

Redefining the Territorial Sea in the Clean Water Act: Replacing Outdated Terminology and Extending Regulatory Jurisdiction

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Abstract: In 1988, President Ronald Reagan extended the breadth of the territorial sea of the United States from three nautical miles to twelve. By Presidential Proclamation the United States asserted sovereignty and jurisdiction over the territorial sea extending from the baseline seaward a distance of twelve nautical miles. The presidential proclamation specifically stated that it did not extend or alter “existing Federal or State law or any jurisdiction, rights, legal interests, or obligations derived therefrom.”² Some federal laws have not been updated to reflect this boundary change and the extension of the territorial sea has resulted in inconsistent definitions of the territorial sea in U.S. domestic law.³ The Clean Water Act (CWA) is one law that has not been updated to reflect the change; in the CWA, the territorial sea is defined as extending seaward a distance of three miles. This Article explores the effects that the outdated definition of the territorial seas has on the two main permitting programs established by the CWA, and the potential environmental benefit that could result from updating the definition to make it consistent with the territorial sea claimed by the United States under international law.

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² Proclamation No. 5928, Territorial Sea of the United States of America, 54 Fed. Reg. 777 (Jan. 9, 1989).

³ U.S. COMMISSION ON OCEAN POLICY, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY: FINAL REPORT OF THE U.S. COMMISSION ON OCEAN POLICY 43 (2004).

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I. Introduction

Currently the United States’ most substantively extensive claim of jurisdiction in ocean waters is the jurisdiction that is asserted over the territorial seas.⁴ The first formal claim to a territorial sea was made by Secretary of State Thomas Jefferson in 1793.⁵ In a letter to the British Minister, Secretary of State Jefferson asserted that the territorial protection of the United States would extend from the seashore to a distance of three geographic miles, or one marine (sea) league (the maximum range of a cannon ball at the time).⁶ The breadth of the territorial sea remained at three geographic miles for nearly 200 years until 1988 when, through a Presidential Proclamation, President Ronald Reagan extended the breadth of the U.S. territorial sea from three to twelve nautical miles.⁷ Today, the United States claims full sovereignty and jurisdiction over the band of ocean waters that extends from the shore out a distance of twelve nautical miles.⁸

The Clean Water Act (CWA) was enacted in 1972 and has not been amended to incorporate the extension of the territorial sea in 1988. In the CWA, the “territorial seas” is defined as: “the belt of the seas measured from 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, and extending seaward a distance of three miles.”⁹ In some of the regulatory programs created by the CWA, the term “territorial seas” is used to define the seaward extent of the regulatory authority being asserted. Although the United States’ claims full sovereignty and jurisdiction out to twelve nautical miles, by continuing to use an outdated definition of the territorial seas, Congress has left a large segment of the Nation’s waters out of the regulatory jurisdiction of the agencies charged with implementing the CWA. The CWA’s potential for achieving its purpose of “restor[ing] and maintain[ing] the chemical, physical, and biological integrity of the Nation’s waters” is thus unduly limited.¹⁰

From a practical standpoint, the CWA’s outdated territorial sea definition has not resulted in any urgent or egregious regulatory problems that could automatically be resolved through a Congressional amendment updating the definition to conform to the territorial sea claimed by the United States under international law. However, the continued use of this outdated definition in

⁴ See, Territorial Sea Proclamation, *supra* note 2.

⁵ THOMAS A. CLINGAN, JR., *THE LAW OF THE SEA: OCEAN LAW AND POLICY* 84 (Austin & Winfield, Publishers 1993).

⁶ *Id.*

⁷ See *An Ocean Blueprint*, *supra* note 3.

⁸ Territorial Sea Proclamation, *supra* note 2.

⁹ 33 U.S.C. § 1362(8).

¹⁰ *Id.* § 1251(a).

the CWA and other federal laws underscores the confusion created by the piecemeal extension of U.S. jurisdiction in ocean and coastal waters through numerous executive orders issued over a broad period of time and by Congress' failure to update the terminology.

II. Jurisdiction in Ocean and Coastal Waters

A. International Law

The United Nations (U.N.) has held three conferences on the law of the sea in an effort to develop a consistent, codified law of the sea. The First U.N. Conference on the Law of the Sea (UNCLOS I) was held in 1958 and resulted in the 1958 Geneva Conventions on the Law of the Sea which included the adoption of four treaties: the Convention on the Territorial Sea and Contiguous Zone; the Convention on the Continental Shelf; the Convention on the High Seas; and the Convention on Fishing and Conservation of the Living Resources of the High Seas.¹¹ The Second U.N. Conference on the Law of the Sea (UNCLOS II) was held in 1960 and failed to achieve its sole purpose of determining the legal breadth of the territorial sea.¹² The Third U.N. Conference on the Law of the Sea (UNCLOS III) began in 1973 and concluded in December of 1982 opening for signature the U.N. Convention on the Law of the Sea.¹³ The Convention has not been signed by the United States.¹⁴

In general, UNCLOS III divides ocean waters into five jurisdictional zones (the territorial sea, the contiguous zone, the exclusive economic zone, the continental shelf, and the high seas) and establishes the rights and duties of coastal states and other nations within those zones. The territorial sea of a coastal state is essentially an extension of the state's sovereignty into ocean waters. UNCLOS III states that: "[t]he sovereignty of a coastal state extends beyond its land territory and internal waters ... to an adjacent belt of sea, described as the territorial sea."¹⁵ This includes sovereignty over the air space above, and the seabed and subsoil below the territorial sea.¹⁶

Each coastal "state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles, measured from baselines as determined in accordance with this Convention."¹⁷ While the ships of all states have the right of innocent passage through the territorial sea,¹⁸ coastal states have the right to establish laws regulating such passage¹⁹ and prevent

¹¹ U.S. COMMISSION OF OCEAN POLICY, APPENDIX 6 TO FINAL REPORT: REVIEW OF U.S. OCEAN AND COASTAL LAW: THE EVOLUTION OF OCEAN GOVERNANCE OVER THREE DECADES 4 (2004), available at http://www.oceancommission.gov/documents/full_color_rpt/append_6.pdf.

¹² Clingan, *supra* note 5, at 1.

¹³ UNITED NATIONS, OFFICE OF LEGAL AFFAIRS, DIVISION FOR OCEAN AFFAIRS AND THE LAW OF THE SEA, OFFICIAL TEXTS OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA AND OF THE AGREEMENT RELATING TO THE IMPLEMENTATION OF PART XI OF THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA WITH INDEX AND EXCERPTS FROM THE FINAL ACT OF THE THIRD UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 3-6 (United Nations 2001).

¹⁴ Appendix 6 of An Ocean Blueprint, *supra* note 11, at 4-5.

¹⁵ United Nations Convention on the Law of the Sea art 2(1), opened for signature Dec. 10, 1982, 1833 U.N.T.S. 397 (entered into force Nov. 16, 1994) [hereafter UNCLOS III].

¹⁶ *Id.* at art. 2(2).

¹⁷ *Id.* at art 3.

¹⁸ *Id.* at art. 17.

passage if it is not innocent.²⁰ Coastal states may regulate a range of activities within their territorial seas, including but not limited to such subjects as navigation safety and maritime traffic; protection of cables and pipelines; conservation of the environment and living natural resources; pollution; and preventing infringement of the coastal State's customs, fiscal, immigration and sanitary laws and regulations.²¹ Coastal states have a duty to not interfere with innocent passage and publicize any known navigational dangers within the territorial sea.²²

Though the United States has not signed or ratified UNCLOS III, it has asserted jurisdiction over various maritime zones (including the territorial seas) through a series of Presidential proclamations. With a few exceptions, the maritime zones claimed by the United States are consistent with the zones established under UNCLOS III.²³ Because the United States has not signed or ratified the UNCLOS III Convention, the entitlement of the United States, under international law, to the rights set forth in the Convention depends mostly on whether those rights are codifications of customary international law, or are contained in another convention.²⁴

B. *The Territorial Sea*

As mentioned above, the United States' first formal claim to a territorial sea was made by Secretary of State Thomas Jefferson in 1793.²⁵ In a letter to the British Minister, Secretary of State Jefferson asserted that the territorial protection of the United States would extend from the seashore to a distance of three geographic miles, or one marine (sea) league (the maximum range of a cannon ball at the time).²⁶ The breadth of the United States territorial sea remained at three geographic miles for nearly 200 years.²⁷

Then, in 1988, President Ronald Reagan, by presidential proclamation, extended the breadth of the United States territorial sea from three to twelve nautical miles from shore.²⁸ With the extension of the territorial sea, the United States now exercises sovereignty and jurisdiction over the band of waters that extend a distance of twelve nautical miles from shore.²⁹ The waters of the

¹⁹ *Id.* at art. 21.

²⁰ *Id.* at art. 25.

²¹ *Id.* at art. 21.

²² *Id.* at art. 24.

²³ See, Executive Order 9633, Reserving and Placing Certain Resources of the Continental Shelf Under the Control and Jurisdiction of the Secretary of the Interior (Sept. 28, 1945); Proclamation No. 5030, Exclusive Economic Zone of the United States of America, 48 Fed. Reg. 10605 (1983); Territorial Sea Proclamation, *supra* note 2; Proclamation No. 7219, Contiguous Zone of the United States, 64 Fed. Reg. 48701 (Sept. 8, 1999).

²⁴ Clingan, *supra* note 5, at III.

²⁵ *Id.* at 84.

²⁶ *Id.*

²⁷ An Ocean Blueprint, *supra* note 3.

²⁸ Territorial Sea Proclamation, *supra* note 2.

²⁹ *Id.* Throughout this article the seaward extent of the various zones discussed will be explained in terms of the number of miles from shore or the baseline. The seaward extent of the maritime zones is typically measured as the distance from the baseline. The exact location of the baseline, and consequently the seaward extent of the various zones, are established based on specific rules, and can vary if a particular zone overlaps with the zone of adjacent coastal states.

U.S. territorial sea, as well as the air above, and seabed and subsoil below are all subject to the sovereignty and jurisdiction of the United States, and the ships of other nations have only the right of innocent passage. As such, the jurisdiction asserted by the United States over the territorial seas is its most substantively significant claim to jurisdiction in ocean waters.³⁰ The United States asserts more power and control in the territorial seas than in any other maritime zone.

President Reagan specifically stated in his 1988 proclamation that the extension of the territorial sea did not extend or alter “existing Federal or State law or any jurisdiction, rights, legal interests, or obligations derived therefrom.”³¹ Thus, laws existing prior to 1988 have to be amended to reflect the extension of U.S. sovereignty and jurisdiction. Over twenty years later, some laws still have not been updated to reflect the extension of the territorial sea from three to twelve nautical miles, and many U.S. laws still use a definition of the territorial seas that is inconsistent with the territorial seas that the United States claims under international law. The Clean Water Act is one of those laws.

III. The Clean Water Act

A. Purpose and Substantive Jurisdiction of the Clean Water Act

The purpose of the Clean Water Act is “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”³² The overarching goal of the Clean Water Act is eliminating “the discharge of pollutants into the navigable waters” and until that goal can be met, the interim goal is to achieve “water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water” wherever possible.³³ The CWA sets forth several declarations of policy based around those stated goals, which include prohibiting the discharge of toxic pollutants, assisting in the improvement of wastewater treatment, and supporting research aimed at attaining the goals of the CWA.³⁴

To fulfill its purpose and accomplish its goals, § 301 of the CWA makes “the discharge of any pollutant by any person ... unlawful”³⁵ unless it is done in accordance with §§ 302, 306, 307, 318, 402, or 404.³⁶ The § 301 prohibition on the discharge of any pollutant is broad and all-inclusive, covering a wide range of material discharged from nearly any source that is not diffuse. “Discharge of a pollutant” is defined in § 502 as “any addition of any pollutant to navigable waters from any point source”³⁷ and “any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.”³⁸ The CWA defines a

³⁰ *Id.*

³¹ *Id.*

³² 33 U.S.C. § 1251(a).

³³ *Id.* §§ 1251(a)(1)-(7).

³⁴ *Id.*

³⁵ *Id.* § 1311(a). The U.S. Code citations for the referenced sections are: §§ 1312, 1316, 1317, 1328, 1342, or 1344.

³⁶ *Id.*

³⁷ *Id.* § 1362(12)(a).

³⁸ *Id.* § 1362(12)(b).

point source as: “any discernible, 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.”³⁹ The CWA defines “pollutant” as “dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water.”⁴⁰

The CWA allows for the discharge of pollutants if it is in accordance with one of the various permitting provisions established by the Act. The two main permitting programs are: the dredge and fill permitting program established under § 404 of the CWA and administered by the U.S. Army Corps of Engineers (USACE);⁴¹ and the national pollutant discharge elimination system (NPDES) permitting program established under § 402 of the CWA and administered by the U.S. Environmental Protection Agency (EPA).

B. *Seaward Extent of Clean Water Act Jurisdiction*

The geographic extent of the jurisdiction of the CWA can be found in the definition of the term “discharge of a pollutant,” which is defined as “any addition of any pollutant to navigable waters from any point source” and “any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft”.⁴² Based on that definition, the CWA’s jurisdiction to prohibit the “discharge of a pollutant” covers three different zones of waters: “navigable waters,” the “contiguous zone,” and the “ocean.”⁴³

1. Navigable Waters

The CWA defines “navigable waters” as “waters of the United States including the territorial seas.”⁴⁴ The “territorial seas” is defined in the CWA as “the belt of the seas measured from 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, and extending seaward a distance of three miles.”⁴⁵ The term “navigable waters” includes all internal waters and coastal waters out a distance of three miles from shore. The use of the outdated definition of the territorial sea limits the seaward extent of navigable waters to three miles instead of the twelve nautical miles asserted under the Territorial Sea Proclamation and recognized by the international community.

³⁹ *Id.* § 1362(14).

⁴⁰ *Id.* § 1362(6).

⁴¹ *See id.* §1344(d).

⁴² *Id.* § 1362(12).

⁴³ Robin K. Craig, *Urban Runoff and Ocean Water Quality in Southern California: What Tools Does the Clean Water Act Provide?*, 9 CHAP. L. REV. 313, 331 (2006).

⁴⁴ 33 U.S.C. § 1362(7).

⁴⁵ *Id.* § 1362(8)

2. The Contiguous Zone

The CWA defines the “contiguous zone” as “the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone [15 UST § 1606].”⁴⁶ As defined in the Convention of the Territorial Sea and the Contiguous Zone, a coastal State’s contiguous zone is “zone of the high seas contiguous to its territorial sea” which “may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured.”⁴⁷ The CWA’s definition of the contiguous zone (like the territorial sea) is outdated, as UNCLOS III expanded the acceptable width of the contiguous zone (12 nm beyond the territorial sea or the area 12 to 24 nm from the baseline). Furthermore, the U.S. contiguous zone, like the territorial sea, was extended by presidential proclamation to make it consistent with the maritime zones established in UNCLOS III.

Currently, the United States claims a contiguous zone that is contiguous to the territorial sea, and extends seaward a distance of 24 nautical miles from shore.⁴⁸ This inconsistency could cause problems if the definition of the territorial seas were to be updated without also updating the definition of the contiguous zone. In such a situation, the contiguous zone, as defined in the CWA, would be completely subsumed by the new (12 mile) extent of “navigable waters.” This overlap, however, would be unlikely to affect day-to-day management because the seaward extent of the contiguous zone is used to define the inland boundary of ocean waters.

3. The Ocean

The “ocean” is defined as “any portion of the high seas beyond the contiguous zone.”⁴⁹ Although the high seas is not defined in the CWA, the “ocean” as used in the CWA has been interpreted to include the Exclusive Economic Zone (seaward a distance of 200 nautical miles)⁵⁰ as well as the high seas beyond the jurisdictional reach of the United States.⁵¹ Part VII of UNCLOS III, which discusses the “High Seas” states that it applies “to all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of an archipelagic State.”⁵² Although such an expansive definition was unlikely the intention of Congress when it passed the CWA, the statute does assert authority over ocean waters falling outside U.S. jurisdiction and it is a reasonable interpretation of the statutory language in light of UNCLOS III. This serves as another example of the confusion generated by

⁴⁶ *Id.* § 1362(9).

⁴⁷ Law of the Sea: Convention of the Territorial Sea and the Contiguous Zone, art. 24, Apr. 29, 1958, 15 U.S.T. 1606 (entered into force September 10, 1964).

⁴⁸ Contiguous Zone Proclamation, *supra* note 23.

⁴⁹ 33 U.S.C. § 1362(10).

⁵⁰ The 3.4 million square nautical mile (4.5 million square mile) U.S. EEZ covers an area that is larger than the area covered by all 50 states combined miles. See, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, THE UNITED STATES IS AN OCEAN NATION, *available at* http://aquaculture.noaa.gov/pdf/20_eezmap.pdf.

⁵¹ Robin Kundis Craig & Sarah Miller, *Ocean Discharge Criteria and Marine Protected Areas: Ocean Water Quality Protection Under the Clean Water Act*, 29 B.C. ENVTL. AFF. L. REV. 1, 13-14 (2001).

⁵² UNCLOS III, *supra* note 15, art. 86.

Congress' failure to update the CWA to reflect the existing extent of maritime claims under international law.

IV. Significance of the Outdated Definition of the Territorial Sea

A. NPDES Permitting

The NPDES provisions of § 402 of the Clean Water Act authorize the EPA to issue permits for the discharge of any pollutant, except for those regulated under another provision such as § 404 or § 318.⁵³ Under § 402, the EPA may issue permits “for the discharge of any pollutant, or combination of pollutants, ... upon condition that such discharge will meet ... all applicable requirements [of the CWA].”⁵⁴

Section 402 is applicable to all three jurisdictional zones established in the definition of “discharge of a pollutant”: navigable waters, the contiguous zone and the ocean.⁵⁵ Fortunately, because “ocean waters” has been interpreted to include the U.S. Exclusive Economic Zone, the CWA’s outdated definition of the territorial sea does not limit the geographical scope of § 402. The EPA can require NPDES permits for the “discharge of pollutants” within 200 nm miles from shore. Although updating the definition of territorial sea would clarify the terminology, it would not change the jurisdictional reach of the NPDES permitting provisions.

B. Dredge and Fill Permits

Under § 404 of the CWA, the U.S. Corps of Engineers issues permits “for the discharge of dredged or fill material into the navigable waters at specified disposal sites.”⁵⁶ USACE regulations define “fill material” as “material placed in waters of the United States which has the effect of: (i) Replacing any portion of a water of the United States with dry land; or (ii) Changing the bottom elevation of any portion of a water of the United States.”⁵⁷ Examples of “fill material” include “rock, sand, soil, clay, ... and materials used to create any structure or infrastructure in waters of the United States.”⁵⁸ The “discharge of fill material” is defined as “the addition of fill material into waters of the United States.”⁵⁹ USACE regulations go on to state that this includes:

Placement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States; the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, or other uses; ... beach nourishment; ... fill for structures such as sewage treatment facilities, intake and outfall pipes associated with

⁵³ 33 U.S.C. § 1342(a).

⁵⁴ *Id.* § 1342(a)(1).

⁵⁵ *Id.* § 1362.

⁵⁶ *Id.* § 1344(a).

⁵⁷ 33 C.F.R. § 323.2(e)(1).

⁵⁸ *Id.* § 323.2(e)(2).

⁵⁹ *Id.* § 323.2(f).

power plants and subaqueous utility lines; ... placement of overburden, slurry, or tailings or similar mining-related materials; and artificial reefs.⁶⁰

“Dredged material” is defined as “material that is excavated or dredged from waters of the United States”⁶¹ and “discharge of dredged material” is defined in USACE regulations as “any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States.”⁶² A permit is not required for an “incidental addition, including redeposit,” provided that the incidental addition “does not or would not have the effect of destroying or degrading an area of waters of the United States.”⁶³

In determining whether to issue a permit under § 404, the USACE considers, among other things, the environmental consequences of the proposed discharge, and the USACE will prohibit a discharge “unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.”⁶⁴ Thus the permitting provisions of § 404 of the CWA provide the USACE with the authority to evaluate the potential environmental consequences of regulated activities and prevent an activity from taking place if the activity could have unacceptable adverse environmental impacts.

Like the EPA’s NPDES permitting jurisdiction, the extent of the USACE’s jurisdiction under the dredge and fill provisions of § 404 is defined by the boundaries of “navigable waters.” As discussed earlier, navigable waters include the territorial seas, which, based on the CWA’s outdated definition only extends three miles from the baseline.⁶⁵ Unlike § 402, however, the § 404 permitting provisions do not extend to the contiguous zone or the ocean. The current definition of the territorial seas in the CWA, therefore, improperly limits the seaward extent of the USACE’s regulatory jurisdiction under § 404 to three miles from shore, thereby excluding a significant portion of the actual territorial sea from regulation (the area three to twelve miles from shore).⁶⁶

Due to the CWA’s outdated definition of the territorial sea, the regulatory protections provided by § 404 of the CWA apply to approximately 25% of the territorial sea that is actually claimed by the United States; leaving out nearly 75% of the waters subject to the sovereignty and jurisdiction of the United States. The U.S. has over 12,380 miles of coastline (19,924 km).⁶⁷ Updating the definition of the territorial seas in the CWA would add to the waters protected by the dredge and fill permitting provisions a nine mile wide band of waters along a significant

⁶⁰ *Id.*

⁶¹ *Id.* § 323.2(c).

⁶² *Id.* § 323.2(d)(1).

⁶³ *Id.* § 323.2(3)(i).

⁶⁴ 40 CFR § 230.1(c).

⁶⁵ *Id.*

⁶⁶ This article is limited to a consideration of the impacts that the definitions of the territorial seas has on the permitting provisions of the CWA, but it should be noted that the definition could alter other provisions of the CWA as well. A full analysis of the effect of a definition change on the other provisions must be undertaken before amendments to the CWA are proposed.

⁶⁷ Central Intelligence Agency, World Fact Book, <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html>.

portion of the United States' 12,380 miles of coastline.⁶⁸ Bringing such a significant portion of the nation's waters into the § 404 program would clearly enhance the potential of fulfilling the CWA's purpose to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."⁶⁹

C. *Implications for Offshore Activities*

Today, advances in technology are facilitating society's ability to venture further from shore to exploit the natural resources of the ocean waters beyond three miles. As the examples discussed below demonstrate, if located within 3 nm, many of these activities would fall within the USACE's § 404 permitting jurisdiction.⁷⁰ The expanding access to ocean waters, and use of offshore waters as an alternative source of energy, has great potential to be economically and environmentally beneficial. However, if the potential environmental impacts of these technologies and activities are not adequately scrutinized before they are put into use on a commercial scale, then the unintended consequences of these activities could far outweigh the intended environmental and economic benefits. The potential environmental benefits of activities in offshore waters cannot overshadow the environmental impacts of increasingly extensive and intensive human activity in ocean waters.

1. Oil and Natural Gas Production

Offshore production of oil and gas involves a complex array of operations and infrastructure in offshore waters. Many of these activities could fit within the substantive jurisdiction of §404 of the CWA if the territorial sea definition was expanded from 3 to 12 nm. The process of producing oil and gas in offshore waters begins with exploration. A company obtains an exploration permit from the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) (formerly the Mineral Management Service) to conduct geological and geophysical exploration in an area of offshore waters. Next, offshore blocks are leased from the BOEMRE, after which the lessee conducts seismic surveying operations. With the results of the seismic surveys, exploration wells are drilled. Then development wells are drilled, production facilities are installed, and production operations begin. During ongoing production, the oil and gas are transported to shore using pipelines or tanker ships. Eventually production comes to an end and the production facilities are decommissioned and removed.⁷¹

⁶⁸ For various reasons (like proximity to other coastal States) there are portions of the U.S. coastline for which the U.S. cannot claim a full territorial sea of twelve nautical miles. Thus, the band of waters added to the geographic jurisdiction of § 404 by updating the definition of the territorial seas in the CWA would not necessarily be nine miles wide for the entire 12,380 miles of U.S. coastline.

⁶⁹ 33 U.S.C. 1251(a).

⁷⁰ Whether or not the activities discussed would actually be subject to the substantive jurisdiction of §404 of the CWA is fact specific and dependent on a number of considerations that are beyond the scope of this article.

⁷¹ U.S. DEPARTMENT OF THE INTERIOR, MINERALS MANAGEMENT SERVICE, GULF OF MEXICO OCS REGION, GULF OF MEXICO DEEPWATER OPERATIONS AND ACTIVITIES; ENVIRONMENTAL ASSESSMENT, at II-3 (2000).

Most deepwater drilling of oil and gas wells is accomplished using floating drilling rigs, which are either drillships or semisubmersibles. These floating drilling rigs have to remain stationary while drilling is taking place. Semisubmersibles are typically held in place by several (usually 8) catenary anchors. The length of the anchor lines may be 5 to 7 times the water depth to ensure enough scope to hold the rig in place, thus the footprint of the impact area of this type of rig is larger in deeper waters. Dynamic positioning systems are used to hold most drillships in place during drilling. Dynamic positioning systems use thrusters controlled by computers and global positioning systems to hold the drillship in place.⁷²

The upper portion of wells drilled by a floating drilling are drilled under “riserless” conditions. When drilling under riserless conditions the drill cuttings, sand and silt removed from the well (well solids) are deposited directly on the seafloor. Deepwater wells are typically drilled riserless to a depth of about 2,000 feet below the mudline. After the upper portion of the well is drilled, casings are cemented into the upper portions of the well, a blowout preventer is installed, and a riser is connected to the blowout preventer. For the remainder of the drilling process the drilling fluid and well solids are returned through the riser to the surface where the drilling fluid is separated out and re-used. If it is allowed by an NPDES permit, the well solids are then discharged overboard.⁷³

Each phase in the production of oil and natural gas in offshore waters has environmental impacts that fall within the scope of impacts that the CWA seeks to protect. Impacts from the construction and installation of drilling platforms include increased turbidity from dredging, disturbance of the sea bed, noise, vibration, habitat alteration, and air and water pollution. Environmental impacts associated with drilling for and production of oil and natural gas include disposal and handling of drilling fluids, disposal of “cuttings” which are usually removed from the well and deposited on the sea floor. There is also a risk of adverse environmental impacts associated with accidental spills that could occur during the production phase.⁷⁴

There are also impacts associated with the installation, maintenance, and operation of pipelines.⁷⁵ Impacts from pipeline installation and maintenance include impacts on the sea floor and subaqueous lands associated with subaqueous excavation. These impacts can be reduced by requiring producers to modify their operations to avoid impacting significant seafloor habitat and organisms.⁷⁶

As a range of laws beyond the Corps’ § 404 permitting program affect offshore oil and gas production, further research is needed to determine whether additional environmental protection could be achieved by extending the § 404 program to the full extent of the territorial sea (12 nm). For example, oil and gas exploration and production in offshore waters is regulated as a point source under the NPDES provisions of the CWA. The EPA has developed effluent limitations guidelines and new source performance standards for point source discharges associated with oil and gas production and exploration.⁷⁷ Regulated discharges from oil and natural gas production and exploration include discharges of: drilling fluids, cuttings, produced water, sanitary wastes, and

⁷² *Id.* at II-10.

⁷³ *Id.* at II-14.

⁷⁴ *Id.* at 4.

⁷⁵ *Id.* at 5.

⁷⁶ *Id.* at 6.

⁷⁷ See 40 C.F.R. 435 Subpart A (2010).

deck drainage.⁷⁸ The EPA's program, however, is focused primarily on water quality, as opposed to whether the activity would result in the deposit of dredge and fill material on the seafloor.

2. Offshore Alternative Energy Sources

The potential energy sources in offshore waters are not limited to oil and gas. Offshore sources of alternative energy are still in emergent phases of development but they are rapidly developing. Offshore sources of alternative energy include: wind, wave, hydrothermal, current, and solar energy. Though these sources have not yet been fully implemented in the U.S. their potential is real and the technology exists for many of the sources. The technologies for offshore sources of alternative energy that are most likely to be implemented on a commercial level within the next five to seven years in offshore waters beyond three miles include: capture of energy from wind, waves, and ocean current.⁷⁹ Other potential sources of offshore energy that are not discussed in this article include offshore solar energy⁸⁰ and ocean thermal energy.⁸¹

Technological advancements and the push for more environmentally friendly energy sources will fuel the development of offshore sources of alternative energy. This desire to find new sources of energy that are not also significant sources of greenhouse gasses cannot be allowed to overshadow other potential environmental consequences. The danger of this happening is more significant given the political popularity of green energy and the rush to reduce U.S. dependence on fossil fuels.

Many of the activities associated with exploitation of these alternative offshore energy sources may amount to deposit of dredge and fill material and could be subject to the permitting requirements of § 404 of the CWA. As defined in USACE regulations the term fill material includes "materials used to create any structure or infrastructure in waters of the United States."⁸² Thus, depending on how the USACE interprets the term infrastructure, much of the material placed in the water associated with offshore sources of alternative energy could be considered materials used to create infrastructure. Nearly all of the technologies for the exploitation of

⁷⁸ Bureau of Ocean Energy Management, Regulation, and Enforcement, Environmental Compliance, Branch of Environmental Assessment, <http://www.boemre.gov/eppd/compliance/cwa/index.htm>.

⁷⁹ See MINERALS MANAGEMENT SERVICE, U.S. DEPARTMENT OF THE INTERIOR, PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT FOR ALTERNATIVE ENERGY DEVELOPMENT AND PRODUCTION AND ALTERNATIVE USE OF FACILITIES ON THE OUTER CONTINENTAL SHELF, at ES-2 (2007) available at <http://www.ocsenergy.anl.gov/eis/guide/index.cfm> (stating that the EIS is limited to wind, wave, and ocean current because the MMS expected applications for the development of only those technologies between 2007 and 2014 and discussing that other technologies were not considered in the EIS because they are not yet economically or technologically feasible or because they do not occur outside of three nautical miles).

⁸⁰ See OCS Alternative Energy and Alternative Use Programmatic EIS Information Center, Offshore Solar Energy, <http://ocsenergy.anl.gov/guide/solar/index.cfm>.

⁸¹ See U.S. Department of Energy, Energy Savers, Ocean Thermal Energy Conversion, http://www.energysavers.gov/renewable_energy/ocean/index.cfm/mytopic=50010; see also, Ocean Energy Council, Examining the Future of Ocean Thermal Energy Conversion, <http://www.oceanenergycouncil.com/index.php/OTEC-News/Examining-the-future-of-Ocean-Thermal-Energy-Conversion.html>.

⁸² 33 C.F.R. § 323.2(e)(2).

offshore sources of alternative energy require the installation of some infrastructure that is attached to the seabed in some way.

a) **Offshore Wind Energy**

Wind is the fastest growing energy source in the world, growing at a rate of approximately 20 to 30% per year.⁸³ Offshore turbines can produce more electricity than those onshore because offshore winds, in general, are less turbulent and flow at higher speeds. Offshore wind turbines consist of: a rotor (blades and blade hub) which is connected to a turbine assembly; a tower which supports the rotor and turbine assembly; and a foundation which supports the tower.⁸⁴ Production of offshore wind energy has been limited by the extreme requirements on foundations in offshore waters. The technologies that are in use today for offshore wind energy facilities include gravity foundations and steel monopiles. Gravity foundations use the weight of large concrete structures (about 20m [66 ft] in diameter) that are placed on the seafloor to stabilize the turbine.⁸⁵ This type of foundation cannot be used in water deeper than 30 meters.⁸⁶ In order to use gravity foundations the seafloor must first be prepared to ensure that the concrete structure is placed on a smooth surface. Preparation of the seabed involves the dredging and removal of sediment. Steel monopiles are steel piles that are driven 10-20 meters into the seabed using a vibrating hammer or pile driving ram.⁸⁷ Monopile foundations do not require as much seabed preparation as gravity foundations.⁸⁸ Depending on the location of the turbine, either type of foundation may need erosion (scouring) protection where the foundation meets the sea floor. This is accomplished by placing layers of stone, cement bags or other devices around the foundation to prevent wave or current action from eroding away the sediment supporting the foundation.⁸⁹

Environmental impacts from wind turbines may include sedimentation, noise, and vibration. The foundations of the wind turbines can act as artificial reefs.⁹⁰ Support pilings, anchoring devices and scour-protection materials associated with offshore facilities for production of wind energy may also alter natural benthic environments and result in a decrease in benthic communities.⁹¹

Power generated by offshore wind farms must be delivered to shore. This typically involves a series of cables buried under the seafloor. Each individual turbine is connected to an electric service platform which then delivers the electricity to a substation on land through a buried

⁸³ MINERALS MANAGEMENT SERVICE, RENEWABLE ENERGY AND ALTERNATE USE PROGRAM, TECHNOLOGY WHITE PAPER ON WIND ENERGY POTENTIAL ON THE U.S. OUTER CONTINENTAL SHELF 3 (2006), available at http://ocsenergy.anl.gov/documents/docs/OCS_EIS_WhitePaper_Wind.pdf.

⁸⁴ *Id.* at 5.

⁸⁵ Programmatic Alternative Energy EIS, *supra* note 79, 3-9. See also, ENVIRONMENTAL LAW INSTITUTE, VIRGINIA OFFSHORE ENERGY DEVELOPMENT LAW AND POLICY REVIEW AND RECOMMENDATIONS (2008).

⁸⁶ ENVIRONMENTAL LAW INSTITUTE, VIRGINIA OFFSHORE ENERGY DEVELOPMENT LAW AND POLICY REVIEW AND RECOMMENDATIONS 6 (2008).

⁸⁷ *Id.* at 8.

⁸⁸ *Id.* at 9.

⁸⁹ Alternative Energy Programmatic EIS, *supra* note 79, at 3-9.

⁹⁰ Wind Energy White Paper, *supra* note 83, at 11.

⁹¹ *Id.* at 12.

cable.⁹² These cables have to be buried under the seafloor to avoid damage that could be caused by anchors or fishing equipment if the cable were placed directly on the sea floor. Cables are typically buried using a technique called cable-jetting, which places the cable in a trench that is 8 feet deep and 4 to 6 feet wide.⁹³

b) Offshore Wave Energy

Another alternative energy source is offshore wave energy. Wave energy conversion technologies are still in the development phase but can create electricity by capturing the energy from the up-and-down motion of waves in the ocean. There are four main technologies in development to be used to capture wave energy: point absorbers, attenuators, overtopping devices, and terminators. Each type of technology varies in size and configuration so the environmental impacts will vary depending on the technology used and the location. All four types of wave energy conversion technology will have to be moored, anchored or attached to the sea floor in some way and this is likely to have some impact on benthic habitat and communities. Additionally, transmission cables will be necessary to deliver the electricity to shore and the burying or laying of the cables could result in disturbance of benthic habitat or communities.⁹⁴

c) Ocean Current Energy

Ocean current energy is another type of offshore energy production that is in the early stages of development. This technology uses submerged turbines on either a horizontal or vertical axis. These underwater turbines have blades connected to a generator to convert the rotational energy from the spinning blades into electricity. They are similar to wind turbines, using blades to capture the kinetic energy of the moving water (instead of wind).⁹⁵ There are several different approaches to collecting ocean current energy that range from turbines that look very similar to wind turbines to barges with water-filled parachutes. The turbines will have to be anchored or attached to the seafloor in some way and the electricity will have to be delivered to land using undersea cables. Several prototypes and small scale models of these turbines are currently being tested but none are hooked up to an electrical grid operating on a commercial scale. The environmental impacts of ocean current energy will depend on the technologies that turn out to be the most economically viable and are used commercially.⁹⁶

d) Transmission of Offshore Energy

When energy is produced offshore it must be transported back to shore to be used, unless it is intended to be used offshore. As discussed in previous sections, electricity is likely to be transmitted from offshore wind farms to shore using submarine cables but current applications only require transport over relatively short distances. The use of submarine cables to transmit

⁹² ELI, *supra* note 86, at 9.

⁹³ *Id.* at 10.

⁹⁴ *See, e.g., id.* at 17.

⁹⁵ Alternative Energy Programmatic EIS, *supra* note 79, at 3-14.

⁹⁶ *Id.*

electricity long distances, like from a source that is on the outer continental shelf, presents some technical challenges. The use of these cables also has potential environmental implications, including disturbance of the seafloor and electromagnetic radiation.⁹⁷

Methods of using hydrogen to store and transport the energy generated at offshore facilities are also being considered and developed. This is accomplished by delivering hydrogen to shore in gas liquid or hydrogen carrier form. The technology for gaseous and liquefied hydrogen is well established. The use of liquid hydrogen is expensive and complex and not a viable option. The use of gaseous hydrogen would involve transporting it to shore through a pipeline, or by ship. The technology for using hydrogen carriers is still being researched and there is no existing commercial process currently available. This process would involve either: using a two-way carrier substance that would be charged with hydrogen at the offshore facility, sent to shore, stripped of the hydrogen and sent back to the offshore facility; or using a one-way carrier that would be charged with hydrogen offshore sent to shore and decomposed at the point where the hydrogen is to be used. Carrier hydrogen could be transported to shore using pipelines, tankers or ships depending on the carrier substance. As with submarine cables and any other undersea pipelines there are potential environmental impacts to benthic habitat and communities associated with using pipelines to transport the hydrogen from the offshore facilities.⁹⁸

3. Other Activities in Ocean Waters

There are also other non-energy related activities in waters beyond three nm that could potentially fall within the USACE's reach if the territorial sea definition was updated. These activities include: extraction of mineral resources for purposes other than energy production (like sand or gravel); offshore aquaculture; offshore infrastructure (cables, pipelines, ocean outfall or intake pipes, communication or signal towers, and navigation aids); salvage operations (treasure hunting, archaeological exploration, or commercial salvage); underwater transportation tunnels; discharge of dredged material; dredging activities for shipping channels or beach re-nourishment; and reef creation (creation of new artificial reefs or creation of reefs for restoration or mitigation).

4. Importance of § 404 Jurisdiction

Many of the activities discussed above will occur far from shore, in deep waters and go unseen by many. Though the impacts associated with these activities (some of which could amount to deposit of dredged or fill material) may not be as readily observable in the vastness of ocean waters, the deposit of dredged or fill material associated with these activities could be just as detrimental to the marine environment as it is to ecosystems more closely connected to land. Given the recent political attention and celebrity surrounding alternative energy sources, the vastness of offshore waters, and the production potential for alternative energy sources in offshore waters, and the potential environmental benefit of offshore energy sources, activities exploiting alternative offshore energy sources have the potential to come before the relevant administrative agency with a presumption of "greenness" or overall environmental benefit. Additionally, offshore technology,

⁹⁷ OCS Alternative Energy and Alternative Use Programmatic EIS Information Center, Hydrogen Generation, <http://ocsenergy.anl.gov/guide/hydrogen/index.cfm>.

⁹⁸ *Id.*

especially the development of alternative energy sources in offshore waters, is a relatively new yet rapidly growing industry, and the potential adverse impacts of these technologies are difficult to predict and assess.⁹⁹ Thus, substantive analysis of the potential environmental impacts of these activities (individually and cumulatively) is of paramount importance, regardless of whether or not these activities are already regulated under some authority. It is important that the impacts and effects of these activities undergo sufficient scrutiny to ensure that potential environmental consequences are not overshadowed by the environmentally beneficial intent of the technologies.

V. Regulation of Offshore Activities under other Domestic Laws

While the geographic scope of § 404 is limited beyond 3 nm, there is a wide array of statutes and regulatory programs that may provide oversight beyond three miles from shore of the activities discussed. These activities may be subject to the jurisdiction of a particular federal statute based on the type of activity that is occurring (like transport of dredged material or production of oil and gas), or activities may be regulated by other statutes based on their potential to impact specific natural resources (like endangered species). The territorial sea definitions in these federal statutes, however, raise similar jurisdictional questions.

A. *Marine Protection Research and Sanctuaries Act (Title I: Ocean Dumping Act)*

Title I of the Marine Protection Research and Sanctuaries Act (MPRSA), known as the Ocean Dumping Act (ODA), prohibits the transport of “any material for the purpose of dumping it into ocean waters” unless it is authorized by a permit issued by the EPA or the USACE.¹⁰⁰ This prohibition includes any material transported from the United States, and any material transported (from any location) by aircraft or vessel registered in the United States or flying a U.S. flag.¹⁰¹ Ocean waters include “those waters of the open seas lying seaward of the baseline from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone (15 UST 1606; TIAS 5639).”¹⁰² While this language implies a 3-nm territorial sea, this Convention is only referred to as a means of establishing the baseline from which the “ocean waters” will be measured. The EPA interprets “ocean waters” to “include the waters of the territorial sea, the contiguous zone and the oceans as defined in [CWA §502].”¹⁰³ The prohibition on the dumping of material from the United States or by an U.S. aircraft or vessel, therefore, applies to all waters seaward of the baseline to the extent of U.S. jurisdiction.

The MPRSA also prohibits the unpermitted dumping of “any material transported from a location outside the United States (1) into the territorial sea of the United States, or (2) into a zone contiguous to the territorial sea of the United States, extending to a line twelve nautical miles seaward from the baseline from which the breadth of the territorial sea is measured, to the extent

⁹⁹ Alternative Energy Programmatic EIS, *supra* note 79, at ES-1.

¹⁰⁰ 33 U.S.C. § 1411(a).

¹⁰¹ *Id.*

¹⁰² 33 U.S.C. § 1402(b).

¹⁰³ 40 C.F.R. § 220.2(c).

that it may affect the territorial sea or the territory of the United States.”¹⁰⁴ The MPRSA does not include a definition of territorial sea.

The MPRSA essentially creates two permitting programs. Under § 103 of the MPRSA, the USACE is authorized to issue permits “for the transportation of dredged material for the purpose of dumping it into ocean waters, where the Secretary determines that the dumping will not unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities.”¹⁰⁵ Dredged material includes “any material excavated or dredged from navigable waters of the United States.”¹⁰⁶ The EPA is authorized, under § 102, to issue permits for the transport of material, other than dredged materials, for the purpose of dumping it into ocean waters.¹⁰⁷

Upon passage of the MPRSA, the EPA was tasked with developing criteria for reviewing and evaluating ocean dumping permits.¹⁰⁸ In making its determination of whether the ocean dumping of dredged material will “unreasonably degrade or endanger human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities,” the USACE must apply the EPA’s criteria.¹⁰⁹ This is similar to the CWA’s § 404 permitting structure, which requires the USACE to apply the EPA’s § 404(b)(1) guidelines when reviewing dredge and fill permits. The § 404(b)(1) guidelines apply to the USACE’s review of proposed discharge of dredged and fill permits into navigable waters lying inside the baseline from which the territorial sea is measured (internal waters, i.e. freshwater and estuaries) and the discharge of fill material into the territorial sea.¹¹⁰ When reviewing proposed discharges of dredged material into the territorial sea, the Corps must apply the EPA’s ocean dumping criteria. The distinction does not have must practical effect, however, as the EPA’s § 404(b)(1) guidelines and its ocean dumping criteria are almost identical.

B. *Outer Continental Shelf Lands Act*

Most of the activities associated with offshore energy that occur beyond three miles from shore are regulated under the Outer Continental Shelf Lands Act (OCSLA). Through the OCSLA, Congress asserted jurisdiction, control, and power of disposition over the seabed and subsoil of the outer Continental Shelf.¹¹¹ Under OCSLA, the outer continental shelf (OCS) is “held by the Federal Government for the public” and “should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs.”¹¹² The OCSLA treats the waters above the outer continental shelf as the high seas; OCSLA does not affect the rights of other nations to navigate and fish in the waters over the outer continental shelf.¹¹³ The OCS is defined as “all

¹⁰⁴ 33 U.S.C. § 1411(b).

¹⁰⁵ *Id.* § 1413(a).

¹⁰⁶ 33 C.F.R. § 324.2.

¹⁰⁷ 33 U.S.C. § 1412(a).

¹⁰⁸ *Id.*

¹⁰⁹ *See id.* § 1413(b). *See also*, 33 C.F.R. § 324.4(c).

¹¹⁰ 40 C.F.R. § 230.2(b).

¹¹¹ 43 U.S.C. § 1332.

¹¹² *Id.* § 1332(3).

¹¹³ *Id.* § 1332(2).

submerged lands lying seaward and outside of the area of lands beneath navigable waters as defined in section 2 of the Submerged Lands Act (Public Law 31, Eighty-third Congress, first session) [43 U.S.C. § 1301], and of which the subsoil and seabed appertain to the United States and are subject to its jurisdiction and control.”¹¹⁴ In general, lands beneath navigable waters include internal waters and tidal waters “seaward to a line three geographical miles distant from the coast line.”¹¹⁵

Under the OCSLA, the Department of the Interior has jurisdiction over most of the activities that occur on the outer Continental Shelf. This includes regulating the exploration and production of natural resources (oil, natural gas, and non-energy minerals) on the OCS through planning, issuance of permits, and the grant of leases, easements, and rights-of-way.¹¹⁶ The Department of the Interior delegated authority over OCS leases to the Bureau of Ocean Energy Management, Regulation, and Enforcement (BOEMRE).¹¹⁷ BOEMRE also has the authority to grant leases, easements, and rights-of-way for activities on the OCS associated with production and transmission of energy from sources other than oil and gas, and for alternate uses of existing structures on the OCS.¹¹⁸

The lease of areas of the OCS for exploration and production of oil and natural gas involves several steps including: lease planning, lease sale, exploration and production. The environmental impacts of the activities that will take place during the exploration and production of oil and gas are considered throughout the lease process.¹¹⁹ This includes consideration of environmental values of the natural resources in the area, its environmental sensitivity and ecological characteristics as well as a balancing of the potential environmental damage with other factors.¹²⁰ The BOEMRE conducts a study of the area to assess and manage impacts to the marine and coastal environments before a lease is sold.¹²¹ During exploration the lessee is required to submit information regarding onsite flora and fauna (including endangered species and critical habitat), environmentally sensitive areas, and direct and cumulative impacts of the activities.¹²²

The BOEMRE also grants rights-of-way for pipelines to transport oil, natural gas, or other minerals from the OCS to land. In granting such rights-of-way, the BOEMRE must “assur[e] maximum environmental protection by utilization of the best available and safest technologies, including the safest practices for pipeline burial.”¹²³

¹¹⁴ *Id.* § 1331(1).

¹¹⁵ *Id.* § 1301(a).

¹¹⁶ JORDAN DIAMOND ET AL., MARINE SPATIAL PLANNING IN U.S. WATERS: AN ASSESSMENT AND ANALYSIS OF EXISTING LEGAL MECHANISMS, ANTICIPATED BARRIERS, AND FUTURE OPPORTUNITIES 18 (Environmental Law Institute 2009).

¹¹⁷ *Id.* at 18

¹¹⁸ JAMES MCELISH ET AL., MARYLAND OFFSHORE ENERGY FRAMEWORK 6 (Environmental Law Institute 2009)

¹¹⁹ Diamond, *supra* note 116, at 19.

¹²⁰ *Id.*

¹²¹ *Id.* at 20.

¹²² *Id.*

¹²³ 43 U.S.C. § 1334(e). See also, Diamond, *supra* note 116, at 21.

C. Rivers and Harbors Act

Under § 10 of the Rivers and Harbors Act (RHA) the USACE issues permits for “structures and/or work in or affecting navigable waters of the United States.”¹²⁴ The definition of “navigable waters of the United States” under § 10 of the RHA includes “all ocean and coastal waters within a zone three geographic (nautical) miles seaward from the baseline.”¹²⁵ For certain activities the USACE’s jurisdiction under § 10 of the RHA was extended to the OCS by OCSLA.¹²⁶ According to USACE regulations, § 4(f) of the OCSLA extended the geographic jurisdiction of the USACE to “prevent obstruction to navigation” under § 10 of the RHA beyond the territorial sea to the “seaward limit of the outer continental shelf.”¹²⁷ A § 10 permit from the USACE is therefore required for “the construction of artificial islands, installations, and other devices on the seabed.”¹²⁸ The activities that fall under this extension of the USACE’s jurisdiction “are subject to the standard permit procedures of [the Rivers and Harbors Act].”¹²⁹

USACE regulations define “structure” to “include without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other obstacle or obstruction.”¹³⁰ “Work” is defined as “includ[ing] without limitation, any dredging or disposal of dredged material, excavation, filling, or other modification of a navigable water of the United States.”

D. Magnuson-Stevens Fishery Conservation and Management Act

Activities occurring more than three miles from shore may also be regulated under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The MSA regulates and manages fisheries in federal waters from the seaward boundary of the adjacent state’s waters out to the seaward extent of the Exclusive Economic Zone (200 miles from shore). This includes the creation of regional fishery management councils to develop, implement, and manage fishery management plans within their region.¹³¹

The MSA also seeks to protect essential fish habitat (EFH) from the impacts of fishing as well as other activities that occur in ocean waters. The regional councils designate EFH for each fishery that they manage and include provisions in the fishery management plan for the minimization of adverse impacts, as well as the conservation and enhancement of EFH.¹³² EFH includes the water column as well as the seafloor.¹³³ To protect EFH, the MSA requires federal agencies to “consult with the Secretary [NOAA] with respect to any action authorized, funded, or undertaken, or

¹²⁴ 33 C.F.R. § 322.3(a).

¹²⁵ *Id.* § 329.12(a).

¹²⁶ 43 U.S.C. § 1333(e).

¹²⁷ *Id.* § 320.2(b).

¹²⁸ *Id.* § 322.3(b).

¹²⁹ *Id.* § 322.5(f).

¹³⁰ *Id.* § 322.2(b).

¹³¹ See, eg., Appendix 6 of an Ocean Blueprint, *supra* note 11, at 29-31.

¹³² *Id.* at 33.

¹³³ McElfish, *supra* note 118, at 20.

proposed to be authorized, funded, or undertaken, by such agency that may adversely affect any essential fish habitat.”¹³⁴ If activities that occur beyond three miles from shore also fell under the regulatory jurisdiction of § 404, the consultation requirement under the MSA could also be triggered if they could affect essential fish habitat.

E. *Endangered Species Act*

Under § 9 of the ESA the “take” of endangered species is prohibited.¹³⁵ The “take” prohibited by the ESA includes intentional activities with direct impacts on an individual of a given endangered species¹³⁶ as well as activities that kill or injure endangered species by significantly modifying their habitat.¹³⁷ Additionally, federal agencies are required to consult with NOAA Fisheries or the U.S. Fish and Wildlife Service to “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 ... to be critical.”¹³⁸

F. *Marine Mammal Protection Act*

The Marine Mammal Protection Act (MMPA) was passed to protect marine mammals by ensuring that optimum populations are maintained. To accomplish this purpose the MMPA prohibits the “take” of marine mammals. The MMPA defines “take” as: “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal.”¹³⁹ The take prohibition includes a prohibition of harassment of marine mammals which is defined broadly to encompass activities that have the potential to injure or disturb (“by causing disruption of behavioral patterns”) marine mammals or marine mammal stocks in the wild.¹⁴⁰ Many of the activities that occur beyond three miles from shore could be directly regulated under the MMPA because of the broad definition of “take” and the equally broad assertion of regulatory jurisdiction to prohibit the take of marine mammals.¹⁴¹

¹³⁴ 16 U.S.C. § 1855(b)(2); *see also*, Appendix 6 of An Ocean Blueprint, *supra* note 11, at 33-34.

¹³⁵ 16 U.S.C. § 1538(a).

¹³⁶ *See id.* § 1532(19) (stating that: “[t]he term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”).

¹³⁷ Appendix 6 of An Ocean Blueprint, *supra* note 11, at 38 (citing *Sweet Home v. Babbitt*, 515 U.S. 687 (1995)).

¹³⁸ 33 U.S.C. § 1536(a)(2); *see also*, Appendix 6 of An Ocean Blueprint, *supra* note 11, at 39.

¹³⁹ 16 U.S.C. § 1362(13).

¹⁴⁰ *Id.* § 1362(18)(a).

¹⁴¹ *Id.* § 1372(a) (making it unlawful for: “any person ... or any vessel or other conveyance subject to the jurisdiction of the United States to take any marine mammal on the high seas” and “any person or vessel or other conveyance to take any marine mammal in waters or on lands under the jurisdiction of the United States.”).

G. *Other Laws*

There are several other laws that may impose requirements on those wishing to engage in activities that occur beyond three miles from shore and may otherwise fall under the regulatory jurisdiction of § 404 of the CWA. Those statutes include but are not limited to: the Atomic Energy Act, the Natural Gas Act, the Submerged Lands Act, the Federal Power Act, the Coastal Zone Management Act, the National Marine Sanctuaries Act, the American Antiquities Act, the Ports and Waterways Safety Act, the Deep Water Port Act, the Deep Seabed Hard Mineral Resources Act, the Oil Pollution Act and the Ocean Thermal Energy Conversion Act.

VI. “Value Added” by Extending § 404 Beyond 3 Nautical Miles

It would be futile to update the definition of the territorial seas in the CWA solely for the sake of consistency with international law. In addition to the territorial seas, the CWA uses outdated definitions to establish other geographic boundaries in ocean and coastal waters. As discussed earlier, the contiguous zone used in the CWA is inconsistent with the contiguous zone claimed by the United States under international law, and it is defined in the CWA by reference to an outdated source of international law. Thus from the standpoint of eloquence it would be better to update and re-define all of the outdated jurisdictional terms used in the CWA to make them consistent with the boundaries claimed by the U.S. under international law. This may require a significant regulatory overhaul. The benefits of updating and re-defining just the territorial sea in the CWA are could be significant, however, in terms of the additional environmental protection that might be provided by the extended jurisdiction of the USACE under § 404 of the CWA.

Many of the activities that occur beyond three miles from shore, and may otherwise fall under the regulatory jurisdiction of § 404 of the CWA, are regulated under at least one of the authorities discussed above. Most of the regulatory programs discussed include an assessment of the environmental impacts of the regulated activity and avoidance or mitigation of potential environmental impacts. This, however, does not mean that it would be superfluous to update the definition of the territorial sea in the CWA and thereby extend the regulatory jurisdiction of the USACE under § 404 to twelve nautical miles. Extending the regulatory jurisdiction of the USACE under § 404 could benefit the marine environment and advance the fulfillment the CWA’s purpose to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”¹⁴² by increasing the likelihood that the unintended environmental impacts (of activities occurring between three and twelve miles from shore) will be discovered and addressed before they occur.

There are several ways that the § 404 permit application review and approval process might increase the likelihood that unintended environmental impacts of these activities would be recognized and addressed before they occur. First, an extension of the USACE’s regulatory jurisdiction under § 404 may capture activities that would not otherwise be subject to any regulatory oversight, thereby ensuring that the environmental impacts of those potentially unregulated activities are sufficiently scrutinized under the § 404 permit application and approval process.

¹⁴² 33 U.S.C. § 1251(a).

Extending the seaward reach of the geographic jurisdiction of § 404 may also trigger NEPA review of certain activities for which it may not otherwise be required. This would add another layer of scrutiny, which involves a broad assessment of the potential environmental impacts of the proposed activity. The requirement of consultation with other federal or state agencies may also be triggered, which would serve as yet another layer of scrutiny focused on environmental impacts and conducted by a different agency. This could uncover potential adverse environmental impacts that are beyond the relevant regulatory agencies' area of expertise or scope of authority, or may otherwise go overlooked by other agencies.

Finally, the § 404 permit application review and approval process itself would serve as an additional, distinct layer of environmental scrutiny, giving the USACE the opportunity to directly analyze potential environmental impacts associated with the activity. Through the § 404 permit application, review, and approval process the activities would be evaluated for a different purpose, and the potential environmental impacts of these activities would be analyzed based on an independent set of criteria.

Given the activities that currently occur in offshore waters, the increasing political and societal popularity of alternative energy sources, and the potential for significant expansion of the activities occurring in offshore waters, the additional layers of scrutiny provided by extending the seaward reach of the geographic jurisdiction of § 404 has the potential to be beneficial to the marine environment. However, that does not mean that extending the environmental protections provided by § 404 of the CWA to the full extent of the territorial sea currently claimed by the United States is the ideal means of protecting the marine environment and regulating the activities that occur beyond three miles from shore. The earlier discussion of the wide array of authorities regulating activities in offshore waters elucidates the fragmented state of the current regulatory structure for the activities that occur in offshore waters. Additionally, many of the activities discussed are not limited to ocean waters within twelve nautical miles of shore. The use of an outdated definition of the territorial seas in the CWA brings to light a much bigger issue; that there is a need for regulatory oversight in ocean waters to catch up with the rapidly developing technologies that have already allowed civilization to reach further and further into the ocean waters. Short of a complete regulatory overhaul, updating the definition of the territorial seas in the CWA, however, could help to prevent the regulation of activities in ocean waters from falling too far behind.

The outdated definition of the territorial seas in the CWA presents an interesting semantic issue that raises some complex questions about the sufficiency of regulatory oversight in ocean waters within the sovereignty and jurisdiction of the United States. Given the use of outdated definitions to establish other geographic boundaries in the CWA, updating the definition of the territorial sea for definitional consistency alone would be inconsequential. Also, simply adding another permit to the list of approvals needed to conduct activities in ocean waters would add to the fragmented nature of current regulatory oversight in ocean and coastal waters and thereby unnecessarily complicate and delay the approval process. This could interfere with the ability of U.S. industries to keep up with technological advancements in the global market.

Reconciling the definition used in the CWA with the territorial seas claimed by the United States in international law would clearly increase the geographic area in which the USACE can exercise its regulatory authority under § 404 of the CWA. This could also provide an additional layer of scrutiny for current and future activities that have the potential to negatively impact the

chemical, physical, or biological integrity of the Nation's waters beyond three nm from shore and would further the CWA's purpose to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters."

The limitation placed on USACE's jurisdiction under § 404 by the outdated definition of the territorial sea does not create an egregious regulatory gap. Despite the lack of practical implications, the outdated definition of the territorial seas used in the CWA does point out the need to re-evaluate the current regulatory framework used by the United States to oversee activities in ocean and coastal waters. There is a need for a regulatory system that is able to keep up with the rapidly developing technologies that are taking place further from shore in order to provide effective regulatory oversight to prevent irreparable harm to the natural resources in ocean waters without interfering with the ability of the United States to keep up with the rest of the world by unduly burdening the permitting process or preventing the United States from taking advantage of the natural resources at our disposal in ocean waters.