



New England Fishery Management Council

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MEMORANDUM

FOR: Council Members
FROM: Chad Demarest
SUBJECT: Ecosystem-based management and jurisdictional issues surrounding non-fisheries offshore marine services: LNG terminals, aquaculture and wind farming

DATE: September 2, 2005

The following white paper was originally prepared on contract by Laura Welles for the New England Fishery Management Council. Laura is a Maine-based attorney with extensive research experience, primarily with the Congressional Research Service, on coastal and offshore jurisdictional issues. This white paper is intended to establish the background and regulatory framework for three issues that may become increasingly important to the Council if the New England region, and indeed the Nation, intends to go down a path toward holistic management of marine resources and marine resource users.

Due to the recent passage of legislation, particularly the Energy Policy Act of 2005, this paper has undergone revisions. The timing of the original drafting of this paper and the passage of pertinent legislation only highlights the emerging nature of these issues, and their potential importance to ecosystem approaches to fisheries management.

Four main themes emerge from this paper:

1. The Council's official role in permitting and operation of businesses utilizing offshore resources is via the MFCMA's EFH provisions, which allow the Council to comment on projects that may adversely impact habitat. However, the fishery-related impacts of such projects frequently go well beyond habitat; these may include but are not limited to displaced fishing effort, permanent exclusion from traditional fishing areas, and disruptions in patterns of use (e.g. the removal of fixed fishing gear to accommodate LNG offloads). The efficacy of increased involvement through the NEPA process is unknown, but the Council's role as an interested member of the public should not be discounted.
2. These issues are indeed cutting edge and there is no blueprint, in New England or nationally, to guide our future actions.
3. New England appears to be at the epicenter of at least two of the three issues (i.e. LNG terminals and wind farms).
4. To the extent that current fishing practices may be altered by these issues, it may be advisable for the Council to plan for the inclusion of these and other offshore uses of the marine environment. The Ecosystems Ctte may be a natural venue for such planning. Involvement in public hearings and through written comments may be more useful than ceding responsibility to NOAA Fisheries, as the Council may have different objectives than the Service.

Ecosystem-based management: jurisdictional issues surrounding non-fisheries offshore marine services

focusing on LNG terminals, aquaculture and wind farming

Executive Summary

Over the past few decades, new uses for coastal and offshore areas have emerged, including liquefied natural gas (LNG) import terminals, aquaculture and wind energy. At the same time, more traditional uses, such as oil and gas development and commercial fishing, have continued to expand in scope and regional importance. With technology improving, companies are looking to expand these new marine activities farther offshore, into federal waters. By moving operations farther offshore, companies are avoiding many of the problems associated with nearshore development, namely crowded areas with competing users.

As companies propose offshore LNG, aquaculture, and wind farm projects, Congress and federal agencies are working hard to develop a regulatory framework that can accommodate each of these new uses. Instead of placing a moratorium on all projects until such a regime exists, federal agencies are using existing law to authorize LNG terminals, fish farms, and wind energy. As can be expected, there may be uncertainties surrounding the permitting of each of these offshore activities. Moreover, there are concerns as to how these new uses will interact with the more traditional uses, such as commercial fishing.

Of the three uses, offshore LNG has the most concrete regulatory structure, America now has the world's first operational offshore LNG terminal (116 miles offshore of Louisiana). Under the Deepwater Port Act (DWPA), the Secretary of the Department of Transportation (DOT) is responsible for authorizing and regulating the siting, construction, and operation of deepwater ports. Initially, this act applied only to offshore oil facilities and not LNG terminals. In 2002, Congress amended the DWPA to include natural gas facilities. The Secretary of DOT has delegated his authority under the DWPA to the Commandant of the United States Coast Guard and the Administrator of the Maritime Administration.

Offshore aquaculture has a longer history than any of the other uses. There are no commercial offshore aquaculture facilities operating in federal waters, but there are research-oriented projects currently operating off the shores of Massachusetts, New Hampshire, Hawaii, and Mississippi. Before an aquaculture facility can be built, an applicant must consult with several federal agencies, including the Army Corps of Engineers (COE), NOAA Fisheries Service, Environmental Protection Agency (EPA), and Fish and Wildlife Service (FWS). While it is relatively clear which federal agencies play a role in permitting offshore aquaculture, more must be done to establish a framework where these participating agencies can coordinate their efforts. The Department of Commerce has drafted legislation called the "U. S. Offshore Aquaculture Act," which was forwarded to the 109th Congress on June 7, 2005. This legislation requires that the Secretary of Commerce act as the sole authority on both siting and operation permits for offshore aquaculture. It excludes aquaculture from the definition of "fishing" and thereby reduces the role played by Regional Fishery Management Councils in aquaculture siting and operation.

Prior to the passing of the Energy Policy Act of 2005, the COE had assumed the lead role in the federal permitting of offshore wind farms, claiming jurisdiction under Section 10 of the Rivers and Harbors Act (RHA), as amended by the Outer Continental Shelf Lands Act (OCSLA). Under Section 10 of the RHA, the COE had jurisdiction to regulate obstructions to navigation within the navigable waters of the United States. The OCSLA extends the COE's jurisdiction out to the outer continental shelf and into federal waters. However, the Energy Policy Act now allows the Secretary of the Interior (via the Mineral Management Service (MMS)) to grant a lease, easement, or right of way on the Outer Continental Shelf for the production, transportation, or transmission of "energy from sources other than oil or gas." This language appears to grant the MMS sole authority to permit wind farms in federal waters.

All of these new offshore activities mentioned above impact marine resources in one way or another, whether it is an endangered species, commercial fishery, or protected habitat. While many of these uses are in their infancy, it is important for marine resource managers to know what sort of role their agency may have in deciding whether a project should go forward as planned or be modified to accommodate existing uses.

This paper provides an overview of the current regulatory structure for permitting offshore LNG, aquaculture, and wind farms. Under each offshore activity, there is information on proposed projects, each of the federal agencies involved, the permits needed, and the regulatory gaps. Moreover, there is a discussion on what role the New England Fishery Management Council has in shaping these emerging uses. Finally, each section ends with what legislators are doing in Washington, D.C. to address these activities.

Overview of U.S. Ocean Jurisdiction

In 1953, Congress enacted the Submerged Lands Act (SLA). With this act, Congress generally granted coastal states title to the waters and submerged lands lying beyond the coastline out to three nautical miles.¹ In the same year Congress passed the SLA, it enacted the Outer Continental Shelf Lands Act (OCSLA).² This act established federal dominion over the waters and submerged lands lying seaward of the coastal states SLA boundary. Thus, state waters constitute 0-3 nautical miles while federal waters are 3-200 nautical miles. The 3-200 nautical mile area is often referred to as the exclusive economic zone (EEZ). The outer continental shelf (OCS) refers to the seabed and subsoil of the submerged lands that lie seaward of the coastal state's SLA boundary. The OCS "either extends 200 miles from the coastline or beyond, depending upon the geographical composition of the coastal nation's submerged lands."³

Offshore LNG Terminals

One way the United States plans to meet its present and future energy demands is through the importation of Liquefied Natural Gas (LNG). Currently, the United States has four onshore LNG import terminals in coastal port areas: Everett, Massachusetts, Cove Point, Maryland, Elba Island, Georgia, and Lake Charles, Louisiana. These four existing import terminals have been around since the 1970s. There is an additional onshore import facility located in Penuelas, Puerto Rico.⁴ This facility began importing liquefied natural gas in August 2000.⁵

Due to potential hazards associated with onshore LNG, many state and local governments have opposed the construction of any new onshore LNG terminals. For example, there have been numerous proposals for onshore LNG terminals along the coast of Maine. Most of these proposals (Harpwell, Hope Island, Cousins Island, Sears Island, and Pleasant Point) have either been rejected by local voters or withdrawn.⁶ Most opponents to onshore LNG terminals maintain that LNG is unsafe, harms the environment, and disrupts commercial fishing. Companies, like ChevronTexaco and Shell, are now moving towards developing LNG terminals offshore, on the outer continental shelf.

¹ Submerged Lands Act, 43 U.S.C. §§ 1301, et seq. The Gulf of Mexico coasts of Florida and Texas have a three marine league SLA boundary. 43 U.S.C. § 1301(b).

² Outer Continental Shelf Lands Act, 43 U.S.C. §§ 1331, et seq.

³ Laura K. Welles, Aaron M. Flynn, and Eugene H. Buck, *Federal-State Maritime Boundary Issues*, CRS Report RL32912, p. 4, n.18. See also UNCLOS III art. 76(1).

⁴ In addition, there is an export LNG facility located in Kenai, Alaska. See *Existing LNG terminals*, available at www.ferc.gov/industries/lng/indus-act/exist-term.asp (last visited May 24, 2005).

⁵ Id.

⁶ See *LNG in Casco Bay*, available at <http://news.maine.com/indepth/lng/> (last visited May 24, 2005). An onshore LNG site at Pleasant Point (Passamaquoddy Bay) is still in the works. See *Tribe's LNG plan still May Have Life*, available at <http://www.bangornews.com/news/templates/?a=112277> (last visited May 24, 2005).

Existing LNG Projects

In April 2005, Gulf Gateway Energy Bridge (formerly known as El Paso Energy Bridge)⁷ became the world's first offshore LNG terminal to begin operation.⁸ Gulf Gateway is located 116 miles offshore of the Louisiana coastline. To date, including Gulf Gateway, there are three offshore LNG projects that have been *approved*. These three LNG terminals are all located in the Gulf of Mexico. Port Pelican's (ChevronTexaco) proposed site is located thirty-six miles off the Louisiana coastline, while Gulf Landing's (Shell) is located thirty-eight miles offshore of Louisiana.⁹

Seven proposed LNG terminals are currently *under review*, including a terminal to be built offshore Gloucester, Massachusetts. The other projects under review include: Cabrillo Port (fourteen miles offshore Ventura County, California), Clearwater Port (fourteen miles offshore southern California), Main Pass Energy Hub (offshore of Alabama, Louisiana, and Mississippi), Compass Port (offshore of Alabama and Mississippi), Pearl Crossing (forty-one miles offshore of Louisiana), and Beacon Port (offshore of Louisiana).¹⁰ The application for the proposed offshore LNG terminal off the coast of Gloucester is currently under review for completeness.¹¹

Regulatory Framework for Offshore LNG Facilities

Under the Deepwater Port Act (DWPA), the Secretary of Transportation is charged with authorizing and regulating the "location, ownership, construction, and operation of deepwater ports."¹² Initially, this act applied only to offshore oil facilities and not LNG terminals.¹³ In 2002, Congress, acknowledging the need for "a broad and cohesive ocean governance structure for offshore LNG ports,"¹⁴ amended the DWPA to allow for the "siting, construction, and operation of LNG terminals" on the OCS.¹⁵ Section 106 of the Maritime Transportation Security Act of 2002¹⁶ amended the DWPA to include natural gas facilities. Today, a deepwater port is defined as:

⁷ MARAD, *El Paso Energy Bridge Changes Name to Gulf Gateway Energy Bridge*, available at http://www.marad.dot.gov/dwp/port_news/news_detail.asp?ID=18&from=home (last visited May 29, 2005).

⁸ Offshore Technology, *World's First Offshore LNG Terminal in Operation*, available at http://www.offshore-technology.com/contractors/floating_production/apl/press11.htm (last visited May 13, 2005). All the comments, notices, and correspondence for the Gulf Gateway Energy Bridge LNG project are available online at http://www.marad.dot.gov/dwp/deepwater_ports.html (last visited May 23, 2005).

⁹ Maritime Administrator, *Deepwater Port Licensing: Current/Planned Deepwater Ports*, available at http://www.marad.dot.gov/dwp/deepwater_ports.html (last visited May 23, 2005) [hereinafter *Proposed LNG Terminals*].

¹⁰ *Id.*

¹¹ See *Proposed LNG Terminals*.

¹² Deepwater Port Act, 33 U.S.C. §§ 1501(a), 1503.

¹³ A "deepwater port" was originally defined as "any fixed or floating manmade structure other than a vessel, or any group of structures, located beyond the territorial sea [(at the time only three nautical miles)] and off the coast of the United States and which are used or intended for use as a port or terminal for the transportation, storage, and further handling of oil for transportation to any State...." 33 U.S.C. § 1502(9) (2000).

¹⁴ U.S. Commission on Ocean Policy report, chapter 24, available at http://www.oceancommission.gov/documents/full_color_rpt/welcome.html (last visited May 13, 2005).

¹⁵ *Id.*

¹⁶ P.L. 107-295.

any fixed or floating manmade structure other than a vessel . . . located beyond State seaward boundaries and that are used or intended for use as a port or terminal for the transportation, storage, or further handling of oil or *natural gas*¹⁷ for transportation to any State. . . .¹⁸

The U.S. Coast Guard (USCG), within the Department of Homeland Security, and the Maritime Administration (MARAD), within the Department of Transportation, are the lead agencies for processing applications for deepwater ports.¹⁹ As stated above, the DWPA authorizes the Secretary of the Department of Transportation (DOT) to process applications for the construction or operation of deepwater ports, including LNG terminals. The Secretary of DOT delegated his authority under this act to the Commandant of the USCG, in coordination with the Administrator of the MARAD.²⁰ Under Sections 888 and 1512(d) of the Homeland Security Act of 2002, the USCG maintains its previous delegation to process deepwater port applications even though it no longer is within the DOT.²¹ In June 2003, the Secretary of DOT delegated his authority to “issue, transfer, amend, or reinstate a license for the construction and operation of a deepwater oil or natural gas port” to the Administrator of the MARAD.²²

In May 2004, USCG and MARAD entered into a Memorandum of Understanding (Deepwater MOU) with the other participating agencies under the DWPA.²³ This MOU, consistent with Executive Order 13212 (“Actions to Expedite Energy-Related Projects”),²⁴ seeks to establish a framework where participating agencies cooperate in a manner that “expedite[s] actions on pending and future applications for licensing deepwater ports.”²⁵ The participating agencies include:

- U.S. Department of Commerce (DOC)
National Oceanic and Atmospheric Administration (NOAA)
National Marine Fisheries Service (NOAA Fisheries Service)
National Ocean Service (NOS)
- U.S. Department of Defense (DOD)
(Installations and Environment) Utilities and Energy
Secretary of the Army, U.S. Army Corps of Engineers (COE)
- U.S. Department of Energy (DOE)

¹⁷ The DWPA defines “natural gas” as “either natural gas unmixed, or any mixture of natural or artificial gas, including compressed or liquefied natural gas.” 33 U.S.C. § 1502(13) (2002).

¹⁸ 33 U.S.C. § 1502(9)(A) (2002) (emphasis added).

¹⁹ Robert W. Middleton, *Memorandum of Understanding on Deepwater Port Licensing*, available at http://www.uscg.mil/hq/g-m/mso/docs/dwp_white_house_task_force_energy_streamlining.pdf, p.1-2. (last visited May 20, 2005) [hereinafter *Deepwater MOU*]

²⁰ 49 C.F.R. § 1.46(s).

²¹ See *Deepwater MOU*, p. 4, n.1.

²² 68 Fed. Reg. 36496 (June 18, 2003).

²³ See *Deepwater MOU*, p. 1.

²⁴ Executive Order 13212, signed by President Bush on May 18, 2001, directs executive departments and agencies to “take appropriate actions, to the extent consistent with applicable law, to expedite projects that will increase the production, transmission, or conservation of energy.” 66 Fed. Reg. 28357 (May 18, 2001).

²⁵ See *Deepwater MOU*, p. 2.

- Office of Fossil Energy
- U.S. Department of Homeland Security (DHS)
U.S. Coast Guard (USCG)
- U.S. Department of the Interior (DOI)
Minerals Management Service (MMS)
U.S. Fish and Wildlife Service (FWS)
- U.S. Department of State (DOS)
- U.S. Department of Transportation (DOT)
Maritime Administration (MARAD)
Research and Special Programs (RSPA)
- U.S. Environmental Protection Agency (EPA)
- Federal Energy Regulatory Commission (FERC)
- Council on Environmental Quality (CEQ)²⁶

The above agencies all have certain regulatory responsibilities relevant to deepwater ports located on the OCS.²⁷ Cooperation between the lead agencies (USCG and MARAD) and these participating agencies is critical in meeting the timeline requirements set forth in the DWPA.

DWPA Timeline Requirements

Under Section 1504 of the DWPA, the USCG and MARAD have twenty-one days, after receipt of application, to conclude whether the application contains all the necessary information.²⁸ If the application does, then the USCG and MARAD must publish a notice of application in the Federal Register.²⁹ Once notice is published, the USCG and MARAD have 240 days (from date of publication) to hold at least one public hearing.³⁰ A public hearing must be held in each of the adjacent coastal states affected by the proposed deepwater port.³¹ After the final public hearing, federal agencies have forty-five days to comment on the proposed application.³² The USCG and MARAD have an additional forty-five days, after receiving comments from the participating federal agencies, to issue its decision on the license.³³

The Deepwater MOU, discussed above, ensures that the regulatory responsibility of each agency meets the strict DWPA timeline. Under the Deepwater MOU, participating agencies are encouraged to “commit to early involvement.”³⁴ An agency achieves this early involvement by

- (1) assessing its potential role in the environmental review of deepwater

²⁶ Id. at p. 2-3.

²⁷ Under the DWPA, “[t]he Constitution, laws, and treaties of the United States shall apply to a deepwater port licensed under this chapter and to activities connected, associated, or potentially interfering with the use or operation of any such port. . . .” 33 U.S.C. § 1518(a)(1). See also 43 U.S.C. § 1333(a)(1).

²⁸ 33 U.S.C. § 1504(c)(1).

²⁹ Id.

³⁰ Id. § 1504(g).

³¹ 33 U.S.C. § 1508(a)(1)(A)-(B).

³² Id. § 1504(e)(2).

³³ Id. § 1504(i)(4).

³⁴ *Deepwater MOU*, p. 6.

port licenses, as soon as practicable, . . . (2) conducting an early initial review of the deepwater applications for completeness and accuracy and providing the USCG and MARAD with findings to assist in their “completeness” determination process . . . [and] (3) conferring with the USCG and MARAD in establishing schedules [(e.g., good times for consultation)].³⁵

By signing the Deepwater MOU, participating agencies are agreeing to certain internal procedures that seek to facilitate a prompt, but thorough, review of applications for deepwater ports.

Agencies and Permits Needed

As established earlier in this paper, the USCG and MARAD are the lead agencies in processing applications for deepwater ports. Although both agencies have been delegated “lead” agency status by the DOT, their lead responsibilities vary. For example, the USCG is the lead agency for environmental review, including compliance with the National Environmental Policy Act (NEPA). Moreover, it is “responsible for matters related to navigation safety, engineering and safety standards, and facility inspections.”³⁶ MARAD, on the other hand, is “responsible for determining financial capability of the potential licensees, citizenship, and is responsible for preparing the project record of decision and issuing or denying the license.”³⁷ Both agencies share the remaining responsibilities under the DWPA (e. g., the duty of consultation).

Other agencies, such as NOAA fisheries Service and the EPA, have responsibilities that must be met before a DWPA license may be issued to an applicant. Below is a list of the agencies and their various responsibilities:

NOAA Fisheries Service, within DOC, oversees a number of different activities in the marine environment. Under federal law, NOAA Fisheries Service is responsible for managing commercial and recreational fisheries,³⁸ managing protected species,³⁹ and protecting marine habitats.⁴⁰ Therefore, NOAA Fisheries Service must identify and comment on potential impacts a proposed facility may have on marine resources and the habitat upon which these resources depend (e.g., essential fish habitat).

The **NOS**, within DOC, oversees the Coastal Zone Management Act (CZMA).⁴¹ It approves a coastal state’s Coastal Management Program (CMP) and National Estuarine Research Reserves. Once a state implements its own CMP, NOS reviews it to ensure that national objectives are being achieved. Before the USCG and MARAD can authorize a project, an affected state must certify that the proposed deepwater port is consistent with

³⁵ Id. at p. 6-7.

³⁶ Id. at p. 4.

³⁷ Id. See also MARAD, *Deepwater Port Act License Requirements*, available at http://marad.dot.gov/dwp/about_dpa/about_lic_req.html (last visited June 1, 2005).

³⁸ Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. §§ 1801, et seq.

³⁹ See Endangered Species Act, 16 U.S.C. §§ 1531, et seq.; Marine Mammal Protection Act, 16 U.S.C. §§ 1361, et seq.; Fish and Wildlife Coordination Act, 16 U.S.C. §§ 661, et seq.

⁴⁰ 16 U.S.C. §§ 1801, et seq.

⁴¹ 16 U.S.C. §§ 1451, et seq.

its CMP.⁴² In addition, any applicant proposing to construct and operate a deepwater port near a National Marine Sanctuary must consult with NOS.⁴³

The **DOD** (Installations and Environment) reviews deepwater port applications to ensure that the proposed facility will not interfere or impact the Department's activities. The **COE**, within DOD, is responsible, under Section 10 of the Rivers and Harbors Act, and section 404 of the Clean Water Act, for authorizing the discharge of any dredged or fill material into U.S. waters.

Under Section 3 of the Natural Gas Act, the **DOE** is responsible for regulating the import and export of natural gas. The DOE is also entrusted with coordinating a national energy policy.

The DWPA, as amended in 2002, authorizes the **Secretary of the Interior** to determine the rental fee of the "subsoil and seabed of the Outer Continental Shelf of the United States to be utilized by the deepwater port, including the fair market value of the right-of-way necessary for the pipeline segment of the port located on such subsoil and seabed." Under the Outer Continental Shelf Lands Act,⁴⁴ the **MMS**, within DOI, is responsible for managing the exploration and development of mineral resources on the OCS. With this authority, the MMS is charged with issuing "pipeline rights-of-way for the transportation of oil, natural gas, sulfur, or other minerals."⁴⁵

Under federal law,⁴⁶ the **FWS** is responsible for protecting certain marine mammals, migratory birds, endangered and threatened species, and coastal habitats. If a proposed deepwater port project affects any of these listed resources, then FWS must be consulted. The FWS is also charged with managing the National Wildlife Refuge System (NWRS).⁴⁷

The **DOS** is responsible for reviewing an application and providing any comments on how the proposed facility might impact programs within its jurisdiction.

Under the DWPA, the **RSPA** has the authority to review, establish, and enforce regulations pertaining to "the safe construction, operation or maintenance of deepwater port pipelines on federal lands and the [outer continental shelf]."⁴⁸ The RSPA also charged with establishing federal safety standards for LNG facilities.⁴⁹

The **EPA** administers both the Clean Air Act and Clean Water Act. Therefore, an applicant for a deepwater port must obtain the necessary permits under both of these acts. If the Administrator of the EPA informs the Secretary of the DOC that the proposed project will not meet statutory requirements, then the Secretary may deny the license.

⁴² 16 U.S.C. § 1456(c)(3)(A). This provision, known as the consistency provision, requires that all applicants "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." *Id.*

⁴³ 16 U.S.C. §§ 1431, et seq.

⁴⁴ 43 U.S.C. §§ 1331, et seq.

⁴⁵ *Cooperating Agency Agreement between United States Coast Guard and Minerals Management Service*, available at http://www.mil/hq/g-m/mso/docs/dwp_cooperating_agency_agreement_mms_13Aug03.pdf (last visited May 20, 2005).

⁴⁶ Marine Mammal Protection Act, Migratory Bird Treat Act, the Endangered Species Act, and the Coastal Barrier Resources Act.

⁴⁷ National Wildlife Refuge System, 16 U.S.C. § 668dd(a)(1).

⁴⁸ *Deepwater MOU*, p.5.

⁴⁹ 49 C.F.R. § 193.

While **FERC** is the lead agency for onshore LNG projects, it plays a lesser role in processing applications for offshore LNG facilities. The Deepwater MOU states that “for natural gas deepwater ports, FERC will retain jurisdiction over any third-party offshore facilities not proposed or approved for construction as part of the deepwater port as well as any facilities to the landward side of the high water mark.”⁵⁰

Approval by Adjacent State

Each adjacent state has veto power over proposed deepwater ports. Under the DWPA, an “adjacent coastal state” is any coastal state that “(A) would be directly connected by pipeline to a deepwater port as proposed in an application, or (B) would be located within 15 miles of any such proposed deepwater port.”⁵¹ After a coastal state is designated as an “adjacent coastal state,” the USCG and MARAD have ten days to send a complete copy of the deepwater port application to the governor of each state.⁵² No license shall be issued “without the approval of the Governor of each adjacent coastal State.” The governor has forty-five days after the last public hearing to send his approval or disapproval. If the governor fails to communicate his decision within this timeframe, then approval shall be “conclusively presumed.”⁵³

Regulatory Gaps

The Maritime Transportation Security Act of 2002 provides the needed structure for overseeing the development of offshore natural gas facilities, specifically LNG terminals. The Deepwater MOU goes a step further in developing internal procedures that will assist federal agencies in reviewing applications. As a result, the regulatory procedures for siting and operation of offshore LNG terminals, while arcane, appear to be well understood.

Regional FMC’s Role

Under the Magnuson-Stevens Fishery Conservation and Management Act (MSA), a federal agency must consult with the Secretary if an action “may adversely affect any essential fish habitat (EFH).”⁵⁴ A deepwater port has the potential to affect essential fish habitat. Therefore, the USCG and MARAD must consult with NOAA Fisheries Service when processing deepwater port applications.

The MSA permits each regional fishery council to “comment on and make recommendations to the Secretary and any Federal or State agency concerning any activity . . . [that] may affect the habitat, including the essential fish habitat, of a fishery resource under its authority.”⁵⁵ A council must comment if the proposed activity “is

⁵⁰ *Deepwater MOU*, p. 5.

⁵¹ 33 U.S.C. § 1508(a)(1)(A), (B).

⁵² *Id.* § 1508(b)(1).

⁵³ *Id.*

⁵⁴ 16 U.S.C. 1855(b)(2).

⁵⁵ *Id.* § 1855 (b)(3)(A).

likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.”⁵⁶

During the processing of the Gulf Gateway application, NOAA Fisheries Service submitted numerous comments and recommendations. The first set of recommendations came after reviewing Gulf Gateway’s application and environmental report.⁵⁷ NOAA Fisheries Service developed a list of all the species and their life stages that had been designated as EFH within the proposed project area.⁵⁸ The Fishery Management Plans (FMPs) were alluded to as a more detailed resource for learning more about each species’ designated EFH, including the sub-categories of EFH.

NOAA Fisheries Service also recommended that the environmental assessment (EA) have individual sections titled “Essential Fish Habitat” and Marine Fishery Resources” that “describe the potential impacts of the proposed project on the sub-categories of EFH (e.g., non-vegetated water bottoms, geologic features, continental shelf features, marine water column, etc.) and marine fishery species within the project area.”⁵⁹ Other recommendations included: (1) evaluating the environmental impacts of operating both an open loop and closed-loop regasification system; (2) evaluating the frequency of port utilization by LNG vessels; (3) assessing the effects of thermal discharge on marine resources; and (4) determining the vessel design with the least amount of impact on marine organisms.

NOAA Fisheries Service, as expected, participated throughout the processing of Gulf Gateway’s application. Although not all of NOAA Fisheries Service’s comments and recommendations were fully addressed, the agency did inform the USCG and MARAD that no further action was required.⁶⁰ Gulf Gateway received their Record of Decision and license for a deepwater port; however, it was subjected to a number of conditions, including important mitigation measures that surfaced during the NEPA and EFH consultation.⁶¹

⁵⁶ Id. § 1855 (b)(3)(B).

⁵⁷ See NOAA Fisheries Service letter dated June 20, 2003 to Commander Mark A. Prescott, available at http://www.dmses.dot.gov/docimages/pdf86/247617_web.pdf (last visited May 23, 2005) [hereinafter NOAA Fisheries Service Letter 1].

⁵⁸ Id. The listed species included: brown shrimp, white shrimp, red drum, red snapper, gray snapper, lane snapper, greater amberjack, lesser amberjack, gray triggerfish, king mackerel, cobia, dolphin, bluefish, little tunny, and Atlantic bluefin tuna.

⁵⁹ Id. at p. 2.

⁶⁰ See NOAA Fisheries Service letter dated December 15, 2003 to Commander Mark A. Prescott, available at http://www.dmses.dot.gov/docimages/pdf88/264161_web.pdf (last visited May 23, 2005).

⁶¹ Annex A, El Paso (later renamed Gulf Gateway) Energy Bridge Gulf of Mexico Conditions, available at http://dmses.dot.gov/docimages/pdf89/282785_web.pdf (last visited May 23, 2005). One of the most important conditions was that the Licensee turn off the “electric current to the ship’s regasification copper-anode antifouling system during regasification operations using open-loop warming water.” On October 13, 2003, NOAA Fisheries Service submitted comments to the USCG regarding Gulf Gateway’s Environmental Assessment (EA). One of the primary concerns was the use of copper in the regasification system. In its letter, the NOAA Fisheries Service stated that “failure to properly dilute the copper concentration and subsequent accumulation in the surrounding water column, sediments, and organisms could have significant adverse impacts to the ecosystem.” See NOAA Fisheries Service letter dated October 15, 2003 to Commander Mark A. Prescott, available at http://dmses.dot.gov/docimages/pdf88/259103_web.pdf (last visited June 3, 2005). The letter further stated that “crustaceans have a high sensitivity to metals, with early development stages being more susceptible to the effects of toxicity.” Id. at p.5.

Current Legislation

Presently, there are disputes as to the “extent of FERC’s authority in [onshore] LNG project authorization and siting approval.”⁶² Some coastal states, like California, are challenging FERC’s exclusive authority over onshore LNG siting and safety.⁶³ Due to this rising tension between coastal states and FERC, most of today’s LNG legislation pertains to onshore LNG facilities. For example, H.R. 359 (Liquefied Natural Gas Act of 2005) would amend the Natural Gas Act (NGA) so that “no person shall site, construct, expand, or operate a liquefied natural gas import terminal without first having secured a FERC authorization.” If passed, state and local governments would be prohibited “from requiring any form of authorization with respect to the siting, construction, expansion, or operation of a liquefied natural gas import terminal except as otherwise provided by Federal law.”⁶⁴ This bill defines “liquefied natural gas import terminal as including *all facilities located onshore or in State waters* that are used to receive, unload, store, transport, gasify, or process liquefied natural gas imported to the United States from a foreign country, but does exclude the tankers used to deliver liquefied natural gas to such facilities.”⁶⁵

Other legislation includes S. 684 (Liquefied Natural Gas Safety and Security Act of 2005). This bill seeks to amend the NGA by requiring “FERC to review annually all pending applications for the siting, construction, expansion, or operation of a liquefied natural gas import facility in a region and, after consultation with the pertinent States and the Commandant [USCG], determine: (1) whether liquefied natural gas import facilities are needed in a region; and (2) the number of liquefied natural gas import facilities so needed.” This bill would also deny FERC the “authority to preempt a State permitting determination related to a liquefied natural gas import facility.”⁶⁶ S. 684 also acknowledges the rising interest in offshore LNG terminal development by requiring FERC and the USCG to take into consideration “any offshore LNG projects proposed for a region.”⁶⁷ Ultimately, this bill, as U.S. Senator Jack Reed indicated in his speech introducing this legislation would “require FERC to work with states and the Coast Guard to pursue a regional approach to LNG terminal siting, including a review of offshore and remote sites and a determination of how many LNG terminals a region needs.”⁶⁸

While tangentially related, the Energy Policy Act of 2005 does grant FERC “the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal” operating onshore or in state waters.

⁶² Aaron M. Flynn, Liquefied Natural Gas (LNG): Jurisdiction Conflicts in Siting Approval, CRS Report RL32575, p.1.

⁶³ Id.

⁶⁴ H.R. 359, CRS Bill Summary, available at <http://thomas.loc.gov/cgi-bin/bdquery/?dlog:HR00359:@@D&summ2=m&> (last visited May 29, 2005).

⁶⁵ Id. (Emphasis Added).

⁶⁶ S. 684, CRS Bill Summary, available at <http://thomas.loc.gov/cgi-bin/bdquery/z?d109:SN00684:@@D&summ2=m&> (last visited May 30, 2005).

⁶⁷ S. 684 (109th Congress).

⁶⁸ U.S. Senator Jack Reed, Speech to the United States Senate in Opposition to the Placement of LNG Terminal in Populated Areas of Providence and Fall River, available at <http://reed.senate.gov/LNG/lng-speech-03-17-2005.htm> (last visited June 1, 2005).

Offshore Aquaculture⁶⁹

As the global demand for seafood continues to increase, the marine aquaculture⁷⁰ industry is considering moving operations offshore, into federal waters. While many coastal states have established a legal framework for managing aquaculture, there is no clear federal regulatory regime. Despite this absence of a clear regulatory framework, offshore aquaculture has been around for over a decade.⁷¹ The first private sector project was proposed back in 1988.⁷²

Past and Present Aquaculture Projects

On November 25, 1988, American Norwegian Fish Farm, Inc. applied to the COE for a Section 10 permit under the Rivers and Harbors Act. This private company sought approval for an aquaculture facility that would occupy forty-seven square miles of federal waters, located twenty-seven miles offshore of Gloucester, Massachusetts.⁷³ The company's plan was to operate ninety pens and produce 46.8 million pounds/year of Atlantic salmon.⁷⁴ The original site was later relocated farther offshore after it was determined that the aquaculture facility would impact a productive fishing area.

In 1990, the COE issued a Section 10 permit, but later withdrew it after litigation and a finding that there was some submarine activity in the area.⁷⁵ The Conservation Law Foundation (CLF) filed a lawsuit against the COE in U. S. District Court for the District of Massachusetts. CLF claimed that the COE had not only violated NEPA, CEQ regulations, and Section 706 of the Administrative Procedures Act, but had also violated the federal government's obligations under the public trust doctrine.⁷⁶

Four years later, with a scaled-down project, American Norwegian Fish Farm reapplied for a Section 10 permit. The COE, nervous about the "structural integrity of the mooring system" out in the open ocean, insisted that American Norwegian Fish Farm come up with a mooring system that could withstand the potential hazards "associated

⁶⁹ Many terms are used interchangeably to describe offshore aquaculture, including marine aquaculture, open ocean aquaculture, mariculture, and offshore fish farming.

⁷⁰ Under the National Aquaculture Act of 1980, "aquaculture" is defined as "the propagation and rearing of aquatic species in controlled or selected environments, including, but not limited to, ocean ranching." 16 U.S.C. § 2802(1). Offshore aquaculture indicates that the "rearing of aquatic species" is in federal waters (3-200 nautical miles (EEZ)) and not state waters (0-3 miles).

⁷¹ See Alaska Marine Conservation Council, *Offshore Aquaculture*, available at http://www.akmarine.org/pressroom/issuepaper_offshoreaquaculture.pdf (last visited May 22, 2005).

⁷² Rachel Borgatti and Eugene H. Buck, *Open Ocean Aquaculture*, CRS Report RL32694. This CRS Report is also available online at <http://www.ncseonline.org/nle/crsreports/04dec/RL32694.pdf> (last visited May 20, 2005) [hereinafter *Open Ocean Aquaculture*].

⁷³ *Id.* at p. 16.

⁷⁴ See Biliana Cicin-Sain and et al., *Development of a Policy Framework for Offshore Marine Aquaculture in the 3-200 Mile U.S. Ocean Zone*, available at <http://darc.cms.udel.edu/sgeez/sgeez1final.pdf> (last visited May 20, 2005) [hereinafter *Offshore Framework*].

⁷⁵ *Offshore Framework*, p. 47.

⁷⁶ *Conservation Law Foundation v. United States Corps of Engineers*, No. 91-10488-WD. See also *Offshore Framework*, p. 47; Alison Rieser, *Defining the Federal Role in Offshore Aquaculture: Should it Feature Delegation to the States?*, 2 *Ocean & Coastal Law Journal* 209,218-19 (1997) [hereinafter *Rieser Article*].

with the offshore environment.”⁷⁷ No attempts were made to accommodate this request and the project was abandoned.⁷⁸

In the mid-1990s, there was one active commercial aquaculture project. This project, known as SeaFish, involved using a retired offshore natural gas production platform in the Gulf of Mexico. A private company, after getting the necessary permits, cultivated red drum in cages that were attached to the existing structure. The biggest problems associated with this project were storms and the damage caused by storm activity (e.g. lost fish and cages). SeaFish ended after Shell Oil “decided to develop a nearby natural gas well, and needed the platform once again for its main business.”⁷⁹ This project serves as a good example for how existing oil or natural gas platforms can be re-used for offshore aquaculture.

Today, there are no commercial offshore aquaculture facilities operating in federal waters; however, there are research-oriented projects. These projects include: SeaStead, Open Ocean Demo (New Hampshire), Open Ocean Demo (Hawaii), and the Gulf of Mexico Consortium.

SeaStead, a federally funded “experimental sea scallop project,” is located twelve miles southwest of Martha’s Vineyard, Massachusetts. The COE issued a Section 10 permit in January 1995. This permit, however, only guaranteed that structures could be placed in public waters. It did not secure exclusive use of the proposed nine square mile area. After consulting with the NEFMC, it became evident that the proposed facility would be located in an active fishing area. Therefore, the site was relocated to an area “five miles west of the original site.”⁸⁰ The NEFMC also amended the Atlantic Sea Scallop FMP so that “trawling, gillnetting, and non-project dredging” were prohibited within the site’s boundaries.⁸¹ This project is still active today.

In 1997, the University of New Hampshire, Portsmouth Fisherman’s Cooperative, and Great Bay Aquafarms began a collaborative effort to establish the first offshore pen culture facility in federal waters. The project’s objective was “to demonstrate the biological, technological, engineering and economic feasibility of culturing fish and shellfish in unprotected, oceanic environments” and to do so in an environmentally responsible manner.”⁸² Organizers also wanted to establish “a fully permitted, pilot-scale demonstration site.”⁸³ Open Ocean Demo (New Hampshire), still in operation today, is a thirty acre site, located six miles off the coast of New Hampshire.⁸⁴

Open Ocean Demo (Hawaii), under the direction of the Hawaii Sea Grant College Program and the Oceanic Institute, involves the use of sea cages that are fully submerged. A feeding tube, attached to the cage, is used to feed the indigenous Pacific threadfin (Moi). Because this project involves both government research and a native species, no

⁷⁷ Id. at p. 50.

⁷⁸ The authors of *Offshore Framework* described the American Norwegian Fish Farm project as “both bold and blind – bold in the sense that the project was large-scale and ambitious; blind in the sense that neither the project’s sponsors nor the federal regulatory agencies knew what to expect or demand in terms of applicable regulatory requirements and the regulatory review/approval process.” *Offshore Framework*, p. 45.

⁷⁹ *Offshore Framework*, p. 53.

⁸⁰ Id. at p. 52.

⁸¹ Id.

⁸² Id. at p. 54.

⁸³ Id.

⁸⁴ *Offshore Framework*, p. 54, 57.

EA was required. Therefore, the permitting process was fairly quick. This project is also located in state waters.⁸⁵

Gulf of Mexico consortium, funded by Sea Grant, involves deploying two cages offshore of the Mississippi coastline. One of the cages will be placed in shallow state waters (0-3 nautical miles), while the other will be located in deep federal waters.⁸⁶

Regulatory Framework

As illustrated by the American Norwegian Fish Farm project, a clearly defined federal permitting process for offshore aquaculture has been needed. This process has been provided under the Marine Aquaculture Act of 2005. Currently, an applicant must contact and gain approval from the EPA, COE, NOAA Fisheries Service, and FWS. In addition, an applicant must obtain a consistency certification from each affected coastal state, indicating that the proposed activity is consistent with the state's coastal management plan.⁸⁷ The proposed Marine Aquaculture Act of 2005 would give the **Secretary of Commerce** sole authority over the siting, permitting and operation of marine aquaculture facilities.

Agencies and Permits Needed

It is currently uncertain which federal agency constitutes the “lead” agency in regulating this offshore activity. According to a NOAA General Counsel opinion, dated February 7, 1993,⁸⁸ NOAA Fisheries Service is the main agency in authorizing offshore aquaculture. Other sources indicate that the COE is the primary reviewing agency.⁸⁹ Regardless, the following federal agencies are involved in permitting offshore aquaculture.

Under the MSA, **NOAA Fisheries Service** is responsible for managing commercial fishing activities, including aquaculture.⁹⁰ One way NOAA Fisheries Service authorizes offshore aquaculture is by issuing a Letter of Acknowledgement that states that it is permissible for the applicant to conduct research activities in federal waters.⁹¹ If the research project involves holding “juvenile fish in federal waters,” then an exempted fishing permit is required.⁹² In addition to issuing this permit, the MSA requires that “the federal permitting agency for any aquaculture facility consult with NOAA [Fisheries

⁸⁵ Id. at p. 57-58.

⁸⁶ *Offshore Framework*, p. 58.

⁸⁷ 16 U.S.C. § 1456(c)(3)(A).

⁸⁸ See *Open Ocean Aquaculture*, referencing Jay S. Johnson and Margaret F. Hayes, *Regulations of Aquaculture in the EEZ*, Memorandum, Office of the General Council, NOAA, Washington, DC, Feb. 7, 1993, 5 p.

⁸⁹ See Rieser Article, p. 220; Kristin Fletcher and Ginger Weston, *The Legal and Regulatory Environment: Offshore Aquaculture Permitting Process in the Gulf of Mexico*, available at <http://www.olemiss.edu/orgs/SGLC/offshore%20Aquaculture.pdf> (last visited May 25, 2005) [hereinafter *Permitting Process*].

⁹⁰ 50 C.F.R. § 229.2 “Commercial fishing operations means the catching, taking, or harvesting of fish from the marine environment that results in the sale or barter of all or part of the fish harvested. The term includes . . . aquaculture activities.”

⁹¹ *Permitting Process*, p. 3.

⁹² Id.

Service] for potential impacts to designated EFH.”⁹³ NOAA Fisheries Service also has review responsibilities under the ESA and MMPA.

Section 10 of the RHA prohibits “the creation of any obstruction” to navigation within state and federal waters.⁹⁴ Therefore, an applicant must obtain a Section 10 permit from the **COE** before constructing an offshore aquaculture facility. Prior to issuing a Section 10 permit, the COE must consider “a broad range of potential environmental and other impacts.”⁹⁵ The potential environmental impacts include: water quality, pollution, economic factors, safety, accurate charting of any structures, aesthetics, navigational integrity, and the effects of the structure on recreation, fish, and other wildlife.⁹⁶

Under Sections 328 and 402 of the CWA, the **EPA** is responsible for issuing discharge (NPDES) permits for aquaculture activities.⁹⁷ The EPA is also charged with issuing ocean discharge permits for offshore dumping⁹⁸ when “such dumping will not unreasonably degrade or endanger human health or the marine environment, ecological systems, or economic potentialities.”⁹⁹

Regional fishery councils, established under the MSA, may also exercise some regulatory oversight over this offshore activity.¹⁰⁰ Even though a regional council does not issue the “key installation, navigation, and water quality permits,” it does develop and amend FMPs.¹⁰¹ Both the New England and Gulf of Mexico Councils have been active in establishing policies that address aquaculture.¹⁰²

The **USCG** is responsible for ensuring that aquaculture facilities are well marked so that safe passage may be achieved.

While the **Department of Agriculture** (DOA) is not responsible for issuing any permits for offshore aquaculture, it does chair the **Joint Subcommittee on Aquaculture** (JSA). The JSA, established under the National Aquaculture Act of 1980, is charged with developing a national plan for aquaculture. Part of this task involves identifying and designating specific roles for each of the federal agencies involved in regulating offshore aquaculture.

⁹³ *Open Ocean Aquaculture*, p. 5.

⁹⁴ 33 U.S.C. § 403; 43 U.S.C. § 1333(a).

⁹⁵ *Offshore Framework*, p. 73.

⁹⁶ *Id.*

⁹⁷ 33 U.S.C. §§ 1328, 1342. Issuing discharging permits may fall to the coastal state if the EPA has approved its permit program.

⁹⁸ Ocean Dumping Act, 33 U.S.C. § 1412.

⁹⁹ *Permitting Process*, p. 6.

¹⁰⁰ Since NOAA’s Office of General Counsel determined that aquaculture constitutes “fishing” under the MSA, aquaculture farms in federal waters are subject to act’s provisions. See *Permitting Process*, p. 7.

¹⁰¹ *Open Ocean Aquaculture*, p. 5.

¹⁰² New England Fishery Management Council, Aquaculture Policy; Gulf of Mexico Fishery Management Council, Mariculture Policy (November 2003), available at http://www.gulfcouncil.org/downloads/mariculture_policy_GMFMC.pdf (last visited May 20, 2005).

Under federal law,¹⁰³ the **FWS** must be consulted whenever there is a proposed federal action (e.g., issuance of a federal permit or license) that may harm a threatened or endangered species.

Finally, under the CZMA, a **coastal state** must provide certification that the proposed activity is consistent with its CMP. A state may reject “an applicant’s consistency certification if the proposed activity conflicts with an enforceable law or policy included within the state’s approved program.”¹⁰⁴

NOAA Fisheries Service Code of Conduct

On August 23, 2002, NOAA Fisheries Service announced the release of a draft *Code of Conduct for Responsible Aquaculture in the U.S. EEZ*.¹⁰⁵ In drafting the Code of Conduct, NOAA Fisheries Service used Article 9 of the Food and Agriculture Organization of the United Nations’ (FAO) Code of Conduct for Responsible Fisheries (FAO Code) as a key starting point.¹⁰⁶ While the FAO Code is a “voluntary and non-binding instrument,” the United States supports it and considers it useful in establishing guidelines for the fishing industry, including aquaculture.¹⁰⁷ Article 9 provides several guidelines in addressing offshore aquaculture, including the following:

9.1 Responsible development of aquaculture, including culture-based fisheries, in areas under national jurisdiction

9.1.1 States should establish, maintain and develop an appropriate legal and administrative framework which facilitates the development of responsible aquaculture.

9.1.2 States should promote responsible development and management of aquaculture, including an advance evaluation of the effects of aquaculture development on genetic diversity and ecosystem integrity, based on the best available scientific information.

9.1.3 States should produce and regularly update aquaculture development strategies and plans, as required, to ensure that aquaculture development is ecologically sustainable and to allow the rational use of resources shared by aquaculture and other activities.

¹⁰³ The ESA, MMPA, and the Fish and Wildlife Coordination Act.

¹⁰⁴ Rieser’s Article, p. 221.

¹⁰⁵ 67 Fed. Reg. 54644 (Aug. 23, 2002). The term *States* refers to coastal nations.

¹⁰⁶ Id. Article 9 of the FAO Code is available online at <http://www.oceanlaw.net/texts/faocode.htm#9> (last visited June 2, 2005).

¹⁰⁷ 67 Fed. Reg. 54645 (Aug. 23, 2005).

9.1.4 States should ensure that the livelihoods of local communities, and their access to fishing grounds, are not negatively affected by aquaculture developments.

9.1.5 States should establish effective procedures specific to aquaculture to undertake appropriate environmental assessment and monitoring with the aim of minimizing adverse ecological changes and related economic and social consequences resulting from water extraction, land use, discharge of effluents, use of drugs and chemicals, and other aquaculture activities.¹⁰⁸

NOAA Fisheries Service's *Code of Conduct for Responsible Aquaculture Development in the U.S. EEZ*, while a good idea, has never been finalized. The draft that went out for public comment is the most recent version.¹⁰⁹

Regional FMC's Role

While the Act has altered the definition of "fishing" with regard to MSA jurisdiction, the RFMC's must still ensure that, to the extent practicable, offshore aquaculture does not interfere with conservation and management measures promulgated under MSA.

The SeaStead project prompted the NEFMC to develop an aquaculture policy. This policy sets forth NEFMC's authority under the MSA and the key objectives in facilitating the permitting of offshore aquaculture. The policy objectives include:

(1) The NEFMC will address those issues that are clearly germane to the Council's fishery management role and will work with other federal agencies involved in aquaculture to identify and minimize or eliminate areas of potential overlap.

(2) The NEFMC will position itself as a point of contact for aquaculture developers, to provide information and federal permit application materials, and to provide recommendations to developers which may help avoid projects or elements of those projects that would otherwise pose conflicts with the Council's management activity.

(2) The NEFMC will seek advice and guidance from representatives of both the aquaculture and fishing industries, the conservation community and other resource management agencies in formulation of aquaculture management strategies so as to minimize or eliminate the potential for use conflicts.¹¹⁰

¹⁰⁸ FAO Code, Article 9, available at <http://www.oceanlaw.net/texts/faocode.htm#9> (last visited June 2, 2005).

¹⁰⁹ The most recent version is available online at <http://www.nmfs.noaa.gov/trade/AQ/AQCode.pdf> (last visited May 18, 2005).

¹¹⁰ New England Fishery Management Council, Aquaculture Policy.

While the NEFMC did exercise authority over the SeaStead project, it is still relatively unclear what authority “the regional councils might have over species, like mussels, that are not managed through a federal FMP.”¹¹¹

As mentioned under the NEFMC’s role in Offshore LNG, the MSA permits each regional fishery council to “comment on and make recommendations to the Secretary and any Federal or State agency concerning any activity . . . [that] may affect the habitat, including the essential fish habitat, of a fishery resource under its authority.”¹¹² A council must comment if the proposed activity “is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.”¹¹³

Federal fishery councils also play some part in whether an exempted fishing permit (EFP) should be issued. For example, the Gulf of Mexico Fishery Management Council (GMFMC), in December 2003, recommended to NOAA Fisheries Service that an EFP should be turned down for an offshore aquaculture facility. The EFP was requested by a private company, Florida Offshore Aquaculture, Inc., looking to “conduct a feasibility study for 24 months to determine if it is practical to raise commercial quantities of cobia, mahi-mahi, greater amberjack, red snapper, and cubera snapper in nets at a site approximately 33 statute miles [offshore].”¹¹⁴ NOAA Fisheries Service made it clear that a final decision on the EFP would depend on a review of public comments, environmental review under NEPA, and consultations with the USCG, EPA, and the GMFMC.¹¹⁵ The regulations pertaining to scientific research activity and EFPs (50 C.F.R. 600.745(a)(b)), require that the affected regional fishery council be notified about the issuance of an EFP.¹¹⁶

As the Florida Offshore Aquaculture project indicates, the GMFMC played an active role in recommending that the EFP be denied. During the commenting period for this project, 340 individuals voiced their opposition, as did six environmental organizations and one shrimp firm. Below is a list of the major concerns raised by the GMFMC and other interested parties:

- (1) the applicant made false statements in connection with the application; . . .
- (4) possible escapement and its impact on wild stocks; (5) the type of food used for feeding; (6) possible transfer of diseases to wild fish; (7) timing of cage placement offshore; . . . (16) possible conflicts or impacts on or with other fishing activities; (17) possible interactions of wild fish or other organisms with cages; (18) response to storm events;”¹¹⁷

The GMFMC continues to be proactive in addressing offshore aquaculture. On September 2, 2004, the GMFMC and NOAA Fisheries Service gave notice that they “intend to prepare a draft supplemental environmental impact statement (DSEIS) in

¹¹¹ *Open Ocean Aquaculture*, p. 6.

¹¹² 16 U.S.C. § 1855(b)(3)(A).

¹¹³ *Id.* § 1855(b)(3)(B).

¹¹⁴ 68 Fed. Reg. 44745 (July 30, 2003).

¹¹⁵ *Id.* at 44746.

¹¹⁶ 50 C.F.R. 600.745(b)(3)(i).

¹¹⁷ 68 Fed. Reg. 74218 (Dec. 23, 2003).

support of a proposed Generic Amendment for Offshore Aquaculture.”¹¹⁸ The DSEIS “will evaluate alternatives for regulating aquaculture activities in the Gulf of Mexico, including: . . . (4) fishery management plans that would be affected by the amendment, and (5) stocks that would be affected by the amendment.”¹¹⁹

The GMFMC’s recent activity illustrates the role that regional fishery councils can play in managing offshore aquaculture.

Current Legislation

Additional related legislation has been proposed in the recent past. During the 108th Congress, Representative Vitter (Louisiana) introduced the Rigs to Reef Act of 2003.¹²⁰ This bill, H.R. 2654, seeks to amend the OCSLA so that the Secretary of Interior could “issue regulations authorizing the use for culture of marine organisms, an artificial reef, or scientific research of any offshore oil and gas platform decommissioned from service for oil and gas purposes.”¹²¹ Former owners of the decommissioned platforms would not be liable under federal law for:

“any costs or damages arising from such platform after the date the platform is used for culture of marine organisms, an artificial reef, or scientific research under this section, unless such costs or damages arise from: (1) use of the platform by the person for development or production of oil or gas; or (2) another act or omission of the person.”¹²²,

If passed, this legislation would pave the way for projects similar to SeaFish, the commercial aquaculture project that used a retired offshore natural gas production platform in the Gulf of Mexico.

The Energy Policy Act of 2005 also contains a provision that may be relevant to marine aquaculture. Specifically, the Secretary of the Interior, via the Mineral Management Service, is authorized to grant a lease if the proposed activities “use, for energy-related purposes or for *other authorized marine related purposes*, facilities currently or previously used for activities authorized under this Act.” The broad language could be interpreted as providing the MMS with the authority to permit the use of decommissioned oil rigs for aquaculture production. Such permitting would presumably work hand-in-hand with operations permits, issued by the Secretary of Commerce, as required under the Marine Aquaculture Act of 2005.

The proposed Marine Aquaculture Act of 2005 requires two permits (a site and operating) for offshore aquaculture, giving the **Secretary of Commerce** “total discretion regarding the issuance of the permits and the conditions that can be attached to those permits.”¹²³ Under this proposed legislation, the definition of “fishing” is amended to not

¹¹⁸ 69 Fed. Reg. 53682 (Sept. 2, 2004).

¹¹⁹ Id. at 53683.

¹²⁰ H.R. 2654 (108th Cong.), Rigs to Reef Act of 2003, available at <http://thomas.loc.gov/cgi-bin/query/D?c108:4:./temp/~c1083rzCn1::> (last visited June 2, 2005).

¹²¹ CRS Bill Summary, available at <http://thomas.loc.gov/cgi-bin/bdquery/z?d108:HR02654:@@D&summ2=m&> (last visited June 2, 2005).

¹²² H.R. 2654, § 10(b).

¹²³ The National Offshore Aquaculture Act of 2005

include aquaculture and therefore offshore aquaculture projects are exempted from the MSA and “the federal management council process.” However, the following provisions are included:

- The Secretary shall ensure, to the extent practicable, that offshore aquaculture does not interfere with conservation and management measures promulgated under the Magnuson-Stevens Fishery Conservation and Management Act.
- The Secretary shall consult with the appropriate Regional Fishery Management Council(s) before issuing a permit.
- The Secretary may require permit holders to track, mark, or otherwise identify fish or other marine species in the offshore aquaculture facility or harvested from such facility.

Additionally, the Secretary would be required to “consider risks to and impacts on natural fish stocks, the coastal environment, water quality and habitat, marine mammals and endangered species, and the environment.”¹²⁴ The draft legislation also “does not prohibit multi-national corporations from obtaining offshore aquaculture permits.”¹²⁵

The Act does place a requirement on the **Secretary of Commerce** to coordinate with other federal and state agencies. Specific agencies are not listed.

Offshore Wind Farms

Presently, all U.S. wind farms are land based; however, this trend may be about to change. There are now multiple proposals for offshore wind projects along the east coast, including the Cape Wind project offshore of Massachusetts.¹²⁶

Proposed Projects

Most offshore wind energy projects are still in the proposal stage. The Cape Wind project, funded by Cape Wind Associates, L.L.C.,¹²⁷ is the first project of its kind in the United States. Construction of this project will take place in two phases: a data tower to gather information and then the actual wind turbines.¹²⁸ The wind park is expected to consist of 130 wind turbines, standing at 246 feet. This farm will occupy a twenty-four square mile area of Nantucket Sound.

In November 2001, Cape Wind submitted applications to the COE for both the data tower and the wind turbines. On August 19, 2002, the COE issued the necessary permit for the temporary data tower.¹²⁹ Litigation followed. In October 2002, Ten

¹²⁴ Id..

¹²⁵ *Promotion of Offshore Aquaculture*.

¹²⁶ Betsie Blumberg, *Wind Farms: An Emerging Dilemma for East Coast national Parks*, available at http://www2.nature.nps.gov/YearinReview/PDF?YIR2003_05_D.pdf (last visited Apr. 20, 2005).

¹²⁷ This is a joint venture between Energy Management, Inc., and Wind Management L.L.C.

¹²⁸ Thomas A. Utzinger, *Federal Permitting Issues Related to Offshore Wind Energy, Using the Cape Wind Project in Massachusetts as an Illustration*, 34 E.L.R. 10794, 10796 (2004) [hereinafter Utzinger, *Federal Permitting*].

¹²⁹ Id. at p. 10797.

Taxpayers Citizen Group, an environmental advocacy group, filed a lawsuit against Cape Wind in Massachusetts state court to prevent the construction of the data tower.¹³⁰ Ten Taxpayers received a temporary restraining order to halt construction of the tower, but Cape Wind later removed the case to federal court. The restraining order expired and construction of the tower commenced.¹³¹ On October 27, 2002, Cape Wind began constructing the temporary meteorological data tower.¹³² The tower is now in operation.

Cape Wind faced additional hurdles as local environmental advocacy groups continued to challenge the COE's permitting authority over offshore energy projects. In *Alliance to Protect Nantucket Sound v. United States Department of the Army*, a local organization committed to preserving Nantucket Sound filed a lawsuit in federal district court, claiming that the COE exceeded its jurisdiction in issuing a Section 10 permit for the data tower.¹³³ This case addresses the two primary issues or obstacles found in the "current federal system applied to offshore wind energy permitting: (1) the limits of [the COE] jurisdiction on the OCS and (2) whether there is a current lack of administrative authority to convey OCS property rights for renewable energy purposes."¹³⁴ In September 2003, the federal district court held that the COE's interpretation of its authority was reasonable.¹³⁵ The federal court found that (1) the COE has the authority to issue a Section 10 permit for the construction of "both extractive and non-extractive structures on the OCS"¹³⁶ and (2) a sufficient property interest is not a prerequisite for obtaining a Section 10 permit.¹³⁷ Alliance to Protect Nantucket Sound appealed this decision, but the United States Court of Appeals for the First Circuit affirmed the lower court's decision. Therefore, the Section 10 permit for the data tower was valid.

Agencies and Permits Needed

Under Section 388 of the Energy Policy Act, which amends the Outer Continental Shelf Lands Act, the **Secretary of Interior** (through the **Mineral Management Service (MMS)**) is authorized, "in consultation with the Secretary of the Department in which the **Coast Guard** is operating," to grant a lease, easement, or right of way on the Outer Continental Shelf for the production, transportation, or transmission of "energy from sources other than oil and gas."

Previously, the **COE** had assumed the lead role in the federal permitting of offshore wind farms, claiming jurisdiction under the RHA, as amended by the OCSLA.¹³⁸ Under the Section 10 of the RHA, the **COE** has jurisdiction to regulate obstructions to navigation within the "navigable waters of the United States." The **COE** regulations define "navigable waters of the United States" as "those waters that are subject to the ebb

¹³⁰ Ten Taxpayers Citizen Group v. Cape Wind Associates, L.L.C., No. BACV2002-00645 (Mass. Super. Ct.). See also Ten Taxpayers Citizen Group v. Cape Wind Associates, L.L.C., 373 F.3d 183 (1st Cir. 2004).

¹³¹ See Utzinger, *Federal Permitting*, p. 10797.

¹³² Ten Taxpayers Citizen Group v. Cape Wind Associates, L.L.C., 373 F.3d 183, 186 (1st Cir. 2004).

¹³³ Alliance to Protect Nantucket Sound v. United States Department of the Army, 288 F. Supp. 2d 64 (D. Mass. 2003).

¹³⁴ Aaron M. Flynn, *Wind Energy: Offshore Permitting*, CRS Report RL32658, p. 9 [Flynn Report].

¹³⁵ Alliance to Protect Nantucket Sound, 288 F. Supp. 2d at 78.

¹³⁶ Id. at 75.

¹³⁷ Id. at 77.

¹³⁸ 33 U.S.C. § 403; 43 U.S.C. § 1333(a)(1).

and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.”¹³⁹ Under the RHA, “navigable waters” include “only those ocean and coastal waters that can be found up to three [nautical] miles seaward of the coast.”¹⁴⁰

The OCSLA extends the **COE**’s jurisdiction out to the outer continental shelf. The OCSLA states that

the authority of the Secretary of the Army to prevent obstruction to navigation in the navigable waters of the United States is extended to the artificial islands, installations, and other devices referred to in subsection (a) of this section.¹⁴¹

Section 1333(a) of the OCSLA, referenced in the above block quote, states:

the Constitution and laws and civil and political jurisdiction of the United States are extended to the subsoil and seabed of the Outer Continental Shelf and to all artificial islands, and all installations and other devices permanently or temporarily attached to the seabed. . . .¹⁴²

Thus, the COE had “authority over structures in state and federal navigable waters.”¹⁴³

Now that the MMS appears to be the primary agency in permitting offshore wind energy siting, it is logical to assume that it will be responsible for conducting environmental review under NEPA.

Additionally, the **COE**, before issuing a Section 10 permit under the RHA, must conduct a “public interest review.” As stated earlier in this report, the COE’s “public interest review” involves the review of a broad range of factors, including the proposed project’s affect on marine wildlife, conservation, pollution, and ecology.¹⁴⁴ Below is a list of other agencies involved in permitting offshore wind farms.

NOAA Fisheries Service, as discussed earlier, must be consulted during the permitting process of any proposed offshore activity so that it can assess threats to EFH and protected marine mammals.¹⁴⁵ Both NOAA Fisheries Service and **FWS** must be consulted to assess any potential harm to any threatened or endangered species, including their critical habitat.¹⁴⁶

Under the Migratory Bird Treaty Act (MBTA), the **FWS** is responsible for providing permits for those activities that would otherwise be violating the MBTA. An applicant for a wind farm would need to obtain the necessary permits due to the likelihood of unintentional harm caused by the wind turbines. It is not clear as to whether the current permitting process is applicable to wind energy facilities. “Current regulations authorize permits for take of migratory birds for activities such as scientific

¹³⁹ 33 C.F.R. § 329.4

¹⁴⁰ *Alliance to Protect Nantucket Sound, Inc. v. U.S. Department of Army*, 288 F.Supp.2d 64, 72 (D. Mass. 2003).

¹⁴¹ 43 U.S.C. § 1333(e).

¹⁴² 43 U.S.C. § 1333(a)(1).

¹⁴³ Flynn Report, p. 4.

¹⁴⁴ 33 C.F.R. § 320.4(a)(1).

¹⁴⁵ See 16 U.S.C. § 1801 et seq.; 16 U.S.C. § 1361 et seq.

¹⁴⁶ 16 U.S.C. § 1531 et seq.; 16 U.S.C. § 703 et seq.

research, education, and depredation control. However, these regulations do not expressly address the issuance of permits for incidental take.”¹⁴⁷

The EPA is responsible for ensuring that the applicant complies with Sections 401 and 402 of the CWA.¹⁴⁸

As with the other offshore activities, an applicant for a proposed wind farm must obtain an affected **coastal state’s** consistency certification. Under the CZMA, a coastal state must provide certification that the proposed project is consistent with its CMP.

Regulatory Gaps

The Energy Policy Act of 2005 is clear in its granting of regulatory authority for siting of offshore wind energy sources (turbines, etc.). However, the role of Coast Guard, COE and other federal agencies is unclear. Section 388 states that—

“The Secretary shall ensure that any activity under this subsection is carried out in a manner that provides for--

- (A) safety;
- (B) protection of the environment;
- (C) prevention of waste;
- (D) conservation of the natural resources of the outer Continental Shelf;
- (E) coordination with relevant Federal agencies;
- (F) protection of national security interests of the United States;
- (G) protection of correlative rights in the outer Continental Shelf;
- (H) a fair return to the United States for any lease, easement, or right-of-way under this subsection;
- (I) prevention of interference with reasonable uses (as determined by the Secretary) of the exclusive economic zone, the high seas, and the territorial seas;
- (J) consideration of--
 - (i) the location of, and any schedule relating to, a lease, easement, or right-of-way for an area of the outer Continental Shelf; and
 - (ii) any other use of the sea or seabed, *including use for a fishery*, a sealane, a potential site of a deepwater port, or navigation;
- (K) public notice and comment on any proposal submitted for a lease, easement, or right-of-way under this subsection; and
- (L) oversight, inspection, research, monitoring, and enforcement relating to a lease, easement, or right-of-way under this subsection.”

It is not clear exactly how these considerations are to be met under this Act, nor is the distinction between siting and operations permitting entirely clear.

NEFMC’s Role

Unlike the other offshore uses discussed in this report, there is little guidance in determining what sort of role a regional fishery council may have in permitting offshore wind farms. Cape Wind is America’s first proposed offshore wind farm.

¹⁴⁷ See 69 Fed. Reg. 31074 (June 2, 2004).

¹⁴⁸ 33 U.S.C. §§ 1341, 1342.

As stated under the other offshore activities, the MSA permits each regional fishery council to “comment on and made recommendations to the Secretary and any Federal or State agency concerning any activity . . . [that] may affect the habitat, including the essential fish habitat, of a fishery resource under its authority.”¹⁴⁹ A council must comment if the proposed activity “is likely to substantially affect the habitat, including essential fish habitat, of an anadromous fishery resource under its authority.”¹⁵⁰

On February 22, 2005, the NEFMC submitted comments to the COE, Massachusetts Environmental Policy Act Office, and Cape Cod Commission regarding “the potential impact of the Cape Wind energy project on essential fish habitat and fishery resources in federal waters.”¹⁵¹ At this time, it would appear as though consultation under Section 305(b)(3) of the MSA is the only clear way the NEFMC can influence the decision making process for offshore wind energy.

The new requirement for the MMS, in conjunction with the USCG, to consider “any other use of the sea or seabed, *including use for a fishery*” in making lease determinations appears vague but should be explored by the Council and NOAA Fisheries.

¹⁴⁹ 16 U.S.C. § 1855(b)(3)(A).

¹⁵⁰ Id. § 1855(b)(3)(B).

¹⁵¹ NEFMC, Feb. 22, 2005 letter to Ms. Adams and Ms. Herzfelder.

ACRONYMS

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| COE | Army Corps of Engineers |
| CAA | Clean Air Act |
| CWA | Clean Water Act |
| CMP | Coastal Management Program |
| CZMA | Coastal Zone Management Act |
| CRS | Congressional Research Service |
| CLF | Conservation Law Foundation |
| CEQ | Council on Environment Quality |
| DPA | Deepwater Port Act |
| DOA | Department of Agriculture |
| DOC | Department of Commerce |
| DOD | Department of Defense |
| DOE | Department of Energy |
| DHS | Department of Homeland Security |
| DOI | Department of Interior |
| DOS | Department of State |
| DOT | Department of Transportation |
| ESA | Endangered Species Act |
| EA | Environmental Assessment |
| EPA | Environmental Protection Agency |
| EFH | Essential Fish Habitat |
| EEZ | Exclusive Economic Zone |
| EFP | Exempted Fishing Permit |
| IFR | Institute for Fisheries Resources |
| FAO | Food and Agriculture Organization of the United Nations |

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| FERC | Federal Energy Regulatory Commission |
| FWS | Fish and Wildlife Service |
| GMFMC | Gulf of Mexico Fishery Management Council |
| JSA | Joint Subcommittee on Aquaculture |
| LNG | Liquefied Natural Gas |
| MSA | Magnuson-Stevens Fishery Conservation and Management Act |
| MMPA | Marine Mammal Protection Act |
| MARAD | Maritime Administration |
| MBTA | Migratory Bird Treaty Act |
| MMS | Minerals Management Service |
| NEPA | National Environmental Policy Act |
| NGA | Natural Gas Act |
| NWRS | National Wildlife Refuge System |
| NOAA | National Oceanic and Atmospheric Administration |
| NOS | National Ocean Service |
| NEFMC | New England Fishery Management Council |
| OCS | Outer Continental Shelf |
| OCSLA | Outer Continental Shelf Lands Act |
| RSPA | Research and Special Programs |
| RHA | Rivers and Harbors Act |
| SLA | Submerged Lands Act |
| USCG | United States Coast Guard |