

Coastal and Marine Spatial Planning in North Carolina

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North Carolina's vast marine and estuarine resources often seem without bound. Over time, however, human uses of these resources have increased and many have come into conflict with one another. Simply put, many areas in North Carolina's coastal and offshore waters are becoming crowded, with too many users vying for the same space. Telecommunication cables preclude trawling for commercially important species; marine transportation routes are becoming clogged with commercial and recreational vessel traffic; proposed wind farms and recreational anglers might both like access to the same parts of the estuary; mining, sand, and gravel activities affect ecologically and economically important habitats.

The recognition that North Carolina's coastal and marine waters need better spatial planning is not new. Many recommendations in the 1984 Report of the Ocean Policy Committee of the North Carolina Marine Science Council make the case for better spatial planning for habitats and waters in the state, going so far as to suggest that the state consider expanding its area of jurisdiction farther than the current three-mile limit. This report also made specific recommendations about providing planning that would better coordinate regulatory activities in state and federal waters. Similarly, the Fisheries Reform Act of 1997 also made specific recommendations about creating spatial plans, especially for coastal habitat protection.

So What Is New About Marine Spatial Planning?

On June 12, 2009, President Barack Obama charged an interagency task force with creating a strategy for a new National Ocean Policy. In that memo, the president specifically called for a national framework for coastal and marine spatial planning. While for some this memo put coastal and marine spatial planning on the radar screen for the first time, in fact various types of marine spatial planning have been under way around the world (e.g., Australia, Belgium, Germany, etc.) and

even to differing degrees in some coastal states in the U.S. (e.g., Massachusetts).

What makes the current discussion of marine spatial planning different from previous ones is a formalization of a common set of criteria, processes, and principles that are necessary elements of marine spatial planning based on sound science and sound public policymaking. At the national level, the U.S. National Oceanic and Atmospheric Administration (NOAA) now recognizes that marine spatial planning should be a "a comprehensive, ecosystem-based process through which compatible human uses are objectively and transparently allocated to appropriate ocean areas to sustain critical ecological, economic, and cultural services for future generations."

The definition, while broad, pushes coastal and marine managers and regulators to think more broadly about managing beyond one sector or one ocean area. The goal is to create a system of coastal and ocean management in which interactions between ocean and coastal users, ecosystems, and regulators are explicitly incorporated into the planning process. How to go from thinking more broadly to acting more broadly is still a matter of debate. Still, a number of principles about the process and goals of marine spatial planning have emerged from real-world experiences. These include ecosystem-based management principles, principles of transparency and inclusion in planning, and requirements that plans take the future into account. The United Nations Educational, Scientific, and Cultural Organization's (UNESCO) Intergovernmental Oceanographic Commission recently produced a step-by-step approach for marine spatial planning in which many of these principles are detailed.[†]

Because of our wealth of resources in our institutions of higher learning, coastal and ocean-related industries, and well-developed coastal and marine public trust agencies (Marine Fisheries Commission, Coastal Resources Commission, Environmental Management

[†] Charles Ehler and Fanny Douvère, *Marine Spatial Planning: A Step-by-Step Approach toward Ecosystem-Based Management*, Intergovernmental Oceanographic Commission and Man and the Biosphere Programme, IOC Manual and Guides No. 53, ICAM Dossier No. 6 (Paris: UNESCO, 2009).

Commission, Wildlife Resources Commission, Department Environment and Natural Resources), North Carolina is well positioned to be a significant partner in this process.

Why Now? Why North Carolina?

While environmentalists and scientists have long pushed for more spatial planning to protect ecologically important habitat, it is the emergence of new ocean industries and the expansion of more traditional industries that has driven a new desire among ocean users to formally develop marine spatial planning as a coastal and ocean management tool. Emerging industries such as aquaculture, renewable ocean energy industries, and wind farms are finding it difficult to secure areas where they can operate in state and federal waters. Oil and gas

extraction, mineral and sand mining, and commercial fishing have also increasingly come into conflict as market and regulatory forces push them to use new areas or operate in increasingly restricted parts of the U.S. ocean and coastal waters.

These same pressures are at work in North Carolina. New proposals for offshore energy, a growing tourism and recreation industry (including boating, beach-going, diving, and wildlife viewing), proposed aquaculture, and existing commercial fishing, mining, and military use of airspace and waters compete for space within North Carolina's state and nearby federal waters. Governor Perdue's recent executive order establishing a Scientific Advisory Panel on Offshore Energy and the North Carolina General Assembly's establishment of the Legislative Research Commission Advisory Subcommittee on Offshore Energy Exploration together point the way for the need to think increasingly about how to plan for the spatial requirements of new energy opportunities in North Carolina.

North Carolina depends on a well-managed coast and ocean. In North Carolina, ocean uses cannot be easily separated from coastal and watershed activities. Because more than 20% of the state is low-lying, sea-level rise also is likely to dominate the way the state plans for future coastal uses. Many coastal economies depend on fishing, boating, and ports. The U.S. military also is an important ocean user in North Carolina. Addressing these factors and developing policy that plans for the spatial needs of North Carolina's ocean stakeholders would put North Carolina at the forefront of marine spatial planning. North Carolina has an opportunity to work with neighboring states and the federal government to lead the nation in marine spatial planning and management.

Principles for Marine Spatial Planning: Massachusetts Ocean Management Plan

Goals and Time Horizon

- 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.

Economics and Human Uses

- Support the infrastructure necessary to sustain the economy and quality of life for the citizens of the Commonwealth.
- Reflect the importance of the waters of the Commonwealth to its citizens who derive livelihoods and recreational benefits from fishing.
- Foster sustainable uses that capitalize on economic opportunity without significant detriment to the ecology or natural beauty of the ocean.

Stakeholder Participation

- Encourage public participation in decision making.

Adaptation and Flexibility

- Adapt to evolving knowledge and understanding of the ocean environment.

Regulation

- Coordinate uses that include international, federal, state, and local jurisdictions.
- Adhere to sound management practices, taking into account the existing natural, social, cultural, historic, and economic characteristics of the planning areas.
- Identify appropriate locations and performance standards for activities, uses, and facilities allowed under the Oceans Sanctuaries Act.

Ecosystem

- Value biodiversity and ecosystem health.
- Identify and protect special, sensitive, or unique estuarine and marine life and habitats.
- Preserve and enhance public access.
- Respect the interdependence of ecosystems.
- Address climate change and sea-level rise.

Public Trust

- Preserve and protect the public trust.

Resources

NOAA: <http://www.msp.noaa.gov/>

UNESCO: <http://www.unesco-ioc-marinesp.be/>

MA Ocean Management Initiative: <http://www.mass.gov/czm/oceanmanagement/>

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The **Nicholas Institute for Environmental Policy Solutions** at Duke University is a nonpartisan institute founded in 2005 to engage with decision makers in government, the private sector, and the nonprofit community to develop innovative proposals that address critical environmental challenges. The Institute seeks to act as an "honest broker" in policy debates by fostering open, ongoing dialogue between stakeholders on all sides of the issues and by providing decision makers with timely and trustworthy policy-relevant analysis based on academic research. The Institute, working in conjunction with the Nicholas School of the Environment, leverages the broad expertise of Duke University as well as public and private partners nationwide.
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