environmental harm).<sup>164</sup>

The question arose in the context of thirty-six leases off the coast of California that were issued prior to the moratoria and withdrawals beginning in 1990. The leases had not yet started producing paying quantities of oil or gas and would have expired but for previous suspensions.<sup>165</sup> The suspensions at issue in the decision were “issued to prevent the leases from expiring in 1999.”<sup>166</sup>

In determining that the lease suspensions were subject to review under the CZMA, the Ninth Circuit Court of Appeals noted that the leases at issue had never been reviewed by California (because they were issued prior to the 1990 amendments requiring consistency review for OCS lease sales) and that the suspensions represent “a significant decision to extend the life of oil exploration and production off of California’s coast, with all of the far reaching effects and perils that go along with offshore oil production.”<sup>167</sup>

### **Bilateral/International Issues: the Western Gap**

With the focus of U.S. offshore oil and gas production on the Gulf of Mexico, uncertainties over boundaries with Mexico were addressed in the late 1970s. Because both the United States and Mexico claimed a 200-mile EEZ, a potential conflict arose because the extended jurisdictions overlapped in those areas of the Gulf of Mexico where the distance between the landward baselines was less than the 400 nautical miles necessary to accommodate each state’s full claim. The two nations agreed to provisional maritime boundaries on November 24, 1976 and later signed the 1978 Treaty on Maritime Boundaries<sup>168</sup> that employs an equidistant method of calculating a boundary line to reach an equitable maritime delimitation between the nations. Due to the geography of the Gulf of Mexico and the two nations, there exists a gap roughly triangular in shape in the western Gulf of Mexico where the respective EEZs do not meet. Known as the “western gap,” the area became particularly important when exploration and leasing activity increased in the Gulf of Mexico and oil and gas producers were looking at prospective oil and gas fields which came close to or straddled the legally uncertain boundary line. This area covers portions of the Central and Western Gulf of Mexico Planning Areas delineated by MMS for leasing purposes.

After the 1997 ratification by the United States of the Treaty on Maritime Boundaries, in 2000, the two nations signed the “Treaty Between The Government Of The United States Of America And The Government Of The United Mexican States On The Delimitation Of The Continental Shelf In The Western Gulf Of Mexico Beyond 200 Nautical Miles.”<sup>169</sup> On January 17, 2001, the treaty entered into force and, again using equidistance principles,

<sup>163</sup> *California v. Norton*, 311 F.3d 1162 (9th Cir. 2002).

<sup>164</sup> See 43 U.S.C. § 1337(b)(5); see also 30 C.F.R. §§ 250.168-250.180 (2002).

<sup>165</sup> 311 F.3d at 1168.

<sup>166</sup> *Id.*

<sup>167</sup> *Id.* at 1173.

<sup>168</sup> Treaty on Maritime Boundaries Between the United States of America and the United Mexican States, May 4, 1978, 17 I.L.M. 1073. Mexico ratified the treaty in 1979; the U.S. ratified the treaty in 1997. Entered into force November 13, 1997, available at <http://www.state.gov/documents/organization/24227.pdf> (accessed May 14, 2004).

<sup>169</sup> Treaty with Mexico on Delimitation of Continental Shelf, June 9, 2000, U.S.-Mexico, S. Treaty Doc. No. 106-39 (2000). Entered into force January 17, 2001, available at <http://www.state.gov/documents/organization/24227.pdf> (accessed May 14, 2004).

the parties agreed upon a boundary line to delimit the continental shelf within the western gap. Under the terms of the treaty, approximately 62 percent of the area falls within Mexican jurisdiction while the United States has jurisdiction over the northern portion representing 38 percent of the area. On February 15, 2002, MMS announced that it would accept bids for lease tracts within the United States' portion of the western gap.

Oil and gas deposits close to or straddling the boundary pose unique challenges regarding the manner in which those resources might be developed. As a result, the two nations agreed to a ten year moratorium on development in a 1.4 mile "off limits" buffer zone on either side of the boundary line to provide the countries an opportunity to consider the means by which deposits in this area might be developed.<sup>170</sup>

Given that the western gap lies beyond the 200 mile limit of the EEZ from either nation's territorial coastline, questions arise as to the obligations, if any, of dedicating proceeds from oil and gas production in the area to an international fund. Nations that are parties to UNCLOS are obliged to make payments to the International Seabed Authority for exploitation of nonliving resources in areas on the continental shelf beyond 200 miles. Article 82(1) provides that coastal nations shall make payments or contributions in kind for exploitation of the nonliving resources of the continental shelf beyond 200 miles from the coastal baselines. The choice between "payments" and "contributions in kind" is left to the coastal nation. Article 82(3) exempts a category of developing nations from making payments or contributions in kind.

The requisite payments are a percentage of the value of the resources extracted at the site. No payment is owed on production during the first five years after production commences. In the sixth year, however, the payment owed is one percent of the volume or value of the production "at the site." "The rate shall increase by 1 per cent for each subsequent year until the twelfth year and shall remain at 7 per cent thereafter."<sup>171</sup> Exempted from the calculation of the payment is production "used in connection with exploitation."<sup>172</sup> Payments are distinct from the Authority's revenues from deep mining operations under Part XI of UNCLOS. They may not be retained or used for purposes other than distribution under article 82, paragraph 4.

Revenue sharing for exploitation of the continental shelf beyond 200 miles from the coast is part of a package that establishes with clarity and legal certainty the control of coastal nations over the full extent of their geological continental margins. At this time, the United States is engaged in limited exploration but no production from its continental shelf beyond 200 miles from the coast. At the same time, the United States enjoys a broad continental margin in the Gulf of Mexico and the Atlantic Ocean, with significant resource potential in those areas and with commercial firms that operate on the continental shelves of other nations.

With respect to oil and gas leases in the Gulf of Mexico more than 200 miles from the coast, DOI has anticipated the obligations of the United States under Article 82. DOI intends to fund the payments to the International Seabed Authority (ISA) out of royalties collected from lessees. Because it has provided royalty relief to these ultra-deepwater leases, it has imposed a lease stipulation requiring lessees to pay royalties (up to the amount of the nation's obligation to the ISA) on production even when the lessee's royalty obligation would otherwise be suspended.<sup>173</sup> However, DOI has also provided that such lessees will receive credit against any royalty that they may owe after their royalty relief under the OCSLA has been exhausted in an amount equal to what they paid as a consequence of the UNCLOS revenue sharing provision under Article 82.<sup>174</sup>

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<sup>170</sup> S. Treaty Doc. No. 106-39 (2000).

<sup>171</sup> 1982 UNCLOS art. 82.2.

<sup>172</sup> *Id.*

<sup>173</sup> Final Notice of OCS Sale 182, Stipulation No. 5.

<sup>174</sup> Final Notice of OCS Sale 192, Stipulation 4, Provision 10 – Law of the Sea Convention Royalty Payment. (Western Gulf, August, 2004).



## CHAPTER 6 OTHER USES OF OFFSHORE FEDERAL WATERS

### INTRODUCTION

A number of activities are currently taking place or being proposed in offshore federal waters. This area, stretching from 3 (or in some instances 9) to 200 miles offshore, contains an enormous diversity of resources, many of which are used or affected by human activities. Federal management of activities in these waters varies. Some activities, such as fishing (discussed in Chapter 3) or offshore oil and gas development (discussed in Chapter 5), are governed according to well-developed regulatory regimes that were established according to specific legislative mandates. Other new and emerging ocean uses, such as wind energy (also discussed in Chapter 5) or offshore aquaculture (discussed in Chapter 3), are subject to regulation by a number of authorities, but there is no comprehensive federal law governing their management. Still other uses, such as bioprospecting, are essentially unmanaged in federal waters.

This chapter addresses some of the current uses of federal waters that are not covered elsewhere in this Appendix. A brief summary of governing statutes and related issues is provided for the following activities: protection of submerged cultural resources, national marine sanctuaries and other marine protected areas, deepwater ports, bioprospecting, and artificial reefs.

### SELECTED GOVERNING STATUTES AND RELATED ISSUES

#### Submerged Cultural Resources in the Oceans

The cultural resources in the waters and submerged lands of the oceans include “historic shipwrecks, sunken aircraft, lighthouses, and prehistoric archaeological sites that have become inundated due to the 120-meter rise in global sea level since the height of the last ice age (ca. 19,000 years ago).”<sup>1</sup>

The statutes that may serve to protect cultural resources in offshore federal waters are discussed below. Historic shipwrecks that are not subject to statutory protection are subject to the admiralty law of salvage or finds (although government-owned shipwrecks often are excepted). Under the law of salvage, when property is lost at sea, a salvor may have “the right to possess another’s property and to save it from destruction, danger, or loss,

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<sup>1</sup> Minerals Management Service, Environmental Program, *National Historic Preservation Act*, available at [www.mms.gov/eppd/compliance/nhpa/](http://www.mms.gov/eppd/compliance/nhpa/) (accessed May 14, 2004).

allowing a salvor to retain . . . [the property] until . . . compensated by the owner.”<sup>2</sup> Under the adjunct law of finds, “title to abandoned property vests in the person who reduces that property to his or her possession.”<sup>3</sup>

### ***Abandoned Shipwreck Act***

The Abandoned Shipwreck Act of 1987(ASA)<sup>4</sup> was enacted with the purpose of codifying responsibility for the protection of a subset of shipwrecks that are abandoned, embedded in state submerged lands, and historic.<sup>5</sup> The Act operates through the federal government’s assertion of “title to any abandoned shipwreck . . . (1) embedded in submerged lands of a State, (2) embedded in coralline formations protected by a State on submerged lands of a State; or (3) on submerged lands of a State and . . . included in or determined eligible for inclusion in the National Register [of Historic Places].”<sup>6</sup> The asserted title is then transferred to the state that possesses the submerged lands on which the shipwreck rests,<sup>7</sup> except when the wreck is located on public land of the United States or Indian lands.<sup>8</sup> The public is to be notified “of the location of any shipwreck to which title is asserted under [the ASA,]”<sup>9</sup> and the Secretary of the Interior is to make a determination as to whether the wreck should be included in the National Register of Historic Places.<sup>10</sup>

The ASA removes shipwrecks that meet its criteria from the jurisdiction of the admiralty law of salvage or finds,<sup>11</sup> and imposes title to, and responsibility for, the wrecks on state governments. The U.S. Supreme Court has held that the meaning of the term *abandoned* used in the ASA “conforms with its meaning under admiralty law.”<sup>12</sup> This means that title to abandoned wrecks that meet the ASA’s criteria belongs to the relevant states by operation of law, and that a person who finds one of those wrecks cannot take possession of it through the law of salvage or finds.

States receiving title to wrecks are required to develop “appropriate and consistent policies so as to—(A) protect natural resources and habitat areas; (B) guarantee recreational exploration of shipwreck sites; and (C) allow for appropriate public and private sector recovery of shipwrecks consistent with the protection of historical values and environmental integrity of the shipwrecks and the sites.”<sup>13</sup> Moreover, “States are encouraged to create underwater parks or areas to provide additional protection for such resources[.]” and may receive grants from the Historic

<sup>2</sup> Lathrop v. Unidentified Wrecked & Abandoned Vessel, 817 F. Supp. 953, 961 (M.D. Fla. 1993).

<sup>3</sup> Treasure Salvors, Inc. v. Unidentified Wrecked & Abandoned Sailing Vessel, 569 F.2d 330, 337 (5th Cir. 1978).

<sup>4</sup> 43 U.S.C. §§ 2101-2106.

<sup>5</sup> See *id.* § 2101.

<sup>6</sup> *Id.* § 2105(a). The term *embedded* is defined by the Act to mean “firmly affixed in the submerged lands or in coralline formations such that the use of tools of excavation is required in order to move the bottom sediments to gain access to the shipwreck, its cargo, and any part thereof.” *Id.* § 2102.

<sup>7</sup> *Id.* § 2105(c).

<sup>8</sup> See *id.* § 2105(d).

<sup>9</sup> *Id.* § 2105(b).

<sup>10</sup> See *id.*

<sup>11</sup> See *id.* § 2106(a) (“The law of salvage and the law of finds shall not apply to abandoned shipwrecks to which section 2105 of this title applies.”).

<sup>12</sup> California v. Deep Sea Research, 523 U.S. 491, 508 (1998).

<sup>13</sup> 43 U.S.C. § 2103(a).

Preservation Fund “for the study, interpretation, protection, and preservation of historic shipwrecks and properties.”<sup>14</sup> To assist states in meeting the ASA’s goals, the Secretary of the Interior, through the National Park Service, is to publish guidelines for: maximizing the enhancement of shipwrecks as cultural resources; fostering partnerships among sport divers, archaeologists, salvors, and other interests to manage shipwreck resources; facilitating access and use of the shipwrecks; and recognizing the interests of groups engaged in shipwreck discovery and salvage.<sup>15</sup>

Absent some special legal protection, the law of salvage and the law of finds continue to apply to abandoned shipwrecks within state waters that do not meet the criteria of the ASA, and to abandoned and certain other shipwrecks seaward of state waters.

### ***National Historic Preservation Act***

The National Historic Preservation Act (NHPA)<sup>16</sup> has two components intended to assure that the federal government furthers the Act’s goal of preservation of “the historical and cultural foundations of the Nation.”<sup>17</sup> First, the NHPA requires federal agencies, before expending public funds on any projects or issuing licenses to private individuals, “to take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register [of Historic Places].”<sup>18</sup> Second, the Act requires agencies to “assume responsibility for the preservation of historic properties which are owned or controlled by . . . [the] agenc[ies].”<sup>19</sup>

Regarding the U.S. Department of the Interior’s (DOI’s) obligations under the NHPA, the Department’s position is that “the OCS is not federally-owned land, and . . . [because] the Federal government has not claimed direct ownership of historic properties on the OCS, . . . [DOI] only has the authority under Section 106 of the NHPA to ensure that . . . [its] funded and permitted actions do not adversely affect significant historic properties. Beyond avoidance of adverse impacts, . . . [DOI] do[es] not have the legal authority to manage historic properties on the OCS.”<sup>20</sup> To facilitate its duties under the NHPA and Outer Continental Shelf Lands Act (OCSLA) to protect cultural resources from adverse impact caused by offshore mineral exploration and development, DOI has promulgated regulations<sup>21</sup> and issued notices to lessees, as well as providing other guidance.<sup>22</sup>

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<sup>14</sup> *Id.* § 2103(b).

<sup>15</sup> *Id.* § 2104.

<sup>16</sup> 16 U.S.C. §§ 470 *et seq.*

<sup>17</sup> *Id.* § 470(b)(2).

<sup>18</sup> *Id.* § 470(f). The National Register of Historic Places is a list maintained by DOI “of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, engineering, and culture.” *Id.* § 470a(a)(1)(A).

<sup>19</sup> *Id.* § 470h-2(a)(1).

<sup>20</sup> Minerals Management Service, Environmental Program, *National Historic Preservation Act*, available at [www.mms.gov/eppd/compliance/nhpa/](http://www.mms.gov/eppd/compliance/nhpa/) (accessed May 14, 2004).

<sup>21</sup> See, e.g., 30 C.F.R. §§ 250.194, 250.203(b)(15), 250.203(o), 250.204(b)(8)(v)(A), 250.204(s) & 250.1007. By way of example, 30 C.F.R. § 250.194(c) holds: “If you [OCS lessee or permittee] discover any archaeological resource while conducting operations in the lease area, you must immediately halt operations within the area of the discovery and report the discovery to the Regional Director. If investigations determine that the resource is significant, the Regional Director will tell you how to protect it.”

<sup>22</sup> E.g. Notice to Lessees and Operators of Federal Oil, Gas, and Sulfur Leases and Pipeline Right-of-Way Holders in the Outer Continental Shelf, Gulf of Mexico OCS Region, NTL No. 2002-G01 (Mar. 15, 2002); United States Department of the Interior, Minerals Management Service, *Handbook for Archaeological Resource Protection 620.1-H* (May 21, 1996).

The NHPA also establishes the National Historic Preservation Fund to carry out the statute's provisions.<sup>23</sup> It is funded at a level of \$150 million per year from revenue received from offshore mineral development under the OCSLA.<sup>24</sup>

### ***National Marine Sanctuaries Act***

The National Marine Sanctuaries Act (NMSA)<sup>25</sup> can be employed to designate and manage areas of the ocean for various purposes, including protection of marine life, ecology, and areas or objects of “historical, scientific, educational, cultural, [or] archaeological” significance.<sup>26</sup> The statute authorizes the Secretary of Commerce to designate areas of the marine environment as marine sanctuaries and to promulgate regulations providing for their protection.<sup>27</sup> The NMSA defines the term *marine environment* as “those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands over which the United States exercises jurisdiction, including the exclusive economic zone, consistent with international law.”<sup>28</sup> The first national marine sanctuary was actually designated to protect the wreckage of the Civil War ironclad ship, the U.S.S. *Monitor*.<sup>29</sup> In 2000, the Thunder Bay National Marine Sanctuary was designated to preserve a nationally significant collection of over 100 shipwrecks in northwest Lake Huron, off the northeast coast of Michigan's Lower Peninsula.<sup>30</sup>

### ***Other Law and Policy Supporting the Protection of Offshore Cultural Resources***

The National Environmental Policy Act (NEPA)<sup>31</sup> requires that environmental analyses be conducted for all “major federal actions significantly affecting the quality of the human environment.”<sup>32</sup> Pursuant to NEPA and regulations implementing it, these analyses must address the effects of proposed federal actions on historic and cultural resources.<sup>33</sup>

Further, certain executive orders address the duty of the federal government to protect cultural and historic resources. Executive Order 11,593 requires executive agencies to, among other things, assemble an inventory of cultural and historic resources of which they are trustee, nominate their eligible properties to the National Register

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<sup>23</sup> 16 U.S.C. § 470h.

<sup>24</sup> *Id.*

<sup>25</sup> The NMSA is Title III of the Marine Protection, Research, and Sanctuaries Act of 1972; it is codified at 16 U.S.C. §§ 1431-1445b. The NMSA is discussed further below.

<sup>26</sup> *Id.* § 1431(a)(2).

<sup>27</sup> *Id.* § 1433.

<sup>28</sup> *Id.* § 1432(3).

<sup>29</sup> Monitor Marine Sanctuary, Interim Regulations, 40 Fed. Reg. 5349 (Feb. 5, 1975) (codified as amended at 15 C.F.R. pt. 922 (2002)).

<sup>30</sup> Thunder Bay National Marine Sanctuary and Underwater Preserve Regulations and Summary of Final Management Plan, 65 Fed. Reg. 39041-39060 (June 22, 2000) (codified at 15 C.F.R. pt. 922).

<sup>31</sup> 42 U.S.C. §§ 4321 *et seq.* NEPA is described in more detail in Chapter 1, *Setting the Stage*.

<sup>32</sup> 42 U.S.C. § 4332(2)(C).

<sup>33</sup> See, e.g., 42 U.S.C. § 4332 (one of the purposes of NEPA is to “preserve important historic . . . [and] cultural . . . aspects of our national heritage”); 40 C.F.R. § 1508(8) (regulations implementing NEPA define the term *effects* to include “historic” or “cultural” effects).

of Historic Places, and preserve and protect their cultural resources.<sup>34</sup> Executive Order 13,158 (discussed below) directs the Departments of Commerce and the Interior to protect offshore cultural resources by strengthening and expanding the national system of marine protected areas.<sup>35</sup> Executive Order 13,287 directs federal agencies to recognize and manage the historic properties (including sites and objects) in their ownership as assets that can support department and agency missions while contributing to the vitality and economic well-being of the nation's communities, including as means to promote heritage tourism.<sup>36</sup>

Over the last two decades, there have been three presidential proclamations that significantly extended U.S. jurisdiction in the oceans: President Reagan's 1983 proclamation establishing the 200 mile exclusive economic zone (EEZ);<sup>37</sup> the Reagan 1988 proclamation extending the U.S. territorial sea out to 12 miles from the baseline, for purposes of international law;<sup>38</sup> and President Clinton's 1999 proclamation extending the U.S. contiguous zone to 24 miles.<sup>39</sup> None of these, however, assert any enhanced jurisdiction over cultural or historic resources in the ocean. Interestingly, the Clinton contiguous zone proclamation stated that "this extension is an important step in preventing the removal of cultural heritage found within 24 nautical miles of the baseline[.]"<sup>40</sup> This language suggests an intent to follow the structure established in the 1982 United Nations Convention on the Law of the Sea (UNCLOS), which provides coastal nations with jurisdiction over archaeological and historic objects found at sea out to the outer boundary of the contiguous zone,<sup>41</sup> but the proclamation does not assert such jurisdiction. To the contrary, it provides that "Nothing in this proclamation: (a) amends existing Federal or State law; (b) amends or otherwise alters the rights and duties of the United States or other nations in [the U.S. EEZ . . . ]."<sup>42</sup>

Finally, a Presidential Statement on United States Policy for the Protection of Sunken State Warships addresses the law of salvage or finds as it applies to vessels belonging to the United States and other nations. In relevant part, this statement directs that:

Pursuant to the property clause of Article IV of the Constitution, the United States retains title indefinitely to its sunken State craft unless title has been abandoned or transferred in the manner Congress authorized or directed. The United States recognizes the rule of international law that title to foreign State craft may be transferred or abandoned only in accordance with the law of the foreign flag State.<sup>43</sup>

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<sup>34</sup> Exec. Order 11593, 36 Fed. Reg. 8921 (May 15, 1971).

<sup>35</sup> Exec. Order 13158, 65 Fed. Reg. 34,909, 34,909 (May 31, 2000), *reprinted as a note under* 16 U.S.C. § 1431 (2000) (Historical and Statutory Notes).

<sup>36</sup> Exec. Order 13,287, 68 Fed. Reg. 10635, Mar. 5, 2003 (signed March 3, 2003).

<sup>37</sup> Proclamation No. 5030, 48 Fed. Reg. 10,605, 10,605 (Mar. 14, 1983) (signed March 10, 1983).

<sup>38</sup> Proclamation No. 5928, 54 Fed. Reg. 777 (Jan. 9, 1989) (signed December 27, 1988).

<sup>39</sup> Proclamation No. 7219, 64 Fed. Reg. 48,701 (Aug. 8, 1999) (signed August 2, 1999).

<sup>40</sup> *Id.*

<sup>41</sup> 1982 UNCLOS, *done* Dec. 10, 1982, U.N. doc. A/Conf.62/122, *reprinted in* 21 I.L.M. 1261, 1326 (Art. 303, ¶ 2). Article 303 expressly says that nothing in the article affects "the law of salvage or other rules of admiralty", *see* Art. 303, ¶3.

<sup>42</sup> Proclamation No. 7219, 64 Fed. Reg. 48,701 (Aug. 8, 1999) (signed August 2, 1999).

<sup>43</sup> Statement on United States Policy for the Protection of Sunken State Warships, 37 Weekly Comp. Pres. Doc. 195 (Jan. 19, 2001).

### ***International Law and Submerged Cultural Resources in the Ocean: UNCLOS***

Among other provisions, UNCLOS Article 303 says that “States [i.e., nations] have the duty to protect objects of an archaeological and historical nature found at sea and shall cooperate for this purpose.”<sup>44</sup> Article 303 also provides that, “[i]n order to control traffic in [archaeological and historical objects found at sea], the coastal State may, in applying article 33 [on the contiguous zone], presume that their removal from the sea-bed in the [contiguous zone] without its approval would result in an infringement [of its laws].”<sup>45</sup> Thus, UNCLOS establishes a framework under which coastal nations’ jurisdiction over cultural and historical objects on the seabed is both authorized seaward to, and limited to, the outer limit of their contiguous zones, 24 miles from their baselines. Article 303 also says that it does not affect “the law of salvage or other rules of admiralty.” In addition, UNCLOS Article 149 provides that “All objects of an archaeological and historical nature found in the Area shall be preserved or disposed of for the benefit of mankind as a whole, particular regard being paid to the preferential rights of the State or country of origin, or the State of cultural origin, or the State of historical and archaeological origin.”<sup>46</sup>

### ***International Law and Submerged Cultural Resources in the Ocean: UNESCO***

After years of negotiation, on November 2, 2001, the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO) adopted the Convention on the Protection of Underwater Cultural Heritage (CPUCH).<sup>47</sup> CPUCH, which has not been adopted by the United States, is intended to supplement UNCLOS provisions regarding archaeological and cultural resources, but it is controversial. The CPUCH would place new parameters and consultation and notice requirements on state regulation of “underwater cultural heritage” in their internal waters, archipelagic waters, and territorial seas;<sup>48</sup> their contiguous zones;<sup>49</sup> and their EEZs and continental shelves.<sup>50</sup> Moreover, the CPUCH expansively defines the “underwater cultural heritage” subject to its terms as “all traces of human existence having a cultural, historical or archaeological character that have been partially or totally under water, periodically or continuously, for at least 100 years.”<sup>51</sup>

The broad objective of the CPUCH is “to ensure and strengthen the protection of underwater cultural heritage,”<sup>52</sup> and to this end the convention would regulate both activities directed at such objects and activities that have incidental effects on them. One of the stated principles of the CPUCH is that “[u]nderwater cultural heritage shall

<sup>44</sup> 1982 UNCLOS, Dec. 10, 1982, art. 303 ¶ 1, 21 I.L.M. 1261, 1326.

<sup>45</sup> *Id.* ¶ 2. This refers to authority to establish and enforce protective measures as against all persons and vessels. A nation has authority under international law to establish and enforce protective measures as against its own citizens and vessels flying its flag, anywhere in the world.

<sup>46</sup> *Id.* at art. 149. For a discussion of the “Area” see Chapter 1, *Setting the Stage*.

<sup>47</sup> Convention on the Protection of the Underwater Cultural Heritage, Nov. 2, 2001, art. 1, 41 I.L.M. 40.

<sup>48</sup> 41 I.L.M. at 43.

<sup>49</sup> See *id.* at 44 (“Without prejudice to and in addition to Articles 9 and 10, and in accordance with Article 303, paragraph 2, of the United Nations Convention on the Law of the Sea, States Parties may regulate and authorize activities directed at underwater cultural heritage within their contiguous zone. *In so doing, they shall require that the Rules [established under CPUCH] be applied.*”) (emphasis supplied).

<sup>50</sup> See *id.* at 44-45.

<sup>51</sup> *Id.* at 41.

<sup>52</sup> *Id.* at 42.

not be commercially exploited.”<sup>53</sup> In support of this principle, and in contrast to UNCLOS, the CPOUCH would abrogate the admiralty doctrines of salvage or finds as to “[a]ny activity relating to underwater cultural heritage,” except where the activity is authorized under the convention and found to “ensure that any recovery of underwater cultural heritage achieves its maximum protection.”<sup>54</sup> Further, state parties to the CPOUCH also agree to “use the best practicable means at [their] disposal to prevent or mitigate any adverse effects that might arise from activities under [their] jurisdiction incidentally affecting underwater cultural heritage.”<sup>55</sup>

## National Marine Sanctuaries and Other Marine Protected Areas

The term *marine protected area* is a broad term, used to refer to areas that are given special protection for a number of different reasons, including: conserving living marine resources and habitat; protecting threatened and endangered species; maintaining biological diversity; and preserving historically or culturally important resources. Marine protected areas are management tools that can be created by all levels of government—local, state, tribal, or federal—and may be established in estuarine and nearshore areas as well as offshore. For the purposes of this chapter, marine protected areas established under two federal authorities are described below.

### *The National Marine Sanctuaries Act*

While the National Marine Sanctuaries Act can play an important role with regard to the protection of cultural resources, its purpose is much broader, specifically, “to identify and designate as national marine sanctuaries areas of the marine environment which are of special national significance,”<sup>56</sup> and “to provide authority for comprehensive and coordinated conservation and management of these marine areas, and activities affecting them, in a manner which complements existing regulatory authorities.”<sup>57</sup>

The Secretary of Commerce is authorized to designate areas of the marine environment that “possess conservation, recreational, ecological, historical, scientific, educational, cultural, archaeological, or esthetic qualities which give them special national, and in some instances, international, significance.”<sup>58</sup>

In making determinations and findings about areas that may be eligible for designation, the Secretary must consult with certain congressional committees and secretaries of executive departments, with the heads of state and local governments of areas that are likely to be affected by the designation, and with the appropriate officials of any Regional Fishery Management Council (RFMC) established by the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act).<sup>59</sup> Before actually designating an area, the Secretary must propose the designation to the public through publication in the Federal Register and other public media in affected communities, prepare a draft Environmental Impact Statement as required by NEPA, and hold at least one public hearing.<sup>60</sup> The Secretary must also provide information regarding the proposed designation to the Committee on

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<sup>53</sup> *Id.*

<sup>54</sup> *Id.* at 43.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.* § 1431(b)(1).

<sup>57</sup> *Id.* § 1431(b)(2).

<sup>58</sup> *Id.* § 1431(a)(2); *see also id.* § 1433 (establishing standards for secretarial designation of marine sanctuaries).

<sup>59</sup> *Id.* § 1433(b)(2).

<sup>60</sup> *Id.* § 1434(a).

Resources of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.<sup>61</sup>

Once the Secretary has reviewed comments and reports from the various persons and entities given opportunity to comment, if the area is to be established as a national marine sanctuary, the Secretary must publish in the Federal Register a “notice of the designation together with final regulations to implement the designation.”<sup>62</sup> The designation and regulations do not become final until “after the close of a review period of forty-five days of continuous session of Congress beginning on the day . . . [the final] notice is published.”<sup>63</sup>

Further, if the area to be designated a national marine sanctuary is located partially or entirely within the seaward boundary of a state, the designation will not become final if the governor of that state certifies that the designation or any of its terms are unacceptable. In that event, the designation or the unacceptable terms “shall not take effect in the area of the sanctuary lying within the seaward boundary of the State.”<sup>64</sup>

To protect national marine sanctuaries, the NMSA prohibits the destruction or injury of sanctuary resources;<sup>65</sup> the possession, transport, or sale of any such resources; and the violation of any regulations promulgated to protect a national marine sanctuary.<sup>66</sup> Violations of the statute are punishable by civil penalties of up to \$119,000 for each violation<sup>67</sup> and those involving interfering with enforcement of the NMSA are subject to criminal penalties.<sup>68</sup> Vessels engaged in violations of the statute are subject to forfeiture.<sup>69</sup>

### ***Marine Protected Areas: Executive Order 13,158***

Executive Order 13,158 directs the Secretaries of Commerce and the Interior, in consultation with various other departments and agencies, to “develop a national system of [marine protected areas].”<sup>70</sup> The Executive Order’s purpose is to “protect the significant natural and cultural resources within the marine environment for the benefit of present and future generations by strengthening and expanding the Nation’s system of marine protected areas (MPAs).”<sup>71</sup> Executive Order 13,158 defines marine protected areas as “any area[s] of the marine environment that ha[ve] been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection

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<sup>61</sup> *Id.* § 1434(a)(1)(C).

<sup>62</sup> *Id.* § 1434(b).

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> A *sanctuary resource* is defined as “any living or nonliving resource of a national marine sanctuary that contributes to the conservation, recreational, ecological, historical, educational, cultural, archaeological, scientific, or aesthetic value of the sanctuary . . .” *Id.* § 1432(8).

<sup>66</sup> *Id.* § 1436.

<sup>67</sup> Civil Monetary Penalties; Adjustment for Inflation, 65 Fed. Reg. 65,260, 65,262 (Nov. 1, 2000) (setting inflation-adjusted civil penalties available under 16 U.S.C. § 1437(d)(1) at \$119,000).

<sup>68</sup> 16 U.S.C. § 1437(c).

<sup>69</sup> 16 U.S.C. § 1437(e).

<sup>70</sup> Exec. Order No. 13,158, 65 Fed. Reg. 34,909, (May 31, 2000), *reprinted as a note under* 16 U.S.C. § 1431 (2000) (Historical and Statutory Notes).

<sup>71</sup> *Id.*

for part or all of the natural and cultural resources therein.”<sup>72</sup> The Departments of Commerce and the Interior are to “coordinate and share information, tools, and strategies . . . to further enhance and expand protection of existing MPAs and establish new MPAs as appropriate . . .”<sup>73</sup> Both departments have published proposed criteria for developing an Inventory of Marine Managed Areas to “provide information that will lead to the fulfillment of requirements of [Executive Order 13158] . . .”<sup>74</sup>

## Deepwater Ports

As signed into law in 1975, the Deepwater Port Act (DPA) established a licensing system for ownership, construction, and operation of deepwater ports beyond the coastline and territorial sea (which extended seaward to 3 miles until 1988).<sup>75</sup> Deepwater ports are non-vessel, fixed or floating structures used for the loading, unloading or handling of oil imported from abroad or produced on the outer Continental Shelf (OCS)—and under amendments enacted in 2002, all forms of natural gas<sup>76</sup>—for transportation to the U.S. mainland. Deepwater ports include all associated components and equipment, including pipelines, pumping stations, service platforms, mooring buoys, and similar appurtenances seaward of the high water mark.<sup>77</sup>

### *Scope of Coverage*

As originally enacted, the DPA addressed only oil, and currently only a single deepwater port is in operation. Known as the Louisiana Offshore Oil Port (LOOP), the facility has been in operation since 1981 and is located about 16 miles off of Louisiana’s coast. However, as noted, the DPA now addresses natural gas in its varied forms and several license applications to construct deepwater ports to receive imports of liquefied natural gas (LNG) are already pending. In addition, while any qualified citizen is eligible for a deepwater port license,<sup>78</sup> the DPA also authorizes the formation of agreements or compacts by two or more coastal states to apply for a license.<sup>79</sup> The 2002 amendments also modified the geographic scope of the DPA, from facilities located “beyond the territorial sea” (which was 3 miles in 1974 when the DPA was originally enacted) to facilities “located beyond State seaward boundaries.”<sup>80</sup> The drafters of the 2002 amendments apparently sought to avoid ambiguity about the extent of the statute’s coverage in light of President Reagan’s extension of the U.S. territorial sea to 12 miles in 1988 for purposes of international law.

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<sup>72</sup> *Id.* In addition to national marine sanctuaries discussed above, “MPAs may include . . . fishery management zones, national seashores, national parks, national monuments, critical habitats, national wildlife refuges, national estuarine research reserves, state conservation areas, [and] state reserves . . .” What Is a Marine Protected Area?, *available at* <http://www.mpa.gov/mpadescriptive/whatis.html> (accessed June 7, 2004).

<sup>73</sup> *Id.*

<sup>74</sup> Marine Protected Areas and Inventory of Existing Marine Managed Areas, 68 Fed. Reg. 43,495 (July 23, 2003).

<sup>75</sup> Deepwater Port Act of 1974, Pub. L. 93-627, 88 Stat. 2126, January 3, 1975 (codified at 33 U.S.C. §§ 1501 *et seq.*).

<sup>76</sup> Maritime Transportation Security Act of 2002, Pub. L. 107-295, § 106, 116 Stat. 2064, 2086-88, November 25, 2002.

<sup>77</sup> 33 U.S.C. § 1502(9). However, the statute does not apply to facilities designed exclusively for production and development of adjacent OCS mineral leases, which constitute an incident of lease development and which are not intended to serve as a link in the nation’s transportation network. *Get Oil Out! Inc. v. Exxon Corp.*, 586 F.2d 726 (9th Cir. 1978).

<sup>78</sup> 33 U.S.C. § 1503(g).

<sup>79</sup> *Id.* §§ 1502(4) and 1508(d).

<sup>80</sup> See, definition of “deepwater port,” 33 U.S.C. § 1502(9).

### ***Overall Implementation***

Authority for review of applications and issuance of licenses was vested with the Secretary of the Department of Transportation (DOT) operating through the U.S. Coast Guard. With the passage of the Homeland Security Act, the Coast Guard was moved to the Department of Homeland Security, but will continue to coordinate licensing through DOT.<sup>81</sup>

The Secretary of Transportation has general rulemaking authority,<sup>82</sup> but must also consult with the Secretary of the Interior and the Administrator of the National Oceanic and Atmospheric Administration (NOAA) to develop regulations relating to site evaluation and pre-construction testing for activities deemed to adversely affect the environment, interfere with uses of the OCS, or pose a threat to human health and safety.<sup>83</sup> In addition, the Secretary must, upon the recommendations of at least the Administrator of the U.S. Environmental Protection Agency (EPA) and the Administrator of NOAA, establish environmental review criteria consistent with NEPA.<sup>84</sup> The Secretary is also directed to prescribe and enforce procedures, either by regulation or by a licensee's operations manual, governing vessel operations to prevent marine pollution, clean up pollutants, and otherwise manage adverse impact from the deepwater port.<sup>85</sup>

### ***Conditions Required for a License***

The Secretary may issue a license only if certain conditions have been met. These conditions involve determinations by the Secretary and consultation with the heads of certain federal agencies and the governors of certain states.<sup>86</sup> The Secretary must determine that the applicant is financially responsible and will meet the responsibilities of the Oil Pollution Act of 1990,<sup>87</sup> and can and will comply with applicable laws, regulations, and license conditions.<sup>88</sup> The Secretary is also directed to determine that the port will be in the national interest and consistent with national security and other national policy goals and objectives, including energy sufficiency and environmental quality.<sup>89</sup> The Secretary must determine that the port will not interfere with international navigation or other reasonable uses of the high seas<sup>90</sup> and is to employ best available technology to prevent or minimize adverse impact on the marine environment.<sup>91</sup>

The Secretary must not have been informed by the Administrator of EPA that the port will not conform with the Clean Air Act, the Clean Water Act, or the Marine Protection, Research and Sanctuaries Act.<sup>92</sup> The Secretary must

<sup>81</sup> Coast Guard regulations for DPA licensing, promulgated in 1975, appear at 33 C.F.R. Parts 148-150.

<sup>82</sup> 33 U.S.C. § 1504(a).

<sup>83</sup> *Id.* § 1504(b).

<sup>84</sup> *Id.* § 1505.

<sup>85</sup> *Id.* § 1509.

<sup>86</sup> *Id.* § 1503.

<sup>87</sup> *Id.* § 1503(c)(1).

<sup>88</sup> *Id.* § 1503(c)(2).

<sup>89</sup> *Id.* § 1503(c)(3); *see also* § 1504 (i)(3) (listing the factors to be considered making "national interest" determinations).

<sup>90</sup> *Id.* § 1503(c)(4).

<sup>91</sup> *Id.* § 1503(c)(5).

<sup>92</sup> *Id.* § 1503(c)(6).

also consult with the Secretaries of the Army, State, and Defense to determine their views on the adequacy of the application and its effect on their programs.<sup>93</sup>

As discussed in Chapter 2, under the Coastal Zone Management Act (CZMA), certain federal activities must be consistent with the enforceable policies of a state's federally approved coastal management programs, including issuance of federal licenses and permits.<sup>94</sup> Unlike the OCSLA,<sup>95</sup> the DPA makes no explicit reference to the CZMA federal consistency requirements, although it does require that any deepwater port pipeline be in a state that is at least making reasonable progress toward development of a CZMA coastal management program.<sup>96</sup> Nevertheless, DPA licenses are not expressly excluded from CZMA consistency requirements and NOAA regulations specify that "federal license or permit" means "any required authorization, certification, approval, lease, or other form of permission which any Federal agency is empowered to issue to an applicant."<sup>97</sup>

The DPA gives the governors of any "adjacent coastal state" substantial influence over the DOT Secretary's decision independent of the CZMA consistency process. As defined, *adjacent coastal state* means any coastal state which (A) would be directly connected by pipeline to a deepwater port, as proposed in an application; (B) would be located within 15 miles of any such proposed deepwater port; or (C) is designated by the Secretary upon the request of the governor, the supporting recommendation of the NOAA Administrator, and a determination that the state's risk of damage is equal to or greater than a state connected by pipeline.<sup>98</sup>

Although any other state has the opportunity to participate in the DOT Secretary's deliberative process,<sup>99</sup> "adjacent coastal state" status can be very important. The DPA states that:

The Secretary shall not issue a license without the approval of the Governor of each adjacent coastal State. If the Governor fails to transmit his approval or disapproval to the Secretary not later than 45 days after the last public hearing on applications for a particular application area, such approval shall be conclusively presumed. If the Governor notifies the Secretary that an application, which would otherwise be approved pursuant to this paragraph, is inconsistent with State programs relating to environmental protection, land and water use, and coastal zone management, the Secretary shall condition the license granted so as to make it consistent with such State programs.<sup>100</sup>

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<sup>93</sup> *Id.* § 1503(c)(7).

<sup>94</sup> 16 U.S.C. § 1456(c).

<sup>95</sup> See *e.g.*, 16 U.S.C. § 1456(c)(3)(B) (prohibiting the Secretary of the Interior from granting any license or permit for any activity in an exploration, development or production plan affecting any land use or water use in the coastal zone of a state with a coastal zone management program approved under the CZMA without satisfying CZMA federal consistency requirements); 43 U.S.C. § 1351(d) (same).

<sup>96</sup> 33 U.S.C. §§ 1503(c)(9) and 1508(c).

<sup>97</sup> 15 C.F.R. § 930.51. In fact, several federally approved state CZM programs identify DPA licenses as falling within the purview of federal consistency.

<sup>98</sup> 33 U.S.C. §§ 1502(1) and 1508(a)(2).

<sup>99</sup> *Id.* § 1508(b)(2).

<sup>100</sup> *Id.* § 1508(b)(1); see also *id.* § 1508(d) (authorizing coastal states by compact or agreement to *apply* for a deepwater port license).

### ***License Procedures***

The DPA allows for competing applications and prescribes application content details.<sup>101</sup> The DPA greatly expedites the licensing process by consolidating all federal authorizations needed for ownership, construction, and operation of a deepwater port into one application. Consistent with this consolidation, the DPA specifies that compliance with NEPA by the DOT Secretary shall fulfill the requirement of all federal agencies pursuant to NEPA for purposes of the DPA.<sup>102</sup>

In addition, the DPA prescribes a firm, fast track timetable. The licensing timetable includes an initial 21-day period for the Coast Guard to evaluate the license application's completeness and a 240-day evaluation period during which all public hearings must be completed.<sup>103</sup> Within 60 days of the start of that 240-day period, any application for a competing project within the designated application area must be filed. Within 45 days of the last public hearing, other federal agencies and departments and adjacent states must submit their recommendations, and within 90 days of the last public hearing the Secretary must deny or approve the license application. Taking into account the 21-day completeness review and a 5-day period for publication of a complete application in the Federal Register, the statutory period for a final determination is 356 days.<sup>104</sup>

Judicial review of a final determination by the Secretary must be filed by an aggrieved person within 60 days in the U.S. Court of Appeals for the circuit in which the nearest adjacent coastal state is located. If a license is issued, the licensee is subject to recordkeeping and inspection and state fees for use of land-based facilities.<sup>105</sup> The licensee must also operate as a common carrier (for transportation of oil), is liable for criminal penalties for violation of any requirement, and is subject to citizen suits.<sup>106</sup>

### **Bioprospecting**

*Bioprospecting* is the collection and evaluation of samples of biological material to identify biochemical and genetic resources for the creation of new medicine, as well as for agricultural, chemical, commercial and industrial applications. As a result of the 1992 Convention on Biological Diversity,<sup>107</sup> to which the United States is not a party, many developing and industrialized countries have moved to develop policy frameworks governing access to and shared benefits from biological resources. In 1995, the parties to the convention issued the Jakarta Mandate, which initiated the development of a marine and coastal resource-focused work program, including attention to issues of bioprospecting. Because of the status of the United States with respect to the convention, U.S. researchers have either been denied access to waters of certain countries or have faced onerous negotiations to gain access.

<sup>101</sup> *Id.* § 1503(d)(3), § 1504(c)(2), (d)(2).

<sup>102</sup> The 2002 amendments to the Deepwater Port Act amended 33 U.S.C. § 1504(f), to no longer require preparation of a NEPA Environmental Impact Statement on each DWP application. The Secretary still must comply with NEPA, but that could mean, in appropriate cases, preparation of an Environmental Assessment or potentially making a finding of no significant impact (FONSI) pursuant to the CEQ regulations implementing NEPA. CEQ's NEPA regulations are found at 40 C.F.R. Part 1500 *et seq.*

<sup>103</sup> *Id.* § 1504(c)(1), (g).

<sup>104</sup> *Id.* § 1504(c)(1).

<sup>105</sup> *Id.* § 1504(h).

<sup>106</sup> *Id.* §§ 1507, 1514, 1515.

<sup>107</sup> Convention on Biological Diversity, June 5, 1992, 1760 U.N.T.S. 79.

Regulation of bioprospecting in U.S. waters is limited. Some states require a state fishing license in state waters, and limit or prohibit removal of sensitive species such as corals. In protected areas, such as national marine sanctuaries, research permits are required. However, bioprospecting outside state waters and marine sanctuaries is virtually unregulated. Except for certain species subject to regulation under existing legislation, such as the Endangered Species Act, both U.S. and foreign interests have access to marine biological resources without regulatory impediments or the prospect of having to pay royalties or other fees associated with the harvest and commercialization of currently unregulated living marine organisms.

## Artificial Reefs

According to NOAA:

Artificial Reefs have a long history of use for a variety of purposes. There are countless artificial structures that have been sunk intentionally in the world's oceans, including materials such as aircrafts, ships, cars, tires, and household appliances. Since the 1970s, there has been a growing industry that manufactures customized artificial reefs for specific purposes ranging from diving attractions to fish propagation.<sup>108</sup>

The creation of artificial reefs in U.S. waters is encouraged and regulated by the National Fishing Enhancement Act of 1984 (NFEA).<sup>109</sup> The NFEA was enacted to improve U.S. commercial and recreational fisheries based on Congress' findings that "properly designed, constructed, and located artificial reefs . . . can enhance the habitat and diversity of fishery resources; enhance United States recreational and commercial fishing opportunities; increase the production of fishery products in the United States; increase the energy efficiency of recreational and commercial fisheries; and contribute to the United States and coastal economies."<sup>110</sup> Based on this finding, Congress adopted the NFEA "to promote and facilitate responsible and effective efforts to establish artificial reefs."<sup>111</sup>

The Secretaries of the Army and Commerce are charged with implementing the NFEA. The Secretary of the Army, whose authority under NFEA is delegated to U.S. Army Corps of Engineers, is to implement a framework for the permitting and regulation of the development of artificial reefs.<sup>112</sup> In issuing artificial reef permits, the Secretary of the Army is to:

consult with and consider the views of appropriate local, state, and federal agencies and other interested parties; ensure that the provisions for citing, constructing, monitoring, and managing artificial reefs are consistent with established criteria and standards; and ensure that the title to the artificial reef construction material is unambiguous and that responsibility for maintenance and the financial ability to assume liability is clearly established.<sup>113</sup>

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<sup>108</sup> Department of Commerce, National Oceanic and Atmospheric Administration, *Policy Statement of the National Marine Sanctuary Program: Artificial Reef Permitting Guidelines 1*, available at [www.sanctuaries.nos.noaa.gov/library/library.html](http://www.sanctuaries.nos.noaa.gov/library/library.html) (accessed June 7, 2004) ((undated interim-final policy available for comment, see National Marine Sanctuary Program Policy on Permit Applications for Artificial Reef Development) (*NMS Artificial Reef Permitting Guidelines*)).

<sup>109</sup> 33 U.S.C. §§ 2101-2106.

<sup>110</sup> *Id.* § 2101(a)(5).

<sup>111</sup> *Id.* § 2101(b).

<sup>112</sup> *Id.* § 2104.

<sup>113</sup> *Draft National Artificial Reef Plan* (Feb. 1, 2002) (*Draft NARP*).

The Secretary of Commerce is to prepare a long-term plan for the development of artificial reefs to serve NFEA's purposes.<sup>114</sup> NMFS developed the first National Artificial Reef Plan (NARP) in 1985,<sup>115</sup> and is currently working with representatives of affected federal, state, and local government and the private sector to develop a revised plan.<sup>116</sup> As mandated by the NFEA, the NARP serves to provide guidance to resource managers and policy makers on the siting, design, and maintenance of artificial reefs.<sup>117</sup> It provides design standards and lists specific materials to be used; for example, oil and gas production structures are included among the recommended materials.<sup>118</sup> The NARP also encourages state governments to participate in the development of artificial reefs, and many of them have done so.<sup>119</sup> The NARP is "intended to serve as a dynamic, working document to be revised and updated periodically."<sup>120</sup>

Additionally, "artificial reef development is generally prohibited in national marine sanctuaries," but it may "be undertaken in these areas for educational, research, and resource management purposes."<sup>121</sup> The Department of Commerce evaluates requests for and issues permits to develop artificial reefs in national marine sanctuaries based on its Policy Statement of the National Marine Sanctuary Program: Artificial Reef Permitting Guidelines.<sup>122</sup>

The construction of artificial reefs is also regulated by USACE pursuant to Section 10 of the RHA. Under the RHA and regulations promulgated pursuant to it, an artificial reef in navigable waters constitutes an obstruction to navigation that must be permitted by USACE.<sup>123</sup> In determining whether to issue such permits, USACE must consider, among other things, the degree to which the reef will "enhance[.] . . . fishery resources to the maximum extent practicable," the "minimization of conflicts among competing uses of the navigable waters," and "the prevention of any unreasonable obstructions to navigation."<sup>124</sup>

The Minerals Management Service (MMS) has developed a program called Rigs to Reefs, which supports and encourages the reuse of decommissioned offshore oil and gas structures for artificial reefs.<sup>125</sup> MMS policy is to "encourage the appropriate conversion and use of rigs as reefs in whatever location it is decided that a reef would

<sup>114</sup> 33 U.S.C. §§ 2102 and 2103.

<sup>115</sup> National Marine Fisheries Service, NOAA National Artificial Reef Plan Technical Memorandum, OF-6 (1985).

<sup>116</sup> *Draft NARP*.

<sup>117</sup> 33 U.S.C. § 2103.

<sup>118</sup> *Id.*

<sup>119</sup> *Id.*

<sup>120</sup> *Draft NARP*.

<sup>121</sup> *NMS Artificial Reef Permitting Guidelines* at i.

<sup>122</sup> *Id.*

<sup>123</sup> See 33 U.S.C. § 403; 33 C.F.R. Part 322.

<sup>124</sup> 33 C.F.R. § 322.5.

<sup>125</sup> Formerly, Minerals Management Service regulations and Outer Continental Shelf lease terms required that holders of offshore federal leases clear away offshore structures upon relinquishment of their leases. See Outer Continental Shelf; Interpretation Concerning Authority to Depart from OCS Requirements, 48 Fed. Reg. 31,397 (July 8, 1983). Beginning in July 1983, however, the agency began to interpret its regulations and lease terms "to permit platforms or other facilities or parts thereof to remain on the OCS lease for the protection of fish and other aquatic life and for the conservation of natural resources." *Id.* Following implementation of this interpretation, the Minerals Management Service Director is "to permit, when appropriate, the conversion of platforms and other facilities on the OCS from their primary function to use as artificial reefs as habitats for fish and other aquatic life." *Id.*

be beneficial.”<sup>126</sup> Supported by the MMS, several states have been involved in promoting the conversion of decommissioned offshore oil and gas facilities to artificial reefs. Texas, for example, has been donated 49 offshore rigs by oil and gas companies for conversion to reefs. In some other states, however, the program is more controversial.

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<sup>126</sup> *Id.* at 31,397. In carrying out the policy, “[t]he selection of ideal fish-habitat locations for artificial reefs . . . depend[s] upon the determination of the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, State agencies, and other governmental entities.” *Id.* Further, “[a]ppropriate permissions from the U.S. Coast Guard, the U.S. Corps of Engineers, State agencies, and other agencies . . . need to be obtained for navigation, safety, and related considerations.” *Id.* at 31,397-98.



## CHAPTER 7 MARINE OPERATIONS

### INTRODUCTION

As the world's leading maritime and trading nation, the United States requires an efficient and effective marine transportation system (MTS). The nation's MTS consists of waterways, ports and their intermodal connections, vessels, rail, vehicles, and other system users. It is primarily an aggregation of state, local or privately owned facilities, and private companies. Each component of the MTS is a complex system in and of itself, and is also closely linked with all of the other components

The regulation of marine operations in the United States protects a very broad range of national interests, including the effectiveness and efficiency of the MTS. Further, recognizing the critical role that foreign vessels play in maintaining the economic vitality of the country, the United States has played a significant role in developing an international regime through participation in the International Maritime Organization (IMO),<sup>1</sup> the United Nations body that develops international environmental and safety regimes to ensure the safe and environmentally sound operation of ships worldwide. The United States has been a long-standing supporter of IMO attempts to set international standards and is a party to the majority of these conventions, which generally must be implemented through domestic legislation. While participating in the development of international conventions addressing pollution response, compensation, and liability, the United States has also developed its own requirements in these areas, such as those established under the Oil Pollution Act of 1990 and the Clean Water Act.

In addition, the regulation of marine operations, particularly as it relates to local concerns, must take into account intergovernmental questions. Issues such as water and air quality, safety and security of marine terminals and structures, and marine casualties that impact public health and safety, have local as well as national impact.

### The Role of International Law and Standards in Marine Operations

Seventy-eight percent (by weight) of all foreign trade is by vessel, and 95 percent of vessels that carry imports into U.S. ports are *foreign-flagged*, in other words, under the primary control of another nation referred to as the *flag state*. Under international maritime law, these foreign vessels are subject to administrative oversight and inspection by the maritime administrations of their flag states. Additionally, most of the world's seamen are not U.S. citizens.

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<sup>1</sup> The International Maritime Organization (IMO), an organ of the United Nations, was created in 1948. The IMO Charter calls for the organization to facilitate development of the "highest practicable standards" for marine safety, environmental protection and other related areas applicable to the operation and navigation of vessels. Convention on the Inter-Governmental Maritime Consultative Organization, 9 U.S.T. 621, T.I.A.S. No. 4044 (1948).

Vessels and their operation have traditionally been regulated through international conventions and treaties to promote uniformity. Regulation of marine operations under international law is based on consideration of the interests of multiple parties in the global community. The goal is to ensure freedom of navigation and trade for vessels throughout the world while protecting ocean resources, coasts, and ports from unsafe ships and marine pollution. Many of these interests are the subject of the 1982 United Nations Convention on the Law of the Sea (UNCLOS),<sup>2</sup> which seeks to clarify jurisdictional issues among the interested parties in maritime operations and the oceans (*see* Chapter 1, *Setting the Stage*). UNCLOS identifies the duties of the various states that have an interest in the operation of vessels, and provides a framework for the regulation of vessel and maritime-related activities by these states to protect and preserve the marine environment. Importantly, UNCLOS establishes the jurisdictional and enforcement responsibilities and limits of various states, referred to as *flag states*, *port states*, and *coastal states*.

### *Flag State*

The country under whose registry and authority the ship is operating, and whose flag a ship is flying, is known as the *flag state*. Under customary international law, the flag state determines the conditions under which it will grant its nationality to a ship, thereby accepting responsibility for it and acquiring authority over it.<sup>3</sup> Historically, as a matter of international comity, the laws of the flag state were recognized as governing by the state in whose waters a ship was operating, as long as the ship's activities did not affect the peace and good order of that state.<sup>4</sup> The flag state must prescribe standards and regulations for operation of its vessels, and enforce these standards with respect to the ship and any conduct that takes place on it, no matter where the conduct occurs.<sup>5</sup>

Under UNCLOS, the flag state has primary enforcement responsibility and is required to ensure that vessels flying its flag comply with all applicable international marine safety and environmental laws. Flag states are required to establish standards for the prevention of vessel-source pollution that are at least as stringent as international standards.<sup>6</sup> They are required to verify compliance with international and domestic marine safety and pollution prevention standards before granting a vessel registry, and must periodically verify that vessels remain in compliance.<sup>7</sup> Flag states must also ensure that their vessels have appropriate charts, publications, and navigational equipment, and that each vessel is under the command of a competent master, with officers and crew that are knowledgeable about applicable international standards regarding safety of life at sea, collision prevention, and pollution prevention and control.<sup>8</sup> Thus, U.S. law applies to U.S. flag ships no matter where they operate in the world. Further, the United States has the responsibility to enforce applicable laws, particularly those giving effect to international standards and conventions relating to maritime safety, security, and environmental protection, for violations by U.S. flag vessels no matter where such violations occur.

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<sup>2</sup> United Nations Convention on the Law of the Sea, U.N. Doc. A/CONF.62/122, 21 I.L.M. 1261 (done at Montego Bay, Dec. 10, 1982) [hereinafter UNCLOS].

<sup>3</sup> *Lauritzen v. Larsen*, 345 U.S. 571, 584 (1953).

<sup>4</sup> *Cunard Steamship Co. v. Mellon*, 262 U.S. 100, 123 (1923) (“[Flag state authority] is chiefly applicable to ships on the high seas, where there is no territorial sovereign; and as respects ships in foreign territorial waters it has little application beyond what is affirmatively or tacitly permitted by the local sovereign.”). *See also* *In re Wildenhuis*, 120 U.S. 1, 12 (1887) (“All matters of discipline and all things done on board which affected only the vessel or those belonging to her, and did not involve the peace or dignity of the country, or the tranquility of the port, should be left by the local government to be dealt with by the authorities of the nation to which the vessel belonged.”).

<sup>5</sup> Art. 94(2)(b), UNCLOS.

<sup>6</sup> *Id.* Art. 211.

<sup>7</sup> *Id.* Arts. 94(4)(a), 213(3).

<sup>8</sup> *Id.* Art. 92(4)(b).

### *Port State*

The United States has generally adhered to the principle of open ports<sup>9</sup> through bilateral commerce, friendship, and navigation agreements between countries. Under international law, the *port state* is the nation that exercises sovereignty over the port that the ship has entered. It is recognized that the port state may condition the entry of foreign ships on compliance with specified laws and regulations. In light of concerns involving the threat of terrorism after the events of September 11, 2001, the United States is becoming increasingly strict regarding rules for access to its ports to ensure that entering passengers and cargo do not pose threats to the safety and health of U.S. citizens.<sup>10</sup>

Once a commercial vessel voluntarily enters the port or harbor of another state, it becomes subject to the jurisdiction of that state.<sup>11</sup> In most cases, this includes operation of the vessel in any internal waters of the port state because jurisdiction of a state over its internal waters under customary international law is considered equivalent to its jurisdiction over its land.<sup>12</sup> The port state may choose to forgo the assertion of its jurisdiction or to limit it, but to do so is a matter that rests solely within its discretion.<sup>13</sup> If a crime that disturbs the peace and tranquility of the port is committed on board, then international law has always recognized the ability of the port state to assert its authority.<sup>14</sup>

Under UNCLOS, port states shall, as far as practicable, take measures to detain a vessel within their ports if the vessel is in violation of applicable international standards relating to seaworthiness and may threaten damage to the marine environment. The port state must take action to prevent such a vessel from sailing until the ship is safe and no longer presents a threat to the marine environment.<sup>15</sup> Under UNCLOS, port states may board ships to verify compliance with international standards and domestic laws, although examinations are initially limited to the vessel's certificates, records, and documents. UNCLOS authorizes further physical inspection of vessels that carry valid certificates only when there are clear grounds for believing that the condition of the vessel does not substantially correspond with the particulars of the certificates.<sup>16</sup>

UNCLOS also authorizes port states to take limited enforcement action for discharges or violations of international environmental standards that occurred on the high seas and even in the waters of other states. When a vessel is voluntarily in a port or offshore terminal of a state, that state may investigate discharges that occurred outside its internal waters, territorial sea, or exclusive economic zone (EEZ) that violate international rules and standards and, when the evidence warrants, begin enforcement proceedings. Further, the port state may investigate and take enforcement action when the discharge actually has caused or is likely to cause pollution to its internal waters, territorial sea, or EEZ. For discharges in the internal waters,

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<sup>9</sup> Saudi Arabia v. Arabian American Oil Company (ARAMCO), 27 I.L.M. 117, 212 (1963); Colombos, *The International Law of the Sea* (6<sup>th</sup> Ed. 1967) (stating "in time of peace, commercial ports must be left open to international traffic" and "liberty of access to ports granted to foreign vessels implies their right to load and unload their cargoes; embark and disembark their passengers.").

<sup>10</sup> For example, in response to concerns regarding port security, vessels are now required to give notice of specific information to the Coast Guard at least 96 hours before arrival of a vessel in a U.S. port. This is a significant increase over the prior 24 hour advance notice requirement. This is to allow scrutiny to be given to the vessel, its management, its cargo, and its crew by appropriate agencies of the U.S. Government. As such, it functions more as a permissive regime for entry of vessels than an "open port" regime.

<sup>11</sup> *Cunard S.S. Co. v. Mellon*, 262 U.S. 100 (1923).

<sup>12</sup> *United States v. Louisiana*, 394 U.S. 11, 22-23 (1969).

<sup>13</sup> *Cunard S.S. Co.*, 262 U.S. at 124.

<sup>14</sup> *In re Wildenhus*, 120 U.S. at 12.

<sup>15</sup> Art. 219, UNCLOS.

<sup>16</sup> *Id.* Art. 226.

territorial sea, or EEZ of another state, a port state may investigate and take enforcement action if such action is requested by the state exercising sovereignty over the waters where the discharge occurred, the flag state, or any other state damaged or threatened by the discharge violation. If a discharge has occurred on the high seas, the flag state and any coastal state exercising jurisdiction over waters in which damage was caused or threatened by a discharge may request investigation of that discharge by a port state. Records of the investigation by the port state must be available to the flag state or the coastal state that requested the investigation.<sup>17</sup>

While the flag state retains primary responsibility for its vessels' compliance with international marine safety and pollution standards, the United States and other nations remain concerned that certain flag states fail to live up to those responsibilities. This has resulted in too many substandard ships posing threats to the marine environment. Therefore, the United States and other countries rely on the enforcement regimes specifically established in many international vessel safety and pollution conventions. Further, as stated above, there is a recognized duty in UNCLOS for port states to detain vessels that do not meet international safety and pollution standards.<sup>18</sup> Exercise of these enforcement regimes and compliance with port state duties and responsibilities is referred to as port state control.<sup>19</sup>

Within the UNCLOS framework, conventions such as the International Convention for the Safety of Life at Sea (SOLAS)<sup>20</sup> and International Convention for the Prevention of Pollution from Ships (MARPOL)<sup>21</sup> provide more specific enforcement regimes that authorize port states to board and exercise varying degrees of control over vessels that enter their ports to ensure compliance with applicable international standards for safety, pollution prevention, and security. These conventions, as well as UNCLOS, require flag states to issue certificates to their vessels establishing that they meet these standards as established in the conventions. Further, the conventions require port states to accept these certificates as proof of compliance unless there are clear grounds for believing that the ships do not substantially correspond with the conditions of the certificates.<sup>22</sup> The scope of port state authority under several of these conventions expressly allows their boarding officers to test and evaluate foreign vessel operational requirements, including testing of crew performance and competence.

Differences do exist with regard to the type of enforcement action that port states are authorized to take. For instance, SOLAS confines port state enforcement to administrative interventions or detentions until such time as the vessel is safe to sail.<sup>23</sup> On the other hand, MARPOL authorizes port states to take punitive enforcement action against vessels that are in violation of the convention.<sup>24</sup> Further, UNCLOS and other international conventions impose some explicit safeguards against overly aggressive or unilateral port state enforcement actions. For instance, in no case may a port state unduly delay a vessel, and port states must

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<sup>17</sup> *Id.* Art. 218.

<sup>18</sup> *Id.* Arts. 218, 219.

<sup>19</sup> The IMO has enacted a resolution that defines the criteria under which a vessel may be determined to be "substandard." The resolution also provides guidance to port states on detention of vessels, qualifications and training requirements for port state control officers, and procedures for port state control boardings. IMO Resolution A.787(19).

<sup>20</sup> International Convention for the Safety of Life at Sea, 32 U.S.T. 47, T.I.A.S. No. 9700 (done at London, Nov. 1, 1974 and entered into force worldwide on May 25, 1980); Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 32 U.S.T. 5577, T.I.A.S. 10009 (done at London, Feb. 17, 1978 and entered into force worldwide on May 1, 1981) (hereinafter SOLAS).

<sup>21</sup> International Convention for the Prevention of Pollution from Ships, 1973, 12 I.L.M. 1319 (done at London, Nov. 2, 1973); Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, 17 I.L.M. 546 (done at London, Feb. 16, 1978) (hereinafter MARPOL).

<sup>22</sup> See SOLAS, Chap. 1, Regulation 19(b); MARPOL Art. 5.

<sup>23</sup> SOLAS, Chap. 1, Regulations 12, 19.

<sup>24</sup> MARPOL, Art. 5.

release vessels upon posting of a bond or other surety that will protect port state interests. These conventions also usually call for compensation by the port state for any loss or damage to foreign vessels resulting from an undue delay or detention.<sup>25</sup> Finally, international conventions may limit the type of enforcement action that a state may take.<sup>26</sup>

### ***Coastal State***

A *coastal state* exercises sovereignty and jurisdiction over waters off its shores. International treaties establish conditions under which states may regulate the activities of foreign flag vessels operating in waters off their coasts relating to safety, the environment, and the exploitation of natural resources.

The ability of the coastal state to enforce its laws and applicable international standards is often in competition with the right of vessels to exercise freedom of navigation. The best example of this tension is the long-standing international right of *innocent passage*. Innocent passage is the right held by a foreign vessel to pass through the territorial sea of a coastal state in the normal course of navigation without interference from that state. Passage is considered innocent so long as it is not prejudicial to the peace, good order, or security of the coastal state.<sup>27</sup> For instance, passage is not innocent if there is an act of willful and serious pollution.<sup>28</sup> Under UNCLOS, coastal states are restricted in their ability to regulate vessels in innocent passage. The coastal state may generally not regulate the construction, design, equipment, and manning of foreign vessels in innocent passage.<sup>29</sup> However, UNCLOS allows coastal states to establish stricter discharge and liability standards for vessels in innocent passage in their territorial seas as long as the standards are non-discriminatory and do not otherwise hamper innocent passage.<sup>30</sup>

Various international conventions authorize coastal states to control vessel traffic off their shores to improve the safety of navigation in crowded and restricted areas and to protect environmentally sensitive areas. UNCLOS recognizes the right of a coastal state to control vessel traffic in its territorial sea through the establishment of traffic separation schemes and sea lanes. Vessels, such as tankers, that carry chemicals, oil, and other dangerous substances can be required to use such lanes or other restricted areas during transit for the protection of the coastal state.<sup>31</sup> SOLAS authorizes states to implement mandatory ship routing, ship reporting systems, and vessel traffic services.<sup>32</sup> Another IMO regime allows coastal states to adopt environmental measures to protect specific, defined sea areas by designating them Particularly Sensitive Sea Areas (PSSAs). A PSSA is defined as “an area that needs special protection through action by the [IMO] because of its significance for recognized ecological or socio-economic or scientific reasons and which may be vulnerable to damage from international maritime activities.”<sup>33</sup>

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<sup>25</sup> *Id.*; SOLAS, Chap. 1, Regulation 19(f); Art. 222, UNCLOS.

<sup>26</sup> For instance, UNCLOS restricts enforcement to imposition of monetary penalties only with respect to violations of national laws and regulations or applicable international rules and standards for the prevention, reduction and control of pollution committed by foreign vessels in a state's territorial sea, except in the case of a willful and serious act of pollution. Art. 230(2), UNCLOS.

<sup>27</sup> See *id.* Arts. 19, 21.

<sup>28</sup> *Id.* Art. 19.

<sup>29</sup> *Id.* Art. 21(2).

<sup>30</sup> *Id.* Art. 24(1).

<sup>31</sup> *Id.* Art. 22.

<sup>32</sup> SOLAS, Chap. V, Regs. 8, 8-1, 8-2.

<sup>33</sup> Guidelines for the Designation of Special Areas under MARPOL 73/78 and Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas, IMO Assembly Resolution A.927(22) (Nov. 2001).

The most complex jurisdictional regime in UNCLOS establishes the authority of a coastal state to enforce environmental laws in the various jurisdictional zones off its coast including the territorial sea, the contiguous zone, and the EEZ.

In its territorial sea, a coastal state has the authority to regulate the preservation of its environment and the prevention, reduction, and control of pollution.<sup>34</sup> The jurisdiction to enforce these laws matches the coastal state's authority in its internal waters, save for the right of innocent passage. When there are clear grounds for believing that a vessel navigating in a nation's territorial sea has violated environmental laws adopted by the coastal state and, consistent with UNCLOS and applicable international environmental standards, the coastal state may physically inspect the vessel. If evidence from the inspection warrants, the coastal state may then institute enforcement proceedings, subject to certain safeguards established in UNCLOS.<sup>35</sup>

Coastal state powers in the contiguous zone are more limited than in the territorial sea. UNCLOS authorizes a coastal state to exercise control in its contiguous zone as necessary to prevent infringements of its customs, fiscal, immigration, and sanitary laws and regulations in its territory (e.g., ports or internal waters) or its territorial sea.<sup>36</sup>

Coastal state authority in its EEZ is even more constrained. If there are clear grounds for believing that a vessel navigating in a coastal state's EEZ has violated applicable international rules and standards for the prevention, reduction, and control of pollution (or national laws that implement such international standards), the coastal state may require the vessel to provide certain information. Required information can include the vessel's identity and port of registry, its last and next port of call, and any other information required to determine if a violation occurred. If the vessel refuses to provide the required information or the information varies with known facts, the coastal state may physically inspect the vessel. Finally, if there is clear objective evidence that the vessel committed a violation of applicable international rules for the prevention, reduction, or control of pollution while navigating in the EEZ, the coastal state may undertake enforcement proceedings in accordance with its laws, subject to safeguards established in UNCLOS.<sup>37</sup>

### Coast Guard Role in Regulating Marine Operations

The missions and tasks of the U.S. Coast Guard include, but are not limited to, maritime environmental protection, national and coastal defense, marine safety and security, search and rescue, boating safety, aids to navigation, and icebreaking. In addition, it is primarily responsible for the enforcement of U.S. laws and treaties on the high seas and in waters subject to the jurisdiction of the United States.<sup>38</sup> The Coast Guard is also authorized to assist other federal and U.S. state authorities in performance of their activities, including

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<sup>34</sup> Art. 2, UNCLOS.

<sup>35</sup> *Id.* Art. 220.

<sup>36</sup> *Id.* Art. 33.

<sup>37</sup> *Id.* Art. 220.

<sup>38</sup> The primary duties of the Coast Guard are established at 14 U.S.C. § 2.

The Coast Guard shall enforce or assist in the enforcement of all applicable Federal laws on, under, and over the high seas and waters subject to the jurisdiction of the United States; shall engage in maritime air surveillance or interdiction to enforce or assist in the enforcement of the laws of the United States; shall administer laws and promulgate and enforce regulations for the safety of life and property on and under the high seas and waters subject to the jurisdiction of the United States covering all matters not specifically delegated by law to some other executive department . . . .

law enforcement.<sup>39</sup> Finally, the Coast Guard has authority, in cooperation with the U.S. Department of State, to interact with foreign governments on matters of international law.<sup>40</sup>

To enforce the laws of the United States as mandated by Congress, the Coast Guard has very broad inspection, search, seizure, investigation, and arrest authority. Under this authority, the Coast Guard may make inquiries, examinations, inspections, searches, seizures, and arrests upon the high seas and waters over which the United States has jurisdiction for the prevention, detection, and suppression of violations of laws of the United States. The Coast Guard is also the regulatory and enforcement agency for interests involving safety of life and property at sea and protection of the marine environment.

The Coast Guard was transferred from the U.S. Department of Transportation (DOT) to the newly established U.S. Department of Homeland Security (DHS) pursuant to the Homeland Security Act of 2002.<sup>41</sup> The Act transfers the Coast Guard's existing authorities, functions, personnel, and assets from DOT, including the related authorities and functions of the Secretary of Transportation, to DHS. There were significant concerns that this move would adversely affect other long-standing programs of the Coast Guard, such as search and rescue, fishery enforcement, and protection of the marine environment. To address these concerns, the Act states that the "Secretary may not substantially or significantly reduce the missions of the Coast Guard or the Coast Guard's capability to perform those missions" except as may be specified by Congress in the future.<sup>42</sup>

## GOVERNING STATUTES AND INTERNATIONAL AGREEMENTS

Congress has recognized that to the extent the United States is party to international conventions, these requirements are part of U.S. maritime law. Any international convention that is "self executing" to which the United States is a party becomes federal law without the need for specific implementing legislation. Further, under Article VI of the U.S. Constitution, international conventions, treaties, and executive agreements that have been signed and ratified by the United States become the "law of the land."

### Marine Safety and Security: International Treaties to which the United States is Signatory

#### *International Convention for the Safety of Life at Sea*

The International Convention for the Safety of Life at Sea of 1974 and its 1978 Protocol (SOLAS),<sup>43</sup> specifies minimum international standards for construction,<sup>44</sup> various types of equipment,<sup>45</sup> and stability, for passenger vessels and other vessels of 500 gross tons or more on international voyages.<sup>46</sup> In addition, it specifies operational requirements for all vessels for safety of navigation<sup>47</sup> and for mandatory ship reporting systems.<sup>48</sup>

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<sup>39</sup> *Id.* § 141.

<sup>40</sup> *Id.* §142.

<sup>41</sup> Pub. L. 107-296, Nov. 25, 2002, 116 Stat. 2135.

<sup>42</sup> 6 U.S.C. §468(e)(1)

<sup>43</sup> 32 U.S.T. 47, T.I.A.S. No. 9700 (done at London, Nov. 1, 1974). It entered into force worldwide on May 25, 1980. Protocol of 1978 Relating to the International Convention for the Safety of Life at Sea, 32 U.S.T. 5577, T.I.A.S. 10009 (done at London, February 17, 1978). The Protocol entered into force worldwide on May 1, 1981 (SOLAS).

<sup>44</sup> *Id.* Chap. II.

<sup>45</sup> *Id.* Chaps. II, IV & V/12.

<sup>46</sup> *Id.* Chap. I, Regulations 1, 3 & 4.

<sup>47</sup> *Id.* Chap. V, Regulation 12.

<sup>48</sup> *Id.* Chap. V, Regulation 15-1.

Also, SOLAS addresses requirements for specific types of vessels. For instance, in response to several tanker disasters, the 1978 Protocol to SOLAS added requirements for inert gas systems, crude oil tank washing systems, and redundant radar and steering equipment. Later amendments to SOLAS address hazards associated with ferries and bulk cargo vessels, and implement an enhanced inspection regime for older vessels.<sup>49</sup>

SOLAS establishes procedures and requirements for the effective management of vessels by vessel owners and operators to ensure safety of life at sea and protection of the marine environment. SOLAS now requires vessel owners and operators to establish a Safety Management System (SMS) under the International Safety Management Code (ISM Code). A company's SMS must include, among other things, a safety and environmental protection policy with instructions and procedures to ensure that vessels operate in accordance with relevant flag state and international regulations. In addition, the ISM Code requires that companies and vessels undergo periodic external audits by flag state administrations or organizations acting on their behalf.<sup>50</sup>

Most recently, SOLAS was amended to address the issue of vessel and port security and now requires ships and companies to comply with the International Ship and Port Facility Security (ISPS) Code,<sup>51</sup> which applies to passenger ships, including high-speed craft, cargo ships of 500 gross tons and up, and mobile offshore drilling units. The ISPS Code contains two parts. Part A contains mandatory provisions covering the appointment of security officers for shipping companies, individual ships, and port facilities. Part B contains recommendations on preparing ship and port facility security plans. The Coast Guard has decreed that Part B will also be mandatory for all U.S.-flagged ships and ships of other flags that trade with the United States.

In most instances, SOLAS provisions have been made applicable to U.S. vessels through implementing legislation. However, even in the absence of such legislation, courts for the most part have treated SOLAS as self-executing, or a component of general maritime law. Similarly, it is self-executing with regard to foreign vessels in U.S. waters.<sup>52</sup> The President has assigned enforcement authority for SOLAS to the Coast Guard, and the Coast Guard primarily enforces its provisions under its Port State Control Initiative.

### ***International Convention on Standards of Training, Certification and Watchkeeping for Seafarers***

In 1978, the IMO adopted the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).<sup>53</sup> Prior to adoption, regulation of competence and training of vessel officers and crew was left to flag states, with very little international guidance.<sup>54</sup> However, some commenters have attributed 60-80 percent of all maritime accidents at least in part to human error,<sup>55</sup> and a 1995 Coast Guard study identified human error as the cause of approximately 80 percent of all maritime casualties.<sup>56</sup> The purpose of the STCW is to promote safety of life and property at sea and protection of the marine

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<sup>49</sup> *Id.* Chap. XI.

<sup>50</sup> *Id.* Chap. IX. Coast Guard regulations implementing the ISM Code are at 33 C.F.R. Part 98.

<sup>51</sup> SOLAS, Chap. XI-2.

<sup>52</sup> See Craig Allen, *Federalism in the Era of International Standards: Federal and State Government Regulation of Merchant Vessels in the United States (Part II)*, J. Mar. L. & Com. 582 (1998).

<sup>53</sup> S. Treaty Doc. No. 96-1, C.T.I.A. No. 7624 (done at London, July 7, 1978). The Convention entered into force worldwide on April 28, 1984 and for the United States on Oct. 1, 1991 (STCW).

<sup>54</sup> Studies of recent vessel and marine casualties show that human factors cause 75-95 percent of all marine accidents. 1998 Year of the Ocean, The U.S. Marine Transportation System, available at [www.yoto98.noaa.gov/yoto/meeting/mar\\_trans\\_316.html](http://www.yoto98.noaa.gov/yoto/meeting/mar_trans_316.html) (accessed November 12, 2004).

<sup>55</sup> Lynda M. Warren & Mark W. Wallace, *The Donaldson Inquiry and Its Relevance to Particularly Sensitive Sea Areas*, 9 Int'l Journ. of Marine & Coastal Law 523, 526 n.14 (1994).

<sup>56</sup> U.S. Coast Guard. *Prevention Through People Quality Action Report*. Washington, D.C. 1995.

environment by establishing common international standards for training, certification, and watchkeeping for professional mariners. The Convention codifies the highest practicable standards that could be globally agreed to at the time it was adopted.<sup>57</sup> The STCW was amended in 1995 to virtually rewrite the entire Convention and to add a new STCW Code.<sup>58</sup> Under the STCW, flag states are required to issue certificates to seafarers sailing on their vessels attesting to their compliance with qualification, training, and fitness standards.<sup>59</sup>

The STCW provides that ships, including ships of non-party flag states, are subject to control by duly authorized officers of the port state when ships are in the port of a party to the Convention. Control officers are authorized to verify that all mariners onboard possess required certificates. Flag state certificates are required under the STCW to be accepted unless there are clear grounds for believing that the certificate was obtained fraudulently, the holder is not the person named on the certificate, or the issuing state failed to follow the STCW standards in issuing the certificate.<sup>60</sup> Under amendments to the STCW enacted in 1995, the port state control officers also have authority to require mariners to demonstrate operational competency at their place of duty on the vessel.<sup>61</sup>

### ***Convention on the International Regulations for Preventing Collisions at Sea***

The 1972 Convention on the International Regulations for Preventing Collisions at Sea (COLREGS)<sup>62</sup> provides binding, comprehensive regulations for the prevention of collisions on the water. The COLREGS apply beyond established demarcation lines. In the United States, the COLREGS govern ship navigation on non-internal waters. One of the most important innovations in the COLREGS was recognition of traffic separation schemes and new guidance for determining safe speed, the risk of collision, and the conduct of vessels operating in or near traffic separation schemes.

### ***International Convention on Load Lines***

In 1966, the IMO adopted the International Convention on Load Lines.<sup>63</sup> It had long been recognized that limitations on the draught to which a ship may be loaded made a significant contribution to its safety. These limits are established in the form of freeboards. The many provisions of the Convention also are designed to ensure the watertight integrity of ships' hulls below the freeboard deck. In 1988, the IMO adopted a protocol to the Convention to harmonize the Convention's vessel survey and certification requirements with those contained in SOLAS and MARPOL.<sup>64</sup> All three international conventions require the issuing of certificates to show that requirements have been met and this has to be done by means of a survey.

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<sup>57</sup> STCW, preamble at 2.

<sup>58</sup> The 1995 Amendments to the STCW Convention entered into force worldwide on Feb. 1, 1997.

<sup>59</sup> *Id.*, Art. I, Regulations 6-9.

<sup>60</sup> STCW Art. X (1),(2).

<sup>61</sup> STCW Code § A-I/4(4).

<sup>62</sup> 28 U.S.T. 3459, T.I.A.S. No. 8587 (done at London, Oct. 20, 1972). The COLREGS entered into force worldwide on July 15, 1977.

<sup>63</sup> 18 U.S.T. 1857; T.I.A.S. No. 6331, 640 U.N.T.S. (done at London, April 5, 1966). The Convention entered into force worldwide on July 21, 1968.

<sup>64</sup> Protocol of 1988 Relating to the International Convention on Load Lines, 1966 (done at London, November 11, 1988). The Protocol entered into force worldwide on February 3, 2000.

### ***International Convention for Safe Containers***

The International Convention for Safe Containers<sup>65</sup> was adopted in 1972. The Convention has two goals. One is to maintain a high level of safety of human life in the transport and handling of containers by providing generally acceptable test procedures and related strength requirements. The other is to facilitate the international transport of containers by providing uniform international safety regulations, equally applicable to all modes of surface transport. In this way, proliferation of divergent national safety regulations can be avoided.

The Convention includes two annexes. Annex I establishes standards for the testing, inspection, approval, and maintenance of containers and sets out procedures whereby containers used in international transport must be safety-approved by an Administration of a Contracting State or by an organization acting on its behalf. The principle of reciprocal acceptance of safety-approved containers is the cornerstone of the Convention. This means that, once approved and marked, it is expected that containers will move in international transport with the minimum of safety control formalities. Annex II covers structural safety requirements and tests, including details of test procedures.

### ***International Convention on Maritime Search and Rescue***

The International Convention on Maritime Search and Rescue (SAR Convention)<sup>66</sup> was adopted in 1979. It was aimed at developing an international search and rescue (SAR) plan, so that, no matter where an accident occurs, the rescue of persons in distress at sea will be coordinated by an established SAR organization and, when necessary, by cooperation between neighboring SAR organizations. Although the obligation of ships to assist vessels in distress was enshrined both in tradition and in international treaties, such as SOLAS, there was no international system covering search and rescue operations until the adoption of the SAR Convention. The technical requirements of the SAR Convention are contained in an Annex, which was significantly revised in 1998.

Parties to the SAR Convention are required to ensure that arrangements are made for the provision of adequate SAR services in their coastal waters. Parties are encouraged to enter into SAR agreements with neighboring states involving the establishment of SAR regions, the pooling of facilities, establishment of common procedures, training, and liaison visits. The Convention states that a party should take measures to expedite entry into its territorial waters of rescue units from other parties.

### ***Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation***

The Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (SUA Convention)<sup>67</sup> entered into force on March 1, 1992. The SUA Convention applies to offenses of direct involvement or complicity in the intentional and unlawful endangerment, whether threatened, attempted or actual, of the safe navigation of a ship by commission of certain prescribed acts.<sup>68</sup> The SUA Convention

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<sup>65</sup> 29 U.S.T. 3707; T.I.A.S. No. 9037, T.I.A.S. 10220, 10914 (done at Geneva, Dec. 2, 1972). It entered into force worldwide on Sept. 6, 1977, and for the United States on Jan. 3, 1979. Amendments to Annexes I and II of the Convention were done at London on May 17, 1991, and entered into force worldwide on Jan. 1, 1993.

<sup>66</sup> T.I.A.S. No. 11093 (done at Hamburg, April 27, 1979). It entered into force worldwide on June 22, 1985.

<sup>67</sup> U.N.T.S. No. 29004 (Done at Rome, March 10, 1988). It entered into force worldwide on March 1, 1992.

<sup>68</sup> These include seizure of or exercise of control over a ship by any form of intimidation; violence against a person on board a ship; destruction of a ship or the causing of damage to a ship or to its cargo; placement on a ship of a device or substance which is likely to destroy or cause damage to that ship or its cargo; destruction of, serious damaging of, or interference with maritime navigational facilities; knowing communication of false information; or injury to or murder of any person in connection with any of the preceding acts.

applies to ships navigating or scheduled to navigate into, through, or from waters beyond the outer limit of the territorial sea of a single state, or the lateral limits of its territorial sea with adjacent states. It also applies when the alleged offender is found in the territory of a state that is a party to the SUA Convention. Such states-parties have obligations to establish their jurisdiction over the offenses described, make the offenses punishable by appropriate penalties, take alleged offenders into custody, prosecute or extradite alleged offenders, cooperate in preventative measures, and exchange information and evidence needed in related criminal proceedings.

The United States is leading an international effort to update the SUA Convention to include new offenses in response to terrorist threats, including bio-terrorism and use of a ship or its cargo as a weapon. The effort also includes incorporation of a new legal regime to allow the boarding of vessels on the high seas that is modeled on the Coast Guard's drug and alien migrant interdiction programs.

While awaiting movement on a multilateral international instrument regarding boarding of foreign flag ships at sea for security purposes, such as the SUA Convention, the United States is engaged in an effort to use bilateral agreements to address threats involving transportation of weapons of mass destruction or related materials (WMD), including by ships. The effort is called the Proliferation Security Initiative (PSI).<sup>69</sup> PSI participants seek to impede and stop shipments of WMD through a series of measures including enhanced exchange of information and expedited procedures for the boarding and inspection of vessels flying their flag and suspected of carrying such cargoes. The ship boarding agreement is modeled after similar arrangements that exist between the United States and flag states that allow boarding of ships for purposes of drug interdiction.

## Marine Safety and Security: Federal Governing Statutes

### *Codification of Laws Related to Vessels and Seamen – Subtitle II of Title 46, U.S. Code*

Federal regulation of merchant vessel safety began in 1838 with the Steamboat Act. This Act required that steamboats be inspected every six months and carry a federal certificate of inspection. In 1852, the Boiler Inspection Act required that pilots and engineers on steamboats hold a federal license. In 1871, Congress repealed the previous acts and enacted a comprehensive navigation and inspection regime for U.S. flag merchant vessels. In 1885, these laws were extended to cover foreign vessels carrying passengers for hire from the United States.<sup>70</sup> The current versions of these navigation and inspection laws are in Title 46, U.S. Code.<sup>71</sup>

Title 46 requires the Coast Guard to promulgate regulations for the design, construction, alteration, repair, maintenance, operation, equipping, and manning of so-called *inspected vessels*.<sup>72</sup> It also provides authority for the licensing of merchant mariners,<sup>73</sup> investigation of marine casualties,<sup>74</sup> admeasurement of vessels,<sup>75</sup> registry

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<sup>69</sup> The White House, Office of the Press Secretary. *Fact Sheet: Proliferation Security Initiative: Statement of Interdiction Principles*. September 4, 2003.

<sup>70</sup> See *Allen Part II* at 593 (summarizing history of federal regulation of merchant vessel safety).

<sup>71</sup> Pub. L. 98-89 (Aug. 1983) codified the shipping laws that had developed over nearly two centuries in piecemeal fashion. Pub. L. 98-89 revised, reorganized, and consolidated nearly all Coast Guard enforced marine safety provisions into Title 46, United States Code and repealed outdated source laws, most notably Titles 52 and 53 of the Revised Statutes. This was accomplished without controversial change to the substance of the existing laws. Existing Coast Guard regulations were carried forward under the corresponding provisions of the "new" Title 46.

<sup>72</sup> See 46 U.S.C. § 3306 (regulation of inspected vessels), § 3703 (regulation of tank vessels) and § 8101 (manning of vessels). The list of "inspected vessels" is codified at 46 U.S.C. § 3301.

<sup>73</sup> *Id.* Chap. 71.

<sup>74</sup> *Id.* Chap. 63.

and documentation of vessels,<sup>76</sup> and other such authority necessary for the comprehensive administration and oversight of the U.S. flag merchant fleet and its personnel. In essence, Title 46 provides the authority for the Coast Guard to act as the administrator of the U.S. flag fleet. Title 46 also provides regulatory authority, to a more limited extent, for so-called *uninspected vessels*<sup>77</sup> and for recreational vessels.<sup>78</sup> Following the adoption of Annex IX of SOLAS and the ISM Code for ships, Title 46 was amended to direct the Coast Guard to implement regulations consistent with the ISM Code.<sup>79</sup>

U.S. and foreign flag vessels are subject to inspection for compliance with applicable provisions of Title 46. However, Congress has established the principle of reciprocity for foreign vessels from flag states that have standards similar to those of the United States and that have a valid certificate of inspection from those flag states. Under this reciprocity principle, the inspection of these foreign flag vessels will be limited to ensuring that the condition of the vessel is as stated in the certificate of inspection. Title 46 deems a flag state's inspection laws similar to those of the United States if the flag state is a party to SOLAS. However, reciprocity is extended only to those states that accord similar privileges to vessels flying the U.S. flag.<sup>80</sup>

Chapter 37 of Title 46 establishes standards for tank vessels carrying liquid bulk dangerous cargoes, including oil. The double hull phase-in requirements established by the Oil Pollution Act of 1990 are also included in this chapter.<sup>81</sup> Foreign tank vessels that operate in navigable waters of the United States must, in addition to meeting applicable international standards, obtain a certificate of compliance from the Coast Guard attesting to the vessel's compliance with Chapter 37.<sup>82</sup> However, there are two important accommodations for foreign tank vessels. First, the requirements do not apply to tank vessels in innocent passage in the navigable waters of the United States.<sup>83</sup> Second, in determining their compliance with Chapter 37, the Coast Guard may accept any certificate, endorsement, or document issued by a foreign flag state under any international treaty, agreement, or convention to which the United States is a party.<sup>84</sup> Congress has amended Subtitle II of Title 46, U.S. Code to establish that the term *navigable waters of the United States* as used in these laws includes the 12 mile territorial sea as proclaimed by President Reagan.<sup>85</sup>

### ***Ports and Waterways Safety Act of 1972 (as amended by the Port and Tanker Safety Act of 1978)***

Title I of the Ports and Waterways Safety Act of 1972 (PWSA)<sup>86</sup> focuses on port and waterfront safety, vessel navigation safety, operating requirements, and traffic control. Title II contains provisions on tank vessel design and construction. The Port and Tanker Safety Act of 1978 (PTSA)<sup>87</sup> amended the PWSA after a series

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<sup>75</sup> *Id.* Part J.

<sup>76</sup> *Id.* Part H.

<sup>77</sup> *Id.* Chap. 41.

<sup>78</sup> *Id.* Chap. 131.

<sup>79</sup> *Id.* Chap. 32.

<sup>80</sup> *Id.* § 3303.

<sup>81</sup> *Id.* § 3703a.

<sup>82</sup> *Id.* § 3711.

<sup>83</sup> *Id.* § 3702(e).

<sup>84</sup> *Id.* § 3711(a). This principle does not apply in the case of the double-hull requirements of Regulations 13F and 13G of MARPOL Annex I involving double hulls for tank vessels and their phase-in. These provisions conflict with U.S. domestic law under OPA and the U.S. has expressed its intent not to be bound by the international provisions.

<sup>85</sup> Coast Guard Authorization Act of 1998, Pub. L. 105-383, Title III, §3 01(b), Nov. 13, 1998, 112 Stat. 3417 (codified at 46 U.S.C. § 2101(7)(a)).

<sup>86</sup> Pub. L. 92-340, July 10, 1972, 86 Stat. 424 (codified at 33 U.S.C. §§ 1221-1232).

<sup>87</sup> Pub. L. 95-474, Oct. 17, 1978, 92 Stat. 1471.

of tank vessel accidents and pollution incidents in the latter half of the 1970s led to a call to impose more stringent vessel safety and pollution prevention measures.

The PWSA provides statutory authority to protect vessels, bridges, and waterfront structures on or immediately adjacent to the navigable waters of the United States from damage or destruction, and to protect the waters and natural marine resources from environmental harm that could result from accidents or incidents involving vessels and waterfront facilities.<sup>88</sup> In 1998, the provisions of the PWSA applicable to navigable waters of the United States were extended to include a territorial sea of 12 miles.<sup>89</sup> The PWSA authorizes the Coast Guard to promulgate minimum safety equipment standards for structures in or immediately adjacent to the navigable waters of the United States.<sup>90</sup> It also authorizes the Coast Guard to investigate “any incident, accident, or act involving the loss or destruction of, or damage to, any structure subject to [the PWSA], or which affects or may affect the safety or environmental quality of the ports, harbors, or navigable waters of the United States.”<sup>91</sup>

Under the PWSA, the Coast Guard may control vessel traffic and establish vessel navigation and operating conditions. It authorizes the establishment of vessel traffic services (VTS) for monitoring and active control of vessel traffic in U.S. ports and waterways. The Coast Guard may require vessels operating in a VTS area to comply with VTS orders and directions and to carry equipment, typically communications equipment, necessary to participate in the VTS program. In addition, the Coast Guard may control vessel traffic in U.S. ports and waterways whenever such control is warranted by hazardous conditions. Further, the Coast Guard is authorized to establish safety zones, regulated navigation areas, and limited access areas.<sup>92</sup> The Coast Guard may require vessels to provide pre-arrival messages prior to entry into a port or place subject to the jurisdiction of the United States.<sup>93</sup> The PWSA also authorizes the establishment of fairways and traffic separation schemes for vessels operating in the territorial sea and in high seas approaches to ports and places subject to the jurisdiction of the United States.<sup>94</sup> Additionally, the Coast Guard may issue orders to any vessel in the navigable waters of the United States or other port or place subject to U.S. jurisdiction to operate or anchor. Such orders may be issued if there is reasonable cause to believe that the vessel does not comply with any regulation issued under the PWSA or other applicable law or treaty, or if direction is justified in the interest of safety due to weather, sea conditions, or other hazardous circumstances.<sup>95</sup>

Under the authority of the PWSA, the Coast Guard has issued navigation safety regulations and vessel operating and equipment requirements.<sup>96</sup> The regulations apply to all non-public vessels over 1,600 gross tons while operating on the navigable waters of the United States, but do not apply to vessels in innocent passage in the territorial sea of the United States. The regulations require that vessels carry specified equipment,

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<sup>88</sup> The Maritime Transportation Security Act recently amended the PWSA to include “safety and security of United States ports and waterways” among the factors to be considered by the Coast Guard in carrying out the duties and responsibilities of the PWSA. Pub. L. 107-295, § 443, Nov. 25, 2002, 116 Stat. 2085. *Navigable waters* for purposes of the PWSA include the 12 mile territorial sea as proclaimed by President Reagan. 33 U.S.C. § 1222(5).

<sup>89</sup> Coast Guard Authorization Act of 1998, Pub. L. 105-383, Title III, § 301(a), Nov. 13, 1998, 112 Stat. 3417.

<sup>90</sup> *Id.* § 1225(a). However, in this regard, the Act preserves the right of state governments to establish more stringent safety equipment requirements or safety standards than those promulgated by the Coast Guard, but this is limited to structures only. *Id.* § 1225(b).

<sup>91</sup> *Id.* § 1227(a).

<sup>92</sup> Vessel entry into these zones can be prohibited, confined to vessels with particular characteristics or capabilities, or based on compliance with certain operating conditions.

<sup>93</sup> 33 U.S.C. § 1223(a).

<sup>94</sup> *Id.* § 1223(c).

<sup>95</sup> *Id.* § 1223(b). Conditions for entry of vessels are established at *id.* § 1228.

<sup>96</sup> *Id.* § 1223(a)(3).

charts, and publications to ensure safe navigation and that navigational equipment such as radar and steering gear be tested prior to entry into port or getting underway. They also establish operational requirements for vessels underway or at anchor.<sup>97</sup>

The PWSA also requires the Coast Guard to promulgate regulations for the construction, design, equipment, manning, and operation of both U.S. and foreign tank vessels. However, the Act states that the regulations are not to be applied to foreign vessels that have on board valid inspection certificates issued under laws or treaties of the United States, and provides for reciprocal recognition of certificates issued under treaties to which the United States is a party. In this regard, the Act directs that any proposed rules be transmitted to the IMO and other appropriate international forums for consideration as international standards.<sup>98</sup>

The PTSA amended the PWSA in several important ways. It prohibits tank vessels from operating in U.S. navigable waters if they have a history of accidents or pollution incidents, fail to comply with applicable laws or regulations, discharge oil or hazardous substances in violation of law or treaty, fail to comply with VTS requirements, or fail to comply with the Act's manning requirements.<sup>99</sup> The Coast Guard was directed to create a marine safety information system to record vessel safety and pollution histories to aid in this effort.<sup>100</sup> The PTSA also authorized the establishment of compatible vessel standards and vessel traffic services with adjacent nations and the waiver of U.S. design, construction, equipment, operation, personnel qualification, and manning for vessels transiting United States waters en route to ports in those countries.<sup>101</sup> Finally, the PTSA specifies minimum standards for certain crude oil and product tankers,<sup>102</sup> and provides authority to exceed the minimum standards as well as international standards.<sup>103</sup>

### ***Commercial Fishing Industry Vessel Safety Act***

In 1988, Congress enacted the Commercial Fishing Industry Vessel Safety Act<sup>104</sup> in response to a series of tragic fishing vessel accidents off the Alaskan coast to address and correct the unacceptable safety record of the commercial fishing industry. Coast Guard regulations implementing the Act require vessels to carry safety equipment, including lifesaving equipment, survival craft, communications equipment, distress signals, Emergency Position Indicating Radio Beacons (EPIRBs), fire extinguishers, emergency alarms, and bilge pumps. The regulations also established watertight integrity and stability requirements. Finally, the Act established a Commercial Fishing Industry Vessel Advisory Committee to provide the Coast Guard with recommendations on safety and other equipment items.

### ***The Espionage Act of 1917, as amended by the Magnuson Act of 1950***

The Espionage Act of 1917,<sup>105</sup> as amended by the Magnuson Act of 1950,<sup>106</sup> authorizes the President to institute measures and promulgate rules and regulations necessary to govern the movement and anchorage of

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<sup>97</sup> 33 C.F.R. Part 164.

<sup>98</sup> See *Allen Part II* at 596-97.

<sup>99</sup> 33 U.S.C. § 1228.

<sup>100</sup> 46 U.S.C. § 3717.

<sup>101</sup> 33 U.S.C. § 1230.

<sup>102</sup> 46 U.S.C. §§ 3705-08.

<sup>103</sup> *Id.* § 3703.

<sup>104</sup> Pub. L. 100-424, Sept. 9, 1988, 102 Stat. 1588.

<sup>105</sup> Act of June 15, 1917, Chap. 30, Title II, 40 Stat. 220.

<sup>106</sup> Act of Aug. 9, 1950, Chap. 656, 64 Stat. 427.

foreign flag vessels in the territorial waters of the United States and to inspect such vessels at any time.<sup>107</sup> In addition, it authorized measures and regulations to safeguard against the destruction, loss, or injury of vessels, harbors, ports, and waterfront facilities subject to the jurisdiction of the United States due to sabotage or subversive acts, accidents, or other similar causes. These measures and regulations are authorized whenever the President finds that war, invasion, potential subversive acts or disturbances of international relations endangers the security of the United States.<sup>108</sup> In 1950, President Truman found that the security of the United States was endangered and directed that the provisions of the Espionage Act and the Magnuson Act be implemented. He also prescribed certain port security regulations to be enforced by the Coast Guard.<sup>109</sup> The finding of endangerment to the security of the United States has remained in effect continuously since its issuance and has taken on new relevance in light of the focus on port and vessel security after September 11, 2001.<sup>110</sup>

### ***Maritime Transportation Security Act of 2002***

The Maritime Transportation Security Act<sup>111</sup> was enacted in late 2002 in response to terrorism and other threats to vessels, waterfront facilities, and ports. Congress noted that U.S. ports are a major locus of crimes, including drug trafficking, cargo theft, and smuggling of contraband and aliens. They are also open and susceptible to large-scale acts of terrorism. Further, inspection of containerized cargo was insufficient to counter potential security risks, and technology available was not adequately deployed to allow for non-intrusive inspection of containerized cargo. Finally, the cruise ship industry poses a special risk from a security perspective. Because U.S. ports are international boundaries that are particularly vulnerable to breaches in security, they present weaknesses in the nation's ability to realize its national security objectives, and may serve as a vector or target for terrorist attacks aimed at the United States.<sup>112</sup>

The Act contains several major provisions that impact current maritime and customs laws primarily enforced by the Coast Guard and the Bureau of Customs and Border Protection. The Act requires the Coast Guard to develop standards and procedures for conducting port security evaluations and vulnerability assessments. It establishes local port security committees to coordinate efforts of federal, state, local and private law enforcement and port agencies, and area maritime security committees to oversee regional security concerns. Additionally, the Act requires screening and background checks for persons in security-sensitive areas on waterfront facilities and in ports. Other provisions require assessments of effectiveness of security at foreign ports, which could result in denial of entry to U.S. ports of vessels from foreign ports with ineffective security. Finally, it requires designated vessels built after December 31, 2002, to be equipped with a position indicating transponder and appropriate situation display to access information from the transponder system.

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<sup>107</sup> The Maritime Transportation Security Act amended the definition of territorial waters for purposes of these provisions to include "all waters of the territorial sea of the United States as described in Presidential Proclamation 5928 of December 27, 1988." This had the effect of extending the territorial sea for purposes of the jurisdiction of this Act to 12 miles. Title I, §104(a), Pub. L. 107-295, Nov. 25, 2002, 116 Stat. 2085.

<sup>108</sup> These provisions are codified at 50 U.S.C. § 191.

<sup>109</sup> Exec. Ord. No. 10173, 15 Fed. Reg. 7005 (Oct. 18, 1950). For the most part, until the enactment of the Ports and Waterways Safety Act, these regulations formed the basis of the Coast Guard's waterfront facility safety program. These regulations authorize the Coast Guard to prevent access of persons, articles or things to vessels and waterfront facilities; to establish security zones that prevent access to vessels or facilities without permission of the Coast Guard; to inspect and search any vessel, waterfront facility or persons or articles thereon; to take possession and control of vessels; to issue identification credentials or documents and limit access to vessels and facilities to persons that hold such credentials or documents; and to exercise control over the transportation, handling, loading, storage, stowage or discharge of hazardous materials on vessels and approve facilities for the handling and storage of such materials. 33 C.F.R. Part 6.

<sup>110</sup> Notice of President, 67 Fed. Reg. 9387 (Feb. 26, 2002) (notice issued by President George W. Bush continuing emergency authority).

<sup>111</sup> Pub. L. 107-295, Nov. 25, 2002, 116 Stat. 2085.

<sup>112</sup> *Id.* § 101.

These vessels, including those built prior to December 31, 2002, must have such systems in place by December 31, 2004.<sup>113</sup>

Other provisions of the Act mandate that ships submit advanced electronic information for passengers and cargo, and prohibit the unloading of improperly documented cargo.<sup>114</sup> The Act codifies the Coast Guard's "Sea Marshal" program to allow their dispatch to facilities and vessels to deter or respond to acts of terrorism.<sup>115</sup>

The Coast Guard has issued regulations that implement provisions of the MTSA and align domestic standards with the new international security requirements contained in the SOLAS amendments and the ISPS Code. The regulations address maritime transportation security at the national and individual port levels, and apply to ports, port facilities, vessels, and outer continental shelf facilities. The regulations contain specific requirements for security assessments, security plans, designation of security personnel, measures to address access control, security monitoring, and physical, passenger, personal baggage, and cargo security, and installation of Automatic Identification Systems on designated vessels.<sup>116</sup>

### ***Hazardous Materials Transportation Act, as amended***

The Hazardous Materials Transportation Act (HMTA), as amended<sup>117</sup> authorizes the Department of Transportation to regulate the transportation of hazardous materials by rail, aircraft, vessel, and public highway. Hazardous materials are defined as those materials that, when shipped in a particular amount or form, have been determined to pose unreasonable risks to health, safety, and property during transport activities.<sup>118</sup> The statute and its regulations address issues such as shipping papers to identify and track hazardous materials, packaging and container design, marking, labeling, and performance standards, and employee and public training programs. The regulations also contain specific requirements relating to the type of shipment being used (i.e., rail, aircraft, vessel, and public highway).<sup>119</sup> The Coast Guard may inspect containers and facilities used in the transportation of hazardous materials on water. Annex III of MARPOL (packaged marine pollutants) is implemented through regulations promulgated under the HMTA.<sup>120</sup> In addition, some states have memoranda of understanding with cruise ships regarding handling of hazardous wastes generated on such vessels.

### ***International Safe Container Act***

The International Safe Container Act<sup>121</sup> implements the International Convention for Safe Containers. This law authorizes the Secretary of Transportation to establish procedures for the testing, inspection, and initial approval of existing and new containers and of designs for new containers. It also authorizes the Secretary to establish procedures to be followed by owners of containers relating to their periodic examination, as provided in the convention, and to provide a method for developing, collecting, and disseminating data concerning container safety and the international transport of containers. The Coast Guard has been

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<sup>113</sup> *Id.* § 102 (establishing new Subtitle VI, Chap. 701 of Title 46, U.S. Code).

<sup>114</sup> *Id.* § 108.

<sup>115</sup> *Id.* § 107.

<sup>116</sup> 33 CFR, Subchapter H.

<sup>117</sup> Pub. L. 93-633, Jan. 3, 1975, Sec. 102, 88 Stat. 2156, as amended (codified at 49 U.S.C. §§ 5101-5127).

<sup>118</sup> *Id.* § 5103(a).

<sup>119</sup> Implementing regulations are at 49 C.F.R. Parts 100-185.

<sup>120</sup> 49 C.F.R. § 171.4(b).

<sup>121</sup> Pub. L. 95-208, Dec. 13, 1977, 91 Stat. 1475 (codified at 46 U.S.C. §§ 1501-07).

delegated authority under the Act to detain containers that do not meet the requirements of the convention and the Act.

### ***International Navigational Rules Act of 1977***

The International Navigational Rules Act of 1977<sup>122</sup> authorized the President to implement the International Convention for Preventing Collisions at Sea (COLREGS) by proclamation,<sup>123</sup> and to proclaim any future amendments to the COLREGS adopted in accordance with the Convention to which the United States does not object. It also states that the COLREGS shall apply to all vessels, public and private, subject to the jurisdiction of the United States, while upon the high seas or in connected waters that are navigable by seagoing vessels. The COLREGS apply to all other vessels when on waters subject to the jurisdiction of the United States. Further, it states that the COLREGS do not apply to vessels while in the waters of the United States shoreward of the navigational demarcation lines dividing the high seas from harbors, rivers, and other inland waters of the United States. Finally, it provides authority to the Coast Guard to promulgate necessary rules and regulations to implement the COLREGS.

### ***Inland Navigational Rules Act of 1980***

The Inland Navigational Rules Act of 1980,<sup>124</sup> formerly referred to as the “Rules of the Road,” establishes navigational rules that apply shoreward of the demarcation lines dividing the high seas from harbors, rivers, and other inland waters. The Act combined navigational rules that used to exist separately for inland waters, western rivers, and Great Lakes. The Coast Guard enforces these rules.

### ***International Maritime and Port Security Act***

The International Maritime and Port Security Act<sup>125</sup> amended the PWSA to authorize the promulgation of measures to prevent or respond to an act of terrorism against an individual, vessel, or public or commercial structure that is subject to the jurisdiction of the United States and located within or adjacent to the marine environment, or a vessel of the United States or an individual on board that vessel. The Act authorizes the Coast Guard to carry out or require measures, including inspections, port, and harbor patrols, and the development of contingency plans and procedures, to prevent or respond to acts of terrorism. It also authorizes the Coast Guard to recruit and train active duty and Reserve Coast Guard members in techniques to prevent and respond to acts of terrorism. Further, the Act requires the Secretary of the department in which the Coast Guard is operating to develop and implement a plan to assess the effectiveness of security measures at foreign ports that pose a high risk of terrorism directed at passenger vessels.

## **Marine Environmental Protection: International Treaties to which the United States is Signatory**

### ***International Convention for the Prevention of Pollution from Ships***

The International Convention for the Prevention of Pollution from Ships (MARPOL), as amended by the Protocol of 1978, was adopted by the IMO in 1973 to address the intentional pollution from vessels of oil

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<sup>122</sup> Pub. L. 95-75, July 27, 1977, 91 Stat. 311 (codified at 33 U.S.C. §§ 1601-08).

<sup>123</sup> The Convention was proclaimed by the President of the United States on January 19, 1977, and entered into force for the United States on July 15, 1977. Exec. Ord. No. 11964, Jan. 19, 1977, 42 Fed. Reg. 4327.

<sup>124</sup> Pub. L. 96-591, Sec. 2, Dec. 24, 1980, 94 Stat. 3415 (codified at 33 U.S.C. §§ 2001-2071).

<sup>125</sup> Pub. L. 99-399, Title IX (codified at 33 U.S.C. § 1226).

and other harmful substances and to minimize the accidental discharges of such substances.<sup>126</sup> While MARPOL initially focused on oil pollution, it has been expanded to include other ship-generated pollutants as well. These pollutants are addressed in six annexes to the Convention. Annex I addresses oil<sup>127</sup> and Annex II addresses noxious liquid substances carried in bulk.<sup>128</sup> The provisions of these two annexes are mandatory for all signatories. The other four annexes are optional. Annex III addresses harmful substances carried in packaged form, such as in containers and portable tanks.<sup>129</sup> Annex IV addresses vessel sewage.<sup>130</sup> The United States is not a signatory to Annex IV. Annex V addresses garbage and other ship-generated wastes, including plastics.<sup>131</sup> Finally, Annex VI addresses air pollutants. Annex VI is scheduled to enter into force on May 19, 2005,<sup>132</sup> has been signed by the United States, and has been transmitted to the U.S. Senate for advice and consent to ratification.<sup>133</sup>

MARPOL Annex I establishes vessel design, construction, equipment, and operating standards for the purpose of reducing pollution from discharges of oil. The standards include requirements for vessel subdivision and damage stability, segregated ballast tanks, double bottom tanks, crude oil and water tank washing equipment, inert gas systems, oily water separators, oil discharge and cargo discharge monitoring equipment, operational discharge procedures, and recordkeeping.<sup>134</sup> Under MARPOL Annex I, all tank vessels over 150 gross tons and all cargo vessels over 400 gross tons must implement a Shipboard Oil Pollution Emergency Plan (SOPEP) for responding to oil spill and other oil discharge emergencies.<sup>135</sup> MARPOL Annex II contains similar provisions for vessels that carry noxious liquid substances.

MARPOL Annex V applies to the operational discharge of ship-generated garbage. The definition of garbage under MARPOL Annex V is very broad, and encompasses essentially the discharge of any vessel-generated wastes that are not specifically covered by other MARPOL Annexes. Garbage includes not only the traditional galley and habitation space waste, but also maintenance wastes, such as rags and deck sweepings, and operational wastes, such as cargo residues or cargo-loading materials.<sup>136</sup> The discharge of plastics of any kind is prohibited. All other discharges must be carried out and recorded in compliance with specific operational requirements, primarily based on distance from the nearest land.<sup>137</sup>

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<sup>126</sup> International Convention for the Prevention of Pollution from Ships, 12 I.L.M. 1319 (done at London, Nov. 2, 1973); Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships, 1973, 17 I.L.M. 546 (done at London, Feb. 16, 1978) (MARPOL). The 1973 Convention was never ratified by the United States or by a sufficient number of other states to allow it to come into force. It was, however, modified and incorporated into the 1978 Protocol.

<sup>127</sup> Annex I of MARPOL entered into force worldwide on Oct. 2, 1983, when the 1978 Protocol entered into force.

<sup>128</sup> Annex II of MARPOL entered into force worldwide on April 6, 1987.

<sup>129</sup> Annex III of MARPOL entered into force worldwide on July 1, 1992.

<sup>130</sup> Annex IV entered into force worldwide on 27 September 2003.

<sup>131</sup> Annex V entered into force worldwide on December 31, 1988. The U.S. Senate gave its advice and consent to ratification of Annex V on Nov. 5, 1987 and the provisions of Annex V were implemented by Title II, Pub. L. 100-220, the "Marine Plastic Pollution Research and Control Act of 1987."

<sup>132</sup> IMO Summary of Status of Conventions *available at* [www.imo.org/Conventions/mainframe.asp?topic\\_id247](http://www.imo.org/Conventions/mainframe.asp?topic_id247) (accessed November 12, 2004).

<sup>133</sup> Message to the Senate of the United States from President George W. Bush dated May 15, 2003, *available at* <http://www.whitehouse.gov/news/releases/2003/05/20030515-12.html> (accessed November 12, 2004).

<sup>134</sup> Implementing regulations for MARPOL Annex I are primarily at 33 C.F.R. §§151.09-.29 and 33 C.F.R. Part 157, Subparts B and C.

<sup>135</sup> *Id.* Regulation 26.

<sup>136</sup> MARPOL Annex V, Regulation 1(1). See also Coast Guard implementing regulations at 33 C.F.R. §151.05.

<sup>137</sup> MARPOL Annex V, Regulations 3(1), 9.

MARPOL Annex VI addresses emissions of certain air pollutants from ships. These include emissions of ozone-depleting substances, nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>x</sub>), and volatile organic compounds (VOC) from tankers. Annex VI also addresses shipboard incineration operations. Annex VI provides for certification and compliance inspections for the emission control provisions.<sup>138</sup>

The NO<sub>x</sub> requirements apply to any marine diesel engine above 130 kilowatts installed on a vessel constructed on or after January 1, 2000, or a vessel that undergoes a major conversion on or after that date.<sup>139</sup> The requirements are intended to reduce NO<sub>x</sub> emissions from these engines by 30 percent from uncontrolled levels. Certification provisions for the reduced limits are contained in the NO<sub>x</sub> Technical Code.

The SO<sub>x</sub> requirements apply to fuel (bunkers) used by engines on vessels. Once the Annex goes into force internationally, any fuel used on ships cannot exceed 45,000 parts per million (ppm) of sulfur. The Annex also provides for the creation of SO<sub>x</sub> Emission Control Areas where ships are required to use fuel that does not exceed 15,000 ppm of sulfur. The lower sulfur fuel requirements are intended to reduce acid rain and particulate emissions in these areas.<sup>140</sup>

### ***International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties***

The International Convention Relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties<sup>141</sup> was adopted in 1969. It affirms the right of a coastal state to take such measures on the high seas necessary to prevent, mitigate, or eliminate danger to its coastline or related interests from pollution by oil following a marine casualty. The coastal state is authorized to take such action only after due consultations with appropriate interests including the flag state or states of the ship or ships involved, the owners of the ships or cargoes in question and, where circumstances permit, independent experts appointed for this purpose. A coastal state that takes measures beyond those permitted is liable to pay compensation for any damage caused by such measures. Provision is made for the settlement of disputes arising in connection with the application of the Convention. The Convention applies to all seagoing vessels except warships or other vessels owned or operated by a state and used in government noncommercial service. In view of the increasing quantity of other substances, mainly chemicals, carried by ships, the need to extend the Convention to cover substances other than oil was recognized. Therefore, the Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances other than Oil<sup>142</sup> was promulgated in 1973. This extended the regime of the 1969 Intervention Convention to substances that are either listed in the Annex to the Protocol or which have characteristics substantially similar to those substances.

### ***Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972***

The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (the London Convention)<sup>143</sup> prohibits the dumping<sup>144</sup> of certain hazardous materials, requires a special permit for

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<sup>138</sup> MARPOL Annex VI, Regulations 6-9.

<sup>139</sup> *Id.* Regulation 13.

<sup>140</sup> *Id.* Regulation 14.

<sup>141</sup> 26 U.S.T. 765; T.I.A.S. No. 8068 (done at Brussels, Nov. 29, 1969). The Convention entered into force worldwide on May 6, 1975.

<sup>142</sup> 34 U.S.T. 3407; T.I.A.S. No. 10561 (done at London, Nov. 2, 1973). The Protocol entered into force worldwide on Mar. 30, 1983.

<sup>143</sup> 26 U.S.T. 2403, T.I.A.S. No. 8165 (done at London, Dec. 29, 1972). The Convention entered into force worldwide on Aug. 30, 1975.

<sup>144</sup> *Dumping* is defined as the deliberate disposal at sea of wastes or other matter from vessels, aircraft, platforms or other man-made structures, as well as the deliberate disposal of these vessels or platforms themselves. *Id.* Art. III(1)(a).

the dumping of a number of other identified materials, and a general permit for dumping other wastes or matter.<sup>145</sup> Dumping specifically does not include the disposal at sea of wastes and other matter incidental to, or derived from, the normal operation of vessels, aircraft, platforms, or other manmade structures at sea and their equipment, unless the waste or other matter is transported for the purpose of disposal or derived from treatment of such wastes.<sup>146</sup> Wastes from the exploration, exploitation, and associated offshore processing of seabed mineral resources are not covered by the Convention.<sup>147</sup> The permitting provisions of the Convention do not apply when dumping is necessary to secure the safety of human life or of vessels, aircraft, platforms, or other manmade structures at sea in cases of *force majeure* caused by stress of weather, or in any case that constitutes a danger to human life or a real threat to vessels, aircraft, platforms, or other structures at sea if dumping is the only way to avert the threat and it is likely that the damage from dumping would be less than the damage that would otherwise occur.<sup>148</sup>

Among other requirements, parties to the Convention must designate an authority to issue permits, keep records, and monitor sea conditions.<sup>149</sup> Other articles promote regional cooperation, particularly in the fields of monitoring and scientific research.<sup>150</sup> Annexes list wastes that cannot be dumped and wastes for which a special (i.e., individual) dumping permit is required. Provisions to be considered in establishing criteria for the issuance of ocean dumping permits are included in a third Annex, which addresses the nature of the waste material, the characteristics of the dumping site, and the method of disposal.

In 1992, the parties to the London Convention began a comprehensive review of the Convention. This resulted in the 1996 Protocol, a new treaty that was meant to replace the London Convention.<sup>151</sup> The United States was at the forefront of those countries negotiating the new Protocol. One of the major differences between the two treaties is that the London Convention allows ocean dumping except for a “blacklist” of prohibited materials (which nevertheless may be dumped as “trace contaminants”), whereas the Protocol establishes a limited “reverse list” of materials that may be dumped. The Protocol was signed by the United States in 1998, but has not yet been ratified nor entered into force worldwide. However, current U.S. practice is consistent with the Protocol.<sup>152</sup>

### ***Montreal Protocol on Substances that Deplete the Ozone Layer***

In September 1987, the United States and twenty-two other countries signed the Montreal Protocol on Substances that Deplete the Ozone Layer.<sup>153</sup> The 1987 Protocol froze the production and consumption of chlorofluorocarbon (CFC) at 1986 levels beginning in 1989. It also included a phased reduction of the CFCs to 50 percent of 1986 levels by 1998. These requirements were superseded in 1990<sup>154</sup> and 1992<sup>155</sup> by

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<sup>145</sup> *Id.* Art. IV.

<sup>146</sup> *Id.* Art. III(1)(b)(i).

<sup>147</sup> *Id.* Art. III(1)(c).

<sup>148</sup> *Id.* Art. V.

<sup>149</sup> *Id.* Art. VI.

<sup>150</sup> *Id.* Art. IX.

<sup>151</sup> 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972 (done at London, Nov. 7, 1996).

<sup>152</sup> The Protocol will enter into force after 26 countries ratify it. Fifteen of the 26 must be party to the London Convention. Currently, 20 countries have ratified the Protocol, 18 of which are party to the London Convention. The Parties to the London Convention estimate that the Protocol will enter into force within the next year or two.

<sup>153</sup> 26 ILM 1550 (done in Montreal, Sept. 16, 1987) and entered into force worldwide on Jan. 1, 1989. It was ratified by the United States on April 21, 1988.

<sup>154</sup> UNEP/Oz.L.Pro2/3 (Annex II)(done in Montreal, June 29, 1990) and entered into force worldwide on Aug. 10, 1992.

<sup>155</sup> 32 ILM 874 (done in London, Nov. 23, 1992) and entered into force worldwide on June 14, 1994.

amendments to the Protocol. Under these amendments and provisions of the Clean Air Act, which provide the current framework for regulation of ozone-depleting substances in the United States, production and import of CFCs and halons in the United States have been phased out, with very limited exceptions.

### ***International Convention on Oil Pollution Preparedness, Response and Cooperation***

In 1990, the IMO adopted the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC Convention)<sup>156</sup> to provide a global framework for international cooperation in combating major incidents or threats of marine pollution. Parties to the OPRC Convention are required to establish measures for dealing with pollution incidents, either nationally or in cooperation with other countries.

Under the OPRC, ships are required to carry a shipboard oil pollution emergency plan. Operators of offshore units under the jurisdiction of parties are also required to have oil pollution emergency plans or similar arrangements which must be coordinated with national systems for responding promptly and effectively to oil pollution incidents. Further, ships are required to report incidents of pollution to appropriate coastal state authorities. The OPRC details the actions that are then to be taken by the coastal states. The Convention calls for the establishment of stockpiles of oil spill combating equipment, the holding of oil spill combating exercises, and the development of detailed plans for dealing with pollution incidents. Lastly, parties to the Convention are required to provide assistance to others in the event of a pollution emergency and provision is made for the reimbursement of any assistance provided.

### ***International Convention on the Control of Harmful Anti-Fouling Systems on Ships***

The International Convention on the Control of Harmful Anti-Fouling Systems on Ships<sup>157</sup> was adopted by the IMO in 2001. Antifouling paints are used to coat the bottoms of ships to prevent sea life such as algae and mollusks from attaching themselves to the hull, a condition that slows down the ship and increases fuel consumption. In the early days of sailing ships, lime and later arsenic were used to coat ships' hulls, until the modern chemical industry developed effective antifouling paints using metallic compounds. These compounds slowly "leach" into the seawater, killing barnacles and other marine life that have attached to the ship. But studies have shown that these compounds persist in the water, killing sea life, harming the environment, and possibly entering the food chain. One of the most effective anti-fouling paints, developed in the 1960s, contains the organotin tributyltin (TBT), which has been proven to cause deformations in oysters and sex changes in whelks.

The Convention prohibits the use of harmful organotins in antifouling paints used on ships and establishes a mechanism to prevent the potential future use of other harmful substances in antifouling systems. Parties to the convention are required to prohibit or restrict the use of harmful antifouling systems on ships flying their flag, ships not entitled to fly their flag but which operate under their authority, and all ships that enter their ports, shipyards, or offshore terminals. Designated vessels must be surveyed, and appropriate certificates issued or declarations provided, to ensure compliance. Antifouling systems to be prohibited or controlled are to be listed in an annex (Annex 1) to the Convention, which will be updated when necessary. The Convention has not been ratified by the United States and has not entered into force.

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<sup>156</sup> 30 ILM 735 (done in London, Nov. 30, 1990) and entered into force worldwide on May 13, 1995. See also U.S. Sen. Treaty Doc. 102-11.

<sup>157</sup> IMO Doc. AFS/Conf/26 (done at London, Oct. 18, 2001).

## Marine Environmental Protection: Federal Governing Statutes

Many marine environmental protection statutes contain provisions that affect vessels or vessel operations, but which have broader applications than to vessels alone. These statutory regimes are addressed elsewhere in this Appendix (see Chapter 4, *Ocean and Coastal Pollution from Land-based Sources*, for a more detailed discussion of many of these statutes). The discussion of federal law in this chapter is restricted to those statutes, or portions thereof, having specific application to vessels.

### *Clean Water Act*

The Clean Water Act (CWA) prohibits the discharge of a pollutant from a point source into the navigable waters of the United States without a permit.<sup>158</sup> A *point source* is specifically defined by the Act to include a vessel or other floating craft from which pollutants are or may be discharged.<sup>159</sup>

U.S. Environmental Protection Agency (EPA) regulations implementing the pollutant discharge provisions exclude “any discharge [of a pollutant] incidental to the normal operation of a vessel.” However, the regulations do not define what constitutes a discharge incidental to the normal operation of a vessel, except to indicate that it does not include rubbish, trash, garbage, or other such materials discharged overboard.<sup>160</sup>

Section 311 of the CWA,<sup>161</sup> which was extensively amended by the Oil Pollution Act of 1990, prohibits the discharge of oil or hazardous substances from vessels or facilities into or upon the navigable waters of the United States, adjoining shorelines, or into or upon the waters of the contiguous zone, in such quantities as may be harmful.<sup>162</sup> The *contiguous zone* is defined for purposes of the CWA as extending 12 miles from the baseline.<sup>163</sup> The prohibition also applies to such discharges in connection with activities that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States.<sup>164</sup> Discharges into the contiguous zone or the EEZ that comply with operational discharge requirements of MARPOL are excluded from the general prohibition.<sup>165</sup> Section 311 also establishes the National Contingency Plan (NCP) for response to spills and discharges of oil and hazardous substances. The Coast Guard and EPA investigate and respond to discharges of oil and hazardous substances into coastal or ocean waters in accordance with the NCP. The Coast Guard, with the cooperation of EPA, generally administers the NCP when oil or a hazardous substance is discharged into coastal or ocean waters. EPA is the lead response agency for inland spills of oil and hazardous substances, and has jurisdiction over some marine facilities. The Coast Guard and EPA both regulate complexes, such as oil refineries and chemical plants,

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<sup>158</sup> Pub. L. 92-240, Mar. 1, 1972, 86 Stat. 47 (codified at 33 U.S.C. §§ 1251-1387). The prohibition against discharge of a pollutant without a permit is at 33 U.S.C. §1311. The geographical jurisdiction of the Act as relates to the discharge of pollutants is the navigable waters of the United States. As stated above, the *navigable waters of the United States* include the territorial sea. *Id.* § 1362(7). For purposes of the CWA, the territorial sea is defined as including the waters seaward of the ordinary low water line along the coast for a distance of 3 miles. *Id.* § 1362(8).

<sup>159</sup> *Id.* § 1362(14). The term *discharge of pollutant* does not include the addition of pollutants into the contiguous zone or the ocean from a vessel or other floating craft. However, EPA has interpreted the term *vessel or floating craft* to exclude vessels operating in a capacity other than as a means of transportation, such as when used as an energy or mining facility, as a storage facility or seafood processing facility, or when secured to a storage or seafood processing facility, or to the bed of the ocean, contiguous zone or waters of the United States for purposes of mineral or oil exploration or development.

<sup>160</sup> 40 C.F.R. § 122.3(a).

<sup>161</sup> *Id.* § 1321.

<sup>162</sup> *Id.* § 1321(b)(3).

<sup>163</sup> *Id.* § 1362(9).

<sup>164</sup> *Id.* § 1321(b)(3).

<sup>165</sup> *Id.* § 1321(b)(3)(A).

which have a combination of transportation and non-transportation-related components.<sup>166</sup> Regional and area contingency plans implement the NCP.<sup>167</sup> The Coast Guard and EPA head the Area Committees that develop the area contingency plans within their respective areas of responsibility.<sup>168</sup>

Section 312 of the CWA<sup>169</sup> requires vessels with installed toilet facilities and operating on the navigable waters of the United States to contain certified marine sanitation devices (MSDs). The Coast Guard certifies that the MSDs meet EPA standards for installation on vessels. Under Section 312, U.S. states are allowed to establish no-discharge zones (NDZs) where discharges of sewage from vessels are prohibited. States have often designated NDZs to address water quality issues, such as nutrient loading, which are impacted by discharges of sewage. EPA is responsible for assessing the adequacy of NDZ-related pump out facilities in conjunction with the states. The states and the Coast Guard enforce the discharge prohibitions in the NDZs and the MSD requirements.

***Act to Prevent Pollution from Ships (as amended by the Marine Plastic Pollution Research and Control Act)***

The Act to Prevent Pollution from Ships (APPS)<sup>170</sup> codifies as domestic law Protocols I and II and Annexes I and II of MARPOL. APPS applies to all U.S. flag ships anywhere in the world, and to all foreign flag vessels operating in the navigable waters of the United States or at a port or terminal under the jurisdiction of the United States.<sup>171</sup> The oil and noxious liquid substances (NLS) provisions apply only to seagoing ships.<sup>172</sup> The Coast Guard promulgated regulations to implement APPS<sup>173</sup> that limit discharges of oil and NLS by imposing operational requirements on vessels, establishing reporting requirements for noncompliant discharges, and establishing specific requirements for monitoring equipment and recordkeeping applicable to discharges from vessels. Of particular note, MARPOL and the regulations require that vessels maintain oil record books in which discharges, disposal, and transfer of oil and oily mixtures from vessels are to be documented,<sup>174</sup> and has similar requirements for ships that carry NLS as cargo. APPS provides that a ship to which the provisions of Annexes I or II of MARPOL apply may be inspected while at a port or terminal subject to the jurisdiction of the United States (1) to verify whether a harmful substance has been discharged in violation of MARPOL or APPS, or (2) to comply with a request from another party to MARPOL for an investigation to determine whether the ship may have discharged a harmful substance anywhere in violation of MARPOL.<sup>175</sup>

The Marine Plastic Pollution Research and Control Act<sup>176</sup> amended APPS in 1987 and implemented the provisions of Annex V of MARPOL, which regulates discharges of garbage from vessels. APPS provides that

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<sup>166</sup> Memorandum of Understanding Among the Secretary of the Interior, the Secretary of Transportation, and Administrator of the Environmental Protection Agency, Appendix B to 40 C.F.R. Part 112.

<sup>167</sup> 33 U.S.C. § 1321(d). Regulations establishing the National Contingency Plan, which also apply to responses under CERCLA, are at 40 C.F.R. Part 300.

<sup>168</sup> For a comprehensive discussion of Section 311 of the CWA, see David G. Dickman, Oil and Hazardous Substances Spills: Section 311, *in* The Clean Water Act Handbook (2d Ed.) at 133 (Mark A. Ryan ed., ABA Sect. of Env't., Energy & Resources 2003).

<sup>169</sup> 33 U.S.C. § 1322.

<sup>170</sup> Pub. L. 96-478, 1980 U.S.C.C.A.N. (96 Stat.) 2297 (codified at 33 U.S.C. §§ 1901-1915).

<sup>171</sup> 33 U.S.C. § 1902(a).

<sup>172</sup> *Id.* § 1903(a).

<sup>173</sup> 33 C.F.R. Parts 151, 157.

<sup>174</sup> *Id.* § 151.25.

<sup>175</sup> *Id.* § 1907(c). A harmful substance is any substance subject to control under any of the Annexes of MARPOL. 33 C.F.R. § 151.05.

<sup>176</sup> Pub. L. 100-220, Title II, 1987 U.S.C.C.A.N. (101 Stat.) 1460.

the requirements of MARPOL Annex V apply to all foreign flag vessels, whether they are seagoing vessels or not, on the navigable waters and in the EEZ of the United States.<sup>177</sup> MARPOL Annex V provisions apply to U.S. flag vessels wherever they are located.<sup>178</sup> The discharge of garbage from vessels into the navigable waters of the United States is also prohibited.<sup>179</sup> For purposes of enforcing the provisions of Annex V of MARPOL related to garbage, APPS provides that any ship in the navigable waters or the EEZ of the United States may be inspected to determine whether the ship has disposed of garbage in violation of Annex V of MARPOL.<sup>180</sup>

In addition to implementing operational discharge requirements for vessels, APPS also requires the Coast Guard, in consultation with EPA, to set criteria for the adequacy of port or terminal reception facilities for mixtures containing oil, NLS, and garbage. If the reception facilities meet the adequacy requirements, the port or terminal is issued a certificate valid for five years. The Coast Guard may deny entry to seagoing vessels required to maintain oily mixtures or NLS aboard if the port or terminal does not have adequate reception facilities. Similarly, entry may be denied if the port or terminal does not have adequate garbage reception facilities.

APPS states that the Coast Guard “shall use all appropriate and practical measures of detection and environmental monitoring, and shall establish adequate procedures for reporting violations and accumulating evidence.”<sup>181</sup> APPS requires the master, person in charge, owner, charterer, manager, or operator of a ship involved in a discharge, probable discharge, or other incident involving oil, NLS, or other harmful substance covered by MARPOL to report the incident in accordance with MARPOL or Coast Guard regulations.<sup>182</sup> Further, if there is evidence that a violation of MARPOL, APPS, or Coast Guard implementing regulations has occurred, APPS requires that the matter be investigated and authorizes subpoenas to be issued to require attendance of witnesses or production of documents.<sup>183</sup> Importantly, APPS states that any action taken under the authority of the statute, including enforcement, “shall be taken in accordance with international law.”<sup>184</sup>

### ***Oil Pollution Act of 1990***

The Oil Pollution Act of 1990 (OPA)<sup>185</sup> was enacted primarily in response to the Exxon Valdez oil spill, although other major oil spills in 1989 and 1990 also encouraged Congress to address the issue. Major onshore facility spills further contributed to the need to address oil spills. OPA is a comprehensive effort to address significant marine pollution incidents from all sources, including offshore facilities.

OPA is comprised of nine titles that address spill prevention, response, and compensation. It establishes a comprehensive federal liability scheme, addressing all discharges of oil into navigable waters of the United States, shorelines, and the EEZ. It also establishes the Oil Spill Liability Trust Fund to pay for cleanup and other costs of federal responses to oil spills, and enacts financial responsibility requirements for vessels and facilities.<sup>186</sup> OPA amends the CWA response provisions to provide stronger federal authority to order the

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<sup>177</sup> 33 U.S.C. § 1902(a)(3).

<sup>178</sup> *Id.* § 1902(a)(1).

<sup>179</sup> 33 C.F.R. § 151.66.

<sup>180</sup> 33 U.S.C. § 1907(d).

<sup>181</sup> *Id.* § 1907(a).

<sup>182</sup> *Id.* § 1906.

<sup>183</sup> *Id.* § 1907(b).

<sup>184</sup> *Id.* § 1912.

<sup>185</sup> Pub. L. 101-380, Aug. 18, 1990, 104 Stat. 486.

<sup>186</sup> *Id.* Title I (codified at 33 U.S.C. §§ 2701-2718).

cleanup of oil spills and to conduct removal actions. It revises significantly the spill control and countermeasure requirements for onshore and offshore facilities and the oil spill response plan requirements for vessels.<sup>187</sup> OPA significantly increases the civil penalties in the CWA,<sup>188</sup> and makes criminal penalties applicable to the statute's oil and hazardous substance discharge requirements.<sup>189</sup>

Specific provisions of OPA address the carriage of oil by tankers and other types of vessels. OPA sets limits on tanker crew working hours,<sup>190</sup> and establishes new drug and alcohol testing requirements for licensed or documented mariners.<sup>191</sup> OPA requires denial of entry to foreign flag tank vessels the manning of which does not comply with standards equivalent to U.S. law or to international standards accepted by the United States.<sup>192</sup> It also extends the marine casualty reporting requirements to foreign flag tank vessels in the U.S. EEZ.<sup>193</sup> Further, OPA establishes higher standards for equipment and operation of tank vessels. Finally, OPA mandates that all new tank vessels have double hulls, and establishes a phase-out schedule for existing tank vessels with single hulls that will prevent their operation for carriage of oil after the established phase-out dates.<sup>194</sup>

### ***Intervention on the High Seas Act***

The Intervention on the High Seas Act<sup>195</sup> authorizes measures to prevent and mitigate oil pollution and other noxious damage on the high seas, including the EEZ, which affects U.S. coastlines and related interests. The Act implements the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties and the Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other Than Oil.

The Act authorizes the Secretary of the department in which the Coast Guard is operating to take measures on the high seas to protect the coastline or related interests of the United States from pollution incidents expected to result in major harmful consequences. When a collision, stranding, navigation incident, or other occurrence damages or threatens to damage a ship or its cargo, the Secretary may determine that the pollution or threat of pollution caused by the occurrence creates a grave and imminent danger to the coastline or related interests. In this event, the Secretary may take measures on the high seas to prevent, mitigate, or eliminate the danger in accordance with the Convention, the Protocol, and the Act. The Act also provides that the Secretary acts without liability for any damage to the owners or operators of the ship, the cargo and crew, underwriters, and other interested parties. The pollution addressed in this provision is pollution of the sea caused by convention oil<sup>196</sup> and pollution of the sea or the atmosphere caused by substances other than convention oil.<sup>197</sup>

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<sup>187</sup> *Id.* Title IV (codified at 33 U.S.C. § 1321).

<sup>188</sup> *Id.* § 4301(b) (codified at 33 U.S.C. §§ 1321(b)(6)-(11)).

<sup>189</sup> *Id.* § 4301(c).

<sup>190</sup> *Id.* § 4114.

<sup>191</sup> *Id.* § 4101.

<sup>192</sup> *Id.* § 4106(a)(3).

<sup>193</sup> *Id.* § 4106(b)(2). Under these provisions, foreign tank vessels must report casualties that occur in the U.S. EEZ if the casualties involve either material damage affecting the seaworthiness or efficiency of the vessel or result in significant harm to the environment. The reporting provisions apply to the extent they are consistent with generally recognized principles of international law. The Coast Guard has not yet promulgated regulations implementing this provision.

<sup>194</sup> *Id.* § 4115.

<sup>195</sup> Pub. L. 93-248, Feb. 5, 1974, 88 Stat. 8 (codified at 33 U.S.C. §§ 1471-1487).

<sup>196</sup> Those oils, noxious substances, liquefied gases and radioactive substances enumerated in the Protocol or otherwise determined to be hazardous under § 1473 of this Act.

<sup>197</sup> *Id.* § 1472.

Upon a determination of a grave and imminent danger to the coastline or related U.S. interests, the Secretary may: coordinate and direct all public and private efforts pertaining to the removal or elimination of the threatened pollution damage; directly or indirectly undertake all or any part of these efforts; and remove, and, if necessary, destroy the ship and cargo which is the source of the danger.<sup>198</sup> The actions taken are subject to consultation requirements and considerations established in the Act.

***Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (as amended by the National Invasive Species Act of 1996)***

*Ballast water* is water used by ships to manipulate the stability of vessels.<sup>199</sup> It is considered to be a major source by which alien species are introduced to coastal ecosystems. Ballast water is taken up in ports, usually after cargo or passengers are offloaded. When the water is taken up, it includes various organisms. These organisms live in the ballast water and sediment, and are discharged along with the ballast water when the ship reaches a load port to take on cargo. Many times these organisms are incompatible with native organisms in the marine ecosystems into which the ballast water is discharged, and potentially can cause harm to the ecosystem.

The Nonindigenous Aquatic Nuisance Species Prevention and Control Act (NANPCA)<sup>200</sup> authorizes the Coast Guard to issue regulations to prevent the introduction and spread of aquatic nuisance species into the Great Lakes and much of the Hudson River through ballast water by requiring ballast water exchange.<sup>201</sup> It also required the issuance of voluntary national guidelines. Further, it stated that the Coast Guard should promulgate mandatory regulations if it determined that compliance with the voluntary guidelines was inadequate.<sup>202</sup> In a report to Congress issued in November 2001, the Coast Guard stated that, due to low reporting under the voluntary guidelines, it was impossible to make a valid determination as to compliance with those guidelines. The Coast Guard noted that there was broad support for the issuance of mandatory ballast water management practices based on the voluntary guidelines.<sup>203</sup> In 2004, the Coast Guard established a mandatory ballast water exchange program for U.S. waters.<sup>204</sup>

NANPCA also established the Aquatic Nuisance Species Task Force to consult on the issue and the regulations,<sup>205</sup> and requires the Task Force to implement prevention, monitoring, and control programs for aquatic nuisance species in U.S. waters. States may develop comprehensive management plans for aquatic nuisance species, which can be implemented with federal grants and financial assistance.<sup>206</sup> Civil and criminal penalties are provided for violations of the regulations.

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<sup>198</sup> *Id.* § 1474.

<sup>199</sup> 16 U.S.C. § 4702.

<sup>200</sup> Pub. L. 101-646, Nov. 29, 1990, 104 Stat. 4761 (codified at 16 U.S.C. §§ 4701-4751).

<sup>201</sup> 16 U.S.C. § 4711(a). The regulations are at 33 C.F.R. Part 151, Subpart C.

<sup>202</sup> 16 U.S.C. § 4711(f).

<sup>203</sup> U.S. Coast Guard, *Report to Congress on the Voluntary National Guidelines for Ballast Water Management* (Nov. 2001) at 1-2 (hereinafter "Coast Guard Report to Congress").

<sup>204</sup> Mandatory Ballast Water Management Program for U.S. Waters, 69 Fed. Reg. 44,952-44,961 (July 28, 2004).

<sup>205</sup> 16 U.S.C. § 4721. The Task Force includes the Under Secretary of Commerce for Oceans and Atmosphere, the Director of the U.S. Fish and Wildlife Service, the Administrator of the Environmental Protection Agency, the Commandant of the USCG and the Assistant Secretary of Army (Civil Works).

<sup>206</sup> The plans must be approved by the task force or the Assistant Secretary of the Army (Civil Works).

The National Invasive Species Act of 1996 (NISA)<sup>207</sup> reauthorized and amended NANPCA. NISA includes a number of additional findings, including an assertion that aquatic nuisance species are frequently and unintentionally transported and introduced into inland lakes and rivers by recreational boaters, commercial barge traffic and other pathways.<sup>208</sup> As a result, preventative management measures are needed nationwide to address the further introduction and infestation of invasive species. NISA gave the Coast Guard the responsibility to determine whether any proposed ballast water treatment technology is as effective as ballast water mid-ocean exchange in preventing the introduction of aquatic nuisance species.<sup>209</sup> Mid-ocean exchange relies on the physical flushing of organisms in exchanged ballast water with mid-ocean organisms,<sup>210</sup> which are assumed to be less suited to establishing populations in coastal environments, and on immersion of any organisms not flushed out at sea during the exchange in the high salinity of ocean water,<sup>211</sup> which would reduce the chances of their survival.

The Act also directs the establishment of recordkeeping and reporting procedures, sampling techniques, and monitoring for compliance with guidelines. NISA directs the development and maintenance of a clearinghouse of national data on ballasting practices, compliance with the national ballast management guidelines, and other information. Reporting and recordkeeping requirements are part of the mandatory ballast water exchange program established by Coast Guard regulations for all ships equipped with ballast water tanks that are bound for ports or places in the United States or enter U.S. waters after operating beyond the U.S. EEZ.<sup>212</sup>

NISA also calls for the United States to engage in international negotiations to address aquatic nuisance species and ballast water issues.<sup>213</sup> In February 2004, a diplomatic conference held at IMO adopted the International Convention for the Control and Management of Ships' Ballast Water and Sediments. The Convention, upon entry into force, would establish an international treatment performance standard and require ships to implement a ballast water and sediments management plan and carry a ballast water record book. Nations that are party to the Convention are allowed to impose more stringent measures, including stricter treatment standards, and port states are allowed to conduct ballast water sampling to ensure compliance.<sup>214</sup>

### ***Clean Air Act***

The Clean Air Act (CAA),<sup>215</sup> administered by the EPA, was originally enacted in 1970 and most recently revised by the Clean Air Act Amendments of 1990. The Coast Guard has a role in some aspects of EPA's air pollution control programs related to vessels. For example, the CAA authorizes EPA, in consultation with the

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<sup>207</sup> Pub. L. 104-332, Oct. 26, 1996, 110 Stat. 4073.

<sup>208</sup> See 16 U.S.C. § 4701(a)(14).

<sup>209</sup> *Id.* § 4712.

<sup>210</sup> Mid-ocean exchanges are typically done at distances greater than 200 miles from the nearest shore and in areas with depths greater than 500 meters.

<sup>211</sup> The Coast Guard has stated that ballast water exchange is not 100 percent effective as not all of the organisms are removed in the exchange. But until a more effective ballast water treatment technology can be developed, the current process will result in fewer invasions overall. *Coast Guard Report to Congress* at 10.

<sup>212</sup> 33 C.F.R Part 151, Subpart D.

<sup>213</sup> 16 U.S.C. § 4726(b).

<sup>214</sup> International Convention for the Control and Management of Ships' Ballast Water and Sediments. Adopted 13 February 2004. [www.imo.org/home.asp](http://www.imo.org/home.asp) (accessed November 12, 2004).

<sup>215</sup> Pub. L. 95-95, Aug. 7, 1977, 91 Stat. 685 (codified at 42 U.S.C. §§ 7401 *et seq.*)

Coast Guard, to issue standards applicable to emissions of volatile organic compounds and other air pollutants from the offloading of tank vessels.<sup>216</sup>

The CAA also authorizes EPA to set emission standards for mobile sources, including for nonroad engines such as marine engines.<sup>217</sup> The purpose of the standards is to reduce ozone and pollutants such as NO<sub>x</sub> and particulate matter, and to “achieve the greatest degree of emission reduction achievable through application of technology which ... will be available ... giving appropriate consideration to the costs of applying such technology ... and to noise, energy and safety factors ... .”<sup>218</sup> EPA has also established standards for various categories of marine diesel engines.<sup>219</sup>

EPA promulgated two tiers of standards for different categories and sizes of marine diesel engines installed on U.S.-flagged vessels. The Tier 1 standards are equivalent to the NO<sub>x</sub> standard limits in MARPOL Annex VI. The Tier 2 standards are more stringent than Tier 1 and apply to hydrocarbons, carbon monoxide, and particulate matter emissions as well as NO<sub>x</sub>.<sup>220</sup>

In 2004, EPA announced two new initiatives as part of its ongoing Clean Diesel Program designed to improve air quality through a combination of emission controls and cleaner fuels. EPA published the Clean Air Nonroad Diesel final rule, which will reduce the sulfur content of diesel fuel from its currently uncontrolled level of approximately 3000 parts per million to 500 parts per million in 2007, and to 15 parts per million by 2012 for fuel used in marine engines.<sup>221</sup> EPA also published an Advanced Notice of Proposed Rulemaking proposing stricter emission standards for all new commercial, recreational, and auxiliary marine diesel engines except the very large engines used for propulsion on sea-going vessels, which are subject to separate regulations. The new standards rely on the availability of cleaner fuel and new emission-control technology developed for buses and trucks, and could apply to designated marine engines as early as 2011.<sup>222</sup>

EPA also promulgated standards for new large marine diesel engines installed on U.S. flag vessels. The standards apply beginning with the 2004 model year engines and are equivalent to the NO<sub>x</sub> limit standards in MARPOL Annex VI. EPA intends to address second tier standards for these large engines in a future rulemaking, which is expected to be completed no later than April 2007. In that rulemaking, EPA has stated it will consider the state of technology that may permit deeper emission reductions than those in MARPOL Annex VI and will also assess the status of international actions to promulgate more stringent standards. EPA also intends to consider application of any second tier standards to engines on foreign flag vessels that enter U.S. ports.

EPA’s engine certification and compliance program is similar to that in MARPOL Annex VI and its NO<sub>x</sub> Technical Code. However, the CAA specifies certain requirements concerning durability and testing that are different from those in MARPOL Annex VI. EPA has stated that it believes that its regulations are

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<sup>216</sup> *Id.* § 7511b(f). The regulations are at 40 C.F.R. § 63.650.

<sup>217</sup> 42 U.S.C. § 7547.

<sup>218</sup> *Id.* § 7547(a)(3).

<sup>219</sup> 40 C.F.R. Part 94.

<sup>220</sup> Final Rule, Control of Emissions of Air Pollution From New Marine Compression-Ignition Engines at or Above 37 kW, 64 Fed. Reg. 73,300-73,373 (Dec. 29, 1999).

<sup>221</sup> Final Rule, Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel, 69 Fed. Reg. 38,957-39,273 (June 29, 2004).

<sup>222</sup> Control of Emissions of Air Pollution from New Locomotive Engines and New Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder, 69 Fed. Reg. 39,275-39,289 (June 29, 2004).

sufficiently consistent with those in MARPOL Annex VI and that manufacturers would be able to use a single harmonized compliance strategy to certify under both systems.<sup>223</sup>

The CAA also requires EPA to publish two lists of ozone-depleting substances based on their ozone-depleting potentials.<sup>224</sup> These lists affect the use of refrigerants and fire-fighting systems on vessels. The Act categorized CFCs and halon, among others, as Class I substances, which are substances that possess a high potential for destroying stratospheric ozone molecules. It also designated hydrochlorofluorocarbons (HCFCs) as Class II substances, which are substances with a lesser, but still significant ozone depletion potential. The CAA includes phase-out controls similar to those in the Montreal Protocol. Unlike the Montreal Protocol, however, the CAA also restricts the use of controlled ozone-depleting substances, including provisions to reduce emissions of controlled substances to the “lowest achievable level” in all use sectors, bans nonessential products, mandates warning labels, and establishes a safe alternatives program. EPA has published regulations under the CAA that govern the recapture, recycling, reuse, and disposal of refrigerants<sup>225</sup> and halons.<sup>226</sup> These regulations apply to vessels.

#### ***Title XIV of the Consolidated Appropriations Act, 2001—Certain Alaskan Cruise Ship Operations***

Title XIV of the Consolidated Appropriations Act, 2001<sup>227</sup> was enacted to address the issue of discharges of sewage and gray water from cruise vessels operating in and around Alaskan navigable waters and Alaskan ports. It applies to cruise vessels that are certificated to carry 500 or more passengers and prohibits the discharge of any untreated sewage into waters of the Alexander Archipelago or the navigable waters of the United States within the State of Alaska or within the Kachemak Bay National Estuarine Reserve.<sup>228</sup> The law provides for administrative, civil, and criminal penalties for violations of its provisions.<sup>229</sup>

The law prohibits the discharge of treated sewage or gray water from a cruise ship into these waters unless the vessel complies with specific operational discharge criteria. It authorizes EPA to promulgate regulations to allow discharges of treated sewage and gray water otherwise prohibited when the discharge meets effluent standards deemed appropriate under the authority of the Act, supplemented by the information-gathering authority of the CWA. The determination of appropriateness is based on best available scientific information and, at a minimum, must meet relevant state water quality standards.<sup>230</sup> Interim requirements are established to allow otherwise prohibited discharges to occur until EPA develops the regulations. Alaska may also petition EPA to establish cruise vessel no-discharge zones if the state determines that protection or enhancement of the quality of the waters covered under the Act require greater environmental protection than that provided under the requirements established under the Act.<sup>231</sup>

The law also directs the Coast Guard to incorporate an inspection and sampling regime into its commercial vessel examination program, which must include a review of environmental compliance records and inspection of the functionality and proper operation of installed equipment for the abatement and control of any discharge. The inspection regime must also incorporate a plan for sampling and testing of discharges to

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<sup>223</sup> 64 Fed. Reg. 9769.

<sup>224</sup> 42 U.S.C. §§ 7671-7671q.

<sup>225</sup> 40 C.F.R. Part 82, Subpart F.

<sup>226</sup> *Id.* at Subpart H.

<sup>227</sup> Pub. L. 106-554, Title XIV, Dec. 21, 2000, 114 Stat. 2763A-315.

<sup>228</sup> *Id.* §§ 1401, 1402.

<sup>229</sup> *Id.* § 1409.

<sup>230</sup> *Id.* § 1407.

<sup>231</sup> *Id.* § 1410.

ensure that the discharges of sewage and gray water are in compliance with this law and other federal and state laws that may be applicable. Additionally, the inspection regime may include unannounced inspections of any cruise vessel operations, equipment, and discharges, and may require the vessel to maintain a logbook detailing the times, types, volumes, or flow rates and locations of any discharges of sewage or gray water.<sup>232</sup>

### ***Comprehensive Environmental Response, Compensation, and Liability Act***

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) establishes limits of liability for owners and operators of vessels and facilities involved in the release or threatened release of hazardous substances for all costs of removal or remedial action incurred by the federal or state government for actions taken under the National Contingency Plan, and for damages or injury to, or destruction of, natural resources from such release.<sup>233</sup>

CERCLA may overlap with, and provide different authority for, responses to certain oil or hazardous substance spills that may also be covered by Section 311 of the CWA and by OPA. CERCLA does not apply to spills that contain only oil.<sup>234</sup> OPA applies to oil spills that do not contain any other materials that are considered a hazardous substance under CERCLA.<sup>235</sup> In some situations, oil spills under OPA or the CWA have been responded to under CERCLA when one of the constituent parts of the oil was also a hazardous substance.<sup>236</sup>

### ***Resource Conservation and Recovery Act***

The Resource Conservation and Recovery Act (RCRA)<sup>237</sup> defines and regulates the management of solid wastes (including municipal trash), hazardous wastes, medical wastes, and other hazardous and polluting substances. It establishes a “cradle-to-grave” system that addresses the generation, transport, storage, treatment, and disposal of hazardous wastes through a recordkeeping system that tracks shipments of hazardous wastes from the point of generation to the ultimate disposal. Hazardous waste treatment, storage, and disposal facilities are regulated through operating permits. To the extent that vessels generate wastes, transport wastes, or offer wastes for disposal, the vessels are required to comply with RCRA. EPA has noted that issues related to RCRA and its application to vessels include: the point at which a hazardous waste is generated by a vessel; the parties that are generators, storers, treaters, or disposers of the waste; and the applicability of RCRA requirements to these parties in the ship operations context.<sup>238</sup> In most instances, EPA has delegated the administration and enforcement of RCRA to the states.

### ***Organotin Antifouling Paint Control Act***

The Organotin Antifouling Paint Control Act of 1988,<sup>239</sup> among other provisions, prohibits the application of antifouling paints containing organotin (tributyltin or TBT) on vessels that are 25 meters or less in length,

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<sup>232</sup> *Id.* § 1406.

<sup>233</sup> *Id.* § 9607.

<sup>234</sup> *Id.* § 9601(14) (stating that the term *hazardous substance* “does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance” in accordance with CERCLA).

<sup>235</sup> 33 U.S.C. § 2701(23) (defining *oil* as not including “any substance which is specifically listed or designated as a hazardous substance” under CERCLA).

<sup>236</sup> See generally L. Bacher, Jr., *When Oil is Not Oil: An Analysis of CERCLA’s Petroleum Exclusion in the Context of a Mixed Oil Spill*, 45 *Baylor L. Rev.* 233 (1993).

<sup>237</sup> Pub. L. 94-580, § 2, Oct. 21, 1976, 90 Stat. 2795, as amended (codified at 42 U.S.C. §§ 6901 *et seq.*).

<sup>238</sup> United States Environmental Protection Agency, *Cruise Ship White Paper* (Aug. 22, 2000) at 10.

<sup>239</sup> Pub. L. 100-333, June 16, 1988, 105 Stat. 605 (codified at 33 U.S.C. § 2401).

unless the vessel has an aluminum hull. The Act also prohibits any person from selling or delivering to, or purchasing or receiving from, another person any substance containing organotin for the purpose of adding such substance to paint to create an antifouling paint. Finally, the Act prohibits any person from applying to any vessel any antifouling paint containing organotin unless authorized by the EPA Administrator as meeting the specified release rate.

The Act requires that EPA certify that each antifouling paint containing organotin authorized does not release more than 4.0 micrograms per square centimeter per day. Additionally, EPA was required to issue final water quality criteria for organotin compounds by March 30, 1989. Over a 10-year period, and in cooperation with the National Oceanic and Atmospheric Administration, EPA was required to monitor organotin concentrations in aquatic organisms and water column sediments of representative estuaries. Additionally, the U.S. Navy is required to periodically test waters serving as the homeport for any Navy vessels to determine the level of organotin contamination. In 1996, other legislation required that the Navy, in consultation with EPA, develop and implement a program to monitor the concentrations of organotin in the water column, sediments, and aquatic organisms of representative estuaries and near-coastal waters of the United States.<sup>240</sup>

### ***Clean Vessel Act of 1992***

The Clean Vessel Act of 1992<sup>241</sup> was enacted to address the shortage of pump out facilities and dump stations for MSDs on recreational boats. MSDs are required under section 312 of the CWA. Congress determined that the inadequate number of shore pump out stations was causing recreational boats to discharge sewage into U.S. waters, adding to a substantial degradation of water quality. The Clean Vessel Act provides grants to states for the purposes of constructing, renovating, operating, and maintaining sewage pump out and dump stations, as well as for educational efforts associated with these activities. The Act requires each coastal state to determine the number of pump out stations at marinas and other locations in coastal waters and the number of recreational boats with MSDs using those waters. It also requires each coastal state to submit a plan to the Secretary of the Interior outlining the need for funding to address construction, maintenance, and education associated with the pump out facilities. The U.S. Fish and Wildlife Service administers the grant program.<sup>242</sup>

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<sup>240</sup> Pub. L. 104-106, Feb. 10, 1996, 110 Stat. 445.

<sup>241</sup> Pub. L. 102-587, Subtitle F, §5601, Nov. 4, 1992, 106 Stat. 5081 (codified at 33 U.S.C. § 1322 note).

<sup>242</sup> Implementing regulations are at 50 C.F.R. Part 85.

## SELECTED ISSUES

### Federal versus State Regulation of Marine Operations

Federal preemption of state powers involving the regulation of vessels operating in state waters and calling in state ports has been an issue of contention since the formation of the Republic. State police power historically extends to any matter affecting the health, peace, education, safety, or morals of those within the state.<sup>243</sup> The states obviously have an interest in public health and safety and protection of the environment, and have periodically sought to impose standards on foreign and U.S. vessels, particularly tank vessels. Courts have for the most part held that states can impose rules that have an incidental effect on maritime affairs.<sup>244</sup>

The approach to environmental regulation in the United States has historically been one of cooperative federalism. Under this approach, the federal government establishes national standards for water and air quality, with states authorized to enact more stringent requirements. For the most part, the states then become the primary enforcement authorities for the standards, although the federal government also maintains enforcement authority. Under this arrangement, the issue of preemption of state laws rarely arises because the courts are unlikely to determine that the state laws frustrate or impede the federal scheme.<sup>245</sup>

On the other hand, shipping is an international enterprise that is heavily regulated under international standards, many of which have been ratified by the federal government. In most cases, regulation of maritime safety and transportation falls under the Commerce Clause of the U.S. Constitution, which gives Congress express power to regulate interstate and foreign commerce. Likewise, under Article VI of the Constitution (the Supremacy Clause), as long as the federal government has acted in an area delegated to it by the Constitution, any state or local government law that conflicts with it is preempted. As such, federal maritime legislation may preempt states from exercising their own power in this area. Further, even in the absence of preemptive federal legislation, states may not constitutionally exercise power over a subject that is national in scope or that admits of only one uniform system or plan of regulation.<sup>246</sup>

Congress, in creating federal legislation addressing commercial vessel safety and protection of the marine environment from vessel-source pollution, has sought to avoid conflicts with international laws and to provide national consistency in design, construction, manning, equipment, and operation requirements for vessels.<sup>247</sup> It also has determined that controlling vessel traffic and providing for the safe navigation of these ships will enhance environmental protection. This has led to the enactment of three important pieces of legislation: the Ports and Waterways Safety Act (PWSA); the Port and Tanker Safety Act (PTSA); and the Oil Pollution Act of 1990 (OPA). In these statutes, Congress requires the Coast Guard to issue regulations addressing the safe design, construction, maintenance, operation, equipment, personnel qualification, and manning of vessels. The Coast Guard is also given the authority to regulate navigation and the control of

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<sup>243</sup> *Barbier v. Connolly*, 113 U.S. 27, 31 (1885).

<sup>244</sup> *Askew v. American Waterways Operators, Inc.*, 411 U.S. 325, 339 (1973). In *Kelly v. Washington ex rel Foss Co.*, 302 U.S. 1, 14 (1937), the Supreme Court upheld a Washington state statute regulating motor tugs engaged in interstate and foreign commerce by holding that the state's protective power seeking to prevent operation of unsafe and unseaworthy vessels in state waters was akin to that which allows the state to exclude diseased persons, animals, and plants. It noted that none of these were instrumentalities of commerce and thus not subject to preemption under the Federal Commerce Clause. Similarly, in *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 442 (1960), the Supreme Court upheld a city ordinance regulating air emissions from federally inspected vessels on the basis that the ordinance was designed to free from pollution the air that people in the city breathe, and that this was a valid exercise of the city's police power.

<sup>245</sup> *Id.* at 86-88.

<sup>246</sup> See *Cooley v. Board of Wardens*, 53 U.S. 299, 319 (1851).

<sup>247</sup> See generally C. Allen, *Federalism in the Era of International Standards: Federal and State Government Regulation of Merchant Vessels in the United States (Part III)*, 30 *J. of Maritime L. & Commerce* 85, 96-100 (1999).

vessel traffic, although the Coast Guard has not required such regulation to date. In doing so, Congress has recognized the need for uniformity in the regulation of vessels in these areas, and has focused on the international standards established by conventions such as SOLAS and MARPOL as the basis for this uniformity.

Some states have also attempted to regulate tankers, raising the issue of preemption by federal regulations when these regulations are challenged. For instance, in *Ray v. Atlantic Richfield Co.*, the U.S. Supreme Court examined an attempt by the State of Washington to regulate tank ships in state waters.<sup>248</sup> The state had imposed escort tug requirements, pilotage requirements, size limits, and equipment and operating requirements on tank ships. The Court upheld state requirements for escort tugs for tank vessels because they arose from the peculiarities of local waters that call for special precautionary measures and did not demand a uniform national rule.<sup>249</sup> However, with regard to tanker design, construction, alteration, repair, maintenance, operation, equipment, personnel qualification, and manning, covered in Title II of the PWSA, the Court found that Congress had demanded uniformity and, therefore, the federal regulations preempted states in these areas. As a result, the Court invalidated the state's pilotage requirement, its limitation on tanker size, and its tanker design and construction rules.

The most recent case to examine the issue of federal preemption of state law in the maritime area is *United States v. Locke* (also titled *INTERTANKO v. Locke*).<sup>250</sup> In *INTERTANKO*, the issue was the enactment by the State of Washington of a law that required tank vessels in state waters to implement measures required by "Best Achievable Protection" (BAP) regulations for the prevention of oil spills. These BAP regulations were enacted based on a reading of savings clauses in the OPA, which the State of Washington argued narrowed the preemptive effect of the PWSA that had been addressed in *Ray*. The BAP regulations, among other things, included requirements that tanker operators report certain enumerated marine casualties, a tanker's master and crew complete state-approved comprehensive training programs, a tanker's crew meet English language proficiency requirements, a tanker have a navigation watch consisting of crewmembers with specifically enumerated positions, and a tanker comply with specific navigation watch requirements during periods of restricted visibility.<sup>251</sup>

Initially, the Supreme Court held that the savings clauses of OPA were not broad enough to narrow the effect of the *Ray* decision, and held that the holding in *Ray* survives the enactment of OPA undiminished.<sup>252</sup> The Court stated that the BAP regulations involved national and international maritime commerce, an area in which Congress had regulated from the earliest days of the Republic, and as such, there was no beginning assumption that concurrent regulation by a state was a valid exercise of its police powers.<sup>253</sup> The determination of the validity of the state laws depended upon whether they were consistent with the federal statutory structure, and the analysis to be performed remained that established under the PWSA and *Ray*. The issue was whether a conflict preemption analysis applied because the BAP regulation was one based on the peculiarities of local waters that call for special precautionary measures (Title I of the PWSA), or whether a field preemption analysis applied because the regulation fell within those related to design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning, for which Congress had demanded uniformity (Title II of the PWSA).<sup>254</sup>

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<sup>248</sup> 435 U.S. 151 (1978).

<sup>249</sup> *Id.* at 171-72, 179.

<sup>250</sup> 120 S.Ct. 1135 (2000).

<sup>251</sup> *Id.* at 1150-52.

<sup>252</sup> *Id.* at 1146-48.

<sup>253</sup> *Id.* at 1148.

<sup>254</sup> *Id.*

In applying this analysis to the BAP regulations, the Court found that state regulations requiring reporting of marine casualties, training certification, English proficiency, and bridge watch requirements were preempted. Among the reasons given for preemption of these regulations were the extraterritorial effect of these rules beyond state jurisdiction or local concerns, duplication of federal requirements, potential cumulative requirements among many states, and the compromise of the uniformity Congress had intended.<sup>255</sup> The Court remanded all other regulations, including the requirement for watchstanding in restricted visibility, for determination of preemption based on the analysis established by the Court after building of an adequate record.<sup>256</sup>

While the *Ray* and *INTERTANKO* cases both involved the regulation of tankers by states, the issues and analysis presented in these cases regarding uniformity of regulation in the context of international and national commerce can also apply to other types of vessels, particularly oceangoing vessels.

In addition to regulation of vessel safety and environmental protection, there are likely to be issues regarding preemption of state and local laws that address vessel security. Resolution of these issues will again involve balancing the need for uniformity with the recognized right of state and local governments to protect the public safety, health, and welfare in the event of criminal or terrorist attacks focusing on vessels or ports. The IMO has amended the International Convention for the Safety of Life at Sea to establish the International Ship and Port Facility Security (ISPS) Code. The ISPS Code, among other features, establishes requirements for owners and operators of vessels to assess security vulnerabilities and risks to vessels, establish security plans and procedures, and implement self-auditing systems. To the extent that homeland security is deemed part of national defense, which has historically been the function of the federal government, states may be precluded from establishing any security standards for vessels. However, security may arguably be viewed as even more an issue of local police powers than environmental protection. Under this view, state and local governments could develop security requirements more stringent than federal requirements. The Maritime Transportation Security Act (MTSA), which establishes security requirements for vessels and ports, and on which authority the Coast Guard is basing its implementation of the ISPS Code provisions, contains no federal preemption language to address this issue.

### **Uniform National Standards versus Clean Water Act National Pollutant Discharge Elimination System Permitting for Vessel Discharges**

The degree of federal and state involvement in regulating vessels also arises in the context of vessel discharges. Should uniform, national standards be developed for such discharges or should vessels be treated as point sources subject to CWA National Pollutant Discharge Elimination System permits issued by EPA or an authorized state? (The NPDES permit program is discussed in Chapter 4, *Ocean and Coastal Pollution from Land-based Sources*.)

As noted above, the Coast Guard generally regulates ballast water discharges to control the introduction of invasive species under the Nonindigenous Aquatic Nuisance Prevention and Control Act (NANPCA), as amended by the National Invasive Species Act (NISA). However, in 1999, EPA received a petition that requested that ballast water discharges be regulated through the NPDES permit program under the CWA.<sup>257</sup> If granted, this would have required that EPA eliminate the current exclusion in the NPDES implementing regulations for discharges incidental to the normal operation of a vessel.

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<sup>255</sup> *Id.* at 1150-1152.

<sup>256</sup> *Id.* at 1152.

<sup>257</sup> Petition available at [http://www.epa.gov/owow/invasive\\_species/petition1.html](http://www.epa.gov/owow/invasive_species/petition1.html) (accessed November 12, 2004).

Relatively soon after EPA received the petition, eighteen members of Congress requested that EPA examine whether CWA can be used to effectively regulate invasive species in ships' ballast water. In response, EPA drafted a report entitled *Aquatic Nuisance Species in Ballast Water Discharges: Issues and Options*.<sup>258</sup>

EPA has stated that the “use of NPDES permits to regulate ballast water discharges would present significant challenges to EPA and authorized states” because “NPDES permits may have significant shortcomings with respect to regulation of vessels.”<sup>259</sup> These shortcomings include the fact that the states have primary responsibility for the NPDES program, thereby hampering the program's utility in providing uniform regulation of point sources such as vessels that move between states. Another concern is that regulation of ballast water discharges could subject the dischargers to overlapping regulatory regimes, such as NANPCA, which may detract from efforts under the other, more specific legislation. Finally, using NPDES permits to cover ballast water discharges may impose requirements that cannot be met with currently available technology.<sup>260</sup> EPA has noted that the greatest impediment to effectively controlling the introduction of aquatic nuisance species from discharges of ballast water is the current lack of effective and affordable technical solutions to remove aquatic nuisance species from ballast water.<sup>261</sup>

In 2003, EPA denied the petition that had requested regulation of ballast water under the NPDES program. In denying the petition, EPA cited the wide variety of regulatory and non-regulatory actions currently being undertaken by other federal agencies to address the ballast water problem. EPA believes these efforts are likely to be more effective and efficient than reliance on NPDES permits. EPA also noted that regulation of all discharges incident to normal operations of a vessel, including discharges of ballast water, would be a massive undertaking, particularly if a NPDES permit were required for all types of discharges from each vessel. EPA also noted that states are not preempted by the CWA from acting to regulate discharges incident to normal vessel operations.<sup>262</sup>

The EPA decision denying the petition remains subject to legal challenge and, under the current statutory regime, individual states may enact requirements that differ from state to state. This leaves vessel owners and operators facing potentially inconsistent and non-uniform regulation of ballast water discharges because of overlapping laws. However, the desire for uniformity of regulation regarding marine operations must be balanced against the significant adverse environmental and economic impacts posed by the introduction of invasive species.

EPA has also received petitions to consider the use of the CWA NPDES permitting process in other contexts, such as for regulation of cruise ship discharges, and issues are likely to continue to arise that will require policy determinations regarding the most effective and practical means of regulating vessel discharges.

### **Problems in National Implementation of International Vessel Pollution Requirements**

Marine pollution control in the context of vessel operations often involves the application of both international treaty and domestic law provisions. In some instances, the application of international requirements through different federal statutory regimes has resulted in apparently conflicting legal requirements and introduced significant uncertainty for vessel operators regarding appropriate compliance

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<sup>258</sup> U.S. Environmental Protection Agency, Draft Report for Public Comment, *Aquatic Nuisance Species in Ballast Water Discharges: Issues and Options* (Sept. 10, 2001) [hereinafter *EPA Ballast Water Report*], available at <http://www.socp.org/ballast/papers/EPA2026Sept01.pdf>.

<sup>259</sup> *Id.* at 33.

<sup>260</sup> *Id.* at 33-34.

<sup>261</sup> *Id.* at 1, 39.

<sup>262</sup> EPA, *Decision on Petition for Rulemaking to Repeal 40 C.F.R. 122.3(a)*, September 2, 2003.

measures. Examples of these statutory implementation issues arise in the context of regulating the disposal of vessel garbage and waste, and vessel air emissions.

### *Ship-Generated Garbage and Waste*

Vessel operators have historically operated under the presumption that discharges of ship-generated wastes are regulated under MARPOL and the Act to Prevent Pollution from Ships. The Coast Guard and EPA have stated that such discharges are also subject to the provisions of the Ocean Dumping Act (ODA), the domestic law implementing the London Convention. This is based on the apparent determination by these agencies that, if a ship generates waste in port in the course of normal operations, transporting that waste or “material” to sea for disposal is transportation of a material for purposes of dumping, which requires a permit under the ODA.<sup>263</sup>

Internationally, the provisions of MARPOL regulate discharges at sea of waste and other materials, such as garbage, that are generated by ships. Under MARPOL Annex V, discharges at sea of garbage and other waste-like materials generated by ships, no matter where these materials are generated, are allowed if the ships comply with specified operational discharge criteria. The London Convention excludes the disposal at sea of wastes or other matter incidental to, or derived from, the normal operations of vessels from its definition of dumping. Thus, it appears that MARPOL and the London Convention are reconciled under the international regime. However, the ODA has a more limited exclusion, only removing from the definition of dumping regulated under the Act the discharge of effluent from the operation of propulsion and other motor-driven equipment on vessels.<sup>264</sup>

The Coast Guard and EPA sought to address perceived problems associated with the discharge at sea of materials, such as garbage, generated by ships when they are in port, through the issuance of a joint policy statement. The policy being considered by the Coast Guard and EPA to address disposal of certain ship-generated material raises some significant issues. MARPOL Annex V, and related Coast Guard implementing regulations, apparently authorize the disposal at sea of material that is generated in the course of normal operations while a vessel is in port. However, if disposal of such material is deemed to be subject to the provisions of the ODA, it would appear that disposal at sea of such material would require a dumping permit. This would have a significant impact on traditional ship operations.

The issue of the overlap between APPS and the ODA regarding disposal of cargo residues at sea was partially addressed by Congress in the Maritime Transportation Security Act of 2002. The Act states that “Notwithstanding any other provision of law, the discharge from a vessel of any agricultural cargo residue material in the form of hold washings shall be governed exclusively by the provisions of the Act to Prevent Pollution from Ships ... that implement Annex V to [MARPOL].”<sup>265</sup> This section was enacted specifically to

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<sup>263</sup> In promulgating its regulations to implement Annex V, the Coast Guard responded to requests it require the offloading of all garbage on board a ship after it arrives in port because the subsequent discharge of garbage might conflict with the ODA. The Coast Guard stated:

House Report 100-360 discusses the relationship of the MPRSA [ODA] and the Act to Prevent Pollution from Ships (APPS), as amended. The Report states ... that the MPRSA [ODA] also “prohibits the transport of any material from the United States for the Purpose of dumping it into ocean waters” and noted that this provision does not conflict with the provisions of MARPOL, since MARPOL addresses garbage that is generated during dumping. ... The Coast Guard agrees that if garbage, as defined in the [APPS], is transported for the *exclusive purpose* of dumping at sea, the prohibitions of the MPRSA [ODA] would apply. This would include transfers of garbage from ship to ship, if the intent was to dump at sea. However, the Coast Guard does not have the authority under the [APPS] to require the offloading of ship-generated garbage while in port.

54 Fed. Reg. 18,384, 18,391 (Apr. 28, 1989) (emphasis supplied).

<sup>264</sup> 33 U.S.C. § 1402(f).

<sup>265</sup> Pub. L. 107-295, Title II, § 204, Nov. 25, 2002, 116 Stat. 2085.

address issues presented by the Coast Guard and EPA in their consideration of the use of the ODA to regulate discharges at sea of a ship-generated material, in this case agricultural cargo residue. However, this section only clarifies the proper legal regime for a small portion of ship-generated wastes that are arguably regulated under both the ODA and the APPS.

Great Lakes shipping consists primarily of the carriage of dry-bulk cargoes. Iron ore, stone, and coal typically account for 75 percent of all cargo moving in a typical year. Although every effort is made to properly unload all of the cargo, there often remains some residue on the deck or in the cargo holds. The practice on the Lakes has been to hose cargo residue overboard while the vessel is underway to its next port of call.<sup>266</sup>

When the United States implemented MARPOL Annex V to reduce pollution of the seas, the practice of washing down cargo residues from ships on the Great Lakes became problematic. This is because Coast Guard regulations follow MARPOL Annex V guidelines that include cargo residues in the definition of garbage. Furthermore, the Coast Guard regulations, recognizing the prohibition of discharges of refuse and garbage without a permit under both the Refuse Act and the CWA, specifically prohibit the discharge of garbage in the navigable waters of the United States,<sup>267</sup> which include the Great Lakes.

Recognizing the significant economic and operational burden that this prohibition imposed on the bulk carriers, particularly those that never leave the Great Lakes, the Coast Guard implemented an enforcement policy that allowed lake carriers to discharge dry cargo residues in specific areas of the Great Lakes. The Coast Guard envisioned the policy being in effect for only a short period of time while a change to the APPS was sought. However, the interim policy remained in place and was ultimately published by the Coast Guard.<sup>268</sup>

In 1997, under pressure from those who saw the interim enforcement policy as a direct contravention of APPS, the Refuse Act, and the CWA, the local Coast Guard district did not publish the interim policy. This raised significant concerns for ship owners and operators, who sought congressional assistance to keep the policy in place. The Coast Guard Authorization Act of 1998 included a provision that required the Coast Guard to continue its 1997 enforcement policy until September 30, 2002.<sup>269</sup> Coast Guard interim authority over Great Lakes dry bulk cargo residue was subsequently extended through 2004. The Coast Guard notes that it is improbable that the regulations will be in place by September 30, 2004, and that upon the expiration of the extension "...the current statute, which prohibits such discharges, will become effective."<sup>270</sup>

### ***Vessel Air Emissions***

IMO has recognized the need to address air emissions from vessels on an international basis. MARPOL Annex VI establishes standards addressing NO<sub>x</sub> and SO<sub>x</sub> emissions from marine engines (through engine design parameters and fuel quality requirements), ozone-depleting substances, and shipboard incineration. While Annex VI has not yet entered into force, it is expected that it will soon. The United States is signatory to Annex VI, which was recently transmitted to the U.S. Senate for advice and consent to ratification.

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<sup>266</sup> Hearing on Oversight of U.S. Coast Guard Marine Environmental Protection and Compliance Programs; House Subcommittee on Coast Guard and Marine Transportation (1998) (statement of George J. Ryan, President, Lake Carriers' Association).

<sup>267</sup> 33 C.F.R. § 151.66.

<sup>268</sup> International Joint Commission, 1998-1999 Binational Report on Protection of Great Lakes Water Quality (U.S. Coast Guard/Department of Fisheries & Oceans Canada/Transport Canada Marine Safety) 1999, at 15.

<sup>269</sup> Pub. L. 105-383, Sec. 415, 112 Stat. 3411, 3434 (Nov. 13, 1998).

<sup>270</sup> U.S. Coast Guard. *Notice, Discharge of Dry Cargo Residue in the Great Lakes*. 69 Fed. Reg. 1994 (Jan 13, 2004).

EPA has stated that emissions from marine diesel engines significantly contribute to air quality problems in coastal and port areas.<sup>271</sup> EPA had already adopted standards in 2003 for the new, larger marine diesel engines that are being installed on U.S. flag ships.<sup>272</sup> These standards are equivalent to the NOx emission limits in MARPOL Annex VI. Because engine manufacturers continue to develop more advanced emission control systems for these larger engines, the United States intends to seek more stringent revisions to Annex VI standards for these engines. In addition, EPA intends to address a second tier of more stringent standards in a rulemaking to be finalized no later than 2007. In developing such standards, EPA will consider continued development of new technologies like those to be considered for smaller engines, and will also consider IMO and the activity of other groups to set more stringent international standards.<sup>273</sup>

EPA has stated that as part of the 2007 rulemaking, it will also consider applying CAA standards to foreign ships that enter U.S. ports.<sup>274</sup> Should the United States choose to regulate foreign flagged ships, compliance with CAA standards would be a condition of entry into U.S. ports, likely causing significant impacts on the marine transportation system. If U.S. standards are not harmonized with the standards of MARPOL Annex VI, many vessels built to international standards may be precluded from operating in the United States.

### Jurisdiction over Enforcement of Marine Operations in Coastal Zones

As noted in Chapter 1, in 1988 President Reagan declared a 12 mile territorial sea for international purposes, consistent with the limits for the territorial sea established in UNCLOS. However, the proclamation specifically stated that the territorial sea remained unchanged for application of then-existing domestic laws.<sup>275</sup> This led to some confusion regarding the effect of the proclamation on domestic laws as they applied to foreign vessels.

This has been compounded by the fact that Congress has enacted legislation that uses different terms to establish authority over waterways and coastal areas. These terms include *internal waters*, *inland waters*, *navigable waters*, *waters of the United States*, *territorial sea*, *territorial waters*, and *waters subject to the jurisdiction of the United States*, among others. These terms may overlap in certain areas, or may in fact mean the same thing, depending upon the particular legislation involved.<sup>276</sup> Also, Congress has taken a piecemeal approach to expansion of the various jurisdictional zones offshore by sometimes defining the phrase *territorial sea or navigable waters as used in individual acts*, to include the expanded 12 mile territorial sea as proclaimed by President Reagan.<sup>277</sup>

An example of the confusion that can result from this process concerns interpretation of the provision in the Antiterrorism and Effective Death Penalty Act of 1996 (AEDPA) that declared a 12 mile territorial sea for purposes of federal criminal jurisdiction and further stated this area was within the special maritime and territorial jurisdiction of the United States for the purposes of Title 18 of the United States Code.<sup>278</sup>

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<sup>271</sup> Final Rule, Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters Per Cylinder, 68 Fed. Reg. 9745, 9754 (Feb. 28, 2003).

<sup>272</sup> 68 Fed. Reg. 9745-9789 (Feb. 28, 2003).

<sup>273</sup> *Id.* at 9745.

<sup>274</sup> *Id.*

<sup>275</sup> Presidential Proclamation 5928 (Dec. 27, 1988), 54 Fed. Reg. 777 (1989).

<sup>276</sup> On July 18, 2003, the Coast Guard issued a final rule that updates regulatory definitions it uses to interpret its jurisdiction to enforce treaties, laws and regulations of the United States. This rule establishes the Coast Guard's view of how jurisdictional terms in various domestic laws, including treaties to which the U.S. is a party, are to be interpreted. Final Rule, "Territorial Seas, Navigable Waters, and Jurisdiction," 68 Fed. Reg. 42,595-42,602 (2003).

<sup>277</sup> The first such legislation in which Congress deviated from the historical 3 nautical mile territorial sea was the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990.

<sup>278</sup> Antiterrorism and Effective Death Penalty Act of 1996, Pub. L. 104-132, § 901, Apr. 24, 1996, 110 Stat. 1214, 1317 [hereinafter *AEDPA*]. In addition to the provisions of Section 901 of the AEDPA, Section 702 of the Act contains provisions for acts of terrorism

purposes of federal criminal jurisdiction and further stated this area was within the special maritime and territorial jurisdiction of the United States for the purposes of Title 18 of the United States Code.<sup>278</sup>

In *United States v. One Big Six Wheel*,<sup>279</sup> the court addressed what this extension of the territorial sea meant in a criminal law context. The issue in the case was whether the expansion of the territorial sea to 12 miles for purposes of criminal jurisdiction in AEDPA made criminal what was previously legal conduct under the Gambling Ship Act,<sup>280</sup> in this case the operation of gaming vessels in the band between 3 and 12 miles offshore.

The court stated that while AEDPA altered the boundaries of the United States, it did not do so for all purposes. The court held that the extension of the territorial sea in AEDPA occurred only for purposes of criminal jurisdiction, and that the extension of the territorial sea for substantive criminal provisions of Title 18 in AEDPA was limited to the special maritime and territorial jurisdiction of the United States.<sup>281</sup> The impact of this decision on the ability of the government to prosecute environmental and other crimes under existing legislation in the 3 to 12 mile territorial sea band is therefore open to question.

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<sup>278</sup> Antiterrorism and Effective Death Penalty Act of 1996, Pub. L. 104-132, § 901, Apr. 24, 1996, 110 Stat. 1214, 1317 [hereinafter *AEDPA*]. In addition to the provisions of Section 901 of the AEDPA, Section 702 of the Act contains provisions for acts of terrorism involving foreign commerce that occurred outside of national boundaries. This section also defined the U.S. territorial sea to include "all waters extending seaward to 12 nautical miles from the baselines of the United States, determined in accordance with international law."

<sup>279</sup> 166 F.3d 498 (2d Cir. 1999).

<sup>280</sup> 18 U.S.C. §§ 1081-1084.

<sup>281</sup> *Id.* at 501. The special maritime and territorial jurisdiction of the United States is defined at 18 U.S.C. § 7. It is a statutorily created jurisdictional base that allows the federal prosecution of specific crimes that occur in federal enclaves or areas over which the United States exercises sovereignty outside the jurisdiction of the 50 states or of foreign countries, such as on U.S. flag vessels operating outside U.S. waters.



## CHAPTER 8 CONCLUSION

The vastness of the ocean offers a metaphor for the management complexity facing every coastal nation, as well as the global community. The United States — from its coastal watershed counties to the outer reaches of the world’s largest Exclusive Economic Zone — faces some of today’s most difficult and intractable ocean and coastal policy problems. Since the release of the Stratton Commission report, the management of the nation’s ocean has been influenced by some three and a half decades of emerging interests in a broad array of ocean resource issues, varying levels of attention by a succession of administrations, and a legislative branch challenged by multiple committee jurisdictions. With this history, it should not be surprising that one of the key underlying findings of this Commission is that the ocean governance system lacks coordination, coherence, and focus.

The review of the evolution of U.S. ocean and coastal law presented in this Appendix illustrates not only the complexity of the issues that led to enactment of certain ocean programs, but also that law and policy are inevitably the products of their time. The political and policy landscape of the late forties and early fifties, within which the Truman and Eisenhower Administrations considered jurisdictional claims over the outer Continental Shelf and potential sources of oil and gas in offshore waters, was far different than that which faced the members of the Stratton Commission in the mid-1960’s as they focused on the discovery of new ocean resources, the development of marine technology, the need for better organization of federal ocean efforts, and the initial stages of public concern about the marine environment. No one could have anticipated that within some two weeks after the release of the Stratton report, a production platform off the coast of Santa Barbara would blow out, spilling some 3 million gallons of oil along the beaches of California and, in some respects, forever changing the national debate about ocean policy.

The evolution of law in any policy arena needs to be reviewed and analyzed in historical context. Only by achieving a clear understanding of what has occurred before—and why—can a political system hope to improve its institutions of governance. This Appendix represents an effort to objectively describe the primary governing statutes in U.S. ocean and coastal law and identify some key legal issues that have emerged from implementation of those statutes, while acknowledging the historical context within which these developments took place.

As noted in the Preface to this volume, the mandate for this Commission to identify inconsistencies and contradictions in federal laws and regulations as they adversely affect ocean and coastal activities has been addressed in the Commission’s main report, *An Ocean Blueprint for the 21<sup>st</sup> Century*. This review of U.S. ocean and coastal law, along with innumerable other sources of data, provided the Commission with the historical, legal, regulatory, and juridical information necessary to craft the recommendations in the main report that call for needed statutory or regulatory modifications.

This review has been divided into chapters devoted to discrete ocean policy issues, including descriptions of the evolution of laws related to coastal management, living marine resources, ocean and coastal pollution,

offshore uses, and marine operations. Not only was this the most manageable way to organize such a review, it also represents the way in which ocean law has, in fact, been viewed by stakeholders and enacted by Congress—as individual pieces of legislation dealing with fisheries, coastal management, clean water, oil pollution, offshore oil drilling, marine safety and security, and a host of other so-called single purpose laws.

Collectively, these laws should largely define the nation’s ocean policy. However, after three years of analysis, the Commission agrees with the characterization made by two close observers: “U.S. ocean policy today is less than the sum of its parts.”<sup>1</sup>

Nevertheless, the inconsistencies and contradictions in federal laws and regulations do not account for the lack of coordination, coherence, and focus in the nation’s ocean policy. Rather, in large measure, such inconsistencies and contradictions are themselves manifestations of a more fundamental structural problem in the U.S. ocean governance regime: *oceans* have never been an organizing principle of government nor have they been comprehensively managed according to ecosystem-based, science-based, and adaptive approaches. It is this lack of an overall vision of the oceans within the institutions of government that is at the heart of the Commission’s recommendations for a comprehensive and coordinated national ocean policy, as spelled out in its main report.

Ocean resources should be managed to reflect the relationships among all ecosystem components and should also be seen as part of an even larger earth system. At the very least, the new ocean-related institutions recommended in the Commission’s National Ocean Policy Framework (Part II of the main report) need to demonstrate this broader perspective. If they are structured to undertake the functions suggested, they will be in a position to bring about a far greater harmonization of federal ocean laws and regulations.

Additionally, the adoption of common guiding principles at all levels of government (Chapter 3 of the main report) will also help minimize legal inconsistencies, contradictions and conflicts. The development of legal regimes to support an ecosystem-based management approach should discourage the consideration of policy problems on a single-issue basis and move toward a process that considers the impacts of ocean and coastal laws throughout an ecosystem.

It should be recognized that inconsistencies, gaps, or lack of statutory clarity may in part reflect the level of agreement that can be reached on a particular issue during the legislative process. Congress, aware that passage of a new law or an amendment to an existing law will likely affect related statutes and programs, may decide that the precise relationship between those laws or programs needs to be worked out by the appropriate executive agencies through administrative and regulatory processes. In some instances, ultimate resolution may have to come through the courts.

Additionally, what some may see as legal inconsistencies or contradictions are frequently deliberate policy decisions made by Congress. Apparent conflicts between federal and state laws can reflect underlying differences in goals or priorities. For example, at the federal level, the Coastal Barrier Resources Act (CBRA) reflects the desire to limit unwise development and damage to natural resources in coastal barrier areas, such as barrier islands. While some states have taken action consistent with these goals, others have laws in place that subsidize or otherwise encourage coastal development and produce outcomes directly at odds with those sought under the CBRA (see Chapter 2). Congress determined that it could limit certain *federal* programs that encouraged development on coastal barriers but did not preempt the states from exercising their own land and water use authorities.

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<sup>1</sup> Cicin-Sain, B. and R. Knecht, *The Future of U.S. Ocean Policy*. Washington, DC: Island Press, 2000.

The tension that arises with respect to federal activities that affect the coastal resources of a state has been recognized by Congress as a serious matter in the division of authorities between the levels of government. To a large extent, the federal consistency provision of the Coastal Zone Management Act (CZMA) (see Chapter 2) was Congress' response to this tension. Rather than a clear and unambiguous federal preemption of state authorities or, conversely, an absolute veto over federal ocean-related activities for coastal states, Congress set up the consistency process in the CZMA to promote strong intergovernmental communication and procedures with respect to such activities.

In general, the consistency provision has worked well but some high profile cases, particularly in the area of offshore energy development, have led to appeals to the Secretary of Commerce and considerable litigation, including a Supreme Court case. Some may conclude that problems between the CZMA and the OCSLA are contradictions or inconsistencies in law. However, Congress deliberately enacted and subsequently amended the federal consistency provision to adapt its process to the offshore energy program. The result has been mixed: mostly positive in states that support offshore development and sometimes problematic in those that oppose such activity. The existing situation, in any regard, is the result of a policy decision made by Congress, not an inadvertent action that led to an unintended conflict between laws.

Nevertheless, this review of ocean and coastal law indicates that some legal inconsistencies and contradictions appear to have developed unintentionally. For example, a number of statutes addressing ocean law use the same offshore jurisdictional terms, such as *territorial sea* or *contiguous zone*, but define them differently or not at all (see Chapter 1). This inconsistency has, in limited instances, caused some confusion in the application and enforcement of these laws (see Chapter 7).

In other cases, there appear to be conflicts between statutory requirements. Chapter 7 notes some uncertainty in maritime commercial operations because of provisions regarding discharges of ship-generated wastes in both the Act to Prevent Pollution from Ships and the Ocean Dumping Act. That chapter also notes the occasional unanticipated consequence when international agreements are implemented through federal statutes or when federal preemption of state law is unclear. Some of these may arise due to congressional oversights or unintentional statutory inconsistencies while others may be deliberate policy decisions or may simply indicate an inability to craft a legislative solution to a known contradiction.

There are also gaps in statutory authority that need to be addressed as part of a new approach to ocean management and stewardship. This is particularly true with respect to offshore activities. While the OCSLA provides a specific legal and management structure for offshore oil, natural gas, and mineral extraction, there is no similar comprehensive regime for new and emerging uses, or for non-extractive facilities, such as energy generating wind farms (see Chapter 5). Similarly, there is no authority to enter into leasing agreements for offshore aquaculture or marine bioprospecting activities (see Chapters 22 and 23 of the main report).

Thus, the picture of U.S. ocean and coastal law as it has evolved over the last three decades is, at best, mixed. Federal laws and regulations are not the *cause* of a disjointed and uncoordinated national ocean policy. Rather, they reflect existing government institutions and processes that focus largely on single issues, or respond to specific new and urgent problems as they arise, rather than within an ecosystem-based approach.

The National Ocean Council (NOC) recommended by the Commission (see Chapter 4 of the main report) is ideally suited to provide the input that could lead to a more comprehensive and coordinated federal legal regime for ocean and coastal management. Specifically, among its many functions, the NOC is directed to “identify statutory and regulatory redundancies or omissions and develop strategies to resolve conflicts, fill gaps, and address new and emerging ocean issues for national and regional benefits.”

In addition to the NOC, the recommended framework includes regional councils (see Chapter 5 of the main report) under state leadership. Core functions of these councils include facilitating coordinated and

collaborative responses to regional issues, developing regional goals and priorities, and communicating such responses and goals to the national level through the NOC. As a first step in this process, it is recommended that all federal agencies be required to improve regional coordination and outreach, and identify inconsistencies in agency mandates, policies, regulations, practices or funding that prevent regional issues from being effectively addressed. Implementation of these recommendations should also help make federal ocean law more cohesive and address some of the federal-state legal conflicts identified throughout this Appendix.

The law and policy governing ocean and coastal resources is necessarily complex because of the vast and interconnected nature of the resources themselves. This will always be the case, and decision makers at all levels of government will continually need to improve the laws that enable the nation to manage these critical resources. Guided by a growing understanding of the connectivity of ecosystems and the need to manage in a way that acknowledges and respects those connections, and led by institutions established under the Commission's New Ocean Policy Framework that have the capacity and mandate to examine the nation's statutory regime, anticipate problems before they arise, and address them when they do, enormous improvements can be made.

Adopting this new approach to ocean policy will provide greatly improved legal support for the balanced use, protection, and stewardship of our ocean and coastal resources, consistent with the Commission's Ocean Blueprint for the 21<sup>st</sup> Century.