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THE EXECUTIVE ORDER FOR A NATIONAL POLICY FOR THE STEWARDSHIP OF THE OCEANS, OUR COASTS AND THE GREAT LAKES
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INTRODUCTION

Chairman Hastings, Ranking Member Markey, and Committee Members, my name is Jane Lubchenco and I am the Under Secretary of Commerce for Oceans and Atmosphere and the Administrator of the Department of Commerce's National Oceanic and Atmospheric Administration (NOAA). Thank you for the opportunity to testify before you today on the *National Ocean Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes*.

I appreciate the Committee's interest in this topic, which is important to NOAA as the Nation's civilian ocean agency. Work to develop a coordinated and efficient national ocean policy began over a decade ago, with the passage of the Oceans Act of 2000. That legislation resulted in a 2004 report of the congressionally mandated U.S. Commission on Ocean Policy (Commission), which was chaired by Admiral James Watkins (U.S. Navy, Retired) and comprised of others appointed by the Bush Administration. The Commission emphasized the need for a stronger ocean policy and an improved ocean and coastal governance structure.

NOAA was a member of the Interagency Ocean Policy Task Force established by President Obama in 2009. The Task Force received briefings from members of the U.S. Commission on Ocean Policy and conducted six listening sessions across the country to hear what constituents thought would be helpful to them and specifically what they wanted from us in a new Ocean Policy. Whether in Hawaii, Rhode Island or the Gulf Coast, it was clear from these sessions that the Federal Government needed to get its house in order and address the management of our ocean, coasts and Great Lakes in a more comprehensive, coordinated and efficient manner. The Task Force also conducted thirty-eight expert roundtable discussions with representatives from various sectors, including industry, academia, states, tribes, nongovernmental organizations, and local governments. Further, there were two public comment periods on draft recommendations. Coordinating with other federal agencies, NOAA was a key participant in each of the stakeholder engagement sessions, and helped to ensure the National Ocean Policy reflected the input received from communities, organizations, and individuals from around the country.

The responsibility that comes from the "O" in NOAA has my agency squarely at the forefront of most policies affecting the ocean. But there are several additional federal agencies and Departments that also have equities in the ocean, coasts and Great Lakes as part of their mission or mandate. Historically, coordination among the federal agencies, although well intentioned,

has been cursory, with sustained coordination across all relevant agencies a challenge. Today that coordination has been greatly enhanced through the National Ocean Council. NOAA sits at the table with departments and agencies that have not traditionally been in close coordination on ocean issues, such as the Departments of Homeland Security, Transportation, and Agriculture. NOAA is now able to collaborate more effectively with these and many other federal entities toward the shared goal of a healthy, productive, and secure ocean. Through the National Ocean Council, diverse agencies are becoming more harmonized across the Federal Government as we work to improve scientific understanding of ecosystems, share data, and coordinate policy setting and decision making. This collaborative approach is working.

NOAA is a strong proponent of receiving advice from external organizations regarding the effective implementation of the Policy. To assist the federal agencies with ocean policy issues and to foster interagency collaboration, the National Ocean Council created a Governance Coordinating Committee in February 2011. NOAA greatly appreciates the perspectives provided by this eighteen-member committee, which consists of representatives from states, federally recognized tribes, and local governments and serves as a key coordinating body on ocean policy issues which cross jurisdictional boundaries. The National Ocean Policy also identifies the Ocean Research Advisory Panel, a key science advisory body created in the 1998 Defense Authorization Act (PL 105-85), to provide independent advice and guidance to the National Ocean Council through its membership. NOAA greatly values the advice of this panel, which consists of representatives from industry, academia, marine science and policy, and the National Academies.

The Governance Coordinating Committee provides a valuable mechanism for federal agencies to collaborate with local, state and tribal governments. Each has complementary responsibilities, but mechanisms to coordinate planning are few. One widely appreciated benefit of that collaboration lies in the opportunity to plan jointly for future activities in the ocean and coastal areas. Our coastal and offshore environments are becoming increasingly crowded, with a growing number of sometimes competing uses and activities, including recreational and commercial fishing, traditional and renewable energy, shipping, dredging, habitat conservation, cultural and resource protection, and defense uses. The current sector-by-sector, issue by issue, agency-by-agency approach often leads to lack of predictability, constant conflicts, wasted resources, frustration, and degraded oceans.

The National Ocean Policy includes an alternate approach, based on the considerable input the Task Force received. To facilitate a thoughtful, inclusive approach to harmonizing uses and minimizing adverse environmental impact, a planning process called Coastal and Marine Spatial Planning would replace the stove-piped, reactive, and suboptimal approach now in place. This planning process does not override or replace any existing regulations. But, it will compile relevant uses, data and information needed for smart planning. A number of states have already used similar planning processes, for example to further energy production in their coastal waters while minimizing conflicts with other users. Importantly, the planning process is designed to empower coastal communities to shape the future of their regional oceans and its uses. Each region will define its goals and make its planning decisions.

Through NOAA's regional offices, we are excited to partner with federal, state, tribal, regional fishery entities, industry, and other regional interests to help design comprehensive marine plans

that are regionally based and reflect the unique characteristics and needs of each area. With approximately 70% of its employees based outside the Beltway, NOAA stands ready to partner with the various interests who will sit together at the table.

At NOAA we appreciate that when it comes to making decisions about ocean issues, one approach does not fit all places. For that reason, our immediate focus is working with industry and our federal, state, tribal and local counterparts to understand what information is needed for better decision making, and then to organize and integrate the relevant data and information. For example, NOAA supported the regional Governor partnerships, the Northeast Regional Ocean Council and the Mid-Atlantic Regional Council on the Ocean, in their creation of regional data portals as a mechanism to integrate and provide access to information needed for decision making in these regions.

At NOAA, we have seen the National Ocean Policy inspire the federal government to work together more efficiently and effectively, and provide a powerful way for local government and communities to participate in charting their future. This approach will also provide greater certainty for investments.

My testimony focuses on four ways in which NOAA sees benefits to Americans through the National Ocean Policy: (1) contributing to a healthy economy; (2) promoting efficiency and certainty for decision-making; (3) providing data and information; and (4) inspiring partnerships.

CONTRIBUTING TO A HEALTHY ECONOMY

I want to underscore the importance of healthy oceans for a healthy economy. Americans across the country and from many different perspectives share common desires when it comes to the ocean and coasts. We want good, sustainable jobs, clean beaches, and safe healthy seafood. We want sustainable fisheries, abundant marine wildlife, and vibrant coastal communities. Americans also want clean energy, a secure Nation, and protection from natural disasters. Most of these depend on a healthy ocean. To continue to reap the benefits of oceans, we must keep them healthy or restore them to health.

The ocean, coasts, and Great Lakes play a crucial role in every American's life. Coastal counties are currently home to over half of America's total population, and they generate almost sixty percent of our Gross Domestic Product. Coastal regions also provide enormous environmental benefits. Shallow coastal wetlands provide a buffer against coastal storms, protecting almost 5,000 miles of coastline from the effects of hurricanes and preventing more than $20 billion of property loss every year. The importance of this protection was clearly demonstrated in 2005 when Hurricane Katrina caused over $100 billion of damage in the Gulf of Mexico region. Much of that damage occurred in Louisiana, which has lost a quarter of its wetlands from 1932-2010 and continues to lose them at the rate of about a football field every hour from 1985-2010.[1]

Wetlands, mangroves, salt marshes, kelp forests, and coral reefs serve as nursery grounds for many species of marine animals including commercially and recreationally important fish and shellfish species. Estuaries and bays filter nutrients flowing from the land to the sea. For example here in the Chesapeake Bay, 16% of Northumberland County in Virginia is wetland. Healthy wetlands near developed and agricultural areas trap pollutants and excess nutrients in

[1] http://pubs.usgs.gov/sim/3164/downloads/SIM3164_Pamphlet.pdf.

surface runoff, keeping water bodies cleaner. This natural filtering helps prevent water use restrictions and beach and shellfish closures, and reduces the need for costly treatment systems. The ocean, coasts, and Great Lakes also hold great cultural and economic value, as demonstrated by the magnitude of people who visit them each year for vacation and recreation. In 2008, ocean-related businesses provided 30.9% of the total jobs in Worcester County, located on Maryland's coast.[2] This represents a 2% increase in ocean jobs since 2001. Nationwide, ocean and Great Lakes jobs represent double the number of jobs supported by agriculture.[3]

Restoring coastal habitat is a priority identified in the National Ocean Policy, one that brings significant benefit to local communities and economies. On September 27th, Acting Secretary of Commerce Rebecca Blank announced $102 million for three Louisiana projects in the Barataria and Terrebone basins to restore deteriorated wetlands and barrier island habitats along the state's coast.[4] These awards are funded by the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) program. Great Lakes Dredge & Dock and Weeks Marine have been contracted to restore beach, dune and marsh on Pelican Island in Plaquemines Parish, and West Belle Pass barrier headland in Lafourche Parish, respectively. This year, the State of Louisiana received the third award to rebuild marsh and construct an 11,000-foot long protective ridge in the Bayou Dupont area in Jefferson Parish. The three projects employ local citizens and generate further economic benefits for local businesses and coastal communities. In addition to supporting the economy, CWPPRA is a model of interagency cooperation. Five federal agencies sponsor projects under the program, and federal agencies and the State work together to review and prioritize projects. NOAA has played a leadership role in the program since its inception, sponsoring 28 projects for $240 million and restoring 8,400 acres. Because of the National Ocean Policy, partnerships such as this are easier and more productive.

The National Ocean Policy also calls for enhancing water quality in the ocean, along the coasts, and in the Great Lakes, another priority that brings multiple economic benefits to coastal communities. Clean and trash-free beaches and waters are more appealing to coastal visitors who support local economies, are the foundation of vibrant working waterfronts, and support the livelihoods of fishermen. Marine debris, including derelict fishing gear, hurts the bottom line of the 2.5 million working Americans whose jobs depend on healthy oceans.[5] In the Pacific Northwest, derelict crab pots are an economic liability. In Washington State's Puget Sound, an estimated 5,000 derelict pots capture and kill $1.2 million worth of Dungeness crab annually. The economic value conserved by removing these pots has been shown to exceed the cost of removal by more than 25%. The fishing industry has demonstrated strong leadership in addressing this problem in many areas around the country. For example, this past August I joined fishermen to inaugurate a new partnership to remove derelict crab pots and other marine debris in Oregon's coastal waters. The ceremony marked the successful culmination of the Oregon Fishing Industry Partnership to Restore Marine Habitat, initially funded with a $699,000 grant from the American Recovery and Reinvestment Act. The success of the Recovery Act project inspired a new industry-led partnership to continue the derelict crab pot removal effort. In addition to removing nearly 160 tons of debris including more than 3,000 derelict pots from

[2] http://www.csc.noaa.gov/snapshots/.
[3] http://www.csc.noaa.gov/snapshots/.
[4] http://www.commerce.gov/blog/2011/09/27/102-million-wetlands-and-barrier-island-restoration-awards-louisiana.
[5] http://www.csc.noaa.gov/digitalcoast/data/enow/index.html.

the marine environment, the project has created jobs and other economic benefits along the coast. To date, this project has supported approximately 10,000 hours of work for commercial fishermen, State employees, and other project partners in Oregon coastal communities, putting people to work during the crab fishery's off-season. This was a successful project not only because it cleaned up debris from the ocean floor, but because 96% of the crab pots recovered were returned to their owners to be reused and the rest recycled for metal. In addition, the lines and nets recovered were recycled for energy.

PROMOTING EFFICIENCY AND CERTAINTY FOR DECISION MAKING

The second benefit to increasing our coordination and collaboration on ocean issues is that it promotes efficiency and certainty for decision making that is valued by many coastal states. Trillions of dollars in economic value and millions of jobs directly depend on the ocean, coasts, and Great Lakes.[6] Through an open and transparent, science-based participatory process, industry and government and citizens can work together to evaluate broad categories of current and emerging ocean uses (such as renewable energy and aquaculture), and to consider how those uses might be most appropriately pursued.

For example, maintaining the Nation's energy security depends on an improved understanding of how energy operations fit in with other ocean uses so that we can continue to grow and expand the energy sector, while having the information to understand how each use individually and collectively affects the value of ecosystem services (such as food resources and protection from coastal storms). Renewable energy development creates jobs. Rhode Island recognized that its energy future could include an offshore wind renewable energy component, but that offshore wind power could not come at the expense of existing ocean users and their cultural heritage. The State of Rhode Island had previously received a substantial development proposal from a private energy company to site an offshore energy project incorporating both wind and wave technologies off the coast. The location proposed by the developer had not been vetted through any stakeholder or other strategic planning process. Although the proposal never was formalized in a permit application, it cost private developers, the public, interest groups, and regulators a significant amount of time and resources after it was later discovered that the location of the proposed facility had been sited in the center of the prime navigation channels for submarine activities associated with the Navy base in Groton, Connecticut.

To prevent further situations such as this, Rhode Island's solution was to develop what is called a Special Area Management Plan aimed at protecting existing uses such as fishing, transportation, and recreation, while helping to further a new use – offshore wind. The State worked closely with stakeholders across many sectors to ensure that all interests were considered when making decisions on where to site wind energy projects. Through this process Rhode Island has been able to maintain the economic prosperity of existing uses while providing a plan to promote certainty for new development that will ultimately save time and money and help create jobs. Earlier this year, NOAA approved the State's Ocean Special Area Management Plan under the federal Coastal Zone Management Act. This approval means that the policies in Rhode Island's plan to protect existing activities such as fishing, important habitats, and archaeological resources, as well as the areas identified for suitable for energy projects, may be applied to federal actions in federal waters.

[6] http://coastalsocioeconomics.noaa.gov/.

The Commonwealth of Massachusetts also realized the benefits to undertaking an ocean management planning process. In May 2008, Governor Deval Patrick signed the Oceans Act, requiring the Secretary of Energy and Environmental Affairs to develop a comprehensive ocean management plan. Through extensive stakeholder engagement, Massachusetts was able to determine the best approach to balance new and existing uses of the ocean. The Massachusetts plan has been completed and approved by NOAA for inclusion into the Commonwealth's coastal zone management plan. Other states around the country are looking to Rhode Island and Massachusetts as models in promoting efficiency and certainty for decision making, which are two important goals of the National Ocean Policy.

PROVIDING DATA AND INFORMATION

The third benefit of this new approach is its focus on providing data, information, and tools to the American people for sustainably managing oceans, coasts, and Great Lakes. Currently, we have had a disjointed information base with challenges in discovering and acquiring existing data; data sets not being consistent, comparable or continuous; and critical data sets not being readily available. The Policy emphasizes the need to integrate physical, biological, ecological, and socioeconomic information that will support effective and timely management of growing uses of ocean, coastal, and Great Lakes resources while balancing conservation objectives, and to make it readily available to the users. Providing access to data for transparent, science-based decision making will translate to businesses and stakeholders knowing what information regulators have, and being able to use it without having to spend time and money searching for it.

As a result, the Policy called for a "one stop shop" to encourage easy discovery and access to the data and information needed to support marine planning efforts - a robust Ocean.Data.gov. Today, when an industry proposes a coastal or ocean activity, the information needed to obtain permits or to determine the most suitable placement is often hard to find or fragmented. Ocean.Data.gov is designed to provide streamlined access to the full suite of data needed for transparent and science-based decision making, including data and decision support tools with integrated data sets, and connect to a network of national and regional portals for key data and decision-support tools. Both the Northeast Regional Ocean Council and the Mid-Atlantic Regional Council on the Ocean have created regional data portals as a mechanism to integrate and provide easy access and transparency for data and information needed for decision making in these regions. Ocean.Data.gov will connect to these existing and future regional data efforts. Accessibility to this information translates to businesses and stakeholders knowing what information regulators have when they are making decisions and being able to use it so they don't have to make investments in collecting data that is already available.

We are already seeing that compiling data to populate Ocean.Data.gov is bringing federal agencies together. In fact, it is anticipated that a prototype of Ocean.Data.gov will be available in the coming weeks and will contain over 200 data sets from 10 federal agencies that include information on elevation, bathymetry, shoreline, living marine resources, jurisdictional boundaries, human uses, ocean observations, and socioeconomic data.

Another example of sharing data and tools I'd like to highlight is the Environmental Response Management Application or ERMA. ERMA is a powerful web-based GIS tool designed to assist

both emergency responders and environmental resource managers who deal with incidents that may adversely impact the environment. ERMA can display all types of data on a GIS platform – data from vessels, oil spill trajectories and observations, weather observations and forecasts, as well as shoreline, sediment, and water sample locations. ERMA also includes human use and human dimension data components to assist in response decision making. The Deepwater Horizon BP oil spill prompted ERMA's capacity to display oil spill and environmental data to be migrated from a response tool to a public resource. This tool was an essential resource for both responders and the public during the spill. ERMA helped facilitate information sharing among agencies to improve response decisions and also provided a venue for the public -- including impacted communities throughout the Gulf – to see the data. Building off of the work in the Gulf of Mexico, NOAA is working with federal, state, tribal and local partners to develop an ERMA for the Arctic. Through the development of an Arctic ERMA, NOAA can help support the spill response capacity of Coast Guard and industry first responders and other Arctic stakeholders, including coastal communities, Alaska Native villages, and the State of Alaska. It is NOAA's hope to bring this technology online sometime next year.

The Arctic is one of several regions that will need improved integration of ocean and coastal mapping efforts. The National Ocean Policy calls for strengthening and integrating federal and non-federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system. Since there are areas of the oceans and coasts that are not mapped to current standards, decision-makers do not always have the baseline data necessary for defining critical habitat areas, understanding existing and emerging ocean uses, assessing vulnerability to coastal change, managing marine resources, and identifying and mitigating threats to marine transportation. An essential part of the National Ocean Policy is the identification of priority gaps in mapping data and coordinating the acquisition and processing of these data. Facilitating use and re-use of our mapping data, and enabling the integration of these data and products will help enable science- and ecosystem-based management, provide high-quality data for modeling coastal hazards and sea level rise, and support safe marine transportation. NOAA will work with partners to develop a comprehensive, integrated inventory of ocean and coastal mapping data. The ocean and coastal mapping inventory is intended to link with the National Information Management System that I mentioned earlier, in order to provide NIMS users mapping products, such as digital elevation models, and an inventory of existing and planned framework geospatial data, such as bathymetry and elevation.

INSPIRING PARTNERSHIPS

The fourth and final benefit I highlight today is the Policy's emphasis on partnerships. Improved stewardship of the ocean, coasts, and Great Lakes cannot be achieved by NOAA or any other federal agency in isolation. The National Ocean Policy emphasizes the necessity of improving the coordination across federal agencies, and it also charges federal agencies to increase collaboration with our regional, state, local, and tribal partners. These partners similarly have an interest and need to better plan and manage resources that contribute to healthy ocean and coastal ecosystems and economies.

NOAA works closely with stakeholders at a regional, state and local level, and these partnerships will continue and expand as we undertake activities called for under the Policy. For example, regional fishery management councils currently play a major role in NOAA's ocean and coastal stewardship responsibilities. Together with NOAA, the regional fishery management councils

develop Fishery Management Plans that are required under the Magnuson-Stevens Fishery Management Act. The management plans reflect many of the same priorities identified in the Policy, such as science based decision making and ecosystem-based approaches to management. NOAA is working closely with the National Ocean Council to ensure the important role of our partners, such as the regional fishery management councils, is recognized and represented in the implementation of the National Ocean Policy and coastal and marine spatial planning.

Shifting the Stellwagen Bank Traffic Separation Lanes provides a concrete example of the benefits of how working together in a marine planning effort can achieve protection of marine resources while reducing conflict among uses. The Stellwagen Bank National Marine Sanctuary off the coast of Massachusetts is a critical seasonal feeding area for right, humpback, fin, and minke whales. It is also the area in which large commercial ships converge to enter the Port of Boston. Over 200 large commercial ships ply the waters of the Stellwagen Bank National Marine Sanctuary every month. Comprehensive planning enabled NOAA, the Coast Guard, and several other government agencies and stakeholders to partner and examine shipping needs, proposed deepwater liquefied natural gas port locations, and endangered whale distribution. This led to a successful reconfiguration of the Boston Traffic Separation Scheme (TSS) to reduce the risk of whale mortality from collisions with ships in the Stellwagen Bank National Marine Sanctuary. The TSS transit times increased by only 9 – 22 minutes (depending on vessel speed). Additionally, conflict with deepwater ports was eliminated and the new route decreased the overlap between ships using the TSS, commercial fishing vessels, and whale watch vessels, thereby increasing maritime safety. Current and future regional planning efforts around the country can similarly benefit by applying this integrated, multi-objective, multi-sector approach on a broader and sustained scale. The National Ocean Policy is designed to facilitate such efforts.

Researching and responding to changes in sea ice is another example where collaboration among National Ocean Council agencies and other partners is critical. NOAA joined the U.S. Army Corps of Engineers Cold Regions Research and Engineering Laboratory and other partners in issuing Arctic Reports Cards for 2010 and 2011, which showed summer sea ice extent well below 1990s levels with sea ice thinning, older sea ice disappearing, and ocean temperatures warming. In addition, NOAA's National Environmental, Satellite, Data, and Information Service partners with the Navy and Coast Guard to maintain the National Ice Center in Suitland, Maryland. The National Ice Center provides operational analyses and forecasts of sea ice conditions and hazards in the Arctic and collaborates with NOAA's National Weather Service sea ice desk to provide Alaska products five days a week. NOAA also supports the National Snow and Ice Data Center, along with the National Aeronautics and Space Administration and the National Science Foundation, within the Cooperative Institute for Research in Environmental Sciences at the University of Colorado, where a vast array of Arctic data are stewarded and made available to both academic and public users. NOAA also conducts cooperative studies with the Department of the Interior's Bureau of Ocean Energy Management on bowhead whales. NOAA recognizes that a strategic approach leveraging our strengths and those of our sister agencies with Arctic-relevant missions is essential if the United States is to take advantage of emerging economic opportunities there without causing irreparable harm to the region and its inhabitants.

Another example of NOAA working with industry, federal, state and nongovernmental organizations is the Jockey's Ridge Living Shoreline and Oyster Reef Restoration Project in

North Carolina. Facilitated through the National Fish Habitat Action Plan, NOAA helped to construct a low-profile breakwater sill that will develop into oyster reefs and planted native grasses to reduce shoreline erosion and enhance the habitat for seabirds, fish, crustaceans, oysters and other mollusks. Such local seafood is a draw for tourists visiting North Carolina's coast. The National Fish Habitat Action Plan initiative supports the National Ocean Policy's call for implementing an integrated ecosystem protection and restoration strategy because it is not only science-based, but also because it is efficient in that it aligns conservation and restoration goals at the federal, state, tribal, local and regional levels.

CONCLUSION

I am both excited and honored that NOAA is an active participant in the President's National Ocean Policy, as we have a valuable range of scientific capabilities as well as policy and management expertise to contribute to this initiative of great national importance. But I am just as excited by the partnership this Policy enables across the federal government and with states, tribes, industries, and most importantly citizens and coastal communities.

As my examples demonstrated, our cross-agency and regional efforts are contributing to a healthy economy, promoting efficiency and certainty for decision-making, providing data and information, and inspiring partnerships. Together, we will continue to work to deliver these benefits more efficiently and effectively, saving the American people, the states, ocean users, and businesses time and money. There is a great deal of work to be done, and NOAA, in collaboration with our partners, is committed to strengthening science and stewardship, and providing the information, products, and services needed by our stakeholders.

I'd like to thank the Committee for this opportunity to testify and look forward to working with you on this important issue, as I believe implementation of the National Ocean Policy is critical for the country and the coastal economies that rely on healthy and sustainable ocean and coastal resources.