

12 Marine Spatial Planning in the US



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Marine conservationists meeting to plan protection for Palmyra Atoll, a US Territory in the Line Islands

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Introduction

The first decade of the new millennium was an exciting time for marine spatial planning in the United States. The national government, reacting to both dire new warnings on the decline of its marine resources and the global ocean and to periodic calls to improve its governance of ocean areas, announced a new draft marine policy near the end of 2009. But long before that, some of the individual states had pioneered ocean zoning efforts in a push to improve marine management in state waters (to 3nm offshore). This was made possible by the 'new federalism' that emerged in the latter decades of the twentieth century, which ushered in a delicate power-sharing between the state governments and the national government of the United States. To date this power sharing has resulted in a series of unconnected, and as yet uncoordinated, initiatives, with each entity utilizing spatial planning only within their own jurisdictions and little thought given to the interface between adjacent (or sometimes overlapping) jurisdictions. This final case study chapter will begin with a look at two states on opposite coasts that have utilized ocean zoning in different ways and to different ends – but with the common end result of forcing the federal government's hand on marine spatial management.

Massachusetts Oceans Act

The waters of Massachusetts are fast approaching those in the North Sea in terms of the ever-increasing kinds of uses and pressures. Conservationists in the northeast US have called the quickening pace of ocean development in this part of the Gulf of Maine 'ocean sprawl', and have pushed to find and support tools that facilitate rational planning and minimize risks to the marine environment.

So it was that the 2008 decision by the state of Massachusetts to pass legislation creating the first comprehensive plan for state waters in the US was met with much support. The plan covers marine areas to 3nm, taking into consideration fisheries, renewable energy production and marine conservation interests, among many others. Legislators in Massachusetts have said that with the pace of proposed developments in state waters, including liquefied natural gas installations, offshore wind turbines and offshore aquaculture, they no longer had the luxury of being able to react to each proposal in isolation.

In 2007–2008, the Massachusetts Ocean Coalition travelled the coastal communities of Massachusetts to talk about participatory ecosystem-based management of the 1.6 million acres of the state's ocean environment. Nearly 5000 individuals expressed interest in improved marine management, paving the way for the passage of the Massachusetts Oceans Act in 2008 (MEAM, 2008). Among other measures, the Act stipulates that the state strategically plan for future development by considering comprehensive ocean zoning.

Rob Moir of the Massachusetts Ocean Coalition called the state effort 'revolutionizing environmental planning and management'. Every effort

was made to listen to local communities and stakeholders, yet to plan ocean management with an ecosystem, wide-scale focus.

The 2008 Massachusetts Oceans Act states that: 'The Secretary, in consultation with the ocean advisory commission ... and the ocean science advisory council ... shall develop an integrated ocean management plan, which may include maps, illustrations and other media. The plan shall: (i) set forth the commonwealth's goals, siting priorities and standards for ensuring effective stewardship of its ocean waters held in trust for the benefit of the public'. The Act states an additional 14 principles or goals that the plan will target, including the last: '(xv) shall identify appropriate locations and performance standards for activities, uses and facilities allowed'. The common interpretation of this language is that ocean zoning will be used to address principle number 15.

The legislation mandated that a strategic plan be developed by the end of 2009, only a year-and-a-half after the Act passed. Setting such a short time frame was a gamble: imposing such deadlines on state planners could have set the initiative up for failure, or even created a backlash among a public unused to rapid decision-making. However, it seems the compressed timeline has actually helped to make the planning process more efficient and participatory. Engaged stakeholders rose to the challenge, and financial resources and other forms of support came from those impressed with the ambitious goals of the state's planners. A draft plan was open for public comment mid-year in 2009; the final comprehensive plan for the state was made public on 5 January 2010.

The final plan establishes strictly protected areas in state waters, including eelgrass beds, submerged rocky reefs, whale migratory pathways and seabird areas. Ecologically sensitive areas constitute nearly two-thirds of the state's waters, where strong protections will be enacted. In addition, the plan allows up to 266 wind turbines in state waters: 166 in 2 designated commercial wind farm areas (or zones), and 100 scattered among smaller community projects. Community energy project planning will be under the remit of coastal planning authorities in 7 regions of the state's coast (www.mass.gov/oea). Another outcome of the work on the Oceans Act was the formation of the Massachusetts Ocean Partnership, a non-governmental entity that grew out of the advisory commission to support the state in its strategic planning. Little movement towards comprehensive ocean zoning could have been achieved without such support.

In a sense the Massachusetts ocean planning process illustrates the adage of being united against a common enemy. There was little recognition of the inadequacies of marine management of ocean uses within state waters until two proposed developments in state waters (the building of a liquefied natural gas terminal outside Boston Harbor, and the proposed Cape Wind building of wind turbines in Nantucket Sound) made the state government realize that it had no plan and therefore no authority or rationale to oppose such developments. But in many ways the Commonwealth of Massachusetts was fortunate, having a liberal and environmentally aware political leadership, state government authorities willing to try things never tried before, a highly informed public

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used to active engagement in planning and a wealth of scientific information about the ecology, condition and effectiveness of existing management of the state's waters.

California Marine Life Protection Act

On the opposite coast, the conditions for allowing the development of new strategic planning for coastal waters also created an environment ripe for the application of marine spatial management and ocean zoning.

The California Marine Life Protection Act (MLPA) was passed in 1999, for the purpose of safeguarding the valuable and diverse marine ecosystems found within 3nm of the coast. The Marine Life Protection Act of 1999 directs the state to redesign California's system of marine protected areas (MPAs) to function as a network in order to: increase coherence and effectiveness in protecting the state's marine life and habitats, marine ecosystems and marine natural heritage, as well as to improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance (www.dfg.ca.gov/mlpa). There are six goals that guide the development of MPAs in the MLPA planning process:

- 1 Protect the natural diversity and abundance of marine life, and the structure, function and integrity of marine ecosystems
- 2 Help sustain, conserve and protect marine life populations, including those of economic value, and rebuild those that are depleted
- 3 Improve recreational, educational and study opportunities provided by marine ecosystems that are subject to minimal human disturbance, and to manage these uses in a manner consistent with protecting biodiversity
- 4 Protect marine natural heritage, including protection of representative and unique marine life habitats in Californian waters for their intrinsic values
- 5 Ensure California's MPAs have clearly defined objectives, effective management measures and adequate enforcement and are based on sound scientific guidelines
- 6 Ensure the state's MPAs are designed and managed, to the extent possible, as a network

To help achieve these goals, three types of MPA designations are used in the MLPA process: state marine reserves, state marine parks and state marine conservation areas (www.dfg.ca.gov/mlpa).

According to the California Fish and Game website, the MLPA directs the state to reevaluate and redesign California's system of marine protected areas (MPAs) to: increase coherence and effectiveness in protecting the state's marine life and habitats, marine ecosystems and marine natural heritage, as well as to improve recreational, educational and study opportunities provided by marine ecosystems subject to minimal human disturbance. The MLPA also requires that the best readily available science be used in the redesign process, as well as the advice and assistance of scientists, resource managers, experts, stakeholders and members of the public (www.dfg.ca.gov/mlpa).

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California is taking a regional approach to redesigning MPAs along its 1770km coastline and has divided the state into five study regions (www.dfg.ca.gov/mlpa):

- North Coast: under way in 2010
- South Coast: 2008–2009 (regulations being reviewed)
- North Central Coast: 2007–2009 (regulations adopted 2009)
- Central Coast: 2004–2007 (regulations adopted 2007)
- San Francisco Bay: 2010–2011

Though not an ocean zoning initiative per se, the MLPA process has taken the first steps toward comprehensive ocean zoning, by defining ecoregions and then investigating what areas within those ecoregions most need protection or restoration. Should the state of California decide that ocean zoning of state waters is desirable, they will be poised to do so based on rigorous scientific information as well as a mechanism for participatory planning.

Federal government Ocean Policy Task Force

While the states of California and Massachusetts (and, more recently, Rhode Island) were forging ahead on marine spatial planning, the federal government seemed to be getting nervous. The former head of the White House Council of Environmental Quality under the previous administration, James Connaughton, had answered a question about ocean zoning from a member of the Federal Advisory Committee on Marine Protected Areas (MPA FAC) by saying he felt that ocean zoning was 'inevitable' (J. Connaughton, 2005). Even the new Obama administration has shied away from using the term 'zoning', committing instead to marine spatial planning (see below). It seems that during the years 2000–2008, the national government opted to sit back and watch the experiments of states like Massachusetts and California to see how they would deal with use conflicts and if ocean zoning gained traction.

The Obama administration established an Ocean Policy Task Force very soon after assuming leadership (likely at the urging of President Obama's choice for the head of the National Oceanic and Atmospheric Administration, Dr Jane Lubchenco). In part this was in recognition of the highly fragmented nature of US ocean policy: the nation's complex marine governance structure involves 20 federal agencies and approximately 140 ocean-related laws.

The task force developed a draft policy for public comment by mid-2009 (even more ambitiously than the Commonwealth of Massachusetts, the administration gave a scant six months for developing a draft policy. On 12 June, President Barack Obama established the Interagency Ocean Policy Task Force to develop recommendations for a national policy for US oceans, coasts and the Great Lakes, a framework for improved federal policy coordination and an implementation strategy to meet the objectives of a national ocean policy within 90 days). The interim policy, released in December 2009, embodies an entirely new approach to federal resource planning for oceans, coasts and the Great Lakes, outlining the process through which the federal government

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Table 12.1 *Traditional, new, and expanding ocean, coastal and Great Lakes uses*

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- Aquaculture (fish, shellfish and seaweed farming)
 - Commerce and Transportation (cargo and cruise ships, tankers and ferries)
 - Commercial Fishing
 - Environmental/Conservation (marine sanctuaries, reserves, parks, wildlife refuges)
 - Maritime Heritage and Archaeology
 - Mining (e.g., sand and gravel)
 - Oil and Gas Exploration and Development
 - Ports and Harbours
 - Recreational Fishing
 - Renewable Energy (e.g., wind, wave, tidal, current and thermal)
 - Other Recreation (e.g., boating, beach access, swimming, nature and whale watching, and diving)
 - Scientific Research and Exploration
 - Security, Emergency Response and Military Readiness Activities
 - Tourism
 - Traditional Hunting, Fishing and Gathering
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will work with states, tribes, local governments and communities to decrease conflicts among competing users. It recommends the formation of a National Ocean Council to track the condition of the oceans and work with the White House to develop more effective marine management. According to a Council of Environmental Quality (CEQ) press release, the process is intended to improve planning and regulatory efficiencies, decrease their associated costs and delays, and preserve critical ecosystem function and services (CEQ, 2009).

The new policy thrust comes as the country faces ever-increasing reports of degradation, overexploitation, conflict and weakened natural systems unable to cope with large-scale changes coming on the horizon, such as those brought about by climate change. At the same time, access to and uses of oceans is increasing throughout the country, in both state and federal waters (see Table 12.1 on traditional, new and expanding uses in the coasts, oceans and Great Lakes of the US). The combination of increasing pressures and declining state of the ocean environment threatens the economy and well-being of the US and of all Americans.

One mechanism for reducing those use conflicts and making marine management more strategic is the establishment of nine regional planning bodies that will work together and with the administration in an integrated manner to develop short term and long range plans for managing ocean use (see Colour Plate 12.1). This recommendation mirrors that made by the MPA FAC in trying to facilitate the formation of a national system of MPAs. The thought is that regional bodies, comprised of federal and state government representatives as well as all relevant stakeholders, can better address management needs and utilize planning tools (such as ocean zoning) than centralized government. The Interim Framework for Effective Coastal and Marine Spatial Planning provides the conceptual framework for zoning, but shies away from the specifics on

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the zoning process (presumably this is something better left to the regional councils, in the CEQ's opinion). The document does, however, address federal authority for marine spatial planning, stating:

Federal statutes often include authorizing language that explicitly gives agencies the responsibility to plan and implement the objectives of the statutes. Moreover, several Federal statutes specifically authorize agency planning with respect to the ocean, coastal, and Great Lakes environments. Federal agencies and departments also administer a range of statutes and authorized programs that provide a legal basis to implement CMSP. These statutory and regulatory authorities may govern the process for making decisions (e.g., through Administrative Procedure Act rulemaking and adjudications) and not just the ultimate decisions made. The processes and decision-making CMSP envisions would be carried out consistent with and under the authority of these states. State, tribal, and local authorities also have a range of existing authorities to implement CMSP, although this will vary among and within regions. This framework for CMSP is to provide all agencies with agreed upon principles and goals to guide their actions under these authorities, and to develop mechanisms so that Federal, State, tribal, and local authorities, and regional governance structures can proactively and cooperatively work together to exercise their respective authorities. (CEQ, 2009, p6)

Marine cadastre is a tool that is gaining popularity in US government planner circles, and it may well hold the key to ocean zoning potential. The US Multipurpose Marine Cadastre (MMC) is the Department of Interior's Minerals Management Service online tool for planning. The MMC helps coastal professionals locate the best available information for planning and mapping marine space and enables them to share that information quickly. The task force policy on MSP also highlights some general principles for marine spatial planning that should facilitate ocean zoning initiatives undertaken at any level (Table 12.2).

It should be noted that this is not the first time the national government has tried to restructure itself to address marine management challenges. In the 1960s, the Stratton Commission evaluated how effectively fisheries, oil and gas, boating and shipping, and other uses were being managed in the country's territorial waters, and concluded that a complete governance restructuring was needed. The Stratton Commission recommended the formation of a Department of Oceans to centralize marine management and plan and regulate all uses under a single umbrella authority. Though this never came to pass, the idea of integrating management and using strategic tools such as ocean zoning is very central to the Obama administration's new interim policy. And though ocean zoning is deliberately not mentioned, the term 'marine spatial planning' appears 20 times in the framework document, and the steps in the marine

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Table 12.2 *National Guiding Principles for Coastal and Marine Spatial Planning*

- 1 CMSP would use an ecosystem-based management approach that addresses cumulative effects to ensure the protection, integrity, maintenance, resilience and restoration of ocean, coastal and Great Lakes ecosystems, while promoting multiple sustainable uses.
- 2 Multiple existing uses (e.g., commercial fishing, recreational fishing and boating, marine transportation, sand and gravel mining, and oil and gas operations) and emerging uses (e.g., off-shore renewable energy and aquaculture) would be managed in a manner that reduces conflict, enhances compatibility among uses and with sustained ecosystem functions and services, and increases certainty and predictability for economic investments.
- 3 CMSP development and implementation would ensure frequent and transparent broad-based, inclusive engagement of partners, the public, and stakeholders, including with those most impacted (or potentially impacted) by the planning process and with underserved communities.
- 4 CMSP would take into account and build upon the existing marine spatial planning efforts at the regional, State, tribal, and local level.
- 5 CMS Plans and the standards and methods used to evaluate alternatives, tradeoffs, cumulative effects and sustainable uses in the planning process would be based on clearly stated objectives.
- 6 Development, implementation and evaluation of CMS Plans would be informed by the best available science-based information, including the natural and social sciences.
- 7 CMSP would be guided by the precautionary approach as defined in Principle 15 of the Rio Declaration, '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.'
- 8 CMSP would be adaptive and flexible to accommodate changing environmental conditions and impacts, including those associated with global climate change, sea-level rise and ocean acidification, and new and emerging uses, advances in science and technology, and policy changes.
- 9 CMSP objectives and progress toward those objectives would be evaluated in a regular and systematic manner and adapted to ensure that the desired environmental, economic and societal outcomes are achieved.
- 10 The development of CMS Plans would be coordinated and compatible with homeland and national security interests, energy needs, foreign policy interests, emergency response and preparedness plans and frameworks, and other national strategies, including the flexibility to meet current and future needs.
- 11 CMS Plans would be implemented in accordance with customary international law, including as reflected in the 1982 Law of the Sea Convention, and with treaties and other international agreements to which the United States is a party.
- 12 CMS Plans would be implemented in accordance with applicable Federal and State laws, regulations, and Executive Orders. (CEQ 2009, pp7–8)

Source: CEQ, 2009

spatial process (Table 12.3) are essentially the same as those for developing ocean zoning plans.

The next decades will be a source of fascination for those interested in marine management and ocean policy. How this new US policy plays out, and the extent to which the public accepts and embraces comprehensive ocean zoning, remains to be seen. Nonetheless, all the pieces now seem to be in place in the US: an overarching federal policy that establishes regions as the geographic basis for marine spatial planning, field-tested methods developed

Table 12.3 Essential Elements of the CMSP Process

• Identify Regional Objectives
• Identify Existing Efforts that Should Help Shape the Plan throughout the Process
• Engage Stakeholders and the Public at Key Points throughout Process
• Consult Scientists and Technical and Other Experts
• Analyse Data, Uses, Services, and Impacts
• Develop and Evaluate Alternative Future Use Scenarios and Tradeoffs
• Prepare and Release a Draft CMS Plan with Supporting Environmental Impact Analysis
• Documentation for Public Comment
• Create a Final CMS Plan and Submit for NOC Review
• Implement, Monitor, Evaluate, and Modify (as needed) the NOC-certified CMS Plan

Source: CEQ, 2009

by some pioneering states and increasing recognition by the public of the need for rational and strategic planning to alleviate conflict and set marine resource use on a more sustainable pathway.

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