

Orchestrating Our Oceans: Effectively Implementing Coastal and Marine Spatial Planning in the U.S.

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Abstract: Ocean and coastal ecosystems in the United States suffer from ill health. In response to fisheries collapse, wetlands loss, human use conflict, and scientific consensus on the need for ecosystem-based management, President Barack Obama’s administration has set the U.S. on course to implement coastal and marine spatial planning (CMSP). The goal of CMSP is to bolster ocean health—to make human use more sustainable and uses more harmonized with one another—so that the ecological system may replenish itself and continue providing its essential services. An executive order now directs federal agencies to participate in this new planning process and encourages regions to convene planning bodies and voluntarily develop coastal and marine spatial plans (CMS plans) by 2015. This Article surveys progress towards implementation of CMSP in the United States, including the support the federal government has made available and the progress of state and regional planning bodies. It highlights a few successes where governing bodies have employed CMSP, and describes some drawbacks of the CMSP approach that have dissuaded others from utilizing ocean planning as a management tool. Finally, the Article assesses whether CMSP efforts seem likely to achieve their goal of bolstering ocean health.

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I. Introduction

The United States recently embarked on a new approach to ocean governance. Although a few individual states have long engaged in coastal and marine spatial planning (CMSP) efforts, the U.S. had not pursued the CMSP management approach on a grander scale. In the last four years, however, the federal government has rolled out a National Ocean Policy with CMSP as a centerpiece, and has encouraged and supported the development of CMSP at the regional level. Regional planning is now underway along much of the U.S. coastline and in ocean spaces, and many are hopeful that this new approach will benefit both ocean health and human use of marine ecosystem services.

Regional CMSP is a new concept in the U.S. and, although it is gaining momentum, it has not been fully embraced. One important reason for this is that not all stakeholders agree that CMSP will be useful or effective. Many believe that it will represent a new layer of bureaucracy to contend with, in a system that is already difficult to navigate. Such opposition presents a unique problem for those pursuing CMSP implementation because CMSP is, by definition, a collaborative and participatory process. More importantly, because CMSP is still a new management process in the U.S., it remains an open question how the governance regime will be structured and on what values it will focus. This particular set of circumstances presents opportunity for stakeholders to become involved and to help shape the CMSP process to work effectively for their particular region. It also means that unsupported CMSP efforts could die on the vine in areas where regional players decide to opt out. This Article seeks to increase understanding of CMSP and to provide a snapshot of where CMSP efforts to date are headed and what they have accomplished.

Part II of this Article explains the basic concept of the National Ocean Policy for governance through ecosystem-based, coastal and marine spatial planning. It first describes the reasoning behind pursuing this new model of governance for our oceans and coasts. Next, it provides a broad definition of CMSP and gives examples of CMSP projects currently in progress around the world. Finally, Part II provides background on the development of CMSP in the United States and details the component parts of a CMSP regime for the United States, as envisioned by the Obama White House. Part III of the Article surveys progress to date of states and regions toward implementing CMSP. Part IV explores where states and regions have found success with CMSP and where they have encountered obstacles working with this new governance regime. The Article then concludes in Part V with an overarching assessment of CMSP efforts in the U.S. to date.

II. Coastal and Marine Spatial Planning Basics

To provide a foundation for discussions in later sections, this section sets forth the basic concept of ecosystem-based, coastal and marine spatial planning. It describes the Obama Administration's reasoning behind pursuing this new model of governance for U.S. oceans and coasts. It provides the general definition of CMSP and gives examples of CMSP projects currently in progress. This Part also provides background on the development of CMSP in the United States.

A. *The Need for CMSP*

Human use and resource extraction have deteriorated marine and coastal ecosystems in every region of the United States. In Alaska, commercial harvesting of fish and fur seals for pelts has led to species decline, population stress, and food stress in the North Pacific and Arctic Ocean ecosystems.² Loss of sea ice due to climate change increasingly exacerbates these habitat stresses.³ The Puget Sound ecosystem off the coast of Washington State is contaminated from fertilizers and chemicals such as flame-retardants and plasticizers.⁴ Coastal development in California has caused decline in the health of many estuarine systems in the West.⁵ The Gulf of Mexico remains battered from the massive BP oil spill, nitrogen-loading from fertilizer and manure run-off that the Mississippi River releases, and sinking wetlands deprived of sediment by structural flood control improvements.⁶ Destructive impacts of invasive species plague the Great Lakes.⁷ Intense fishing pressure and destructive fishing practices such as bottom trawling have wreaked havoc on Atlantic fish populations and coral reef systems from Florida to Maine.⁸

Marine conservation experts write that many of these problems of coastal degradation "result from the 'frontier mentality of governance' that characterizes U.S. coastal and ocean management."⁹ Thought of as a frontier, "the oceans have historically been viewed as 'an inexhaustible cornucopia' of

² Patrick A. Parenteau et al., *Legal Authorities for Ecosystem-Based Management in U.S. Coastal and Ocean Areas*, in OCEAN AND COASTAL LAW AND POLICY 597–600 (Donald C. Baur et al. eds., 2007).

³ *Id.*

⁴ *Health of the Salish Sea Ecosystem Report*, EPA, <http://www.epa.gov/pugetsound/indicators/index.html> (last visited Sept. 18, 2013).

⁵ Parenteau, *supra* note 2, at 600.

⁶ Nathaniel E. Ostrom, *The Dead Zone: The Deepwater Horizon Oil Spill Versus the Dead Zone in the Northern Gulf of Mexico - which is Worse?*, PRAIRIE FIRE NEWS (Sept. 2010), available at <http://www.gulphypoxia.net/news/default.asp?XMLFilename=201009130816.xml>; John Tibbetts, *Louisiana Wetlands: A Lesson in Natural Appreciation*, 114 ENVTL. HEALTH PERSP. A40 (2006), available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1332684/>.

⁷ *Predicting Invasive Species in the Great Lakes*, EPA RESEARCH & DEVELOPMENT, http://www.epa.gov/ord/gems/scinews_great_lakes.htm (last visited Sept. 18, 2013).

⁸ Parenteau, *supra* note 2, at 600.

⁹ *Id.* at 604 (citing Elliot A. Norse, *A Zoning Approach to Managing Marine Ecosystems*, in WORKSHOP ON IMPROVING REGIONAL OCEAN GOVERNANCE IN THE UNITED STATES 53–57, at 53 (Biliana Cicin-Sain et al. eds., 2003) [hereinafter Norse, *A Zoning Approach*]); see also, Elliot A. Norse, *Ending the Range Wars on the Last Frontier: Zoning the Sea*, in MARINE CONSERVATION BIOLOGY: THE SCIENCE OF MAINTAINING THE SEA'S BIODIVERSITY 422, 423 (Elliot A. Norse and Larry B. Crowder eds., 2005) [hereinafter Norse, *Ending the Range Wars*].

natural resources and that viewpoint has led to management regimes based on the premise that 'society, therefore, should give primacy to supporting consumptive users.'"¹⁰ We now know that ocean resources are, in fact, exhaustible.

Giving primacy to supporting consumption without allowing a species to properly regenerate itself can lead to the swift end of that type of consumption, as well as grave cascading effects that reverberate throughout the ecosystem.¹¹ The most well-known instances of ocean resource exhaustion are probably the collapse of the Atlantic cod and Atlantic bluefin tuna species due to overfishing.¹² A 2006 study published in *Science* found that, due to overfishing, pollution, or habitat encroachment, or a combination of the three, human use of the oceans in the last fifty years has driven 29% of the marine species that we consume to the point of collapse.¹³ In other words, those species currently exist at 10% or less of their previous levels.¹⁴ The study even went so far as to extrapolate the data of the 2006 fishing rates into the future, which showed a 100% collapse of all marine species currently harvested by the year 2048 if rates of consumption continued to increase unchecked worldwide.¹⁵ This study helped to highlight both the dire straits of ocean health and the failure of the ocean management regime in place. The media coverage it received helped alert the public to the issue of overfishing and to draw consumer attention to conscious choice guides.¹⁶

The Magnuson–Stevens Fishery Conservation and Management Act, first enacted in 1976, purported to regulate the fishing industry through regionally established catch limits.¹⁷ However, the language of the law allowed the regional councils to set "maximum sustainable yield" caps "as modified

¹⁰ *Id.* (citing Norse, *Ending the Range Wars*, *supra* note 9, at 423).

¹¹ See, e.g., Daniel Pauly, *Aquacalypse Now: The End of Fish*, THE NEW REPUBLIC, Sept. 28, 2009, available at <http://www.tnr.com/article/environment-energy/aquacalypse-now> ("[T]he removal of top predators from marine ecosystems has effects that cascade down, leading to the increase of jellyfish and other gelatinous zooplankton and to the gradual erosion of the food web within which fish populations are embedded." Also, "the removal of small fish in the Mediterranean to fatten bluefin tuna in pens is causing the 'common' dolphin to become exceedingly rare in some areas, with local extinction probable.").

¹² See Ransom A. Myers et al., *Why Do Fish Stocks Collapse? The Example of Cod in Atlantic Canada*, 7 ECOLOGICAL APPLICATIONS 91 (Feb. 1997); Carl Safina & Dane H. Klinger, *Collapse of Bluefin Tuna in the Western Atlantic*, 22 CONSERVATION BIOLOGY 243 (2008).

¹³ Boris Worm et. al., *Impacts of Biodiversity Loss on Ecosystem Services*, 314 SCIENCE 787–90 (2006). Study summarized by Cornelia Dean, *Study Sees 'Global Collapse' of Fish Species*, N.Y. TIMES, Nov. 3, 2006, available at <http://www.nytimes.com/2006/11/03/science/03fish.html>.

¹⁴ Worm, *supra* note 13.

¹⁵ *Id.*

¹⁶ Paul Greenberg, *Tuna's End*, N.Y. TIMES, June 22, 2010, available at <http://www.nytimes.com/2010/06/27/magazine/27Tuna-t.html>; Elizabeth Kolbert, *The Scales Fall: Is there any Hope for our Overfished Ocean*, THE NEW YORKER, Aug. 2, 2010, available at http://www.newyorker.com/arts/critics/books/2010/08/02/100802crbo_books_kolbert. See also *Atlantic Cod*, MONTEREY BAY AQUARIUM SEAFOOD WATCH, http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw_factsheet.aspx?gid=14 (last visited Sept. 18, 2013); *Bluefin Tuna*, MONTEREY BAY AQUARIUM SEAFOOD WATCH, http://www.montereybayaquarium.org/cr/SeafoodWatch/web/sfw_factsheet.aspx?gid=76 (last visited Sept. 18, 2013).

¹⁷ Josh Eagle, *Domestic Fishery Management*, in OCEAN AND COASTAL LAW AND POLICY 275, 280 (Donald C. Baur et al. eds., 2007) (citing 94 Pub. L. No. 265, §3(18)(B); 90 Stat. 331, 335).

by any relevant social, economic, or ecological factor.”¹⁸ Regional councils chose to weight economic factors more heavily than ecological factors and many fish populations steeply declined.¹⁹ Amidst reports of the New England cod population collapse, Congress amended the law with the Sustainable Fisheries Act in 1996, which required regional fishery management plans (FMPs) to end overfishing.²⁰ Since their implementation, these plans have shown some results in rebounding fish stocks, increasing over time. In 2006, a scientific report showed the FMPs led to a full rebound of three out of 67 overfished species populations, the cessation of overfishing and overexploitation among nine stocks without a corresponding population rebound, and the continued overfishing and overexploitation of the remaining 55 overfished stocks.²¹ In comparison, a recent survey from this year reports that 21 stocks have now successfully rebuilt under the regional FMPs, another seven stocks are showing significant progress, and 16 stocks remain that have not reached 50% of their rebuilding plan population targets.²² The heavily consumed Atlantic cod has not yet recovered.²³

From an environmental health standpoint, the depletion of U.S. fish stocks is one of the more prominent ocean management failures of the past era, and their current recovery trajectory is perhaps one of the early successes of more careful regional planning and more attention to ecosystem health. Congress reauthorized and amended the Magnuson–Stevens Act again in 2006, in a further attempt to protect overfished populations.²⁴ The regional planning efforts initiated by the 1996 amendments seem to be contributing to fish stock rebuilding, at least to a degree. Whether the 2006 amendments will effect further positive change for the fisheries is still to be seen. For cod, the saga continues as fishermen exert legal and political pressure against stricter quotas.²⁵ What is clear is that this struggle to manage our unending appetite for fish has forced ocean managers to face the reality of a “universally unsatisfactory collective action dilemma” in the U.S.²⁶ We allow unchecked human use of the oceans at

¹⁸ *Id.* (quoting 94 Pub. L. No. 265, §3(18)(B); 90 Stat. 331, 335).

¹⁹ Eagle, *supra* note 17, at 280; Mary Turnipseed et al., *The Silver Anniversary of the United States’ Exclusive Economic Zone: Twenty-Five Years of Ocean Use and Abuse, and the Possibility of a Blue Water Public Trust Doctrine*, 36 *ECOLOGY L.Q.* 1, 53 (2009).

²⁰ Turnipseed, *supra* note 19, at 54.

²¹ *Id.* at 55 (citing Andrew A. Rosenberg et al., *Rebuilding US Fisheries: Progress and Problems*, 4 *FRONTIERS IN ECOLOGY & ENV’T* 303, 307 (2006)). The three recovery species are the Atlantic sea scallop, the Pacific whiting, and the Pacific lingcod. *Id.* at n.314.

²² BRAD SEWELL, NATURAL RES. DEFENSE COUNCIL, BRINGING BACK THE FISH: AN EVALUATION OF U.S. FISHERIES REBUILDING UNDER THE MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT (2013), available at <http://www.nrdc.org/oceans/rebuilding-fisheries.asp>.

²³ *Id.* at 19. See also Travis Andersen, *Ailing New England Fisheries Face Steep Cuts to Cod Quotas*, *BOSTON GLOBE*, Jan. 31, 2013, available at <http://www.bostonglobe.com/metro/2013/01/31/new-england-fishermen-hit-with-severe-cuts-cod-quotas/ADzwmFMso2bbs3LoFMIO7M/story.html>.

²⁴ Turnipseed, *supra* note 19, at 55. The implementing agency, the National Marine Fisheries Service, revised regulations in 2010, and other revisions are still underway. *Magnuson-Stevens Fishery Conservation and Management Act Reauthorized*, NOAA FISHERIES, <http://www.nmfs.noaa.gov/msa2007/otherprovisions.html> (last visited Sept. 18, 2013).

²⁵ Massachusetts Attorney General Martha Coakley filed suit on behalf of the fishermen against NMFS for its most recent quota, and the fishermen have petitioned Congress to defund the NMFS Northeast Regional Office. Laura Petersen, *Mass. AG sues Obama over cod quota*, *GREENWIRE*, May 31, 2013.

²⁶ Parenteau, *supra* note 2, at 605 (quoting Norse, *Ending the Range Wars*, *supra* note 9, at 429).

our own peril. In light of this and other serious ocean health issues, the question of the new century has become: How can we better manage the sea?²⁷

In answer, policymakers recently have latched on to a more holistic approach to ocean management—ecosystem-based management, to be implemented through coastal and marine spatial planning (CMSP)—that they hope may offer a better fate for fish and other natural resources than our frontier mentality has in the past. In short, ecosystem-based management broadens management efforts to consider multiple human use activities across a large marine ecosystem (LME) region, breaking step with the United States' heretofore sector-by-sector, state-by-state management approach.²⁸ Theoretically, once it is implemented ecosystem-wide science will underlie and inform ecosystem-based management. Geographically, managers will approach decision-making at a regional level in light of the impacts of uses, both individual and cumulative, on the LME region as a whole.²⁹

B. What Is Coastal Marine Spatial Planning?

CMSP is a tool that governments can employ to implement ecosystem-based management. The United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Marine Spatial Planning Initiative website describes CMSP eloquently as follows:

Demand for outputs (goods and services such as food and energy) usually exceeds the capacity of marine areas to meet all demands simultaneously. Marine resources are "common property resources" with open or free access to users. Free access often, if not always, leads to excessive use, e.g., over fishing, and eventual exhaustion of the resources.

Because not all of the outputs from marine areas, especially natural services such as wildlife habitat and nutrient cycling, can be expressed in monetary terms, markets cannot perform the allocation tasks. Some public process must be used to decide what mix of outputs from the marine area will be produced over time and space. That process is marine spatial planning.³⁰

For example, in the U.S. "container ship traffic is projected to double in tonnage by 2020, and other industries, such as offshore aquaculture, wind farms, and liquefied natural gas terminals, are increasingly coming online."³¹ As one author explains, "[m]any of these enterprises require security of investment, which generally comes in the form of leases and exclusionary rights."³² As the use demand has increased on a finite amount of ocean space, CMSP has gained popularity among ocean managers

²⁷ *Id.*

²⁸ Andrew A. Rosenberg, *Regional Governance and Ecosystem-Based Management of Ocean and Coastal Resources: Can We Get There from Here?*, 16 DUKE ENVTL. L. & POL'Y F. 179, 179–81 (2006). For more information on LMEs, see *infra* note 117.

²⁹ WILLIAM F. FOX ET AL., STATEMENT OF CONCERNED SCIENTISTS ON THE REAUTHORIZATION OF THE MAGNUSON FISHERY CONSERVATION AND MANAGEMENT ACT 1–2 (1989).

³⁰ *Marine Spatial Planning*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/marine_spatial_planning_msp (last visited Sept. 18, 2013).

³¹ Turnipseed, *supra* note 19, at 66.

³² *Id.*

as a method to create and apportion rights to use and extract ocean resources within a comprehensive management framework.³³

In his July 2010 Executive Order, "Stewardship of the Ocean, Our Coasts, and the Great Lakes," President Barack Obama described CMSP as "a comprehensive, adaptive, ecosystem-based, and transparent spatial planning process, based on sound science, for analyzing current and anticipated uses of ocean, coastal, and [large lake] areas."³⁴ Further, he explained that "[c]oastal and marine spatial planning identifies areas most suitable for various types or classes of activities in order to reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental, security, and social objectives."³⁵ President Obama also refers to CMSP as a "public policy process" to determine sustainable use and protection of oceans and coasts "now and for future generations."³⁶ The following sections provide some brief examples of marine spatial planning projects currently in progress worldwide, the development of the CMSP concept in the U.S., and the component parts of the nascent U.S. CMSP process.

C. Marine Spatial Planning Projects Worldwide

Human uses of several marine areas around the world have already been planned and managed with different varieties of spatial planning. The following section briefly describes a sampling of spatial planning regimes, some of which share attributes of the new regional CMSP model initiated in the U.S. It should be noted, however, that most of these examples employ zoning, which the Obama Administration does not include in its framework guidance. Nonetheless, a brief review of ocean management in these areas, Australia, the North Sea, China, and the U.S., is helpful to put the Obama CMSP model in context.

1. Australia

Australia is home to one of the first and best-known examples of marine spatial planning: the Great Barrier Reef Marine Park (GBRMP).³⁷ Australia established the park in 1975 in response to threats to the ecosystem from oil drilling, limestone mining, shipping and land-based pollution, increased fishing, and increased tourism activity.³⁸ The park manages its aquatic lands through a mixture of management

³³ *Id.*

³⁴ See Exec. Order No. 13,547, 75 Fed. Reg. 43,023 (July 19, 2010); WHITE HOUSE COUNCIL ON ENVTL. QUALITY, FINAL RECOMMENDATIONS OF THE INTERAGENCY OCEAN POLICY TASK FORCE (2010), available at www.whitehouse.gov/files/documents/OPTF_FinalRecs.pdf [hereinafter OPTF FINAL RECOMMENDATIONS]; WHITE HOUSE COUNCIL ON ENVTL. QUALITY, INTERIM REPORT OF THE INTERAGENCY OCEAN POLICY TASK FORCE (2009), available at http://www.whitehouse.gov/assets/documents/09_17_09_Interim_Report_of_Task_Force_FINAL2.pdf [hereinafter CEO, INTERIM REPORT].

³⁵ *Id.*

³⁶ *Id.*

³⁷ *Australia (Great Barrier Reef)*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/spatial_management_practice/australia_great_barrier_reef (last visited Sept. 18, 2013).

³⁸ *Id.*

plans, zoning, and permit systems.³⁹ The zones in the GBRMP range from “general use,” with few restrictions, to “preservation zones,” where almost no use is permitted.⁴⁰ Park managers used spatial planning to create the zoning scheme according to a number of management objectives.⁴¹ The spatial planning process then continued through phases of adaptive management where ecosystem degradation was reassessed and the zones were adjusted accordingly.⁴² Between 1998 and 2003, managers increased the designated “no-take areas” from 4.5% to 33% of the park.⁴³ The park schedules amendment of its zoning plans to occur every seven years “to provide stability for businesses and affected communities.”⁴⁴

Unfortunately, this program of marine zoning is proving itself ineffective in protecting the Great Barrier Reef. Australia’s intense mining and exportation of coal have led to development plans for new ports and coal export terminals just landward of the reef.⁴⁵ Building these terminals will route the cargo ship traffic through supposedly protected areas.⁴⁶ Coastal development and dredging are cumulative impacts exacerbating the deleterious effect of agricultural run-off and warmer water temperatures on the increasingly fragile reef.⁴⁷ Although the government has pledged to create a second plan by 2015 that will improve water quality and direct sustainable coastline development, it will likely be too little too late, as multi-billion dollar coal and gas projects are also slated for completion in the area by 2015.⁴⁸ UNESCO considers these development plans to be a danger to the world heritage value of the reef, and its World Heritage Committee will vote on placing the reef on its “in danger” list in June.⁴⁹

2. The North Sea: Belgium, Germany, and the Netherlands

Another CMSP approach, driven by wind energy development, can be found in Europe. Belgium, Germany, and the Netherlands have employed marine spatial planning to orchestrate the use of the busy North Sea. Developing offshore wind farms motivated each of these three countries to plan for

³⁹ *Id.*

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ David Fickling, *New Ports Threaten Great Barrier Reef Heritage Site, UNESCO Says*, BLOOMBERG NEWS, May 4, 2013, available at <http://www.bloomberg.com/news/2013-05-04/new-ports-threaten-great-barrier-reef-heritage-site-unesco-says.html>.

⁴⁶ Samatha Shafy, “Death By a Thousand Cuts”: Coal Boom Could Destroy Great Barrier Reef, ABC NEWS, May 25, 2013, available at <http://abcnews.go.com/International/death-thousand-cuts-coal-boom-destroy-great-barrier/story?id=19248789#.UaWHHYVgjek>.

⁴⁷ Graham Readfeam, *Great Barrier Reef is at Risk even if it doesn’t make UNESCO’s Danger List*, PLANETOZ BLOG, THE GUARDIAN, May 13, 2013, available at <http://www.guardian.co.uk/environment/planet-oz/2013/may/13/great-barrier-reef-unesco-danger>.

⁴⁸ Shafy, *supra* note 46.

⁴⁹ Readfeam, *supra* note 47.

uses in their coastal waters.⁵⁰ Belgium first began planning in its territorial sea (0-12 nautical miles offshore) and exclusive economic zone (12-200 nautical miles offshore) in the North Sea in 2003. Belgium's planning activities were driven by a goal of facilitating the development of wind farms, but also to protect marine habitats and shipwrecks that support biodiversity and create a sustainable sand and gravel mining policy.⁵¹ Belgium zones its waters by way of a Master Plan, which contains habitat management directives.⁵² For example, sand and gravel mining is sequentially rotated between areas of the most intensive extraction.⁵³ Zones are also closed to extraction seasonally to allow for uninterrupted fish spawning.⁵⁴

Since 2007, German states have planned the use of coastal waters in the territorial sea and the German federal government has planned the use for the exclusive economic zone.⁵⁵ Managers design the plans around principles stated in Germany's Federal Land Use Planning Act, which include developing wind energy offshore, securing natural resources and maritime traffic, and optimizing the use of space in marine areas.⁵⁶ Germany uses three zones to meet its objectives: 1) "priority areas," where managers prioritize one use over others; 2) "reservation areas," where managers evaluate multiple uses, but give some uses special consideration; and 3) "marine protected areas," where managers require users to apply measures to reduce environmental impacts.⁵⁷

In the Netherlands, managers similarly employed CMSP to site wind farms while still protecting sensitive marine areas.⁵⁸ They foresaw increased use of the Dutch area of the North Sea occurring in the near future, and sought to create a plan that contemplated wind development, mineral extraction, water recreation, mariculture, natural resource protection, and the effects of sea level rise from climate change.⁵⁹ The Netherlands' Policy Document on the North Sea 2009 – 2015 lays out the variety of ocean uses occurring in the North Sea and how they affect one another.⁶⁰ It provides an assessment framework for policy choices that includes the employment of other tools that the country's managers have developed, such as vision maps, and a compensation program for those users harmed by other legal but conflicting ocean activities.⁶¹ Thus, the countries of the North Sea also employ spatial plans to

⁵⁰ *Belgium*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/spatial_management_practice/belgium (last visited Mar. 31, 2013); *Germany*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/mssp_practice/germany_north_baltic_seas (last visited Mar. 31, 2013); *The Netherlands*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/spatial_management_practice/the_netherlands (last visited Mar. 31, 2013).

⁵¹ *Belgium*, *supra* note 50.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ *Id.*

⁵⁵ *Germany*, *supra* note 50.

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *The Netherlands*, *supra* note 50.

⁵⁹ *Id.*

⁶⁰ DUTCH CENTRAL GOVERNMENT, 2009–2015 POLICY DOCUMENT ON THE NORTH SEA 44 (2009), available at www.rijksoverheid.nl/bestanden/documenten-en-publicaties/brochures/2010/08/12/beleidsnota-noordzee-2009-2015-engels/12pd2010g202.pdf.

⁶¹ *Id.* at 51–53.

manage their busy waters, aided by mapping tools, and in the Netherlands, the interesting remedy of harmed-user compensation.

3. China

On the other side of the globe, China has its own unique system of CMSP in place. Under national law, the Chinese government requires users to apply for authorization to use marine areas.⁶² To be approved, the use must conform to the functional zoning scheme for the region.⁶³ The State also charges a user fee to partake in the authorized use.⁶⁴ The Chinese law directs revenues from user fees to be split: 70% goes to local governments and 30% goes to the national government to be reinvested in marine development, protection, and management projects.⁶⁵ Thus, China's CMS program includes a component to fund continuing planning efforts.⁶⁶

4. The United States: The Florida Keys and Massachusetts

UNESCO's Marine Spatial Planning Initiative website has long recognized two CMSP projects in the United States: the Florida Keys National Marine Sanctuary (FKNMS)⁶⁷ and the Massachusetts coastal planning efforts.⁶⁸ The United States established the FKNMS in 1990 to protect a coral reef ecosystem—critical to many fish and marine animal species—from pollution, over-fishing, the physical impacts of ship groundings, oil drilling proposals, and deteriorating water quality, as well as from the impacts of three million tourists visiting the Florida Keys each year.⁶⁹ The FKNMS management plan designates each area of the 2,900 square nautical mile sanctuary as one of five zones types, similar to the Great Barrier Reef Marine Park CMSP system, each affording a different level of protection.⁷⁰ The International Maritime Organization also declared the FKNMS a Particularly Sensitive Sea Area (PSSA) in 2002,⁷¹ which means that authorities may institute specific protection measures to control maritime activities, such as vessel routing, and that the international regulatory body will support enforcement of the measures against vessels from all nations.⁷²

⁶² *China*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/spatial_management_practice/china (last visited Apr. 8, 2013).

⁶³ *Id.*

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *United States (Florida Keys)*, UNESCO MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/spatial_management_practice/united_states_florida_keys (last visited Apr. 8, 2013).

⁶⁸ *United States (Massachusetts)*, UNESCO, MARINE SPATIAL PLANNING INITIATIVE, http://www.unesco-ioc-marinesp.be/msp_practice/united_states_massachusetts (last visited Apr. 8, 2013).

⁶⁹ *United States (Florida Keys)*, *supra* note 67.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Particularly Sensitive Sea Areas*, INT'L MAR. ORG., <http://www.imo.org/OurWork/Environment/PollutionPrevention/PSSAs/Pages/Default.aspx> (last visited, Apr. 8, 2013).

To the north, Massachusetts has developed a robust and comprehensive marine planning effort over the last decade.⁷³ This planning approach has been heralded by many as a model for future ocean management in the U.S.⁷⁴ Like the federal government, Massachusetts convened an ocean management task force to make recommendations.⁷⁵ These recommendations provided the basis for the Massachusetts Ocean Act, which the Massachusetts Legislature enacted in 2008.⁷⁶

The Massachusetts Ocean Act established an Ocean Advisory Commission, made up of seventeen “state legislators, agency heads, commercial fishing, environmental, and renewable energy representatives, and coastal regional planning agencies,” to assist the Executive Office of Energy and Environmental Affairs (EEA) in developing an Ocean Plan.⁷⁷ In addition, the Act established a Science Advisory Council to “assist the [EEA] in developing environmental, economic and social baseline data” that the state can use to provide the “foundation for long-term, science-based ocean management.”⁷⁸ The Act also set out the components that the Ocean Plan shall contain, stated a set of principles by which the Ocean Plan shall manage users and activities, and set deadlines for the Plan’s development.⁷⁹

Following the principle of encouraging public participation, the EEA held listening sessions all over the Commonwealth to gather public input.⁸⁰ That input was incorporated into the final version of the Massachusetts Ocean Plan, completed in December of 2009.⁸¹ The state and the National Oceanic and Atmospheric Administration (NOAA) have integrated the Ocean Plan into the state’s existing coastal zone management plan and they intend to “enforce[it] through the state’s regulatory and permitting processes, including the Massachusetts Environmental Policy Act (MEPA) and Chapter 91, the state’s waterways law.”⁸² More information about this effort and regional planning in the Northeast is discussed below.

D. *The Development of CMSP in the U.S.*

President Obama’s recent Executive Order and the accompanying reports from the Interagency Ocean Policy Task Force,⁸³ which introduce a national ocean policy of ecosystem-based management and CMSP, grew out of an effort that began in the U.S. more than twenty years ago. The scientific

⁷³ *United States (Massachusetts)*, *supra* note 68.

⁷⁴ EASTERN RESEARCH GROUP., INC. (ERG), MARINE SPATIAL PLANNING STAKEHOLDER ANALYSIS 3 (2010) [hereinafter ERG MSP STAKEHOLDER ANALYSIS], available at http://www.csc.noaa.gov/digitalcoast/_pdf/msp-stakeholder-analysis.pdf. NOAA’s Coastal Services Center in Charleston, South Carolina contracted this study. See also Turnipseed, *supra* note 19, n.363; Lucia Fanning & Rita Heimes, *Ocean Planning and the Gulf of Maine: Exploring Bi-National Policy Options*, 15 OCEAN & COASTAL L.J. 293, 306-09 (2010) (citing the Oceans Act of 2000, Pub. L. No. 106-256, 114 Stat. 644 (2000) (codified as amended at 33 U.S.C. § 857-19 (2001)).

⁷⁵ *United States (Massachusetts)*, *supra* note 68.

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ MASS. EXEC. OFFICE OF ENERGY AND ENVTL. AFFAIRS, MASSACHUSETTS OCEAN MANAGEMENT PLAN (2009).

⁸² *Massachusetts Ocean Plan*, NOAA COASTAL AND MARINE SPATIAL PLANNING, <http://www.msp.noaa.gov/examples/massachusetts.html> (last visited Apr. 8, 2013).

⁸³ OPTF FINAL RECOMMENDATIONS, *supra* note 34; CEO, INTERIM REPORT, *supra* note 34.

community began pressing Congress in 1989 to rewrite the Magnuson–Stevens Act to better account for ecosystem consequences,⁸⁴ when “forty-one of the world’s leading marine biologists testified jointly on the reauthorization of the [] Act, calling for a new regulatory approach ... ‘to promote a total ecosystem perspective in managing the Nation’s fish stocks.’”⁸⁵ The request went unheeded at that time.

Under the Oceans Act of 2000, Congress created the U.S. Commission on Ocean Policy (USCOP) to recommend a comprehensive national ocean policy.⁸⁶ The USCOP released a report in 2004,⁸⁷ and the non-governmental Pew Oceans Commission released a sister report in 2003,⁸⁸ stressing the importance of restructuring ocean governance into an ecosystem-based management regime. Two hundred and seventeen scientists and academics added their voices in 2005, issuing a “Scientific Consensus Statement on Marine Ecosystem-Based Management.”⁸⁹ Thus, lawmakers found clear agreement across the policy and scientific communities on the type of management system needed for more successful ocean governance.⁹⁰ However, the path forward for designing and implementing the regulatory regime was less clear.

The current landscape of ocean management in the U.S. was then and is still now a tangle of “over twenty federal agencies and thirty-five coastal states and territories operating under dozens of statutory authorities.”⁹¹ This landscape has made tackling the question of how to implement ecosystem-based management of ocean and coastal resources difficult. The USCOP took the first step in its Blueprint Report, identifying that “eleven of fifteen cabinet-level departments and four independent agencies play important roles in the development of ocean and coastal policy,” that “[t]hese agencies interact with one another and with state, territorial, tribal, and local authorities in sometimes haphazard ways,” and that “[i]mproved communication and coordination would greatly enhance the effectiveness of the nation’s ocean policy.”⁹² Since “no multi-issue, interagency mechanism” existed at the time, USCOP recommended that “Congress establish a National Ocean Council (NOC)” of cabinet members to “provide high-level attention to ocean, coastal, and Great Lakes issues, develop and guide the implementation of appropriate national policies, and coordinate the many federal departments.”⁹³

The USCOP Blueprint Report also recommended that the NOC “develop and promote a flexible, voluntary process that groups of states could use to establish regional ocean councils.”⁹⁴ In tandem, it

⁸⁴ Parenteau, *supra* note 2, at 600.

⁸⁵ *Id.* (quoting WILLIAM F. FOX ET AL., STATEMENT OF CONCERNED SCIENTISTS ON THE REAUTHORIZATION OF THE MAGNUSON FISHERY CONSERVATION AND MANAGEMENT ACT 3 (1989)).

⁸⁶ Fanning & Heimes, *supra* note 74, at 317.

⁸⁷ U.S. COMM’N ON OCEAN POL’Y, AN OCEAN BLUEPRINT FOR THE 21ST CENTURY: FINAL REPORT 3–9 (2004) [hereinafter USCOP BLUEPRINT REPORT].

⁸⁸ PEW OCEANS COMM’N, AMERICA’S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE vii–x (2003), available at http://www.pewtrusts.org/our_work_detail.aspx?id=130.

⁸⁹ Parenteau, *supra* note 2, at 601 (citing Scientific Consensus Statement on Marine Ecosystem-Based Management (Mar. 21, 2005)).

⁹⁰ *Id.*

⁹¹ Turnipseed, *supra* note 19, at 1.

⁹² USCOP BLUEPRINT REPORT, *supra* note 87, at 5.

⁹³ *Id.* at 7–8.

⁹⁴ *Id.* at 8.

encouraged federal agencies to better align and coordinate their own regional-level efforts including the spatial break-up of regions.⁹⁵ This alignment would facilitate information sharing among the federal agencies, as well as between federal agencies and the states, and might also allow for the creation of regional ocean information programs.⁹⁶ The USCOP also recognized the opportunity for ocean managers to utilize the integrated ocean observing system (IOOS) technology that NOAA, NASA, and other federal agencies had been developing over the course of the decade to collect data and monitor changes occurring in the oceans.⁹⁷

Keeping with the theme of better coordinated governance, the USCOP Blueprint Report remarked that “a comprehensive offshore management regime is needed that enables us to realize the ocean’s potential while safeguarding human and ecosystem health, minimizing conflicts among users, and fulfilling the government’s obligation to manage the sea in a way that maximizes long-term benefits for all the nation’s citizens.”⁹⁸ USCOP recommended that this regime be one that “considers all uses, addresses the cumulative impact of multiple activities, and coordinates the many authorities with interests in offshore waters.”⁹⁹ Although USCOP did not call for marine spatial planning by name, this report articulated the need for a U.S. policy to coordinate multiple offshore uses to better promote ecosystem health and minimize conflicts, thus setting the stage for the administration to choose coastal and marine spatial planning as the implementing policy tool to achieve these stated objectives.

No national-scale, ecosystem-based ocean management efforts reached the implementation stage at the federal level during the administration of President George W. Bush.¹⁰⁰ However, many states, and a few regions, acted upon the recommendations from the USCOP Blueprint Report, the Pew Report, and President Bush’s U.S. Ocean Action Plan¹⁰¹ and initiated ocean management programs during this time, several of which incorporated the new concept of marine spatial planning.¹⁰² When President Barack Obama convened the Interagency Ocean Policy Task Force in June of 2009, the Task Force used public meetings and roundtables to get up to speed on these current efforts occurring around the country.¹⁰³ The Task Force then set about crafting an implementation strategy for the national ocean policy that the USCOP put forth in its Blueprint Report five years earlier.¹⁰⁴

In the Task Force’s Interim Report, the first of the implementation strategy’s “nine priority objectives” is to “[a]dopt ecosystem-based management as a foundational principle for the

⁹⁵ *Id.* For example, the Department of Interior regions include Northeast, Southeast, Southwest, Pacific Southwest, Pacific Northwest, Inter-Mountain, Rocky Mountain, and Alaska. These regions only partially overlap with NOAA’s National Marine Fisheries Service regions of Northeast, Southeast/Caribbean, Southwest, Pacific Islands, Northwest, and Alaska.

⁹⁶ *Id.* at 9.

⁹⁷ *Id.* at 394. See *IOOS About – Governance and Management*, IOOS INTEGRATED OCEAN OBSERVING SYSTEM, <http://www.ioos.noaa.gov/about/governance/welcome.html> (last visited Apr. 5, 2013).

⁹⁸ USCOP BLUEPRINT REPORT, *supra* note 87, at 9.

⁹⁹ *Id.* at 10.

¹⁰⁰ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 3.

¹⁰¹ U.S. OCEAN ACTION PLAN: THE BUSH ADMINISTRATION’S RESPONSE TO THE U.S. COMMISSION ON OCEAN POLICY (2004).

¹⁰² *Id.*

¹⁰³ CEO, INTERIM REPORT, *supra* note 34, at 3–4 (discussing Memorandum on National Policy for the Oceans, Our Coasts, and the Great Lakes, 2009 DAILY COMP. PRES. DOC. 458 (June 12, 2009)).

¹⁰⁴ *Id.* at 2, 7–8.

comprehensive management of the ocean."¹⁰⁵ The second priority objective is to "[i]mplement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States."¹⁰⁶ To this end, the Task Force also developed an Interim Framework for Effective Coastal and Marine Spatial Planning, which it published in December 2009.¹⁰⁷ This framework evolved into the Final Recommendations of the Interagency Ocean Policy Task Force.¹⁰⁸ The Final Recommendations provide more specific guidance on how the marine spatial planning process will work, as well as timelines for implementation.

President Obama signed Executive Order 13,547 on July 19, 2010, the same day that the Task Force published its Final Recommendations.¹⁰⁹ The Executive Order adopted the Final Recommendations and officially created a National Ocean Council (NOC), modeled after the USCOP's recommendation.¹¹⁰ The Final Recommendations' guidelines for CMSP implementation include a step-by-step timeframe, which encourages regional planning bodies to convene and to submit CMS plans to the NOC for certification within three years, with implementation of the plans to begin by 2015.¹¹¹ The NOC has been actively involved in implementation of CMSP since the body was stood up, convening a Governance Coordination Committee and an Ocean Research Advisory Panel to help coordinate inter-jurisdictional issues and the integration of science in CMS plans, and developing additional guidance.¹¹² Just recently, on April 16, 2013, the NOC released the final version of its National Ocean Policy Implementation Plan, which outlines the steps the federal agencies will take to coordinate and streamline permitting and other regulatory processes.¹¹³

No additional regulatory authority accompanied the Executive Order, so states are under no obligation to participate in regional CMSP. Though working with regional planning bodies fits best with the national plan to streamline and coordinate efforts, an individual state's decision not to participate will be respected. The National Ocean Policy Implementation Plan explains:

Should all States within a region choose not to participate in a regional planning body within their region, a regional planning body will not be established. Instead, Federal agencies will

¹⁰⁵ *Id.* at 7.

¹⁰⁶ *Id.*

¹⁰⁷ INTERAGENCY OCEAN POLICY TASK FORCE, WHITE HOUSE COUNCIL ON ENVTL. QUALITY, INTERIM FRAMEWORK FOR EFFECTIVE COASTAL AND MARINE SPATIAL PLANNING (2009), [hereinafter CMSP INTERIM FRAMEWORK], available at <http://www.whitehouse.gov/sites/default/files/microsites/091209-Interim-CMSP-Framework-Task-Force.pdf>.

¹⁰⁸ See OPTF FINAL RECOMMENDATIONS, *supra* note 34.

¹⁰⁹ Exec. Order No. 13,547, *supra* note 34.

¹¹⁰ *Id.* The NOC consists of: the Secretaries of State, Defense, the Interior, Agriculture, Health and Human Services, Commerce, Labor, Transportation, Energy, and Homeland Security; the Attorney General; the Administrators of the EPA and NASA; the Chairs of CEO, FERC, and the Joint Chiefs of Staff; the Directors of OMB, National Intelligence, OSTP, and the NSF; the Assistants to the President for National Security Affairs, Homeland Security and Counterterrorism, Domestic Policy, Economic Policy, and Energy and Climate Change; the Undersecretary of Commerce for Oceans and Atmosphere (NOAA Administrator); and an official designated by the Vice President. *Id.*

¹¹¹ CEO, FINAL RECOMMENDATIONS, *supra* note 34, at 69–76.

¹¹² *About the Nat'l Ocean Council*, THE WHITE HOUSE, <http://www.whitehouse.gov/administration/eop/oceans/about> (last visited Apr. 20, 2013).

¹¹³ *Nat'l Ocean Policy and Implementation Plan*, NAT'L OCEAN COUNCIL (April 2013), <http://www.whitehouse.gov/administration/eop/oceans/implementationplan>.

identify and address priority science, information, and ocean management issues associated with marine planning as described in the Executive Order. In doing so, Federal agencies will coordinate with non-Federal partners and authorities, including States, federally-recognized tribes and Fishery Management Councils, and stakeholders, to ensure that Federal actions support and advance both regional and national objectives.¹¹⁴

E. Component Parts of a U.S. CMSP Regime

In the United States, the National Ocean Council's CMSP efforts aim to stand up regional councils to create plans to manage human uses under a set of environmentally minded principles, with guidance and oversight from the federal government. Each region is encouraged to incorporate objectives into its plan that local stakeholders in the region choose.¹¹⁵ Thus, the Final Recommendations introduce CMSP as a new management approach, "national in scope to address national interests, but also scalable and specific to regional and local needs."¹¹⁶

The Final Recommendations divide the United States into nine regional planning areas, corresponding roughly to the size and location of the NOAA-defined large marine ecosystems (LMEs)¹¹⁷ and existing regional governance structures already in place.¹¹⁸ The regional planning areas include the following:

1. **Alaska/Arctic Region:** Alaska
2. **Caribbean Region:** Puerto Rico and U.S. Virgin Islands
3. **Great Lakes Region:** Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin
4. **Gulf of Mexico Region:** Alabama, Florida, Louisiana, Mississippi, and Texas
5. **Mid-Atlantic Region:** Delaware, Maryland, New Jersey, New York, Pennsylvania, and Virginia
6. **Northeast Region:** Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont
7. **Pacific Islands Region:** Hawaii, Commonwealth of the Northern Mariana Islands, American Samoa, and Guam
8. **South Atlantic Region:** Florida, Georgia, North Carolina, and South Carolina
9. **West Coast Region:** California, Oregon, and Washington¹¹⁹

¹¹⁴ *Id.* at 22.

¹¹⁵ OPTF FINAL RECOMMENDATIONS, *supra* note 34, at 46–47.

¹¹⁶ *Id.* at 42.

¹¹⁷ LMEs are "relatively large areas of ocean space of approximately 200,000 [square km] or greater, adjacent to the continents in coastal waters where primary productivity is generally higher than in open ocean areas." NOAA scientists have defined 64 LMEs around the world, basing the physical extent of the LME and its boundaries on four linked ecological criteria: bathymetry, hydrography, productivity, and trophic relationships. *Large Marine Ecosystems of the World*, NOAA

http://www.lme.noaa.gov/index.php?option=com_content&view=article&id=47&Itemid=41 (last visited Mar. 28, 2013).

¹¹⁸ OPTF FINAL RECOMMENDATIONS, *supra* note 34, at 51.

¹¹⁹ *Id.* at 53.

Each region is encouraged to form a regional planning body. The Final Recommendations task the NOC to work with state and federal agencies to convene resource managers, coastal zone managers, fisheries managers, scientists, transportation managers, and public health officials to staff the regional planning bodies, preferably with representation from each state in the region should all states choose to participate.¹²⁰ These bodies are to engage indigenous community representatives who have relevant interests and to coordinate with local planning authorities.¹²¹ They should also consult with the Regional Fishery Management Councils.¹²² Each of these regional planning bodies can then initiate the development of a CMS plan by first identifying “a set of specific and measurable regional objectives” that may “serve as a statement of purpose” to guide the planning process forward.¹²³

The Final Recommendation imagine a range of possible ocean uses which could be managed through the CMSP process including:

- Aquaculture (fish, shellfish, and seaweed farming);
- Commerce and Transportation (e.g., cargo and cruise ships, tankers, and ferries);
- Commercial Fishing;
- Environmental/Conservation (e.g., marine sanctuaries, reserves, national parks, and wildlife refuges);
- Maritime Heritage and Archeology;
- Mining (e.g., sand and gravel);
- Oil and Gas Exploration and Development;
- Ports and Harbors;
- Recreational Fishing;
- Renewable Energy (e.g., wind, wave, tidal, current, and thermal);
- Other Recreation (e.g., boating, beach access, swimming, surfing, nature and whale watching, and diving);
- Scientific Research and Exploration;
- Security, Emergency Response, and Military Readiness Activities;
- Subsistence Uses;
- Tourism;
- Traditional Hunting, Fishing, and Gathering; and
- Working Waterfronts.¹²⁴

The Final Recommendations envision “robust public and stakeholder engagement” in determining the future uses of the ocean and coastal areas.¹²⁵ The Task Force states several times that CMSP is meant

¹²⁰ *Id.* at 52–53.

¹²¹ *Id.* at 53.

¹²² *Id.*

¹²³ *Id.* at 55.

¹²⁴ *Id.* at 42.

¹²⁵ *Id.* at 47.

to be both transparent and inclusive and should “improve opportunities for community and citizen participation in open planning processes.”¹²⁶

The Task Force intends “to improve ecosystem health and services” by managing these human uses collaboratively with CMSP.¹²⁷ The hope is that CMS plans will reduce the cumulative impacts on ocean ecosystems by incorporating environmental stewardship and ecosystem-based management principles, including the following:

1. Protect, maintain, and restore the health, productivity, and resiliency of ocean, coastal, and Great Lakes ecosystems;
2. Manage uses “in a manner that seeks to prevent or minimize adverse environmental impacts”;
3. Employ the precautionary principle set forth in the Rio Declaration of 1992 so that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”;
4. Avoid environmental damage wherever practicable;
5. Internalize environmental costs, “taking into account the approach that those who cause environmental damage should generally bear the cost of that damage”; and
6. “[A]ccount[] for the interdependence of the land, air, water, ice, and the interconnectedness between human populations and these environments.”¹²⁸

It is interesting to compare the Interagency Ocean Policy Task Force’s approach in its CMSP guidance with UNESCO’s. The UNESCO Marine Spatial Planning Initiative’s guidance identifies six components of CMSP: (1) a CMS plan, which is a temporal and spatial “vision of the future”; (2) an inventory of areas and resources; (3) a list and assessment of conflicts and compatibilities between uses and the environment; (4) zoning maps; (5) new regulations to implement the CMS plan; and (6) a permit system.¹²⁹ The Task Force’s Final Recommendations stop short of encouraging the designation of zones within which certain human activities may or may not occur. They do, however, encourage the regional planning bodies to map out alternative future spatial management scenarios and to evaluate the scenarios against one another, comparing the tradeoffs in each.¹³⁰ This comparison should integrate consultations with scientists and analysis of data concerning impacts of uses on ecosystem services.¹³¹ A few regions already have achieved the ability to compare alternative future scenarios with online mapping tools. A few regions have also collected baseline data to measure current conditions against which they can make permitting decisions.

¹²⁶ *Id.* at 45, 56.

¹²⁷ *Id.* at 44.

¹²⁸ *Id.* at 16.

¹²⁹ See generally CHARLES EHLER AND FANNY DOUVERE, STEP-BY-STEP APPROACH FOR MARINE SPATIAL PLANNING TOWARD ECOSYSTEM-BASED MANAGEMENT (2009), available at http://www.unesco-ioc-marinesp.be/mssp_guide?PHPSESSID=b9f4f53c75b9dae1d1661d2a9a74bobd.

¹³⁰ OPTF FINAL RECOMMENDATIONS, *supra* note 34, at 57.

¹³¹ *Id.*

III. Survey of Progress Toward CMSP Implementation in the U.S.

The Final Recommendations of President Obama's Interagency Ocean Policy Task Force suggest a five-year schedule for CMSP implementation. The Task Force has recommended that regional planning bodies convene and create CMS plans by mid-2013, in order to be certified by the NOC and implemented by mid-2015.¹³² The Task Force further suggested that regions accomplish the following three phases of CMS plan development: (1) lay a foundation for planning by convening representatives, developing MOU agreements, convening workshops, designating members for the regional planning body, assessing capacity, and creating a process for stakeholder and scientific participation; (2) build capacity for planning by developing and submitting to the NOC regional work plans identifying areas of need for support; and (3) "build out and scale up" efforts to establish the CMSP process by putting work plans into action, providing and receiving feedback, instituting best practices, and adapting management.¹³³

With the significant groundwork and diverse participation required to create a CMS plan, none of the regions will meet the target of creating CMS plans by mid-2013. However, many have accomplished the groundwork described in the three phases of CMS plan development. To date, stakeholders in all nine regions have been introduced to CMSP. All regions except for the Great Lakes have received at least some funding from NOAA in the form of grants. Seven of the nine regions have convened ocean partnership groups to do the initial legwork of identifying priorities, developing data, and engaging stakeholders.¹³⁴ Several are working on developing stakeholder participation processes. Five of these groups have established websites, hired staff, and created regional work plans.¹³⁵ Six regions have developed or are currently developing data portals. Four regions have convened regional planning bodies to write CMS plans.

The Northeast region has developed the most comprehensive CMSP program so far, followed by the Mid-Atlantic region. The Gulf of Mexico, South Atlantic, and West Coast regions have achieved an intermediate level of progress, while the Caribbean and Pacific Islands regions have only more recently initiated CMSP efforts. The Great Lakes and the Alaska/Arctic regions have not expressed much interest in CMSP, and in those regions, federal agencies are working on coordinating themselves and streamlining their processes without a parallel state-led effort. The follow sections outline regional progress to date with respect to: (1) creating a regional ocean partnership; (2) applying for funding; (3) creating a website and hiring staff; (4) writing a regional work plan; (5) developing a regional data bank; (6) creating a portal to share data; (7) engaging with stakeholders; and (8) creating a regional planning body. A summary table is provided at the end of the section for ease of comparative analysis. (See Table 1 on page 112).

¹³² *Id.* at 69.

¹³³ *Id.* at 70–74.

¹³⁴ See NORTHEAST REGIONAL PLANNING BODY, SUMMARY OF DISCUSSIONS, NORTHEAST REGIONAL PLANNING BODY INAUGURAL MEETING, NOV. 19–20, 2012, at appx. A (2002), available at <http://northeastoceancouncil.org/wp-content/uploads/2012/12/Summary-NE-RPB-Meeting-Nov-19-20-20121.pdf>.

¹³⁵ *Id.*

A. Northeast

The Northeast region includes the coastal states of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut, as well as inland Vermont.¹³⁶ Between the individual planning projects in Massachusetts and Rhode Island and the regional planning work of the Northeast Regional Ocean Council, the Northeast has the most developed CMSP efforts in the country.¹³⁷ The sections below describe some of the efforts occurring at the state and regional levels in the Northeast, as well as some of the early successes those efforts have achieved.

1. State Efforts in the Northeast

As stated above, Massachusetts passed its Ocean Act in 2008 and has subsequently created an Ocean Management Plan to implement CMSP. Massachusetts successfully convened state legislators, agency heads, and representatives from commercial fishing, environmental groups, and renewable energy interests to advise on the Ocean Plan.¹³⁸ The state also convened a Science Advisory Council to collect baseline data, which will enable it to measure use impacts and carry those measurements forward into permit decision-making.¹³⁹

Just to the south, Rhode Island is also already well-versed in CMSP. Rhode Island began planning its ocean space in 1983 when the state passed legislation authorizing Special Area Management Plans (SAMPs), and so stands as the first state in the U.S. to legally authorize CMSP.¹⁴⁰ With “outstanding” winds for wind power siting and the interest of both the state and the renewable energy industry in developing wind farms off the coast, energy development has driven much collaborative planning in Rhode Island in recent years.¹⁴¹ Ocean managers have brought such diverse stakeholders as energy developers and fishermen together to map out optimal siting of wind farms where uses will conflict least.¹⁴² The state adopted its first Ocean Special Area Management Plan in 2010, and the plan received approval from NOAA in July of 2011.¹⁴³ Thus, Massachusetts and Rhode Island provide models of the full CMSP process.

¹³⁶ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 9.

¹³⁷ *Id.*

¹³⁸ U.S. (Massachusetts), *supra* note 68.

¹³⁹ *Mass. Ocean Plan*, NOAA COASTAL AND MARINE SPATIAL PLANNING, <http://www.msp.noaa.gov/examples/massachusetts.html> (last visited Mar. 28, 2013).

¹⁴⁰ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 10.

¹⁴¹ *Id.*

¹⁴² Grover Fugate, Exec. Dir., R.I. Coastal Res. Mgmt. Council (RI CRMC), Presentation at the Vermont Law School Ocean Law Conference (Apr. 1, 2011). These managers even brought fishermen from the North Sea in Europe, where wind farms had been sited successfully without disrupting fish catches, to speak with the Rhode Island fishing community about integrating the wind farms into the marine space. *Id.*

¹⁴³ *Latest News*, NOAA COASTAL MARINE SPATIAL PLANNING, <http://cmsp.noaa.gov/news.html> (last visited Apr. 10, 2013).

2. Regional Efforts in the Northeast

The governors of the New England states created the Northeast Regional Ocean Council (NROC) in 2005 in response to President George W. Bush's U.S. Ocean Action Plan and the USCOP Blueprint Report published in 2004—a full five years ahead of Obama's call to action.¹⁴⁴ The NROC is a partnership group comprised of representatives from federal and state agencies,¹⁴⁵ as well as private and non-profit partnership groups.¹⁴⁶ This group has focused on laying the foundation for future CMSP efforts of a regional planning body by engaging stakeholders and developing data collection and sharing mechanisms.¹⁴⁷

The NROC convened its first "Ocean Congress" with all stakeholders in 2007 to "identify priority issues that demanded a regional response."¹⁴⁸ The Ocean Congress identified ecosystem health, coastal hazards resilience, and energy planning as the three top priority issues to work on collaboratively.¹⁴⁹ The NROC created a committee for each issue, as well as a fourth ad hoc committee on CMSP, and tasked each committee to create a two-year work plan, first for the 2009–2010 time period, and then for future time periods.¹⁵⁰ All four committees of the NROC have now completed several work plans, including work plans for 2013–2014, which are currently posted on the NROC website.¹⁵¹

To solicit funding for their efforts, the NROC submitted a grant proposal to the NOAA Regional Ocean Partnership Grant Funding Opportunity in December 2010 requesting \$6.09 million, which "would complete the critical Phase I CMSP foundational work [outlined in the Interagency Ocean Policy

¹⁴⁴ *About*, NORTHEAST REGIONAL OCEAN COUNCIL, <http://collaborate.csc.noaa.gov/nroc/about/default.aspx> (last visited Mar. 28, 2013).

¹⁴⁵ *Member States and Agencies*, NORTHEAST REGIONAL OCEAN COUNCIL, <http://collaborate.csc.noaa.gov/nroc/about/member-states-agencies/default.aspx> (last visited Mar. 28, 2013).

¹⁴⁶ Regional entity partners to the NROC include the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS) and the New England Fisheries Mgmt. Council. NORTHEAST REGIONAL OCEAN COUNCIL, NORTHEAST REGIONAL OCEAN COUNCIL WORKSHOP: ADVANCING REGIONAL COASTAL AND MARINE SPATIAL PLANNING (2010) [hereinafter NROC WORKSHOP: ADVANCING REGIONAL CMSP]. Other NROC partners include area universities, the Massachusetts Ocean Partnership, the Conservation Law Foundation, the Gulf of Maine Research Institute, the Provincetown Center for Coastal Studies, the Island Institute, Ocean Visions, and the U.S. Offshore Wind Collaborative. *Id.*

¹⁴⁷ NORTHEAST WORKSHOP ON REGIONAL OCEAN PLANNING: SUMMARY OF WORKSHOP DISCUSSIONS, ROGER WILLIAMS UNIVERSITY SCHOOL OF LAW, BRISTOL, R.I. 18–19 (2012).

¹⁴⁸ *About*, NORTHEAST REGIONAL OCEAN COUNCIL, *supra* note 144.

¹⁴⁹ *Id.*

¹⁵⁰ NORTHEAST REGIONAL OCEAN COUNCIL, 12 PRIORITIES FOR THE NE. v5, *available at Collaboration Websites*, NOAA COASTAL SERVICES CENTER <http://collaborate.csc.noaa.gov/nroc/Shared%20Documents/Forms/AllItems.aspx> (last visited Sept. 18, 2013) (click on "About NROC," then "12 Priorities for the Ne. v5"); *Home*, NORTHEAST REGIONAL OCEAN COUNCIL, <http://northeastoceancouncil.org/> (last visited Mar. 28, 2013).

¹⁵¹ For 2010–2012 work plans, visit NE. REG'L OCEAN COUNCIL, <http://collaborate.csc.noaa.gov/nroc/default.aspx> (follow "Health," then "Work Plan," "Hazards," then "Work Plan," "Ocean Planning," then "Work Plan," and "Publications," then "NROC Committee – Ocean Planning," then "NROC 2010 CMSP Work Plan – Final"). For 2013–2014 work plans, visit NE. REG'L OCEAN COUNCIL, <http://northeastoceancouncil.org/> (drop down "Committees" list, then click on each committees' link and follow "Download work plan").

Task Force's Final Recommendations] for NROC."¹⁵² NOAA and the Gordon and Betty Moore Foundation granted the Council \$2.5 million in November 2011 for further development of a stakeholder involvement process and the baseline characterization of the region's ocean resources.¹⁵³ The Council has used some of that grant money to contract facilitation experts through the Udall Foundation's U.S. Institute for Environmental Conflict Resolution to support the design and pilot implementation of a bipartisan, inclusive, public engagement process, involving stakeholder surveys and the preparation of white papers on the energy sector and other highly involved interest groups.¹⁵⁴ Furthermore, NROC received a second grant from NOAA of \$1.5 million in January 2012 to develop "a first-stage regional ocean plan supporting ecosystem-based management of New England's marine environment and its human uses and to expand partnerships and public participation in NROC activities."¹⁵⁵

The NROC has also been meeting regularly and collaborating with its partners. The Council held a full "community" CMSP Working Session in the fall of 2009 to share ideas and data.¹⁵⁶ Since that meeting, it has been at work inventorying human uses, analyzing data gaps, creating a regional data portal, and defining the new information needed to move forward in its planning process.¹⁵⁷ Representatives such as Maine Coastal Program Director Kathleen Leyden have conducted outreach, presenting to the New England Fishery Management Council in June 2010.¹⁵⁸ The NROC held a workshop in November 2010 to discuss the five-year framework for regional implementation of CMSP published that fall.¹⁵⁹ In January 2011, the NROC solicited applications for a newly created CMSP managing director position.¹⁶⁰ Since then, NROC has hired an Ocean Planning Director, plus an Ocean Planning Project Manager, and a NROC Coordinator, for a total of three full-time staff members. NROC also signed MOUs with Northeast Regional Association of Coastal and Ocean Observing Systems (NERACOOS), the Northeast Sea Grant Consortium, and the Gulf of Maine Council on the Marine

¹⁵² Press Release, Ne. Reg'l Ocean Council, Advancing Coastal and Marine Spatial Planning in the Ne. (Dec. 10, 2010) [hereinafter NROC Advancing CMSP Press Release].

¹⁵³ *Latest News*, *supra* note 143.

¹⁵⁴ *Ocean Planning*, NE. REG'L OCEAN COUNCIL, <http://northeastoceancouncil.org/committees/ocean-planning/> (access links to white papers on the energy, aquaculture, and maritime industries in the "Marine Industry Engagement" section. For example, <http://northeastoceancouncil.org/wp-content/uploads/2013/03/Energy-White-Paper.pdf>).

¹⁵⁵ NOAA FISHERIES OFFICE OF SUSTAINABLE FISHERIES, 2012 COUNCIL COORDINATION COMM. MEETING, BACKGROUND PAPER ON THE NATIONAL OCEAN POLICY AND COASTAL AND MARINE SPATIAL PLANNING (MAY 1, 2012), [hereinafter NOAA BACKGROUND PAPER] *available at* http://www.nmfs.noaa.gov/sfa/reg_svcs/Councils/ccc_2012m/TAB%204/NOP_CMSP.pdf.

¹⁵⁶ NE. REG'L OCEAN COUNCIL, NORTHEAST REGIONAL OCEAN COUNCIL MARINE SPATIAL PLANNING WORKING SESSION (2010).

¹⁵⁷ Kathleen Leyden, Chair of the Northeast Regional Ocean Council, Presentation to the Northeast Fishery Mgmt. Council on Opportunities for Collaboration (June 2010), *available at* http://www.nefmc.org/press/council_discussion_docs/June%202010/Leyden%20NEFMC%20NROC%20June%2022%202010.pdf.

¹⁵⁸ *Id.*

¹⁵⁹ NROC WORKSHOP: ADVANCING REGIONAL CMSP, *supra* note 1464; NROC Advancing CMSP Press Release, *supra* note 152.

¹⁶⁰ Northeast Regional Ocean Council, Meeting Materials – Jan. 11, 2012, at 13 (2012), *available at* <http://northeastoceancouncil.org/library/>.

Environment,¹⁶¹ launched a new website, and redesigned and relaunched its data portal in December of 2012.

Perhaps most importantly, the NROC appointed members to a Regional Planning Body in 2012 including: two representatives from each state, mostly from the Departments of Environment or Fish and Game; one representative from each federal agency; one representative from each of nine tribes; and one representative from the Northeast Fisheries Management Council.¹⁶² The Regional Planning Body has met twice to date, for an inaugural meeting in November 2012, and on April 11-12, 2013.¹⁶³ The inaugural meeting produced a draft Charter,¹⁶⁴ and the April meeting focused on identifying draft goals for regional ocean planning, as well as mechanisms for receiving public input about those draft goals through the early summer months of 2013.¹⁶⁵

3. Achievements in the Northeast

Massachusetts, Rhode Island, and the Northeast Regional Ocean Council have claimed several early victories for the states and region regarding current CMSP efforts. For example, the Northeast region has been able to look to and build upon Massachusetts's 2007 success of working with NOAA, the Stellwagen Bank National Sanctuary Program, the U.S. Coast Guard, the Whale Center of New England, the Provincetown Center for Coastal Studies, the Massachusetts Port Authority, the shipping industry, and liquefied natural gas companies to narrow and shift a shipping lane away from the heavily used baleen and right whale feeding ground and to slow vessel traffic in the area, in order to prevent whale and ship collisions.¹⁶⁶ The effort, referred to as the Traffic Separation Scheme (TSS), led to "reduced risk of collision by an estimated 81% for all baleen whales and 58% for endangered right whales. Industry TSS transit times increased by only 9 – 22 minutes (depending on speed) and conflict with deepwater ports was eliminated. In addition, the new route decreased the overlap between ships using the TSS, commercial fishing vessels, and whale watch vessels, thereby increasing maritime safety."¹⁶⁷ The Northeast region has benefited from these working partnerships. Moreover, ocean managers on the West Coast took note of the success and pursued this collaborative effort for themselves in 2012, shifting shipping lanes leading in to the ports of San Francisco, Los Angeles, Long Beach and Santa Barbara to reduce whale strikes.¹⁶⁸

¹⁶¹ Overview, NORTHEAST REGIONAL OCEAN COUNCIL, <http://northeastoceancouncil.org/about/nroc-overview/> (last visited June 20, 2013).

¹⁶² Northeast Regional Planning Body Inaugural Meeting, *supra* note 134.

¹⁶³ Northeast Regional Planning Body Meeting Information, NE. REG'L OCEAN COUNCIL, <http://northeastoceancouncil.org/regional-planning-body/meetings/>.

¹⁶⁴ Northeast Regional Planning Body Inaugural Meeting, *supra* note 134, at 12.

¹⁶⁵ Northeast Regional Planning Body Meeting Information, *supra* note 163.

¹⁶⁶ See Douglas A. Moser, *Shipping Lanes Tweaked to Protect Whales*, GLOUCESTER TIMES (June 29, 2007); *Science: Shifting the Boston Traffic Separation Scheme (TSS)*, STELLWAGEN BANK NAT'L MARINE SANCTUARY, <http://stellwagen.noaa.gov/science/tss.html> (last visited June 5, 2013).

¹⁶⁷ OPTF FINAL RECOMMENDATIONS, *supra* note 34, at 45.

¹⁶⁸ *Shipping Lanes off California Tweaked to Protect Whales*, ASSOCIATED PRESS (Dec. 27, 2012), available at http://www.dailybulletin.com/california/ci_22268455.

More generally, Kathleen Leyden, Director of the Maine Coastal Program and 2009–2010 Chair of the NROC, listed the following achievements of recent NROC work in an outreach presentation to the New England Fishery Management Council: (1) improved state/federal relationships; (2) alignment of priorities and resources between agencies; (3) increased visibility for the NROC; (4) the creation of formal partnerships; (5) successful workshops held on hazards, LIDAR, marine spatial planning, and ocean health indicators; (6) ability to influence the form of CMSP and the implementation of the National Ocean Policy; (7) opportunities to receive grant funds from a regional LIDAR proposal; and (8) a growing partnership with other regional ocean councils.¹⁶⁹ In addition to these successes, NROC has facilitated the development of the Northeast Data Portal, a robust interactive spatial mapping and data-sharing tool that has data layers from numerous government partners and is easily accessible online to all ocean users and decision-makers.¹⁷⁰ The new regional planning body in the Northeast also has the Massachusetts and Rhode Island state-level CMS plans to reference and work from in developing a regional plan. For example, the regional body has lined up the lists of goals from the two state plans and the National Ocean Policy for the members to reference and consider as they choose the region's goals for CMSP.¹⁷¹

Shared concerns of overfishing and wind energy project siting objectives have long driven the coastal states in the Northeast to collaborate. The achievements of states in the Northeast have benefited ocean users and the environment, as well as facilitated the regional groups' efforts to collaborate with partners. In turn, as the first area to successfully employ CMSP, this region has indeed influenced and will continue to influence the shape that CMSP policy will take around the U.S.

B. Mid-Atlantic

1. State Efforts in the Mid-Atlantic

The majority of the Mid-Atlantic states, New York, New Jersey, Delaware, Maryland, and Virginia, are moving forward on CMSP efforts. New York's Ocean and Great Lakes Ecosystem Conservation Council is working on mapping natural resources and researching use impacts along its coasts.¹⁷² New York and Connecticut joined in a bi-state CMSP effort for the Long Island Sound.¹⁷³ Maryland is partnering with The Nature Conservancy on a CMSP project called "The Blue Infrastructure Near-shore Assessment," which is spatially mapping and assessing coastal habitat, critical resources, and human

¹⁶⁹ Leyden, Opportunities for Collaboration, *supra* note 157, at slide 6.

¹⁷⁰ NE. OCEAN DATA PORTAL, <http://northeastoceandata.org/> (last visited Apr. 7, 2013).

¹⁷¹ NORTHEAST REGIONAL PLANNING BODY, SUMMARY OF DISCUSSIONS: NORTHEAST REGIONAL PLANNING BODY MEETING MATERIALS, APRIL 11-12, 2013 (2013), available at <http://northeastoceancouncil.org/regional-planning-body/meetings/>.

¹⁷² N.Y. OCEAN AND GREAT LAKES ECOSYSTEM CONSERVATION COUNCIL, SPATIAL PLANNING FOR N.Y. OCEAN AND GREAT LAKES, available at <http://www.oglecc.ny.gov/media/Spatial%20Planning%20Onepager.pdf>.

¹⁷³ See generally, LONG ISLAND SOUND ASSEMBLY, FINAL REPORT FOR 2012 (2013), available at <http://www.lisassembly.org/reports/LISA%202012%20FINAL%20FINAL%20Jan11%272013%283%29.pdf>.

uses.¹⁷⁴ Moreover, many of the Mid-Atlantic states have contributed resources and staff hours to help build the regional program from the ground up.

2. Regional Efforts in the Mid-Atlantic

The Mid-Atlantic Regional Ocean Council (MARCO) convened to begin laying the foundation for collaborative regional ocean management in 2008. New York sent out the initial call to form a regional ocean partnership in July of that year.¹⁷⁵ It commissioned a white paper to assess existing regional ocean partnerships and to identify priority issues in the region.¹⁷⁶ The states then convened an “Ocean Forum” in December of 2008 in Baltimore, which led to the governors signing a regional agreement on ocean conservation at a summit in New York the following June.¹⁷⁷ The Mid-Atlantic state governors created MARCO in the regional agreement.¹⁷⁸ The Governors from New York, New Jersey, Delaware, Maryland, and Virginia comprise the Council.¹⁷⁹ To assist the Council in its planning efforts, MARCO also includes an Executive Committee of state secretaries and agency heads, a Management Board of state CZM directors, and five Action Teams staffed by policy experts in the priority issue areas.¹⁸⁰

In August 2009, MARCO staff published an “Actions, Timelines, and Leadership” report, which created interstate workgroups and set initial timelines for work on the identified priority issues.¹⁸¹ Between June and December of 2009, the New Jersey CZM program created a MARCO website and the Virginia CZM program developed and linked to the website a very robust GIS Mapping and Planning Portal for electronic information sharing, with funding from a Nature Conservancy grant.¹⁸² In December 2009, MARCO sponsored a stakeholder’s conference in New York to gather public and stakeholder input on the Actions, Timelines, and Leadership report.¹⁸³ Also in the winter of 2009–2010, Maryland’s CZM program funded a second ocean management white paper, focused on climate change and sea level rise projected for the region.¹⁸⁴ Later in 2010, the MARCO Management Board convened twice to “refine MARCO[’s] governance structure, work on [a] two-year action plan, and form [the] five ‘action teams.’”¹⁸⁵

¹⁷⁴ *Blue Infrastructure Near-shore Assessment*, MD. DEP’T OF NATURAL RES., <http://www.dnr.state.md.us/ccp/bi.asp> (last visited Apr. 7, 2013).

¹⁷⁵ *Highlights: Moving in the Right Direction*, MID-ATLANTIC REGIONAL COUNCIL ON THE OCEAN (2011) [hereinafter MARCO HIGHLIGHTS REPORT], available at <http://www.midatlanticocean.org/mitrd.pdf>.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 2–3.

¹⁷⁹ *Id.* at 3.

¹⁸⁰ MARCO HIGHLIGHTS REPORT, *supra* note 175, at 2 (discussing MID-ATL. REGIONAL COUNCIL ON THE OCEAN, ACTIONS, TIMELINES, AND LEADERSHIP TO ADVANCE THE MID-ATLANTIC GOVERNORS’ AGREEMENT ON OCEAN CONSERVATION (2009)). The priority issues for the Mid-Atlantic are: (1) offshore renewable energy, (2) habitat protection, (3) climate change adaptation, and (4) water quality improvement. *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* (describing the mapping and planning portal at <http://maps.tnc.org/MARCO/index.html> (last visited Mar. 10, 2011), updated to <http://portal.midatlanticocean.org/portal/> (last visited Apr. 7, 2013)).

¹⁸³ *Id.*

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

Last year was also a productive year for advancing ocean planning in the Mid-Atlantic region. MARCO and partner Monmouth University received a \$1.5 million grant from NOAA to enhance its online Mapping and Planning Portal in January.¹⁸⁶ NOAA engaged in a “mapping blitz” from February to August 2012, to collect geospatial bathymetric data on the regions undersea canyons.¹⁸⁷ In September, the Sea Grant Mid-Atlantic Ocean Research Planning Project released its Mid-Atlantic Ocean Research Plan, identifying and analyzing the region’s research needs.¹⁸⁸ The regional council has also released the latest of its two-year action plans, for 2013–2014.¹⁸⁹ In these plans and other efforts, MARCO’s action teams work collaboratively with their partners on four priority issues: offshore renewable energy, habitat protection, climate change adaptation, and water quality improvement.¹⁹⁰ A fifth action team spearheads CMSP efforts.¹⁹¹ MARCO has also hired a full-time Program Manager and is now soliciting applications for a Program Assistant.

Most recently, MARCO has begun to name members of its regional planning body.¹⁹² The group of designated federal and state members and others closely involved in planning efforts met with key stakeholders in a workshop at the beginning of April 2013.¹⁹³ The group discussed the new body, shared goals, and strategies for stakeholder engagement throughout the planning process.¹⁹⁴

3. Achievements in the Mid-Atlantic

As in the Northeast, “offshore energy development is a major driver of current MSP efforts in the Mid-Atlantic region,” with Delaware and New Jersey siting wind farms, and Virginia exploring for natural gas.¹⁹⁵ The Mid-Atlantic region has led the way in developing web mapping capabilities in its partnership efforts with The Nature Conservancy and Monmouth University, and many other regions have followed suit. The online tools that the region has developed are all the more impressive because the individual states collaborated to fund and create them before regional bodies were in place to support the efforts. This region has made considerable headway towards CMSP that will soon come to fruition when a regional planning body convenes to further the existing planning efforts.

¹⁸⁶ NOAA BACKGROUND PAPER, *supra* note 155, at 1.

¹⁸⁷ NOAA ATLANTIC CANYONS UNDERSEA MAPPING EXPEDITIONS, 2012 FRAMEWORK 1 (2012), available at http://www.midatlanticocean.org/NOAA_ACUMEN.pdf

¹⁸⁸ *Sea Grant Mid-Atlantic Ocean Research Planning Project*, MID-ATL. REGIONAL OCEAN RESEARCH PLAN 1 (2012), available at

<http://www.midatlanticoceanresearchplan.org/sites/www.midatlanticoceanresearchplan.org/files/u6/MidAtlanticRegionalOceanResearchPlan-Final.pdf>.

¹⁸⁹ MID-ATLANTIC REGIONAL COUNCIL, MARCO OCEAN PLANNING ACTION TEAM 2012-2014 WORK PLAN (2012), available at http://www.midatlanticocean.org/MARCOOceanPlanningWorkplan_8-2-12.pdf.

¹⁹⁰ *Id.* at 5–8.

¹⁹¹ MARCO HIGHLIGHTS REPORT, *supra* note 175, at 3.

¹⁹² See *Home*, MID-ATLANTIC OCEAN PLANNING WORKSHOP, <http://midatlanticocean.org/workshop.htm> (last visited Apr. 20, 2013) (describing federal agency member designations); *Agenda*, MID-ATLANTIC REGIONAL OCEAN PLANNING WORKSHOP (Apr. 4–5, 2013), available at <http://midatlanticocean.org/MAWorkshopFinalAgenda0404-0513.pdf> (listing, throughout the agenda, members from states and federal agencies that had been appointed to the regional planning body).

¹⁹³ *Agenda*, MID-ATLANTIC REGIONAL OCEAN PLANNING WORKSHOP, *supra* note 192, at 4.

¹⁹⁴ *Id.* at 1.

¹⁹⁵ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 13.

C. South Atlantic

The South Atlantic region includes the states of North Carolina, South Carolina, Georgia, and Florida. The Southeast states had not initiated CMSP projects on their own prior to the recent National Ocean Policy push toward CMSP.¹⁹⁶ These states took their first real step toward CMSP together in 2009 when the governors convened to form the Governors' South Atlantic Alliance (GSAA).¹⁹⁷ Structurally, the governors from the four states lead the Alliance as the Executive Group.¹⁹⁸ NOAA, EPA, and the U.S. Geological Survey (USGS) serve as regional supporting partners.¹⁹⁹ Staff designated by the governors form a Steering Group, which in turn is aided by Issue Area Technical Teams.²⁰⁰ Other partners include universities in the region, NGOs, regional organizations, and private industry groups.²⁰¹

The GSAA selected four priority issues to begin its planning effort: (1) healthy ecosystems, (2) working waterfronts, (3) clean coastal and ocean waters, and (4) disaster-resilient communities.²⁰² After holding public hearings in 2010 in each of the four states to gather stakeholder input, the GSAA published its Action Plan in December 2010.²⁰³ The Action Plan lays out several objectives for each of the four priority issues, as well as actions to take to reach the objectives.²⁰⁴

The GSAA further fleshed out the Action Plan's goals, objectives, actions, and implementation strategies in its July 2011 Implementation Plan.²⁰⁵ Since that publication, the GSAA Issue Area Technical Teams and Project Teams have met and continue to meet to work on GSAA Action Plan implementation.²⁰⁶ The GSAA also secured two grants in January 2012 for its region totaling \$1.06 million to develop a framework for ocean planning and continue developing its Alliance partnership group, and was able to hire a Regional Coordinator in 2012.²⁰⁷ Finally, the region is developing a Regional Information Management System (RIMS) and decision support tools to "enable ready access

¹⁹⁶ *Id.* at 15–16.

¹⁹⁷ GOVERNORS' SOUTH ATLANTIC ALLIANCE, GOVERNORS' SOUTH ATLANTIC ALLIANCE ACTION PLAN 3 (2011) [hereinafter GSAA ACTION PLAN], available at <http://www.southatlanticalliance.org/docs/12.17.10%20Action%20Plan%20Final%20with%20Forward.pdf>. The GSAA partnership agreement is available at <http://www.southatlanticalliance.org/docs/GSAA-Partnership-Agreement-May-2009.pdf>.

¹⁹⁸ *About Us - Leadership*, GOVERNORS' SOUTH ATLANTIC ALLIANCE, <http://www.southatlanticalliance.org/about/leadership.htm> (last visited Apr. 20, 2013).

¹⁹⁹ *About Us - Background*, GOVERNORS' SOUTH ATLANTIC ALLIANCE, <http://www.southatlanticalliance.org/about/background.htm> (last visited June 7, 2013).

²⁰⁰ GSAA ACTION PLAN, *supra* note 197, at 3.

²⁰¹ *Id.*

²⁰² *Id.* at 4.

²⁰³ *Priorities - Action Plan*, GOVERNORS' S. ATL. ALLIANCE, <http://www.southatlanticalliance.org/priorities/action-plan.htm> (last visited Apr. 20, 2013).

²⁰⁴ GSAA ACTION PLAN, *supra* note 197, at 5–12.

²⁰⁵ GOVERNORS' SOUTH ATLANTIC ALLIANCE, IMPLEMENTATION PLAN (2011), available at http://www.southatlanticalliance.org/docs/07.06.11_South_Atlantic_Alliance_Implementation_Plan.pdf.

²⁰⁶ *Events - Technical and Project Team Meetings*, GOVERNORS' SOUTH ATLANTIC ALLIANCE, <http://www.southatlanticalliance.org/events/upcoming.htm> (last visited Apr. 20, 2013).

²⁰⁷ Press Release, Governors' South Atlantic Alliance Receives 1.06 M from NOAA, Funding to Support Organizational Framework, Coastal and Ocean Planning Efforts (Jan. 20, 2012), available at <http://www.southatlanticalliance.org/docs/SAA-NOAA%20Awards-PressRelease.pdf>.

to new and existing data and information."²⁰⁸ This project, along with an assessment of geospatial data and technological needs, is due to be completed in October 2013.²⁰⁹

This nascent regional effort has successfully coordinated to implement CMSP in the coming years. The Southeast has also made efforts to coordinate with the Caribbean region on common interests,²¹⁰ and will surely work more closely with federal agencies in the future as siting areas are proposed for offshore wind projects. However, the Southeast faces some obstacles that the other eastern regions do not, such as lack of data development and a negative public perception of planning.²¹¹ This region will be one to watch for stakeholder engagement, to see if the interested groups will come on board to support the CMSP efforts.

D. Gulf of Mexico

The Gulf of Mexico region is comprised of Alabama, Louisiana, Mississippi, Texas, and Florida's west coast, including the Florida Keys National Marine Sanctuary.²¹² The federal government spearheaded the protection of FKNMS to conserve its ecological value, establishing the sanctuary in 1990.²¹³ Likewise, the State of Florida has managed its rich ecological ocean resources toward conservation, and has reaped economic benefit from maintaining reef and wetlands health through related tourism revenues.²¹⁴ Texas, Louisiana, Mississippi, and Alabama have a history of managing their offshore lands for oil and gas leasing.²¹⁵ With the existence of these competing interests of conservation and oil and gas development, the widespread interest in commercial, recreational, and subsistence fishing, hypoxic summer water conditions, and the high vulnerability of the Gulf coast to hurricanes, the Gulf region presides over a very diverse and complex set of issues for ocean management.

The states of this region initiated the Gulf of Mexico Alliance (GOMA) in 2004 to "enhance the ecological and economic health of the Gulf of Mexico."²¹⁶ Gulf Alliance partners include NOAA, the National Aeronautics and Space Administration (NASA), the Department of the Interior (DOI), the Department of Defense (DOD), the Environmental Protection Agency (EPA), the Department of Transportation (DOT), the Army Corps of Engineers, private non-governmental organizations, universities, and state agencies from each of the five states.²¹⁷ By March of 2006, the GOMA had

²⁰⁸ *Projects - Regional Information Management System*, GOVERNORS' S. ATL. ALLIANCE, <http://www.southatlanticalliance.org/projects/rims.htm> (last visited Apr. 20, 2013).

²⁰⁹ *Id.*

²¹⁰ *News*, GOVERNORS' SOUTH ATLANTIC ALLIANCE, <http://www.southatlanticalliance.org/news.htm> (last visited Apr. 20, 2013).

²¹¹ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 17.

²¹² *Id.* at 21.

²¹³ *History of the Florida National Marine Sanctuary*, NOAA, <http://floridakeys.noaa.gov/history.html?s=about> (last visited Apr. 23, 2013).

²¹⁴ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 21.

²¹⁵ *Id.*

²¹⁶ *About the Alliance*, GULF OF MEXICO ALLIANCE, <http://gulfofmexicoalliance.org/about/about.html> (last visited Apr. 9, 2013).

²¹⁷ *Partnerships*, GULF OF MEXICO ALLIANCE, <http://gulfofmexicoalliance.org/partnerships/partnerships.html> (last visited Apr. 19, 2013).

developed its first Action Plan for Healthy and Resilient Coasts,²¹⁸ identifying six regionally significant priority issues on which to focus: (1) water quality, (2) habitat conservation and restoration, (3) ecosystem integration and assessment, (4) nutrient impacts, (5) coastal community resilience, and (6) environmental education.²¹⁹ This first Action Plan included several collaborative actions for the region to implement over a three-year period.²²⁰

The Gulf states found that the collaboration achieved much that the states alone could not and that the Action Plan model was successful.²²¹ GOMA then built upon the collaborative foundation laid in the first Action Plan, creating a five-year, regional Governors' Action Plan II in 2009, which expands existing partnerships and charts actions to improve the region's capacity to manage the priority issues.²²² The Alliance published a mid-course accomplishment report on the new plan's progress in 2010, outlining steps taken in year one,²²³ and held workshops to obtain public input.²²⁴ The Gulf of Mexico Alliance also adopted two initiatives after the Deepwater Horizon oil spill: it provides administrative support for the Gulf of Mexico Research Initiative, launched in May of 2010 with funding from BP to study oil spill and spill response impacts on the environment and public health,²²⁵ and the Gulf Coast Ecosystem Restoration project, for which the state and federal Interagency Ocean Task Force released a restoration strategy in December of 2011.²²⁶ The Alliance has a website with links to tools such as the Gulf of Mexico Data Atlas, which provides geospatial data to facilitate "assessments of the physical environment, marine resources, and economic activity around the Gulf."²²⁷ GOMA also recently hired a Program Manager and a Business Manager to assist with its new responsibilities toward implementing CMSP.²²⁸

For the last five years, GOMA has collaborated effectively and has found success in its Action Plan approach. However, one consideration for this region going forward is that public perception of planning in the Gulf can be quite negative. When interviewed on the Gulf Coast Ecosystem Restoration effort in the fall of 2010, Secretary of the Navy Ray Mabus "repeatedly referred to the rising public

²¹⁸ *Id.* Access the "Action Plan for Healthy and Resilient Coasts" at <http://gulfofmexicoalliance.org/community/pubs.html>.

²¹⁹ *About the Alliance*, GULF OF MEXICO ALLIANCE, *supra* note 216. For priority issues, follow "six priority issues" link to *Home*, GULF OF MEXICO ALLIANCE, <http://gulfofmexicoalliance.org/about/about.html> (last visited Apr. 23, 2013).

²²⁰ *ABOUT THE ALLIANCE*, GULF OF MEXICO ALLIANCE, *supra* note 216.

²²¹ *Id.*

²²² *Id.* Access the Governors' Action Plan II at <http://gulfofmexicoalliance.org/community/pubs.html>.

²²³ *2010 Accomplishments Report*, GULF OF MEXICO ALLIANCE (2010), available at http://www.gulfofmexicoalliance.org/community/pdfs/2010GOMA%20Accomplishments%20Rpt_English.pdf.

²²⁴ *Resources*, GULF OF MEXICO ALLIANCE, <http://www.gulfofmexicoalliance.org/community/community.html> (last visited Apr. 23, 2013). See also *Community Workshops*, GULF OF MEXICO ALLIANCE <http://www.gulfofmexicoalliance.org/community/workshops.html> (last visited Apr. 23, 2013).

²²⁵ *Gulf of Mexico Research Initiative*, GULF OF MEXICO ALLIANCE, <http://gulfofmexicoalliance.org/initiatives/gomri.html> (last visited Apr. 23, 2013).

²²⁶ GULF OF MEXICO REGIONAL ECOSYSTEM RESTORATION STRATEGY (2011), available at <http://gulfofmexicoalliance.org/initiatives/gcertf.html>.

²²⁷ *Resources, Tools*, GULF OF MEXICO ALLIANCE, <http://www.gulfofmexicoalliance.org/community/tools.html> (last visited Apr. 23, 2013).

²²⁸ *Contact Information, Staff*, GULF OF MEXICO ALLIANCE, <http://gulfofmexicoalliance.org/contacts/staff.html> (last visited Apr. 23, 2013).

impatience with plans unaccompanied by action."²²⁹ He cited Gulf "plan fatigue," stating that Gulf residents "[ha]ve been planned to death."²³⁰ Perhaps focusing on action will help Gulf stakeholders form a positive impression of CMSP in the region as efforts move forward. This is another region to watch in terms of stakeholder engagement.

E. Caribbean

The Caribbean region includes Puerto Rico and the U.S. Virgin Islands. Puerto Rico took the lead in initiating CMSP efforts in the region. In 2008, Puerto Rico released MSP Draft Guidelines for its submerged lands, as a collaborative effort with the Caribbean Fisheries Management Council, NOAA's Sea Grant program, and several Puerto Rican universities.²³¹ The guidelines direct Puerto Rican agencies to map submerged ecosystems such as coral reef areas, wetlands, and mangroves; to assess ecosystem health; to propose and evaluate zoning scenarios; to hold public hearings; and to designate new ocean reserves through legislation.²³²

Puerto Rico's Coastal Management Program (PRCMP) held its first conference on CMSP in 2010, attracting over 200 participants including both environmental organizations and academics.²³³ In December 2010, PRCMP submitted an assessment and strategy document to NOAA for Enhancement Grants under Section 309 of the Coastal Zone Management Act during the fiscal years of 2011–2015.²³⁴ Here, the agency discusses employing CMSP to enhance its ocean resources program and educating the public on CMSP through its outreach program.²³⁵ The document states that the governors of the two island territories have committed to following the directives of the new National Ocean Policy, and so recognize the need to develop a regional ocean partnership for the Caribbean.²³⁶ The PRCMP, the U.S. Virgin Islands, and The Nature Conservancy also state that together they will seek funding to initiate this partnership.²³⁷

The Caribbean Islands signed a formal Memorandum of Understanding to work together on CMSP in May 2012.²³⁸ They launched the Caribbean Regional Ocean Partnership (CROP) in July 2012, with financial assistance from NOAA, agreeing to utilize technical assistance from The Nature Conservancy

²²⁹ NAT'L COMM. ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING REPORT TO THE PRESIDENT, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 210 (2011).

²³⁰ *Id.*

²³¹ PUERTO RICO, DEP'T OF NATURAL AND ENVTL. RES., MARINE SPATIAL PLANNING GUIDELINES FOR THE SUBMERGED LANDS OF PUERTO RICO (2008), available at

<http://www.drna.gobierno.pr/oficinas/arn/recursosvivos/costasreservasrefugios/pmzc/humedales-1/marine%20spatial%20zoning%20guidelines.pdf>.

²³² *Id.* at 5, fig. 1.

²³³ PUERTO RICO COASTAL MGMT. PROGRAM, DRAFT ASSESSMENT AND STRATEGIES FOR FY2011 – FY2015, at 8 (2010).

²³⁴ *Id.* at 2.

²³⁵ *Id.* at 2, 9.

²³⁶ *Id.* at 48.

²³⁷ *Id.*

²³⁸ *Caribbean Regional Ocean Partnership*, PUERTO RICO DEPT. OF NAT. RES. & ENVTL., <http://www.drna.gobierno.pr/oficinas/arn/recursosvivos/costasreservasrefugios/pmzc/crop/caribbean-regional-ocean-partnership> (last visited Apr. 8, 2013).

to enhance data sharing.²³⁹ The islands also hope to develop a regional work plan, identify fisheries management issues, and discuss future uses such as offshore energy siting.²⁴⁰

CROP does not yet have its own website or data portal. However, the partnership currently posts documents on the Puerto Rico Coastal Program website, and several mapping tools such as the Caribbean Coastal Ocean Observation System (CARICOOS), the NOAA Center for Coastal Monitoring and Assessment Seafloor Characterization of the U.S. Caribbean, and the Caribbean Environmental Response Management Application (ERMA) are available online.²⁴¹ CROP held its first meeting in December 2012, which was focused on introducing local stakeholders to the initiative and soliciting their concerns and recommendations.²⁴² Participants included federal, state, and local government officials, utility managers, tourism industry representatives, and non-profit partners.²⁴³ Those involved with ocean planning efforts have said informally that the Caribbean region has also formed a regional planning body, but no official sources have been published to confirm this information.

F. Great Lakes

The Great Lakes region is comprised of the states of Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin, and 35 tribal nations.²⁴⁴ Several regional groups exist that collaborate on lake planning efforts; however, only offshore wind projects proposed in the last few years have spurred more formal CMSP efforts, now on the state level in Ohio and Michigan.²⁴⁵ In Ohio, the Office of Coastal Management prepared spatial maps analyzing wind favorability, examining the location of shipping lanes, utility infrastructure, bird habitat, fish habitat, commercial fisheries, and other resources to aid decision-making on the wind energy proposals.²⁴⁶ This project accompanied the development of an updated version of Ohio's Coastal Atlas, a robust online interactive mapping tool that utilizes GIS data to portray where human uses interact with natural resources.²⁴⁷

Michigan created its own version of an online Coastal Atlas in its Lakebed Alteration Decision Support Tool, with assistance from the University of Michigan.²⁴⁸ The Lakebed Alteration Decision Support Tool contains a few interesting features. First, it "allows users to choose criteria for judging the suitability of sites for wind, dredging, and other offshore projects."²⁴⁹ Second, "[i]t accommodates value judgments such as importance of criteria and desired setbacks."²⁵⁰ The tool draws on physical,

²³⁹ *Latest News*, *supra* note 143.

²⁴⁰ *Id.*

²⁴¹ *Regional Planning Efforts: Caribbean Region*, DATA.GOV, http://www.data.gov/ocean/page/regional-planning?field_alias_value=caribbean (last visited Apr. 8, 2013).

²⁴² CARIBBEAN REGIONAL OCEAN PARTNERSHIP, FIRST MEETING (2012), available at <http://www.drna.gobierno.pr/oficinas/arn/recursosvivos/costasreservasrefugios/pmzc/crop/1st%20PR%20Meeting/CROP%20Supporting%20Material.pdf>.

²⁴³ *Id.*

²⁴⁴ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 18.

²⁴⁵ *Id.*

²⁴⁶ *Id.* at 19.

²⁴⁷ *Id.*

²⁴⁸ *Id.* at 18.

²⁴⁹ *Id.*

²⁵⁰ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 18.

political, and biological data sets.²⁵¹ It also “allows users to experiment with ‘what if’ scenarios and provides an accessible, user-friendly visualization tool for immediate feedback.”²⁵² The current version has three mapping portals: the first with data for Michigan only; the second with data for all of the Great Lakes waters within the U.S., and the third with data for all of the Great Lakes waters in the U.S. and Canada.²⁵³

Recent news suggests that the Great Lakes region has begun to work together informally to create a CMS plan, and is negotiating an MOU to formalize the partnership.²⁵⁴ The states have past partnerships to build from, such as the Great Lakes Commission that was created through joint legislative action in 1955.²⁵⁵ The Commission added the adjoining Canadian provinces as members in 1999.²⁵⁶ The Commission partnered with NOAA’s Coastal Services Center in 2009 to integrate data, study smart growth opportunities, and priority plan habitat areas for restoration.²⁵⁷ CMSP could build on this recent work. The states in the Great Lakes region also have a partnership in the Council of Great Lakes Governors, whose stated mission is “[t]o encourage and facilitate environmentally responsible economic growth.”²⁵⁸ This partnership could also be instrumental in kickstarting CMSP if it so chooses.

G. West Coast

1. State Efforts on the West Coast

California, Oregon, and Washington make up the West Coast region. All three states actively plan marine activities such as offshore oil and gas drilling.²⁵⁹ Oregon utilizes an adaptive management approach to govern its state waters through its flexible Territorial Sea Plan (TSP).²⁶⁰ Oregon created the original TSP document in 1994, but has allowed amendment “to include unanticipated future ocean uses.”²⁶¹ The state amended the plan in 2000 to accommodate seafloor uses such as telecommunications cables, pipelines, and other utilities.²⁶² Oregon has begun collecting marine spatial planning data that it is now using to bolster its decade-long efforts to establish marine reserves along

²⁵¹ *Id.*

²⁵² *Id.*

²⁵³ GIS Group, *Lakebed Alteration Decision Support Tool*, INSTITUTE FOR FISHERIES RESEARCH, <http://ifrgis.snre.umich.edu/projects/LADST/ladst.shtml> (last visited Apr. 24, 2013).

²⁵⁴ *Great Lakes Regional Coastal and Marine Spatial Plan, under National Ocean Policy*, OPEN CHANNELS: FORUM FOR OCEAN PLANNING AND MANAGEMENT, <http://openchannels.org/case-studies/great-lakes-regional-coastal-and-marine-spatial-plan-under-national-ocean-policy> (last visited June 7, 2013).

²⁵⁵ *About Us*, GREAT LAKES COMMISSION, <http://glc.org/about/> (last visited Apr. 24, 2013).

²⁵⁶ *Id.*

²⁵⁷ *Joint Project Agreement between GLC and NOAA Coastal Services Center*, GREAT LAKES COMMISSION, <http://glc.org/naoaglcproject/> (last visited Apr. 24, 2013).

²⁵⁸ *Mission*, COUNCIL OF GREAT LAKES GOVERNORS, <http://www.cglg.org/Overview/mission.asp> (last visited Apr. 24, 2013).

²⁵⁹ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 24–25.

²⁶⁰ *Id.* at 24.

²⁶¹ *Id.*

²⁶² *Id.*

its coast.²⁶³ Moreover, Oregon passed the second of two amendments to the Territorial Sea Plan addressing renewable energy facility siting in January 2013.²⁶⁴

California also has active CMSP processes, though without a legislative mandate. By way of legislation, California did enact the Marine Life Protection Act in 1999 that placed a moratorium on leasing new sites for offshore drilling.²⁶⁵ Since the moratorium, California has developed mapping tools, such as its MarineMap and Ocean Uses Atlas, to aid planning for marine protected areas around existing lease blocks.²⁶⁶ These mapping tools have allowed the state to collect more general marine spatial planning data; however, California has encountered difficulties sharing data across its agencies.²⁶⁷ California recently passed Assembly Bill 2125 in September 2010 to mandate sharing of marine data, in hopes of overcoming this logistical hurdle.²⁶⁸

Like Oregon, Washington State passed the legislative mandate of the Ocean Resources Management Act in 1989 to “establish[] planning criteria for ocean resources,” as well as to “ban[] leasing of Washington’s outer coast waters for oil and gas exploration, development and production.”²⁶⁹ More recently, the state convened members of state agencies, county commissioners, stakeholders, and members of the legislature to form the Washington State Ocean Policy Work Group.²⁷⁰ This Work Group published a report in 2006 recommending actions to improve conditions in Washington’s coastal and marine areas.²⁷¹ With such legislative mandates, mapping tools, and collaborative work groups, the states in the West Coast region already have experience with the key ingredients needed to implement CMSP efforts.

2. Regional Efforts on the West Coast

The governors gathered to sign the West Coast Governors’ Agreement on Ocean Health in 2006.²⁷² This agreement spurred initial actions and directed the creation of a regional Action Plan, which was

²⁶³ Press Release, Oregon Wave Energy Trust, State of Oregon Adopts Territorial Sea Plan for Ocean Energy Development, Jan. 25, 2013, available at <http://www.oregonwave.org/state-of-oregon-adopts-territorial-sea-plan-for-ocean-energy-development/>.

²⁶⁴ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 24.

²⁶⁵ *Id.* at 25.

²⁶⁶ *Id.*

²⁶⁷ Margaret Caldwell, Dir. Envtl. and Natural Res. L. & Pol’y Program, Stanford Law School, Exec. Dir. Ctr. Ocean Solutions, Presentation at the Vermont Law School Ocean Law Conference (Apr. 1, 2011). The Collaborative Geospatial Information and Tools for California Coastal and Ocean Managers Workshop Report in 2009, a collaborative federal, state, and private study funded by The Nature Conservancy, found that California state agencies did not, and could not, share data. COLLABORATIVE GEOSPATIAL INFORMATION AND TOOLS FOR CAL. COASTAL AND OCEAN MANAGERS WORKSHOP REPORT 14 (2009).

²⁶⁸ Caldwell, *supra* note 267. AB 2125 will add to Sections 35620 and 35621 in Chapter 544 of the Public Resources Code.

²⁶⁹ *Wash.’s Ocean Resources: History*, WASH. DEP’T OF ECOLOGY, <http://www.ecy.wa.gov/programs/sea/ocean/history.html> (last visited Apr. 9, 2013); The Ocean Resources Management Act, WASH. REV. CODE Ch. 43.143 (1989).

²⁷⁰ *Wash.’s Ocean Res.: History*, WASH. DEP’T OF ECOLOGY, *supra* note 269.

²⁷¹ *Id.*

²⁷² *Home*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, <http://www.westcoastoceans.org/> (last visited Apr. 9, 2013).

accomplished and released in May 2008.²⁷³ The Action Plan established Action Coordination Teams (ACTs) for several issue areas including: climate change, marine debris, ocean awareness and literacy, polluted runoff, renewable ocean energy, seafloor mapping, sediment management, and *Spartina* grass eradication.²⁷⁴ Each of these ACTs released a work plan in May 2009 detailing the tasks and resources needed to achieve their objectives.²⁷⁵ The Governors designated staff to be “state leads,” to work together with “federal leads” in an Executive Committee, representing the region’s actions.²⁷⁶

In addition to these collaborative efforts, the West Coast Governors’ Agreement called for the development of a regional Coastal Siting Report for renewable energy projects.²⁷⁷ To solicit stakeholder input for this report, Washington hosted the Marine Spatial Planning for Renewable Energy on the West Coast Workshop in October 2009. The workshop steering committee was made up of representatives from the state environmental agencies, NOAA, the Minerals Management Service (now the Bureau of Ocean Energy Management), and The Nature Conservancy.²⁷⁸ The West Coast region also submitted a grant proposal in December 2010 requesting funding from NOAA entitled “Achieving Sustainable Coastal Communities by Advancing Regional Ocean Priorities and Coastal and Marine Spatial Planning on the West Coast.”²⁷⁹

More recently, the West Coast region produced a two-year progress report on its 2008 Action Plan in April 2011.²⁸⁰ It received \$250,000 in grants from NOAA in January of 2012 “to aid its work on regional priority development and work towards better regional data access and delivery in support of those priorities.”²⁸¹ The West Coast region was also able to hire four Sea Grant fellows in 2010 to assist with regional work.²⁸² The partnership is now soliciting applications to hire a full time Project Coordinator, as well.²⁸³ Thus, although the Pacific states cover a large area and each has strong individual planning programs, the West Coast region continues to make strides forward with CMSP efforts.

²⁷³ *Id.* (follow “Documents,” then “Action Plan Documents,” then “WCGA Action Plan 7/29/2008”).

²⁷⁴ *Action Coordination Teams*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, <http://www.westcoastoceans.org/index.cfm?content.display&pageID=68> (last visited Apr. 9, 2013).

²⁷⁵ *Executive Overview of Action Coordination Teams Draft Work Plans*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, http://www.westcoastoceans.org/media/WCGA_Executive_Overview-FINAL.pdf (last visited Apr. 9, 2013).

²⁷⁶ *About Us*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, <http://www.westcoastoceans.org/index.cfm?content.display&pageID=71> (last visited Apr. 9, 2013).

²⁷⁷ WEST COAST GOVERNORS’ AGREEMENT, MARINE SPATIAL PLANNING FOR RENEWABLE ENERGY ON THE WEST COAST: WORKSHOP REPORT 1 (2009).

²⁷⁸ *Id.* at front materials.

²⁷⁹ WEST COAST GOVERNORS’ AGREEMENT ON OCEAN HEALTH (2006), available at <http://www.westcoastoceans.org/media/WCOceanAgreementp6.pdf>.

²⁸⁰ *Latest News*, *supra* note 143.

²⁸¹ NOAA, GRANT AWARDS: NOAA REGIONAL OCEAN PARTNERSHIP FUNDING PROGRAM 2 (2012), available at http://www.csc.noaa.gov/funding/_pdf/RegionalOceanPartnershipFundingProgramGrantAwardsAnnouncement.pdf.

²⁸² *Accomplishments*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, <http://www.westcoastoceans.org/index.cfm?content.display&pageID=118> (last visited Apr. 9, 2013).

²⁸³ *Home*, WEST COAST GOVERNORS’ ALLIANCE ON OCEAN HEALTH, *supra* note 272.

H. Alaska / Arctic

The Alaska/Arctic region is comprised solely of the state of Alaska and its associated tribal groups. With only one state, the idea of “regional planning” is somewhat imprecise. However, CMSP still presents an opportunity for the state to gather with tribal representatives and other stakeholders to harmonize marine uses. In addition, the group can consult with the North Pacific Fishery Management Council, whose membership includes Alaska, Oregon, and Washington.²⁸⁴

Stakeholder groups and the North Pacific Fishery Management Council have shown a mixture of interest and hesitance in becoming engaged with CMSP efforts in Alaska. At a meeting with the Assistant Administrator of NOAA in the winter of 2010 and in a follow-up interview, North Pacific Fishery Management Council Executive Director Chris Oliver worried that the CMSP concept represented a repetitive and unnecessary new layer of bureaucracy.²⁸⁵ Oliver spoke of the Fishery Management Council’s efforts to close one million square miles of Alaskan marine area to fishing of various species or with certain gear types as marine spatial planning.²⁸⁶ He expressed concerns that, even though the Fishery Council had been engaged in CMSP work already, going forward it would be consulted only “pro forma” and would not have a vote in CMSP decision-making for the region.²⁸⁷ He also expressed concerns that funding, which the Fishery Management Council was actively pursuing for observer systems that were “a fundamental underpinning of our whole [fishery] management system,” would be diverted to new CMSP efforts.²⁸⁸ Oliver stated that the North Pacific Fishery Management Council wanted assurances it would have a seat at the table in CMSP efforts, and was also encouraging the state to take “the driver’s seat” in the process.²⁸⁹

Stakeholders are becoming active on the issue of CMSP in Alaska as well, some vocally opposing zoning and others expressing concern over tribal subsistence use rights. On the industry side, a number of groups including the Alaska State Chamber of Commerce, the Alaska Support Industry Alliance, the American Petroleum Institute, and the Chevron Corporation, have joined the National Ocean Policy Coalition to lobby the federal government on how the new National Ocean Policy can best be implemented.²⁹⁰ This Coalition lists in its Statement of Principles that a “sound, balanced ocean policy” will “conserve[] natural resources and marine habitat” “without exclusionary zoning” and without federal authority “infring[ing] on state authority to manage resources and activities under state jurisdiction.”²⁹¹

Despite chilly reception by some, others from environmental stakeholder groups, federal agencies, state agencies, and local agencies have convened to discuss CMSP in Alaska. The Environmental Law

²⁸⁴ *Members, Council Members*, NORTH PACIFIC FISHERY COUNCIL, <http://alaskafisheries.noaa.gov/npfmc/membership/council-members.html> (last visited Apr. 25, 2013).

²⁸⁵ Andrew Jensen, *Confusion Lingers for Council About New Ocean Policy*, ALASKA J. OF COM. (Dec. 3, 2010), available at http://classic.alaskajournal.com/stories/120310/loc_clfc.shtml.

²⁸⁶ *Id.*

²⁸⁷ *Id.*

²⁸⁸ *Id.*

²⁸⁹ *Id.*

²⁹⁰ *Members*, NAT’L OCEAN POLICY COAL., <http://oceanpolicy.com/members> (last visited Apr. 25, 2013).

²⁹¹ *Statement of Principles*, NAT’L OCEAN POLICY COAL., <http://oceanpolicy.com/statement-of-principles/> (last visited Apr. 25, 2013).

Institute hosted a Seminar in March 2011 entitled "Arctic Coastal and Marine Spatial Planning and the Role of the Arctic People."²⁹² In attendance were representatives from the Alaska Eskimo Whaling Commission, NOAA, the North Slope Borough Department of Wildlife Management, Oceana, the Marine Mammal Commission, the Eskimo Walrus Commission, the U.S. Coast Guard, the Department of Interior, the North Slope Borough Assembly, and the Village of Kaktovik.²⁹³ These groups discussed "existing co-management practices;" "rights, traditions, and experiences of Arctic people;" and the needs of subsistence communities that are in conflict with other uses.²⁹⁴

These diverse interest groups have yet to come together with government to move forward on CMSP in Alaska. The federal agencies and the Alaska Department of Natural Resources Coastal Management Program have mapping tools in place, such as the Alaska Ocean Observing System²⁹⁵ and Alaska ShoreZone,²⁹⁶ which can aid the spatial planning work of agencies and stakeholders, and could also be utilized to create and vote on different use scenarios for the future. Collaboration on a statewide CMSP effort in Alaska is possible, but much groundwork would be needed to build trust and relationships as a first step. Government leaders must shape the program to fit local interest group needs and encourage stakeholders to work together in a non-threatening manner in this area where state sovereignty is jealously guarded.

I. Pacific Islands

Hawaii, the Commonwealth of the Northern Mariana Islands, American Samoa, and Guam comprise the Pacific Islands region. Like the Caribbean region, the Pacific Islands region just recently formed a regional partnership group in September of 2012.²⁹⁷ The Pacific Regional Ocean Partnership agreement establishes a state-led partnership group, with a supporting Executive Group, Steering Group, and Action Coordination Teams.²⁹⁸ This partnership grew out of state efforts in Hawaii, which helped lay some of the building blocks for regional action.

Hawaii's Coastal Zone Management Program prepared an Ocean Resource Management Plan (ORMP) in 2006, which "seeks to integrate the management of coastal and marine areas by connecting land and sea management, preserving ocean heritage, and promoting collaborative governance."²⁹⁹ This plan "maps incremental 5-year management priorities," decided upon and implemented collaboratively through a bottom-up, community partnership-led approach.³⁰⁰ For this effort, the Hawaii Coastal Zone Management Program created a Policy Group and a Working Group, each

²⁹² *Envtl. Law Institute Events*, ENVTL. LAW INST., http://www.eli.org/seminars/past_event.cfm?eventid=539 (last visited Apr. 25, 2013).

²⁹³ *Id.*

²⁹⁴ *Id.*

²⁹⁵ *Home*, Alaska Ocean Observing System, <http://www.aoots.org> (last visited Apr. 25, 2013).

²⁹⁶ *Alaska ShoreZone*, NOAA, <http://mapping.fakr.noaa.gov/szflex/> (last visited Apr. 25, 2013).

²⁹⁷ *Latest News*, *supra* note 143.

²⁹⁸ GOVERNORS' PACIFIC ISLANDS REGIONAL OCEAN PARTNERSHIP, ESTABLISHMENT 2 (2012), *available at* http://manage.hawaii.gov/gov/newsroom/press-releases/PROP_signed_o82212.pdf.

²⁹⁹ ERG MSP STAKEHOLDER ANALYSIS, *supra* note 74, at 27.

³⁰⁰ *Ocean Resources Mgmt. Plan*, HAWAII CZM PROGRAM, <http://planning.hawaii.gov/czm/ocean-resources-management-plan-ormp/> (last visited Apr. 25, 2013).

composed of federal, state, and local stakeholder agencies.³⁰¹ The Hawaii Office of Planning is set to release a 2012 ORMP Update in June 2013.³⁰² Other recent projects of these groups include the Working Group's November 2009 publication of "A Framework for Climate Change Adaptation in Hawaii."³⁰³

In addition to Hawaii's ORMP governance structure, Hawaii had a Hawaii Ocean Observing System up and running online for several years,³⁰⁴ and recently merged this system with the broader Pacific Islands Ocean Observing System.³⁰⁵ Both systems offer access to oceanographic data as well as mapping tools that could be supplemented with CMSP-related data sets or GIS mapping layers. The Pacific Islands Ocean Observing System also has a Governing Council with seats for representatives from American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and Hawaii,³⁰⁶ which might be built upon for regional CMSP efforts. Like the Caribbean region, those involved with ocean planning efforts have said informally that the Pacific Islands region has also formed a regional planning body, but no official sources have been published to confirm this information.

Table 1. Summary of CMSP Progress to date by Region.

CMSP Milestone	Regional Ocean Partnership	Funding	Website	Action Plan	Staff	Data Dev.	Stakeholder Engagement	Data Portal	Regional Planning Body	CMS Plan
Northeast	NROC	✓	✓	✓	✓	✓	✓	✓	✓	In Dev.
Mid-Atlantic	MARCO	✓	✓	✓	✓	✓	✓	✓	✓	
South Atlantic	GSAA	✓	✓	✓	✓	✓	✓			
Gulf of Mexico	GOMA	✓	✓	✓	✓	✓	✓			
West Coast	WCGA	✓	✓	✓	✓	✓				
Caribbean	CROP	✓							✓	
Pacific Islands	Pacific Islands ROP	✓							✓	
Alaska		✓								
Great Lakes										

³⁰¹ HAWAII CZM PROGRAM, ORIENTATION PACKET, HAW. OCEAN RES. MGMT. PLAN POLICY AND WORKING GROUPS 1 (2012), available at http://files.hawaii.gov/dbedt/op/czm/ormp/reports/ORMP_Orientation_Packet_updated_062012.pdf.

³⁰² 2012 ORMP Update, HAWAII OFFICE OF PLANNING, <http://planning.hawaii.gov/czm/ocean-resources-management-plan-ormp/2012-ormp-update/> (last visited Apr. 25, 2013).

³⁰³ OCEAN RESOURCES MGMT. PLAN WORKING GROUP & UNIVERSITY OF HAWAII, A FRAMEWORK FOR CLIMATE CHANGE ADAPTATION IN HAWAII (2009), available at

http://files.hawaii.gov/dbedt/op/czm/ormp/reports/climate_change_adaptation_framework_final.pdf.

³⁰⁴ Home, HIOOS HAWAII OCEAN OBSERVING SYSTEM, <http://www.soest.hawaii.edu/hioos/index.php> (last visited Apr. 25, 2013). This page now redirects the visitor to the Pacific Islands Ocean Observing System site, <http://www.soest.hawaii.edu/pacioos/index.php>.

³⁰⁵ Home, PACIFIC ISLANDS OCEAN OBSERVING SYSTEM, <http://www.soest.hawaii.edu/pacioos/index.php> (last visited Apr. 25, 2013).

³⁰⁶ Organizational Structure, PACIFIC ISLANDS OCEAN OBSERVING SYSTEM, <http://www.soest.hawaii.edu/pacioos/about/structure.php> (last visited Apr. 25, 2013).

IV. Successes and Obstacles

As mentioned in the previous section, many states and regions are on the road to implementing CMSP, and a few have claimed early victories where they have successfully used CMSP to achieve environmental sustainability. Other states and regions have encountered significant obstacles getting their CMSP efforts off the ground. This section revisits the outstanding successes and obstacles of CMSP regional efforts in the U.S. so far.

A. Successes

A common success attributed to CMSP among state and federal entities is the Northeast region's victory in decreasing whale-ship collisions around Stellwagen Bank National Marine Sanctuary. In this instance, the shipping industry, the health of the whale population, and the whale-watching public were all able to benefit greatly by a simple act of coordination that CMSP made possible. As stated above, this collaborative success was recently replicated at several ports on the West Coast. Ideally, CMSP benefits across regions will reflect this model, where multiple users can mutually benefit from coordinated decision-making without the need for major sacrifices from any side.

Similarly, states and stakeholder groups have benefited from the excitement surrounding CMSP, manifesting in the forms of funding and support from federal agencies and private organization. Rhode Island was able to jumpstart wind energy development off of its coast relatively inexpensively by leveraging state funding to attract universities and non-profit organizations to assist with research and federal grants from the Department of Energy.³⁰⁷ The Nature Conservancy has supported CMSP efforts in the Northeast, Mid-Atlantic, and the Caribbean, and groups such as the Center for Ocean Solutions have supported efforts on the West Coast. Managers in these regions that have capitalized on current interest in CMSP in the policymaking community have encouraged other states and regions to jump on the opportunity as well.³⁰⁸ Besides the availability of funding and research support, managers point to the chance for representatives to really shape the process in their region at this critical time in the national effort.³⁰⁹

States and regions should be aware of other existing federal resources that may be available to assist new CMSP efforts. One such resource is the Department of Interior's new Smart from the Start program, created to streamline offshore leasing for wind energy development.³¹⁰ Another federal resource that may be available to assist regions in launching CMSP efforts is the EPA Subcommittee on Integrated Management of Ocean Resources (SIMOR). The Northeast region, for one, has utilized

³⁰⁷ Presentation of Grover Fugate, *supra* note 142. Rhode Island spent \$8 million starting the project, received a \$660,000 grant from the DOE, and relied on non-profit support for research needs. *Id.*

³⁰⁸ *Id.*; Eileen Sobeck, Deputy Assistant Sec'y for Fish and Wildlife and Parks in the Dep't of Interior, Presentation at the Vermont Law School Ocean Law Conference (Apr. 1, 2011).

³⁰⁹ Presentation of Grover Fugate, *supra* note 142; Presentation of Eileen Sobeck, *supra* note 308.

³¹⁰ Press Release, Dep't of Interior, Interior Initiates Process for First "Smart from the Start" Lease for Commercial Wind Power Offshore Del. (Mar. 24, 2011), available at <http://www.doi.gov/news/pressreleases/Salazar-Launches-Smart-from-the-Start-Initiative-to-Speed-Offshore-Wind-Energy-Development-off-the-Atlantic-Coast.cfm>.

SIMOR to communicate “the priorities and needs for the Northeast” up to the federal level.³¹¹ Regions developing CMSP efforts should look to these resources, and to their sister regional ocean councils, for support, information, and “best practices” models.

B. Obstacles

Regions with little to no CMSP development face a number of obstacles including concern over increased bureaucracy where CMSP goals overlap with fisheries council or coastal zone management goals, concern over increased and perhaps overreaching federal authority and regulation in areas of state jurisdiction, and “planning fatigue.” Some CMSP proponents attribute these “marketing” problems to the uniqueness of the CMSP concept and the lack of understanding that still exists in the ocean and coastal policy-making community.³¹² Others note that industry is opposed to efforts that will bring more regulation, as can occur with zoning, because of the costs of compliance and uncertainty of when the rules will change.³¹³ This uncertainty can interfere with industry’s investment-backed expectations, especially with fixed-point commerce such as oil rigs.³¹⁴

In addition to general problems managers face in marketing CMSP to constituent groups, some major logistical hurdles remain in the way of CMSP progress. Many regions need more data collection to fill gaps, more ability to share and integrate data, and better collaboration vertically and horizontally across government agencies and levels of government. Lack of funding streams and staffing infrastructure to take on new tasks are also impediments to CMSP progress. The lack of funding is an important issue, especially considering recent tightening of the federal budget. NOAA continues to ask for funding to support CMSP efforts in its budget requests each year, and members of Congress continue to propose amendments to eliminate that funding stream. Funding will become an increasingly important factor for regions as they continue to hire staff, form regional planning bodies, and attempt to craft CMS plans.

V. Conclusion

Several regions have made significant progress towards implementing CMSP for their coastal and marine spaces. Many have efforts underway and are on track to create CMS plans. A few have not been as receptive to the idea and have not initiated planning efforts. With such obstacles as poor messaging and modest funding from the federal level, the questions loom—as regions inch slowly forward with CMSP, will they reform human uses of the ocean in time to stave off ecosystem collapse or will they indeed meet the knotty trials projected, such as “the end of fish”?³¹⁵

³¹¹ *NROC Terms of Reference*, NE. REG’L OCEAN COUNCIL, <http://collaborate.csc.noaa.gov/nroc/about/nroc-terms/default.aspx> (last visited Apr. 25, 2013).

³¹² Michael Sutton, Vice President, Ctr. for the Future of the Oceans, Monterey Bay Aquarium, Presentation at the Vermont Law School Ocean Law Conference (Apr. 1, 2011).

³¹³ Sarah Chasis, Senior Attorney, Natural Res. Def. Counsel, Presentation at the Vermont Law School Ocean Law Conference (Apr. 1, 2011).

³¹⁴ *Id.*

³¹⁵ Pauly, *supra* note 11.

This Article focuses primarily on the process our national, regional, and state governing bodies have engaged in towards CMSP and not on the results of CMSP on ocean health, largely because the U.S. is still in the process stage. Plans must be developed and implemented, and then monitored, before the effectiveness of CMSP in terms of safeguarding ecosystem services can be measured. The regions can look to the models of the Northeast states, and take warning from Australia's current predicament with the Great Barrier Reef, to learn some best practices. Ocean managers should strive to make the improvements that can be achieved through better collaboration, but they should not allow those improvements to overshadow the bigger picture of the work at hand. The deleterious effects of human uses on the ocean environment must be managed to preserve the environment and ecosystem services. Enhanced coordination does not necessarily equate with reduced environmental impact. The regions should remain cognizant that placing economic concerns above environmental protection can come with a serious price tag down the road.

Although very different from CMSP, the management framework established by the Magnuson–Stevens Act is interesting to think about in light of nascent efforts towards ecosystem-based management through CMSP. The Magnuson–Stevens Act developed a regime of fisheries governance at the regional level that, after years of what seemed to be failure, might be just beginning to achieve its objectives. Thus, the Magnuson–Stevens Act regime's difficulties in successfully managing fishing and fish population health until serious sustainability plans and fish stock rebuilding plans were put into place might foretell difficulties that also lie ahead for CMSP. CMSP efforts may need to mirror the fisheries management "stick" of quotas with a CMSP "stick" of zoning. The "carrot" of federal funding for coordination might not be enough to get the U.S. to the goal of protecting marine environments.

Critics of the Magnuson–Stevens Act cite inadequate monitoring, enforcement, and plan revision by the implementing agency as some of the law's weaknesses.³¹⁶ Specifically, critics point to a lack of incentive for the regional fisheries councils to enforce strict conservation. One critic suggests that these failings stem from the agency capture of fisheries biologists within the implementing agency by the fishing industry they are to regulate.³¹⁷ This could also mirror the early fate of CMSP efforts, as state and federal government representatives work hard to facilitate offshore energy development in many regions, perhaps at the expense of conservation.

It is too early to assess CMSP for structural failures. However, as they develop their programs, CMSP managers would do well to learn from the struggles of the Magnuson–Stevens Act. Federal monitoring and plan revision of regional efforts should be proactive, and watchful for red flags such as industry capture or plans lopsided toward one interest. Similarly, as interest groups fight over the inclusion of regulatory or zoning schemes in CMS plans, managers should avoid instituting rules that are not then enforced. These larger criticisms of the Magnuson–Stevens regime will be important to remember as the U.S. moves forward into its new ocean governance regime, which similarly seeks to harness regional, council-style management with federal oversight. CMSP proponents must remain vigilant to avoid the same pitfalls that have tripped up ocean resource managers in the past, and make the most of this opportunity for regional, multiple-use, multiple-stakeholder ocean management.

³¹⁶ Turnipseed, *supra* note 19, at 55.

³¹⁷ Pauly, *supra* note 11.