THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

Interim Report

Of The

Interagency Ocean Policy Task Force

September 10, 2009

EXECUTIVE SUMMARY

I. Introduction

On June 12, 2009, you issued a Memorandum to the Heads of Executive Departments and Agencies in which you stated: *"In order to better meet our Nation's stewardship responsibilities for the oceans, coasts, and Great Lakes, there is established an Interagency Ocean Policy Task Force, to be led by the Chair of the Council on Environmental Quality."* That Presidential memo charged the Task Force as follows:

1. Within 90 days from the date of this memorandum, the Task Force shall develop recommendations that include:

    a. A national policy that ensures the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhances the sustainability of ocean and coastal economies, preserves our maritime heritage, provides for adaptive management to enhance our understanding of and capacity to respond to climate change, and is coordinated with our national security and foreign policy interests. The recommendation should prioritize upholding our stewardship responsibilities and ensuring accountability for all of our actions affecting ocean, coastal, and Great Lakes resources, and be consistent with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

    b. A United States framework for policy coordination of efforts to improve stewardship of the oceans, our coasts, and the Great Lakes. The Task Force should review the Federal Government's existing policy coordination framework to ensure integration and collaboration across jurisdictional lines in meeting the objectives of a national policy for the oceans, our coasts and the Great Lakes. This will include coordination with the work of the National Security Council and Homeland Security Council as they formulate and coordinate policy involving national and homeland security, including maritime security. The framework should also address specific recommendations to improve coordination and collaboration among Federal, State, tribal and local authorities, including regional governance structures.

    c. An implementation strategy that identifies and prioritizes a set of objectives the United States should pursue to meet the objectives of a national policy for the oceans, our coasts, and the Great Lakes.

2. Within 180 days from the date of this memorandum, the Task Force shall develop, with appropriate public input, a recommended framework for effective coastal and marine spatial planning. This framework should be a comprehensive, integrated, ecosystem-based approach that addresses conservation, economic activity, user conflict, and sustainable use of ocean, coastal, and Great Lakes resources consistent with international law, including customary international law as reflected in the 1982 United Nations Convention on the Law of the Sea.

II. Structure and Operation of the Task Force

The Task Force is comprised of 24 senior policy-level officials from executive departments, agencies, and offices across the Federal Government, and is chaired by the Chair of the Council on Environmental Quality (CEQ). (Task Force membership list attached.) The Task Force established a Working Committee comprised of senior officials from these executive departments and agencies. The Working Committee's role was to develop initial suggestions based on the guidance and direction it received from the Task Force. To focus its work, the Committee established four subgroups: Policy, Coordination Framework, Implementation Strategy, and Public Engagement.[1]

The Task Force first met on June 22, 2009, and has convened an additional four times through September 10. Task Force meetings were devoted to learning more about the relevant issues, discussing outstanding matters and options, and providing additional guidance and direction to the Working Committee. In preparing this interim report, the Task Force, Working Committee, and subgroups discussed key issues with a variety of knowledgeable sources, including Federal, State, tribal, and regional representatives, scientists, legal and policy experts, and the public. The Task Force also reviewed reports from two ocean prominent bodies, the U.S. Commission on Ocean Policy (2004) and the Pew Oceans Commission (2003). In doing so, however, it recognized the significant environmental changes and scientific and legislative advances that have taken place since those Commissions completed their reports.

The interim report has been coordinated with our national security and foreign policy interests and reflects a careful balancing of stewardship with these long-standing and well-established interests.

III. Public Engagement

The Task Force initiated a public engagement process throughout the first 90-day period to receive input for consideration as it developed this interim report. This builds on the comprehensive reports of the U.S. Commission on Ocean Policy and the Pew Oceans Commission, which were based on significant scientific, public, and stakeholder input. CEQ, on behalf of the Task Force, organized and hosted twenty-four expert roundtables to hear from a broad range of stakeholders and interest groups. The roundtables included representatives from sectors including energy, conservation, fishing, transportation, agriculture, human health, State, tribal, and local governments, ports, recreational boating, business, and national and homeland security. Several Task Force or Working Committee members attended each roundtable.

[1] A fifth subgroup on Coastal and Marine Spatial Planning has also been established for the development of the recommended framework for coastal and marine spatial planning.

There was robust participation, and the Task Force received many valuable comments and perspectives for its consideration during each session. The Task Force will host additional roundtables during the next 90 days as it develops a possible framework for coastal and marine spatial planning.

On behalf of the Task Force, CEQ also set up a website to accept public comments. To date, the Task Force has received over five-hundred comments from a range of affected parties, including academia, citizens, commercial interests, non-governmental organizations, and States, tribes, and regional governance structures. Many of the groups commenting represent constituencies of hundreds or thousands of members.

Additionally, the Task Force will host six regional public meetings. These meetings are scheduled to take place in the following cities: Anchorage, Alaska (held on August 21, 2009); San Francisco, California; Providence, Rhode Island; Cleveland, Ohio; New Orleans, Louisiana; and Honolulu, Hawaii. All but the first of these public meetings will be held during the second 90 days of the Task Force's work, which is focused on coastal and marine spatial planning. Consequently, the Task Force expects most of the input at these meetings to be focused on that topic, although comments on the report will be welcome.

The public meetings, roundtables, and website showcased a strong desire and enthusiasm among participants for a National Policy that provides clarity and direction regarding how the Nation will better care for the ocean, our coasts, and the Great Lakes. A valuable and wide diversity of interests were represented, and several key themes emerged. While not exhaustive, these include:

- Support for adopting ecosystem-based management as a guiding principle, acknowledging regional differences, and practicing adaptive management;
- Support for embracing science-based decision-making and investing in ecosystem-based science, research, and ocean observations, including comprehensive research on the linkages among ecosystem health, human health, economic opportunity, national and homeland security, social justice, and environmental change, including climate change;
- Desire for improved coordination and collaboration across Federal, State, tribal, and local governments, and regional governance structures, and for improved transparency and public participation, while avoiding new layers of bureaucracy and unnecessary costs;
- Support for improving both formal and informal education about the ocean, our coasts, and the Great Lakes;
- Support for ensuring that policies are adequately funded; and

- Support for joining the 1982 United Nations Convention on the Law of the Sea (the Law of the Sea Convention).

The Task Force's deliberations benefitted from this input as it developed its report. To complement these efforts, and to be responsive to numerous requests, the Task Force strongly endorses issuing this interim report for 30 days of public comment. This would allow for additional public engagement to help you and your Administration make a more informed decision on what actions to take in response to these suggestions.

IV. Interim Report of the Task Force

In developing its interim report, the Task Force reviewed a number of Federal, State, and foreign policies and models, past and pending legislation, the recommendations contained in the two earlier Ocean Commissions' reports, and public comments. The following brief synopsis provides an overview of the suggested National Policy, Policy Coordination Framework, and Implementation Strategy.

Suggested National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes

The Task Force believes that the policy should contain the following elements:

1. A vision of what a National Policy should achieve for the ocean, our coasts, and the Great Lakes;
2. A brief context section describing the value of these important areas, the various issues confronting them, and the urgency to take effective action;
3. The statement of our National Policy; and
4. A set of overarching guiding principles for United States management decisions and actions affecting the ocean, our coasts, and the Great Lakes.

The suggested *National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes* would provide a comprehensive national approach to uphold our stewardship responsibilities; ensure accountability for our actions; and serve as a model of balanced, productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. The National Policy recognizes that America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically and intimately linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental change, social justice, foreign policy, and national and homeland security.

Policy Coordination Framework to Improve the Stewardship of the Ocean, Our Coasts, and the Great Lakes

The Task Force reviewed the existing coordination framework, with a particular focus on the existing Committee on Ocean Policy (COP), established by Executive Order 13366 in 2004. The COP has been moderately effective in establishing forums for bringing Federal agencies together to coordinate on ocean-related matters. However, numerous parties from both within and outside the structure have strongly suggested to the Task Force that the design could be improved. Key themes for improvement included:

- The need for a strong, clear, overarching policy mandate and the setting of national ocean priorities;
- The need for high-level direction and policy guidance from a clearly designated and identifiable authority;
- The need for more consistent and sustained senior-level participation and attention on ocean-related issues from all member agencies and departments;
- The advantages of stronger linkages between management and science;
- The need for an improved, clear structure for ongoing and active engagement with State, tribal, and local authorities, and regional governance structures to address relevant issues; and
- The need for improved coordination with other Executive branch policy committees.

The Task Force recognized that various options could be pursued. After careful and deliberate consideration of various models, the Task Force suggests a combination of modifications to the structure of the existing COP, a stronger mandate and direction, and renewed and sustained high-level engagement. The Task Force is confident that this combination of improvements provides a framework for more successful policy coordination to improve the stewardship of the ocean, our coasts, and the Great Lakes. Subject to later refinements, the Task Force suggests the following:

- Consolidating and strengthening the Principal- and Deputies-level components within a single National Ocean Council (NOC) structure;
- Strengthening the decision-making and dispute-resolution processes by defining clear roles for the NOC, and the NOC leadership;
- Creating a Governance Advisory Committee to formally engage with State, tribal and local authorities, and regional governance structures;
- Strengthening the link between science and management by creating an integrated Steering Committee of the NOC; and

- Strengthening coordination between the NOC, the National Security Council, the National Economic Council, the Office of Energy and Climate Change, the Council on Environmental Quality, the Office of Science and Technology Policy, the Office of Management and Budget, and other White House entities.

Implementation Strategy

The Task Force considered a number of options for outlining initial strategies to implement the National Policy. There was an array of views on this strategy among Task Force members, stakeholders, and the public, ranging from developing a very detailed action plan to providing for more general categories from which detailed plans would develop over time. The Task Force recognized that within a 90-day timeframe there were limits to what could or should be accomplished and noted that it was directed to suggest a strategy as opposed to a plan. However, the Task Force felt strongly that regardless of the level of specificity of these priority objectives, actions to implement them must, at a minimum, have clear direction, measurable goals and outcomes, and timeframes for completion. The interim report seeks to also ensure coordination and collaboration with State, tribal and local authorities, and regional government structures, as appropriate.

The Task Force's suggested implementation strategy identifies the following nine priority objectives that our Nation should pursue to implement the National Policy.

- **Ecosystem-Based Management:** Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

- **Coastal and Marine Spatial Planning:** Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.

- **Inform Decisions and Improve Understanding:** Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate through formal and informal programs the public about the ocean, our coasts, and the Great Lakes.

- **Coordinate and Support:** Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government, and as appropriate, engage with the international community.

- **Resiliency and Adaptation to Climate Change and Ocean Acidification:** Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.

- **Regional Ecosystem Protection and Restoration:** Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.

- **Water Quality and Sustainable Practices on Land:** Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.

- **Changing Conditions in the Arctic:** Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.

- **Ocean, Coastal, and Great Lakes Observations and Infrastructure:** Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, and data collection platforms into a national system and integrate that system into international observation efforts.

These priority objectives provide a bridge between policy and specific actions, but do not prescribe in detail how individual entities will undertake their responsibilities. Instead, the NOC would develop strategic action plans for each of the priority objectives, focusing on key areas identified by the Task Force. This would allow adequate time to fully consider the necessary details for implementation, and, as appropriate, to coordinate with States, tribal, and local authorities, regional governance structures, academic institutions, non-governmental organizations, and private enterprise.

Conclusion

The Task Force is pleased to submit this interim report and fulfill the first part of its charge. Having considered a broad range of public comments, this report reflects the requests and concerns of all interested parties. Though the main focus of the Task Force now turns to developing a framework for coastal and marine spatial planning, due to the President by December 9, 2009, the Task Force anticipates that this interim report will continue to be refined as the Task Force receives further thoughtful input from stakeholders. With this continued public participation, the Task Force will be able to provide the President with the best possible final set of recommendations.

PROPOSED NATIONAL POLICY FOR THE STEWARDSHIP OF THE OCEAN, OUR COASTS, AND THE GREAT LAKES

I. Vision

An America whose stewardship ensures that the ocean, our coasts, and the Great Lakes are healthy and resilient, safe and productive, and understood and treasured so as to promote the well-being, prosperity, and security of present and future generations.

II. National Policy Context

The Value of the Ocean, Our Coasts, and the Great Lakes

America is intricately connected to and directly reliant on the ocean, our coasts, and the Great Lakes. Each of us – whether living and working in the country's heartland or along its coasts – affects and is affected by these places. Their beauty inspires us, and their bounty contributes to our national well-being and security. Nearly half of our population is located in coastal counties. Our rich and productive coastal regions and waters account for the great majority of the national economy, totaling trillions of dollars each year, and support distant communities that may not even be aware of the connection between the land and sea. Millions of visitors enjoy our Nation's seashores each year, contributing not only to the economy, but also to personal and communal satisfaction and fulfillment. The sea is both a refuge for spiritual reflection and a powerhouse of excitement for educating students of all ages and interests.

With over 95,000 miles of coastline and the largest exclusive economic zone in the world, our Nation benefits from a wealth of goods and services derived from the ocean, our coasts, and the Great Lakes. They provide food, fresh water, minerals, energy, and other natural resources and ecological benefits. They support tens of millions of jobs, and are a source of recreation. They also play a critical role in our Nation's transportation, economy, and trade, as well as in the global mobility and readiness of our Armed Forces and the maintenance of international peace and security.

The ocean supports human health and well-being in myriad ways, including as a source of healthy foods, pharmaceuticals, and other beneficial compounds. The ocean is a source of existing energy and offers numerous opportunities for renewable energy, which can help to secure our energy independence and mitigate climate change.

The ocean and Great Lakes exert significant influence over how our planet functions. Covering over 70 percent of the Earth, the ocean plays a primary role in our planet's environment and natural operations, including weather and climate. The ocean's ability to absorb and store heat from the atmosphere and transport it to other parts of the globe keeps daily temperatures within a livable range. The Great Lakes are the largest freshwater system on Earth, with 10,000 miles of shoreline and some 95 percent of the Nation's fresh surface water. While we commonly refer to different oceans (Atlantic, Pacific, Arctic, etc.), it is important to recognize that all of these bodies of water are connected and influenced by each other. These linkages require our Nation to recognize that we benefit from and affect one global ocean.

The ocean shapes and sustains all life on Earth. We are dependent on the ocean for the air we breathe, the food we eat, and the water we drink. Though we may not think about it, processes on land and in the water, including biological processes, are intricately linked so that changes in one can have profound effects on the other. The ocean is both the beginning and the end of the Earth's water cycle. Water that evaporates from the surface of the ocean becomes rain that falls on our fields and fills our aquifers. Much of this precipitation eventually finds rivers which flow back to the sea, starting the cycle once more. Half of the oxygen we breathe comes from microscopic plants living in the ocean. Coastal barrier islands, coral reefs, mangroves, and wetlands serve as buffers between coastal communities and damaging floods and storms. Coastal wetlands are a nursery for many recreational and commercial fish species, provide essential habitat for many migratory birds and mammals, and serve as a natural filter helping to keep our waters clean. Ocean and coastal ecosystems absorb and detoxify many pollutants, recycle nutrients, and help control pests and pathogens. Marine ecosystems house biological diversity exceeding that found in the world's rain forests.

Challenges Facing the Ocean, Our Coasts, and the Great Lakes

The importance of ocean, coastal, and Great Lakes ecosystems cannot be overstated; simply put, we need them to survive. It is clear that these invaluable and life-sustaining assets are vulnerable to human activities and, at the same time, human communities are rendered more vulnerable when these resources are degraded. Yet, ocean, coastal, and Great Lakes ecosystems are experiencing an unprecedented rate of change due to human activities. We are only now beginning to understand the full extent of the direct and indirect consequences of our actions on these systems.

Climate change is impacting the ocean, our coasts, and the Great Lakes. Increasing water temperatures are altering habitats, migratory patterns, and ecosystem structure and function. Coastal communities are

facing sea-level rise, inundation, increased threats from storms, erosion, and significant loss of coastal wetlands. The ocean's ability to absorb carbon dioxide from the atmosphere buffers the impacts of climate change, but also causes the ocean to become more acidic, threatening not only the survival of individual species of marine life, but also entire marine ecosystems. The ocean buffers increased global temperatures by absorbing heat, but increasing temperatures are causing sea levels to rise by expanding seawater volume and melting land-based ice. Increased temperatures may eventually reduce the ocean's ability to absorb carbon dioxide. Conversely, climate change is predicted to lower the water levels of the Great Lakes, thereby altering water cycles, habitats, and economic uses of the lakes.

Along many areas of our coasts and within the Great Lakes, biological diversity is in decline due to overfishing, introduction of invasive species, and loss and degradation of essential habitats from coastal development and associated human activities. The introduction of non-native species can carry significant ecological and economic costs. Human and marine ecosystem health are threatened by a range of challenges, including increased levels of exposure to toxins from harmful algal blooms and other sources, and greater contact with infectious agents. Areas in numerous bays, estuaries, gulfs, and the Great Lakes are now consistently low in or lacking oxygen, creating dead zones along our bays and coasts. Unsustainable fishing (e.g., overfishing) remains a serious concern with consequences for marine ecosystems and human communities. In the Arctic, environmental changes are revealing the vulnerability of its ecosystems. These changes are increasing stressors and impacts on the ecosystems, people, and communities in the region, and are presenting new domestic and international management challenges.

Many of these concerns are attributable not only to activities within marine and Great Lakes ecosystems, but also to actions that take place in our Nation's interior. For example, our industries, agricultural and transportation operations, cities, and suburbs generate various forms of pollution. Industrial operations emit pollutants, such as nitrogen and mercury, into the atmosphere that often find their way into the ocean and Great Lakes. Rain washes residues, chemicals, and oily runoff from our roadways into our estuaries and coastal waters. Heavy rainfall events can wash sediment, pesticides, and nutrients from our fields, lawns, and agricultural operations into our waters. Urban and suburban development, including the construction of roads, highways, and other infrastructure, as well as modification to rivers and streams, can adversely affect the habitats of aquatic and terrestrial species.

Demands on the ocean, our coasts, and the Great Lakes are intensifying, spurred by population growth, migration to coastal areas, and economic activities. Energy development, shipping, aquaculture, and emerging security requirements are examples of new or expanding uses expected to place increasing

demands on our ocean, coastal, and Great Lakes ecosystems. As these demands increase, we must also preserve the abundant and sustainable marine resources and healthy ecosystems that are critical to the well-being and continued prosperity of our Nation.

The State of the National Framework for Policy Coordination

The challenges we face in stewardship of the ocean, our coasts, and the Great Lakes lie not only within the ecosystems themselves, but also in the laws, authorities, and governance structures intended to manage our use and conservation of them. United States governance and management of these areas span hundreds of domestic policies, laws, and regulations covering international, Federal, State, tribal, and local interests. These issues range from stewardship and resource use, to maritime safety and commerce, national security, water quality, ports and other transportation infrastructure, and energy. Challenges and gaps arise from the complexity and structure of this regime.

These challenges are not limited to our domestic governance and management regimes. Our Nation, as a major maritime power and coastal State, has a large stake in the development and interpretation of international law and policy applicable to the ocean, our coasts, and the Great Lakes. Our national security interests are tightly linked to navigational rights and freedoms, as well as to operational flexibility. Our national security and economic interests are also linked to our ability to secure U.S. sovereign rights over resources in extensive marine areas off our coasts, to promote and protect U.S. interests in the marine environment, and to ensure that our maritime interests are respected and considered internationally. The Administration's support for accession to the Law of the Sea Convention reflects several important objectives, including strengthening our Nation's ability to participate in and influence international law and policy related to the ocean.

Time to Act

The time has come for a national policy to uphold our stewardship responsibilities, ensure accountability for our actions, and serve as a model of balanced, productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. Today, as never before, we better comprehend the linkages among land, air, fresh water, ocean, ice, and human activities. We recognize that change is occurring rapidly and must be addressed. Advances in science and technology provide better and timelier information and understanding to guide decision-making. By applying the principles of ecosystem-based management (in which we integrate ecological, social, economic, commerce, health, and security goals, and recognize humans as key components of the ecosystem and healthy ecosystems as essential to human well-being) and adaptive management (whereby

we routinely assess management actions to allow for better informed and improved future decisions) in a coordinated and collaborative approach, the Nation can improve its response to environmental, social, economic, and security challenges. With a clear national policy and a revitalized, empowered, unifying, and comprehensive framework to coordinate efforts among Federal, State, tribal, and local authorities, including regional governance structures, non-governmental organizations, the private sector, and the public, we can work together toward the changes needed to secure the health and prosperity of the ocean, our coasts, and the Great Lakes.

III. Policy

America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically and intimately linked to environmental sustainability, human health and well-being, national prosperity, adaptation to climate and other environmental changes, social justice, international diplomacy, and national and homeland security. Therefore, it is the policy of the United States to:

1. Healthy and Resilient Ocean, Coasts, and Great Lakes
    - Protect, maintain, and restore the health and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources;
    - Improve the resiliency of ocean, coastal, and Great Lakes ecosystems, communities, and economies;
    - Bolster the conservation and sustainable uses of land in ways that will improve the health of ocean, coastal, and Great Lakes ecosystems; and
    - Use the best available science and knowledge to inform decisions affecting the ocean, our coasts, and the Great Lakes, and enhance humanity's capacity to understand, respond, and adapt to a changing global environment.

2. Safe and Productive Ocean, Coasts, and Great Lakes
    - Support sustainable, safe, secure, and productive uses of the ocean, our coasts, and the Great Lakes;
    - Respect and preserve our Nation's maritime heritage, including our social, cultural, and historical values; and
    - Exercise rights and jurisdiction and perform duties in accordance with applicable international law, including respect for and preservation of navigational rights and freedoms, which are essential for the global economy and international peace and security.

3. Understood and Treasured Ocean, Coasts, and Great Lakes

- Increase scientific understanding of ocean, coastal, and Great Lakes ecosystems as part of the global interconnected systems of air, land, ice, and water, including their relationships to humans and their activities;
- Improve our understanding and awareness of changing environmental conditions, trends, and their causes, and of human activities taking place in ocean, coastal, and Great Lakes waters; and
- Foster a public understanding of the value of the ocean, our coasts, and the Great Lakes to build a foundation for improved stewardship.

The United States will promote the objectives of this policy by:

- Ensuring a comprehensive and collaborative framework for the stewardship of the ocean, our coasts, and the Great Lakes that facilitates cohesive actions across the Federal Government, as well as participation of State, tribal, and local authorities, regional governance structures, non-governmental organizations, the public, and the private sector;
- Cooperating and exercising leadership at the international level, including by joining the Law of the Sea Convention; and
- Supporting ocean stewardship in a fiscally responsible manner.

IV. Principles

1. United States management decisions and actions affecting the ocean, our coasts, and the Great Lakes will be guided by the following stewardship principles to further this policy.
   a. As responsible environmental stewards we will protect, maintain, and restore the health, productivity, and resiliency of ocean, coastal, and Great Lakes ecosystems (including their waters and resources). Policies, programs, and activities of the United States should be managed and conducted in a manner that seeks to prevent or minimize adverse environmental impacts to the ocean, our coasts, and the Great Lakes ecosystems and resources, including cumulative impacts, and to ensure and improve their integrity. They should be managed and conducted in a manner that does not undermine efforts to protect, maintain, and restore healthy and biologically diverse ecosystems and the full range of services they provide;
   b. Decisions affecting the ocean, our coasts, and the Great Lakes should be informed by and consistent with the best available science. Decision-making will also be guided by a precautionary approach as reflected in the Rio Declaration of 1992 which states in pertinent part, "[w]here 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"; and

c. Actions taken to protect the ocean, our coasts, and the Great Lakes should endeavor to promote the principles that environmental damage should be avoided wherever practicable and that environmental costs should be internalized, taking into account the approach that those who cause environmental damage should generally bear the cost of that damage.

2. Human activities that may affect ocean, coastal, and Great Lakes ecosystems should be managed using ecosystem-based management and adaptive management, through an integrated framework that accounts for the interdependence of the land, air, water, ice, and the interconnectedness between human populations and these environments. Management should include monitoring and have the flexibility to adapt to evolving knowledge and understanding, changes in the global environment, and emerging uses.

3. Current and future uses of ocean, coastal, and Great Lakes ecosystems and resources should be managed and effectively balanced in a way that:
   a. maintains and enhances the environmental sustainability of multiple uses, including those that contribute to the economy, commerce, security, and human health;
   b. harmonizes competing and complementary uses effectively;
   c. integrates efforts to protect, maintain, and restore the health, productivity, and resiliency of ocean, coastal, and Great Lakes ecosystems and the services they provide; and
   d. recognizes environmental changes and impacts, including those associated with an increasingly ice-diminished Arctic, sea-level rise, and ocean acidification.

4. The United States should support disciplinary and interdisciplinary science, research, monitoring, modeling, forecasting, exploration, and assessment to continually improve understanding of ocean, coastal, and Great Lakes ecosystems. These efforts should include improving understanding of physical, biological, ecological, and chemical processes and changes, their interconnectedness with other parts of the Earth system, and with human populations, and the potential social and economic consequences of management decisions on the long-term health and well-being of the population, including human health and safety. This knowledge should be applied through ecosystem-based management and adaptive management. Information resulting from these efforts should be easily accessible to the public.

5. The United States should develop an improved awareness of changing environmental conditions and trends, and their causes, and of human activities that take place in the ocean, coastal, and Great Lakes environments.

6. United States policies, programs, and activities should enhance formal and informal education about the ocean, our coasts, and the Great Lakes and their uses to build a foundation for greater understanding and improved stewardship, and build capacity to produce future scientists, managers, and members of a dynamic and innovative workforce.

7. The United States should cooperate and provide leadership internationally in the protection, management, and sustainable use of the world's ocean, coastal regions, and the Great Lakes in keeping with applicable conventions and agreements, and with customary international law, as reflected in the Law of the Sea Convention.

8. United States programs, policies, and activities that may impact ocean, coastal, or Great Lakes ecosystems, or engage the use of their resources, should be designed to meet measurable benchmarks in support of clear goals and objectives related to stewardship of these ecosystems.
   a. These goals and objectives of programs and activities should be periodically reevaluated and their effectiveness assessed. This information should be used to adjust management priorities and guide future management and resource decisions; and
   b. The United States should develop appropriate standards and methods for measurement and assessment of parameters associated with the health of ocean, coastal and Great Lakes ecosystems.

9. United States policies, programs, and activities that may impact ocean, coastal, or Great Lakes ecosystems, or engage the use of their resources, should be assessed and conducted within an integrated and comprehensive interagency planning framework that:
   a. considers and addresses the full suite of impacts on resources, biological diversity, and ecosystems;
   b. is based on the best available scientific knowledge;
   c. considers and addresses potential use conflicts;

d. ensures and advances coordination and collaboration across Federal, State, tribal, and local jurisdictional lines, and with regional governance structures, the private sector, foreign governments, and international organizations, as appropriate;
e. is coordinated and promotes consistency with our homeland and national security and foreign policy interests;
f. is coordinated and promotes consistency with other national strategies that include environmental stewardship components relevant to the ocean, our coasts, and the Great Lakes;
g. considers and respects our Nation's maritime heritage, including our social, cultural, historical, and aesthetic values;
h. aims to maximize long-term net benefits to society by considering a range of reasonable alternatives that balance potential economic, environmental, public health and safety, and other advantages; distributive impacts; social justice and equity;
i. operates through an open and transparent approach that encourages broad public participation;
j. ensures consistency with management and budgetary goals and compliance with relevant legal requirements;
k. seeks to eliminate redundancy and encourage efficiencies and synergies; and
l. includes a reporting and accountability mechanism.

Implementing a number of the policy elements and principles directed above will require appropriate resources and assets. Departments and agencies shall work to identify future budgetary, administrative, regulatory, or legislative proposal requirements to implement these elements within the budgetary and management guidelines of the President's budget.

PROPOSED POLICY COORDINATION FRAMEWORK

The proposed policy coordination framework suggests a combination of modifications to the structure of the existing Committee on Ocean Policy, a stronger mandate and direction, and renewed and sustained high-level engagement. This combination of improvements provides a framework for more successful policy coordination to improve the stewardship of the ocean, our coasts, and the Great Lakes. The proposed policy coordination framework would provide a reinvigorated structure that would strengthen ocean governance and coordination by providing clear and visible leadership and sustained high-level engagement within the Federal Government. Additionally, the structure would provide for greater participation by, and coordination of, State, tribal, and local authorities, and regional governance structures. The linkage between management and science would be strengthened, as would coordination with other senior level entities on relevant economic, climate, and security matters. The Task Force is confident that this combination of improvements would enhance the stewardship of the ocean, our coasts, and the Great Lakes.

I. National Ocean Council

Structure

The National Ocean Council (NOC) would be a dual Principal - and Deputy- level committee. Membership of the NOC would include: the Secretaries of State, Defense, the Interior, Agriculture, Health and Human Services, Commerce, Labor, Transportation, Energy, and Homeland Security; the Attorney General; the Administrator of the Environmental Protection Agency; the Chair of the Council on Environmental Quality (CEQ); the Director of the Office of Management and Budget (OMB); the Administrator of the National Aeronautics and Space Administration; the Director of National Intelligence; the Director of the Office of Science and Technology Policy (OSTP); the Director of the National Science Foundation; the Chairman of the Federal Energy Regulatory Commission; the Chairman of the Joint Chiefs of Staff; the Assistants to the President for National Security Affairs, Homeland Security, Domestic Policy, and Economic Policy; an employee of the United States designated by the Vice President; and such other officers or employees of the United States as the Co-Chairs may from time to time designate.

Co-Chairs

The NOC would be Co-Chaired by the Chair of the Council on Environmental Quality and the Director of the Office of Science and Technology Policy. This construct would provide the NOC with balance of equities at the most senior level of its leadership and better facilitate interagency cooperation and collaboration.

There would be a NOC Steering Committee (described below) comprised of CEQ, OSTP, and the Chairs of the proposed Ocean Resource Management Interagency Policy Committee (ORM-IPC) and the proposed Ocean Science and Technology Interagency Policy Committee (OST-IPC).

Function

Subject to the direction of the President and unless as otherwise provided for by law, the NOC would perform the following functions:

1. **Tier-one functions of the NOC (Principal level).** The National Ocean Council has overall responsibility for implementation of the National Policy. Functions would include: (1) periodically update and set national priority objectives; (2) review and provide annual direction on National Policy implementation objectives based on Administration priorities and recommendations from the Deputies' level; and (3) be a forum for dispute resolution and decision-making of issues that could not be resolved at the Deputies' Level. The NOC would be required to meet a minimum of twice per year, but the Co-Chairs could call additional meetings as necessary for dispute resolution or other purposes.

2. **Tier Two (Deputy level)** functions would include: (1) ensure execution of National Policy implementation objectives; (2) transmit Administration priorities to the ORM-IPC and OST-IPC; (3) ensure activities of and products from the ORM-IPC and OST-IPC are consistent with Administration policy; (4) coordinate with the OSTP, the National Security Council (NSC), National Economic Council (NEC),[2] Office of Energy and Climate Change (OECC), and other offices as appropriate; (5) provide direction and feedback to, and receive external input and advice from, its advisory bodies; and (6) dispute resolution and decision-making, and if unable to do so, to forward the issues to the Principal level. This

[2] Coordination with the existing Committee on the Marine Transportation System would be done through the National Economic Council, at both the Principal- and Deputy- level. Coordination with the ORM-IPC and OST-IPC would also be developed, as appropriate.

group would also assume the duties of the statutorily mandated National Ocean Research Leadership Council (NORLC) under 10 U.S.C. § 7902.

The Deputies would be required to meet a minimum of quarterly.

II. Authorities and Responsibilities of the National Ocean Council Co-Chairs

1. Advise the President on the National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes

The Co-Chairs would advise the President on matters regarding implementation of the *National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes* (National Policy), consistent with the consensus views of the NOC. If consensus cannot be achieved, the Co-Chairs would provide their own views equally with the views of each member of the NOC.

2. Implementation of the National Policy

On behalf of the NOC, the Co-Chairs would have overall responsibility for coordinating and facilitating the implementation of the National Policy, subject to the direction of the NOC and the President, including the following:

- **Development of Implementation Plans** – The Co-Chairs would facilitate development by the NOC of implementation plans to further the National Policy and identify progress toward meeting defined goals and objectives.
- **Reporting and Accountability** – The Co-Chairs would be responsible for: (1) coordinating interagency reporting on implementation and progress; (2) monitoring and ensuring effective implementation of policy decisions; (3) providing oversight and accountability for document preparation; and (4) coordinating and expediting interagency review and clearance of documents and reports within the NOC purview.
- **Budget** – The Co-Chairs would coordinate the development of an annual budget guidance memorandum on ocean priorities consistent with the goals and objectives of the National Policy. While it is understood that the Co-Chairs' authority would not be construed to impair or otherwise affect the function of the Director of OMB, they would work with OMB to issue interagency budget guidance consistent with annual priorities, develop crosscuts to inform the annual priorities on ocean, coastal, and Great Lakes stewardship, and consult with OMB, OSTP, and the NOC to identify programs that contribute significantly to the National Policy. The Co-

Chairs also would work with OMB to coordinate preparation of the biennial Federal Ocean and Coastal Activities Report mandated by Section 5 of the Ocean Act of 2000.

- **Emerging Issues** – The Co-Chairs would bring any Presidential ocean actions or priorities to the NOC, as appropriate, for action and implementation and would coordinate proper management of and response to emerging issues of relevance to the National Policy.
- **International –** In implementing this policy, the Co-Chairs would coordinate with the Secretary of State and the heads of other relevant agencies on matters related to the policy that arise within the Intergovernmental Oceanographic Commission, International Whaling Commission, Arctic Council, International Maritime Organization, regional fishery management organizations, and other similar international organizations.

3. Co-Chairs of the NOC
    - The Co-Chairs shall have authority to call NOC meetings, draft the agenda, prioritize issues, and call deputies meetings.

4. Coordination and Integration
    - The Co-Chairs would be the point of contact to coordinate with the National Security Advisor (NSA), National Economic Council (NEC) Director, and Assistant to the President for Energy and Climate Change (APECC), and other senior White House officials as appropriate. The Co-Chairs would have authority to request meetings with these entities for the purposes of coordination and resolution of issues of overlapping responsibility.

5. Decision-Making and Dispute Resolution
    - The Co-Chairs would seek to encourage decisions and recommendations based on consensus of the NOC.
    - Disputes that could not be resolved at the Deputy- level would be referred to the Co-Chairs. The Co-Chairs would facilitate resolution among the Principals.
    - With respect to those matters in which resolutions or consensus could not be reached, the Co-Chairs would coordinate with the APECC, NEC Director, and NSA, as appropriate, to frame the disputed issue or issues for decision by the President.
    - The establishment of the NOC would not be construed to impair or otherwise affect: (1) authority granted by law to an executive department or agency or the head thereof; or (2) functions assigned by the President to the National Security Council (or subordinate bodies) relating to matters affecting foreign affairs, national security, homeland security, or intelligence – any of

these matters that are not resolved by consensus within the NOC will be forwarded to the NSC for resolution.

III. Steering Committee

Structure

The Steering Committee would be a high-level, streamlined body of four members from OSTP, CEQ, and one Chair each of the ORM-IPC and OST-IPC. The Steering Committee would meet at least every other month, but more often as issues require, and work in consultation with NSC and OMB to ensure their respective input on relevant matters, as appropriate.

Function

The Steering Committee would be the key forum for ensuring integration and coordination on priority areas within the NOC. In particular, it would ensure that there is coordination of management and science issues and that the activities of the ORM-IPC and OST-IPC are aligned to fully support implementation of the National Policy, and priorities agreed upon by the NOC. The Steering Committee would identify key issues and assist in developing the agenda for the NOC. In addition, the Extended Continental Shelf Task Force would report to the Steering Committee.

IV. Ocean Resource Management Interagency Policy Committee

Structure

The Ocean Resource Management Interagency Policy Committee (ORM-IPC) is the successor to the current Subcommittee on Integrated Management of Ocean Resources. Chairs of the ORM-IPC are designated by the NOC. The members would consist of Deputy Assistant Secretaries or appropriate representatives from the Executive branch agencies and departments of the NOC. The ORM-IPC reports to the NOC. The ORM-IPC may establish sub-IPCs as necessary, as approved by the NOC.

Function

The ORM-IPC would function as the ocean resource management body of the NOC, with an emphasis on ensuring the interagency implementation of the National Policy, national priority objectives, and other priorities defined or approved by the NOC. This would include the development of strategic plans, in coordination with the OST-IPC, for the implementation of priority management objectives, with clear outcomes, milestones, deadlines, designated agencies, and performance measures with an adaptive review process. The ORM-IPC Chairs would develop a charter for the operation of the body, to be approved by the NOC, including, but not limited to, membership, meetings (e.g., requiring that it meet at least every

two months); development of a new or updated work plan based on direction from the NOC, and a process for external input (e.g., State, tribal, local, regional, and the public).

VII. Ocean Science and Technology Interagency Policy Committee

Structure

The National Science and Technology Council's (NSTC) Joint Subcommittee on Ocean Science and Technology (JSOST) would serve as the Ocean Science and Technology Interagency Policy Committee (OST-IPC). Chairs of the OST-IPC would be appointed through NSTC procedures in consultation with the NOC. The group would consist of Deputy Assistant Secretaries or appropriate representatives from the Executive branch agencies and departments of the NOC. The NSTC would direct the OST-IPC to advise and assist the NOC in consonance with this National Policy and to work with associated bodies (e.g., the ORM-IPC) accordingly.

Function

The OST-IPC would function as the ocean science and technology body of the NOC, with an emphasis on ensuring the interagency implementation of the National Policy, national priority objectives, and other priorities for science and technology objectives. This would include the development of strategic plans (e.g., the Ocean Research Priorities Plan and Implementation Strategy), in coordination with the ORM-IPC, for interagency implementation of priority science and technology objectives, with clear outcomes, milestones, deadlines, designated agencies, and performance measures with an adaptive review process. The OST-IPC Chairs, in close coordination with the NOC, would develop a charter for the operation of the body, to be approved by the NSTC, and would include, but not be limited to, membership, meetings (e.g., requiring that it meet at least every two months), development of a new or updated work plan based on input from the NOC, and a process for external input (e.g., State, tribal, regional, and public). The OST-IPC would also retain the legislatively mandated functions of JSOST, report to the NSTC's Committee on Environment and Natural Resources, and maintain an intimate operational relationship with the NOC. It would continue to adhere to the rules and regulations of the NSTC. The ORM-IPC may establish sub-IPCs as necessary, and will do so under NSTC procedures and in close coordination with the NOC.

VIII. Governance Advisory Committee[3]

Structure

The NOC would establish the Governance Advisory Committee (the Advisory Committee) that would consist of thirteen members from States, tribes, and regional governance structures. The membership would be comprised of: (1) one representative from each of the six regions, chosen by the NOC, in consultation with regional ocean councils (Great Lakes Commission, Governors' South Atlantic Alliance, Gulf of Mexico Alliance, Mid-Atlantic Regional Council on the Ocean, Northeast Regional Ocean Council, and the West Coast Governors' Agreement on Ocean Health); (2) two at-large representatives from inland States, chosen by the NOC, in consultation with the National Governors Association; (3) one representative from Alaska, one representative from the Pacific Islands, and one representative from the Caribbean, chosen by the NOC, in consultation with regional groups; and (4) two at-large tribal representatives, chosen by the NOC, in consultation with the National Congress of American Indians, tribal councils, and regional tribal organizations. Representatives would serve for staggered two-year terms.

Function

The role of the Committee would be to provide input to the NOC on issues of inter-jurisdictional collaboration and cooperation on the National Policy and related matters, including providing advice on long-term strategic management and research priorities. The Committee would also provide, at the request of the Steering Committee, input to the IPCs.

IX. Ocean Research and Resources Advisory Panel

Structure

The Ocean Research and Resources Advisory Panel (ORRAP) is a legislatively established body that advises the NORLC under the Federal Advisory Committee Act (FACA).

Function

The ORRAP would provide independent advice and guidance to the NOC. Current membership is comprised of individuals from the National Academies, State governments, academia, and ocean industries, representing marine science, marine policy, and other related fields. However, ORRAP

[3] This may be a FACA committee based on representation. If it is, then the Committee would be first be established with State, tribal, and regional representation (consisting of State officials), and then expanded via the FACA process to allow for additional membership.

membership would be reviewed to determine whether to include additional representatives to broaden the level of expertise in support of the goals of the National Policy. The NOC would routinely provide guidance and direction on the areas for which it seeks advice and recommendations from the ORRAP.

X. Review and Evaluation

After 12 months of operation, the National Ocean Council will conduct a review of the governance structure to evaluate its effectiveness and make any necessary changes or improvements.

IMPLEMENTATION STRATEGY

PROPOSED NATIONAL PRIORITY OBJECTIVES

HOW WE DO BUSINESS

1. **Ecosystem-Based Management:** Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

2. **Coastal and Marine Spatial Planning:** Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.

3. **Inform Decisions and Improve Understanding:** Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.

4. **Coordinate and Support:** Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government, and as appropriate, engage with the international community.

AREAS OF SPECIAL EMPHASIS

1. **Resiliency and Adaptation to Climate Change and Ocean Acidification:** Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.

2. **Regional Ecosystem Protection and Restoration:** Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels.

3. **Water Quality and Sustainable Practices on Land:** Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.

4. **Changing Conditions in the Arctic:** Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.

5. **Ocean, Coastal, and Great Lakes Observations and Infrastructure:** Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, and data collection platforms into a national system and integrate that system into international observation efforts.

I. Introduction

The proposed *National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes* would provide our Nation with a comprehensive approach, solidly based on science and technology, to uphold our stewardship responsibilities, and ensure accountability for our actions to present and future generations. Furthermore, the United States intends, through the National Policy, to serve as a model of balanced, productive, efficient, sustainable, and informed ocean, coastal, and Great Lakes use, management, and conservation within the global community. This strategy suggests a clear set of priority objectives that our Nation should pursue to further the National Policy.

Overview of National Priority Objectives

This implementation strategy proposes nine priority objectives. The first four, which together frame *How We Do Business*, represent overarching ways in which the Federal Government must operate differently or better to improve stewardship of the ocean, our coasts, and the Great Lakes. The implementation of ecosystem-based management embodies a fundamental shift in how the United States manages these resources, and provides a foundation for how the remaining objectives would be implemented. Within that construct, the implementation of coastal and marine spatial planning and management would mark the beginning of a new era of comprehensive, integrated techniques to address conservation, economic activity, user conflict, and sustainable use of ocean, coastal, and Great Lakes resources. The other overarching objectives – to better inform decisions and improve understanding by the public through a strengthened ability to obtain and use science and information, and to better coordinate and support science-based management across various authorities and governance structures are, in and of themselves, not new concepts. However, these efforts have suffered from the lack of a clear National Policy and a comprehensive framework within which to achieve desired outcomes.

The implementation strategy also identifies five *Areas of Special Emphasis*, each of which represents a substantive area of particular importance to achieving the National Policy. These priority areas of work seek to address some of the most pressing challenges facing the ocean, our coasts, and the Great Lakes. For many years, scientists, resource managers, private industry, and others have been wrestling with these issues, with a variety of existing Federal Government programs in place to address them. While those efforts have delivered their share of results, in each of these critical areas more can – and must – be done. In many cases, we have lacked the capability and understanding – both scientific and technical – to affect the type of change required. In the last several years, however, science has significantly evolved and advanced, and our capacity to respond to environmental and technological changes in these five areas has

improved substantially. With this strategy, these specific areas of work should be viewed as National priorities, with a renewed and coordinated effort at finding and implementing solutions.

Planning

Together, these nine priority objectives provide a bridge between the National Policy and action on the ground and in the water, but do not prescribe in detail how individual entities would undertake these responsibilities. For each priority objective, the NOC would be responsible for, and oversee development of, a strategic action plan within six to twelve months from its establishment. The NOC's Ocean Resource Management and Ocean Science and Technology Interagency Policy Committees would be charged with developing these plans. ***The plans would address the obstacles and opportunities identified for each objective, and would focus on, but not be limited to, the key areas identified under each objective. In addition, each plan would:***

- Identify specific and measurable near-term, mid-term, and long-term actions, with appropriate milestones, performance measures, and outcomes to fulfill each objective;
- Consider smaller-scale, incremental, and opportunistic efforts that build upon existing activities, as well as more complex, larger-scale actions that have the potential to be truly transformative;
- Explicitly identify key lead and participating agencies;
- Identify gaps and needs in science and technology; and
- Identify potential resource requirements and efficiencies; and steps for integrating or coordinating current and out-year budgets.

The plans would be adaptive to allow for modification and addition of new actions based on new information or changing conditions. Their effective implementation would also require clear and easily understood requirements and regulations, where appropriate, that include enforcement as a critical component. Implementation of the National Policy for the stewardship of the ocean, our coasts, and the Great Lakes will recognize that different legal regimes, with their associated freedoms, rights, and duties, apply in different maritime zones. The plans would be implemented in a manner consistent with applicable international conventions and agreements and with customary international law as reflected in the Law of the Sea Convention. The plans and their implementation would be assessed and reviewed annually by the NOC and modified as needed based on the success or failure of the agreed upon actions. Upon identification and finalization of plans, the NOC Co-Chairs, in collaboration with the Office of Management and Budget, would develop an annual interagency ocean budget guidance memorandum.

While these plans are under development, any agency that is conducting an activity that supports or furthers one of the objectives would bring them to the attention of the NOC. The NOC – working with the agency – would review the activity to determine how it might best contribute to overall implementation of the priority objectives, including being incorporated into the relevant strategic plan.

Collaboration

The effective implementation of this far-reaching and comprehensive National Policy would require active collaboration of the Federal Government with State, tribal, and local authorities, regional governance structures, academic institutions, non-governmental organizations, and private enterprise. In developing and revising the plans, the NOC would reach out to these interested parties, as appropriate, through the NOC's Governance Advisory Committee, the Ocean Research and Resources Advisory Panel, workshops, and by other means.

Furthermore, international collaboration on a broad range of ocean issues is an important component of these objectives. The Nation plays a leadership role in various international forums that deal with these issues, including the Arctic Council, International Maritime Organization, regional fisheries management organizations, and the International Whaling Commission. By joining the Law of the Sea Convention now, we can reaffirm and enhance U.S. leadership in the development and interpretation of international law applicable to the ocean.

II. National Priority Objectives

How We Do Business

1. Ecosystem-Based Management: Adopt ecosystem-based management as a foundational principle for the comprehensive management of the ocean, our coasts, and the Great Lakes.

Obstacles and Opportunities

Traditional management of resource use and other activities in the ocean, along our coasts, and in the Great Lakes has focused on individual species, resources, areas, or actions with limited consideration for how the management practices of one might impact the sustainability of another. This has often led to disjointed management approaches resulting in loss of resources, economic hardship, and environments at risk. To ensure healthier, more resilient and productive marine and Great Lakes environments, comprehensive management systems are needed that fully integrate ecological, social, economic, and security goals into decisions. Embedding ecosystem-based management, grounded in science, as an

overarching principle would be a fundamental shift in the traditional way the Federal Government approaches management of the ocean, our coasts, and the Great Lakes. It would provide the opportunity to ensure proactive and holistic approaches to balance the use and conservation of these valuable resources. This broad-based application of ecosystem-based management would provide a framework for the management of our resources, and allow for such benefits as helping to restore fish populations, control invasive species, support healthy coastal communities and ecosystems, restore sensitive species and habitats, protect human health, and rationally allow for emerging uses of the ocean, including new energy production.

The Plan Should Address:

- "Best practices" for developing and implementing effective ecosystem-based management systems;
- Identification and prioritization of geographic areas of special sensitivity or in greatest need for ecosystem-based management;
- Establishment of a process for working with States, tribal, and local authorities and regional governance structures to apply the most successful approaches in these areas of the greatest need; and
- Measures to ensure that decisions about ocean activities, uses, and goals are made based on the best available science and incorporate principles of ecosystem-based management.

2. Coastal and Marine Spatial Planning: Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.

Obstacles and Opportunities

The ocean, our coasts, and the Great Lakes are host to countless commercial, recreational, scientific, energy, and security activities, which often occur in or near areas set aside and managed for conservation and resource protection goals. Overlapping uses and differing views about what activities should occur and where can generate conflicts and misunderstandings. Coastal and marine spatial planning that fully incorporates the principles of ecosystem-based management will provide a means to objectively and transparently guide and balance allocation decisions for use of ocean, coastal, and Great Lakes waters and resources. It will allow for the reduction of cumulative impacts from human uses on marine ecosystems, provide greater certainty for the public and private sector in planning new investments, and reduce conflicts among uses and, between using and preserving the environment to sustain critical ecological, economic, and cultural services for this and future generations.

The Plan Should Address:

- Expansion of the national framework for coastal and marine spatial planning developed by the Task Force;

- Specific time frames for implementation;

- Geographic limits, use of the best available science, protection of ecosystem integrity (e.g., biological diversity, fish and fish habitat), the management of trade-offs, with recognition of uncertainties in decision-making, and provisions for adaptive management; and

- An approach that balances competing uses, including traditional, new, and expanding uses (e.g., energy, aquaculture), minimizes impacts on coastal and ocean ecosystems, ensures sustainable uses under reasonable changes in environmental conditions, and minimizes costs.

3. Inform Decisions and Improve Understanding: Increase knowledge to continually inform and improve management and policy decisions and the capacity to respond to change and challenges. Better educate the public through formal and informal programs about the ocean, our coasts, and the Great Lakes.

Obstacles and Opportunities

A broad program of basic and applied disciplinary and interdisciplinary scientific research, mapping, monitoring, observation, and assessment, coupled with development of forecasts, models, and other decision-support tools, is required to build knowledge of ocean, coastal, and Great Lakes ecosystems and processes and ensure that management and policies are based on sound science. Increased understanding of watershed processes and the linkages with our coasts will be necessary to develop better decision-support tools to adequately manage human uses, human impacts, and watershed conservation activities that affect our ocean and coasts. In addition, increased scientific knowledge and a more comprehensive awareness and a detailed understanding of current and emerging human activities taking place in and around our waters, are essential to sound ocean planning and management. However, there are significant gaps in our understanding of ocean ecosystem dynamics, ocean conditions and trends, and the complex links between these conditions and human health, economic opportunities, national and homeland security and social justice. There is significant opportunity to improve how and what information we gather to better understand change and respond to challenges, better integrate current scientific knowledge and real-time data into decision-making, improve the management and integration of data supporting science and decision-making, and identify and close knowledge gaps necessary to adequately understand the impacts of human activities on the ocean, our coasts, and the Great Lakes. A diverse, interdisciplinary, ocean-literate workforce that has the appropriate skills and training to capitalize on these opportunities is

needed. In addition, formal and informal education programs developed and implemented to target grades K-12 and beyond would create opportunities for enhanced appreciation of coastal and ocean issues, and better prepare the workforce of the future. Success in building our knowledge and applying it to improve management also relies on an engaged and informed public. Many Americans do not realize the importance of the ocean, our coasts, and the Great Lakes to their daily lives, the benefits they provide, or the possibilities they present for further discovery. There is great opportunity to raise awareness and identify ways we can help protect our waters and their resources.

Inform and Improve

The Plan Should Address:

- Identification of priority issues in addressing emerging topics and change in ocean, coastal, and Great Lakes ecosystems and processes;

- Specific scientific requirements and research needs, including the need for reconciling inconsistent standards, physical infrastructure, research platforms, organizations, and data management, to identify critical gaps, ensure high quality data, and provide information necessary to inform management, including mechanisms to transition research results into information products and tools for management;

- The development of a more comprehensive awareness of environmental conditions and trends and human activities that take place in the ocean, coastal, and Great Lakes environments; and

- Requirements for routine integrated ecosystem assessments and forecasts, including impacts related to climate change, to address vulnerability, risks, and resiliency, and inform tradeoffs and priority-setting.

Educate

The Plan Should Address:

- Challenges, gaps, opportunities, and effective strategies for training and recruiting the current and next generation of disciplinary and interdisciplinary scientists, technicians, operators, managers, and policy makers, with a particular focus on the needs of disadvantaged or under-served communities; and

- Identification of successful formal and informal education and public outreach approaches, including their application toward a focused nation-wide campaign to build public awareness, engagement, understanding, and informed decision-making, with specific emphasis on the state of ecosystems.

4. **Coordinate and Support: Better coordinate and support Federal, State, tribal, local, and regional management of the ocean, our coasts, and the Great Lakes. Improve coordination and integration across the Federal Government, and as appropriate, engage with the international community.**

Obstacles and Opportunities

One of the significant obstacles to effective management of the ocean, our coasts, and the Great Lakes is the complex set of Federal, State, tribal, and local laws, authorities, mandates, and governance structures intended to manage their use and conservation. Consistent approaches to the management of resources, including ecosystem-based and adaptive management, are difficult to achieve given this shared, piece-meal, and overlapping jurisdictional model. Furthermore, the United States is party to numerous international agreements and subject to customary international law regarding use and protection of the ocean. Through increased communication, coordination, and integration across all levels of government, we can streamline processes, reduce duplicative efforts, leverage resources, resolve disparities, and enhance synergy. A set of shared principles and objectives coordinated among all levels of government would translate into effective outcomes consistent with the National Policy.

Coordinate

The Plan Should Address:

- Identification of gaps, inconsistencies, and duplications in statutory authorities, policies, and regulations, and taking necessary and appropriate actions to address them;
- Procedures to identify and align mutual and consistent management objectives and actions across jurisdictions;
- Tangible tools and procedures to prevent and resolve conflicts across jurisdictions and disagreements concerning jointly managed ocean, coastal, and Great Lakes resources; and
- Opportunities for engaging the international community to further the objectives of the policy, as appropriate.

Support

The Plan Should Address:

- Actions to assist the States in advancing the network of regional alliances to protect ocean, coastal, and Great Lakes health;

- Evaluation of existing or new funding sources and options to protect, maintain, and restore ocean resources; and

- Legislative or regulatory changes necessary to simplify the sharing and transfer of resources among Federal, State, tribal, and local agencies.

Areas of Special Emphasis

1. **Resiliency and Adaptation to Climate Change and Ocean Acidification: Strengthen resiliency of coastal communities and marine and Great Lakes environments and their abilities to adapt to climate change impacts and ocean acidification.**

Obstacles and Opportunities

The ocean plays a central role in shaping the Earth's climate and influencing climate variability. Because of this important relationship and the ecosystem services that the ocean, our coasts, and Great Lakes provide, global climate change and its associated impacts as well as ocean acidification pose some of the most serious threats to these ecosystems and coastal communities. Warming ocean temperatures have a profound impact on the distribution of rainfall over land, the melting of ice sheets, and the distribution and productivity of species. Sea-level rise, increased severe storm events, rapid erosion, and salt water intrusion threaten low-lying coastal communities with the destruction of infrastructure, flood inundation, the potential displacement of millions of people, and the loss of key species and habitats. At the same time, climate change is predicted to lower the water levels of the Great Lakes, thereby altering water cycles and supply, habitat, and economic uses of the Lakes. In addition, ocean acidification is expected to have significant and largely negative impacts on the marine food web, ocean ecosystems as a whole and biological diversity in general. Since climate change and ocean acidification may have widespread impacts, increased coordination of monitoring efforts and improved understanding of the changes in the ocean are vital to minimizing these impacts on our marine and Great Lakes ecosystems and coastal communities. We have an opportunity and a responsibility to develop strategies for reducing the vulnerability, increasing the resilience, and improving adaptation of human and natural systems to climate change impacts.

The Plan Should Address:

- Research, observations and modeling needed to forecast regional and local scale climate change impacts and related vulnerabilities for natural resources, health, infrastructure, and livelihoods, including social and economic impacts;

- Better integration of ocean and coastal science into the broader climate dialogue and measures to improve understanding of the connections among land, water, air, ice, and human activities;

- Evaluation of potential social and economic costs related to sea-level rise, such as accelerating erosion, increased saltwater intrusion, and more severe coastal and inland flooding;

- Adaptive actions to identified climate change impacts, and related vulnerabilities such as ocean acidification, and the development of ecological and economic resilience strategies and priorities for research and monitoring to address these strategies;

- Changes to local and regional ocean and lake management systems that incorporate changing climate risks and elements of resilient systems; and

- A comprehensive approach to understanding human health implications of policies for the ocean, our coasts, and Great Lakes, and for identifying opportunities for the protection and enhancement of human health.

2. **Regional Ecosystem Protection and Restoration: Establish and implement an integrated ecosystem protection and restoration strategy that is science-based and aligns conservation and restoration goals at the Federal, State, tribal, local, and regional levels**.

Obstacles and Opportunities

Along our coasts and the Great Lakes, essential habitats continue to suffer significant losses and degradation due to coastal development, sea-level rise, and associated human activities. Impacts on these ecosystems and the people and communities in these areas are presenting new management challenges. Additionally, external stressors, including invasive species, are impacting native species. While progress has been made in addressing some of these challenges through ecosystem-based management, the threat of critical habitat loss and degradation of ecosystem services is still apparent in the Gulf Coast, the Chesapeake Bay, Puget Sound, South Florida, San Francisco Bay, and the Great Lakes. Because climate change is impacting our coastlines, it has become even more important to assess and place priorities on ecosystem restoration projects. These experiences provide valuable lessons for other coastal ecosystems.

The Plan Should Address:

- Prioritization of the locations and geographic scope of coastal and Great Lakes ecosystem restoration projects, including implementation of the Great Lakes Restoration Initiative;

- Interim and longer term goals and mechanisms to facilitate collaboration among stakeholders to implement projects;

- Best practices for collaborative science-based planning to achieve ecosystem restoration goals building on the lessons learned in ongoing ecosystem restoration efforts;

- Impacts of invasive species on ocean, coastal, and Great Lakes ecosystems, and a range of methodologies for control and prevention of these species; and

- Protection, maintenance, and restoration of populations and essential habitats supporting fisheries, protected species, ecosystems, and biological diversity.

3. Water Quality and Sustainable Practices on Land: Enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting and implementing sustainable practices on land.

Obstacles and Opportunities

Nonpoint source pollution (pollution that comes from diffuse sources instead of one specific point), caused by poor land management practices, is the leading cause of water quality problems in the United States and a major cause of rapidly declining ocean and coastal ecosystem health. Runoff from suburban streets and lawns, agricultural and industrial uses, transportation activities, and urban development – even hundreds of miles away – negatively impacts water quality, resulting in deleterious effects on ocean, coastal, and Great Lakes systems as evidenced by harmful algal blooms, expansive dead zones, and increased incidents of human illness. Areas with particularly poor water quality are known to experience frequent beach closures, massive fish kills, and areas of toxic sediments. Since this pollution comes from many diffuse sources throughout the country, addressing it requires a strong commitment to coordination and cooperation between multiple sectors and among Federal, State, tribal, local authorities, and regional governance structures. Fortunately, a number of point and non-point source prevention programs are available to State, tribal, local, regional, and private entities to reduce the amount of pollutants that are transported from our Nation's watersheds and into our coastal waters There are opportunities to achieve significant reductions in these inputs to our coasts and ocean through concrete mechanisms that integrate and coordinate land-based pollution reduction programs.

The Plan Should Address:

- The major impacts of urban and suburban development and agriculture, including forestry and animal feedlots, on ocean, coastal, and Great Lakes waters;

- The relative contributions of significant land-based source of pollutants, sediments, and nutrients to receiving coastal waters and ways to address them, including recommendations of how to integrate and improve existing land-based conservation and pollution programs;

- Best management practices, use of conservation programs, and other approaches for controlling the most significant land-based sources of nutrients, sediments, pathogens, toxic chemicals, solid waste and marine debris, and invasive species; and

- The establishment of a comprehensive monitoring framework and integration with State monitoring programs.

4. Changing Conditions in the Arctic: Address environmental stewardship needs in the Arctic Ocean and adjacent coastal areas in the face of climate-induced and other environmental changes.

Obstacles and Opportunities

Climate change is having a disproportionally greater impact on polar regions than elsewhere, and the Arctic region is faced with serious problems. Permafrost is thawing at an accelerated rate, which leads to the release of large amounts of methane. Multi-seasonal sea ice is rapidly deteriorating. Much of the Alaskan Arctic seashore is threatened by coastal erosion and other environmental challenges. Increased human activity in the area is bringing additional stressors to the Arctic environment, with serious implications for Arctic communities and ecosystems. At the same time, the diminishing ice presents opportunities and pressures for increased development of living and non-living resources and for increased commerce and transportation. Working with all of the stakeholders, including the indigenous communities, we have the opportunity to develop proactive plans, informed by the best science available, to manage and encourage use while protecting the fragile Arctic environment.

The Plan Should Address:

- Better ways to conserve, protect, and sustainably manage Arctic coastal and ocean resources, effectively respond to the risk of increased pollution and other environmental degradation on humans and marine species, and adequately safeguard living marine resources;

- New collaborations and partnerships to better monitor and assess environmental conditions and devise early warning and emergency response systems and procedures to be prepared for and respond to emerging events in the Arctic region, such as environmental disasters;

- Consistency and coordination with the implementation of U.S. Arctic Region Policy as promulgated in National Security Presidential Directive 66/Homeland Security Presidential Directive 25 (2009); and

- Improvement of the scientific understanding of the Arctic system and how it is changing in response to climate-induced and other changes.

5. Ocean Coastal, and Great Lakes Observations and Infrastructure: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, and data collection platforms into a national system and integrate that system into international observation efforts.

Obstacles and Opportunities

Our ability to understand weather, climate, and ocean conditions, to forecast key environmental processes, and to strengthen ocean management decision-making at all levels is informed by a sound knowledge base. Efficient and effective coordination of the many available tools, continued development of new tools and infrastructure, and integration of them into a cohesive, unified, robust system is becoming increasingly difficult as an ever increasing number of data collection and processing systems come on line. New ground-breaking observation technologies give us the ability to observe and study global processes at all scales. These new tools, if fully integrated, will significantly advance our knowledge and understanding of the ocean, our coasts, and the Great Lakes. Furthermore, successful integration of new tools and data will improve our ability to engage in science-based decision-making and ecosystem-based management by ensuring that biological, ecological, and social data and processes are included in the calculus.

The Plan Should Address:

- A nationally integrated system of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components, and cooperation with international partners and organizations, as appropriate;

- Regional and national needs for ocean information, to gather specific data on key ocean, coastal, and Great Lakes variables that are required to support the areas of special emphasis and other national needs;

- The use of unmanned vehicles and remote sensing platforms and satellites to gather data on the health and productivity of the ocean, our coasts, and the Great Lakes;

- The capabilities and gaps of the National Oceanographic Fleet of ships and related facilities; and

- Data management, communication, access, and modeling systems for the timely integration and dissemination of data and information products.