February 27, 2012

The Honorable Nancy Sutley
Co-Chair, National Ocean Council
Chair, White House Council on Environmental Quality
Executive Office of the President
722 Jackson Place NW
Washington, DC 20503

The Honorable John Holdren
Co-Chair, National Ocean Council
Director, White House Office of Science and Technology Policy
Executive Office of the President
722 Jackson Place NW
Washington, DC 20503

Re: Comments on the National Ocean Policy Implementation Plan

Dear Chairs Sutley and Holdren:

Thank you for the opportunity to comment on the National Ocean Policy Implementation Plan. Our Governors forged a partnership six years ago to tackle some of the most challenging ocean and coastal issues facing the waters off our states. Although our collaboration began as a commitment between the Governors, the West Coast Governors Alliance (WCGA) is now truly an ongoing partnership between the states, federal agencies, and other key entities in the region. We worked cooperatively in developing our 2008 Ocean Action Plan to identify the priorities for regional action. We've also been privileged to have the participation of several sovereign tribal governments on working groups to help implement the Action Plan. Academia, industry, and non-governmental organizations are also important partners on the working groups implementing the vision for healthy West Coast waters.

We are pleased that the Implementation Plan recognizes the important role that states and regions play in implementing the nine priority areas of the National Ocean Policy (NOP). Many of the priorities identified in the NOP are the same as those identified in our 2008 Ocean Action Plan. We are pleased that you recognize us as key partners in achieving your vision.

Although we recognize the difficult federal budget situation, stable and long-term financial support and incentives will be necessary to implement the NOP, including the ability for partners such as the WCGA to assume additional responsibilities for NOP planning and implementation. We encourage the administration and Congress to keep funding for coastal zone management (CZM) programs stable during this difficult economic time. The Coastal Zone Management Act (CZMA) has often been referred to as the "Constitution for our Coasts" and CZM programs are the backbone of many regional ocean partnerships, such as the WCGA, and form the critical bridge between state, federal, and local governments needed for successful implementation of the NOP.

The WCGA stands ready to work with the federal government to implement the NOP. Building upon existing and established regional partnerships, such as the WCGA, and ensuring funding to the states and

regional ocean partnerships, will allow the regions to advance their actions plans to take the necessary steps toward NOP implementation.

Sincerely,

John Laird
California Secretary for Natural Resources

Richard Whitman
Natural Resource Policy Director, Oregon Governors Office

Keith Phillips
Energy and Environment Advisor to Governor Gregoire, Washington

Ecosystem-Based Management

Ecosystem-based management (EBM) is one of the seven key priorities in the 2008 WCGA Action Plan. Implementation of EBM depends on the ability to share lessons, approaches, and tools; access the health of coastal and marine ecosystems and establish strong standards and indicators; strengthen regional coordination; and protect species at the base of the food webs.

We support the NOC's intention to use EBM as a comprehensive approach to managing coastal and ocean resources as it presents an opportunity to improve, refine, and streamline our national, regional, tribal, and statewide governance regarding the management of shared marine and ocean resources. These EBM efforts must engage state, local, and tribal partners as well as stakeholders; in case studies early and often engagement of these groups has proven to be key to successful implementation of EBM.

The WCGA would like to make the following specific comments on the proposed actions. Additionally, we are concerned that the NOP Implementation Plan for EBM does not consider the interaction of land-based policies and how they affect the coast, ocean and Great Lakes as watershed ecosystems do not end at the shoreline.

Action 1: Establish a framework for collaboration and a shared set of goals for Federal implementation of ecosystem-based management.

- **Establish an interagency working group to ensure that EBM approaches are adopted and embedded within agencies' decision making processes.**
- **Evaluate utility of regulatory mandates to help achieve EBM.**

The WCGA supports this action, but we are concerned that some language from the Strategic Action Plan outlines (SAP), released in April 2011, has been dropped. The original SAP stated that the NOC would establish an interagency working group to help achieve EBM goals; the WCGA would like to see this represented in the implementation plan. The EBM SAP Action 4 included a milestone to '*fully incorporate EBM principles into efforts responsive to legislative and environmental mandates*'. The WCGA recognizes that the current third milestone '*Complete review of EBM-relevant statutes and regulations to identify agency authorities…and potential legislative changes that would fill gaps and support full implementation of EBM*' works toward this same goal, but keeping language about regulatory mandates may further the ability of managers to implement ecosystem-based management.

Action 2: Establish a science framework to support science-based EBM implementation.

- **Prioritize the inclusion of comprehensive seafloor and nearshore mapping in ocean.data.gov, support acquisition of these data where they are currently incomplete, and create derived mapping products such as geology and habitat maps.**
- **Create standards for classification of habitats.**
- **Recommend supporting and improving Regional Fishery Management Councils' ecosystem management plans, and science associated with collecting that data.**
- **Prioritize social science data, assessments, and indicators when establishing a science framework.**

The WCGA appreciates the focus on seafloor mapping in the Observations, Mapping and Infrastructure priority, but we would like to underscore the importance of ensuring these data are coupled with improved seafloor habitat characterization data to better to achieve EBM. Standards and classification systems such as NOAA's Coastal and Marine Ecological Classification Standard will be important to help managers better understand the processes impacting these habitats

Additionally, several regional fishery management councils (e.g. Pacific, Western Pacific, South Atlantic, and New England) have begun to develop ecosystem-based fishery management plans and have a wealth of science and monitoring programs designed to inform those plans. Given the increased role of the FMCs in other aspects of the NOP (i.e. CMSP), we recommend supporting and improving these efforts as a way to make use of existing resources and more closely engage the fishery councils.

Ecosystem-based management incorporates information about the socio-economic characteristics of resource dependent communities. Community dependence on resources and vulnerability to changes in resource availability are indicators of the economic well-being of those communities and their place within the ocean ecosystem.

Action 3: Build capacity to implement EBM through training on principles, best practices, and decision-support tools.

- **Recommend offering EBM training to non-federal state and local managers and scientists.**

Building capacity is critical to develop a shared understanding of how to implement EBM principles in decision making. Given that many of the "on the ground projects" are carried out by local government and community based organizations it is important to build capacity within this level of government.

Action 4: Identify and implement place-based pilot projects that foster an EBM approach to managing ocean and coastal resources.

- **Pilot projects should be distributed throughout the regions.**

The WCGA commends the NOC for the addition of this action, and we hope that the pilot projects will provide opportunities to engage early and often with regional, state, local and tribal partners as well as stakeholders. We also hope that the addition of pilot projects will help alleviate our previous concerns about the lack of attention to developing metrics to evaluate the effectiveness of EBM approaches. The WCGA does recommend that the pilot projects be distributed throughout the different regions of the U.S. and that the pilot projects leverage and take advantage of ongoing efforts such as the West Coast EBM network participants. West Coast coastal and marine scientists, managers, and stakeholders are well-poised to serve as pilot locations for implementing EBM. The three WCGA states represent the entire U.S. coastal section of the California Current Large Marine Ecosystem, and the WCGA has brought a regional unity of purpose in its approach to EBM. The California Current Integrated Ecosystem Assessment is underway and preparing to provide a scientific framework in support of regional EBM decision-making.

Inform Decisions and Improve Understanding

We agree that expanding research, improving understanding, and increasing awareness of coastal resources is critical to the National Ocean Policy. Priorities 5 and 6 in the 2008 WCGA Action Plan, "Ocean Awareness and Literacy among Citizens" and "Expand Ocean and Coastal Scientific Information" align with this NOP objective.

Action 1: Advance fundamental scientific knowledge through exploration and research.

- **Engage regional, state, and local entities early.**

We commend the NOC for committing to additional ocean exploration and research. As the *Science for an Ocean Nation* report is updated, we encourage the NOC to consult with regional, state and local entities on prioritizing research needs.

Action 2: Provide scientific information to support emerging sustainable uses of resources including renewable energy, aquaculture, and biotechnology.

- **Estimate the contribution and impacts of emerging uses.**
- **Promote consultation between federal agencies that funds renewable energy research and those with wildlife protection responsibilities.**

Each of our three states are preparing for the potential siting of renewable ocean energy projects off our coasts. The West Coast could benefit from federal agencies focusing their attention on biological distribution assessments for species potentially impacted by renewable ocean energy, cumulative environmental impact assessments, and economic assessments of those industries.

We also believe it would be beneficial to have agencies such as DOI and DOE consult with wildlife protection agencies (NOAA/FWS) and states in developing research Request for Proposals (RFPs). This would ensure funds can be targeted towards needed information on potential environmental effects and technology development.

Action 3: Provide the data and tools necessary to support science-based decision-making and ecosystem-based management.

- **Support and encourage the development and maintenance of Regional Data Sharing Systems (i.e. regional data portals, Integrated Ocean Observing Systems, etc.) to facilitate ecosystem-based decision-making and data sharing.**

As planning begins on the regional level it will be critical to encourage and support efforts to assemble, analyze, and disseminate regional scale data. Regional Data Networks and Regional Data Portals help serve this valuable data and their efforts should be coordinated with ocean.data.gov.

Action 4: Integrate social and natural scientific information into decision-making.

- **Develop standardized protocols and collection methods for socioeconomic data and work with state and local entities in collecting this data.**

- **Build upon existing programs in analyzing coastal economic statistics and jobs.**
- **Develop indicators of human well-being to be used in integrated ecosystem assessments for coastal communities.**

We also support the federal government investing more resources into economic analyses of the contributions of the ocean and coasts to our economy. Federal agencies should coordinate with and build off existing programs such as the NOAA Economics: National Ocean Watch, NOAA Spatial Trends in Coastal Socioeconomics, and the National Ocean Economics Programs that has been doing these types of analyses for some time. We encourage the NOC to fill the gaps in these national efforts by supporting more detailed economic evaluations and assessments, particularly in rural areas of our coastlines.

We appreciate NOC's commitment to developing a set of "indicators to characterize human interactions with the ocean, coasts." We believe the NOC should clarify that human well-being will be part of those indicators.

Action 5: Develop human capacity and the skilled workforce necessary to conduct ocean research and manage ocean, coastal, and Great Lakes resources.

- **Reinsert milestones related to secondary and post-secondary educational opportunities.**

The WCGA appreciated the two milestones in the SAP; "develop a new post-doctoral program for ocean sciences" and "support underwater and ocean technology programs for secondary and post-secondary education with Federal resources". We believe that these milestones are particularly important for the remote sensing and ocean energy technology fields and would recommend the NOC reinsert these milestones into the final NOP Implementation Plan.

Action 6: Increase ocean and coastal literacy by expanding the accessibility and use of ocean content in formal and informal education programming for students, educators, and the public.

- **Establish a task force to create a national plan to improve ocean literacy.**
- **Focus on efforts that benefit entire nation, or if pursuing a pilot project, clearly articulate how the lessons learned will be used in other regions.**
- **Increase efforts for informal education, including a social marketing campaign to promote ocean and coastal stewardship.**

As we mentioned in our July 2011 letter, we support the establishment of a task force (federal government, universities, Centers for Ocean Sciences Education Excellence (COSEE), and regional governance groups) to develop a national plan for improving ocean awareness and literacy for students, educators, and the general public by:

- Reviewing public opinion surveys, educational research and other sources to determine areas of greatest need and most fruitful approaches to integrating relevant ocean literacy topics into formal and informal education, public outreach programs and state and regional decision-making, including examining innovative and effective programs and strategies in use throughout the country

- Working with public/private entities to conduct additional research, including surveys, as needed, to fully illuminate the needs and opportunities for ocean education, and to establish local and regional baseline public knowledge/attitudes to gauge initiative impacts.

- Identifying how the federal government can better support state ocean literacy (i.e. through individual state environmental literacy plans) and public awareness efforts.

Overall, we support efforts such as including ocean science in the Next Generation Science Standards and the Green Ribbon Schools Initiative. However, we are concerned about milestone 3 as we would like to see NOC efforts focus on actions that can benefit the entire nation, not just those states surrounding Chesapeake Bay. If Chesapeake Bay was chosen because it makes a particularly good pilot project, the milestone should more thoroughly discuss how the lessons learned will be applied to other regions in the country. We would rather the NOC execute formal and informal education strategies for distinct regions of the country, such as Chesapeake Bay, Puget Sound, Gulf of Mexico and the Great Lakes, that have the potential to be extrapolated to other geographic areas in the U.S.

We've noted that the milestones under this action focus predominantly on formal education. While we believe formal education is extremely important, we need to engage all citizens in thinking about how the actions they take in their everyday lives (i.e. choosing a reusable coffee cup instead of a disposable) have a lasting impact on the ocean. We recommend that the California Thank You Ocean campaign, co-chaired by the state and NOAA Office of National Marine Sanctuaries, be explored as a model for a national campaign.

Observations, Mapping, and Infrastructure

Priority Area 6 in the 2008 WCGA Action Plan, "Expand Ocean and Coastal Scientific Information, Research, and Monitoring", emphasizes the development of a regional research agenda, supporting long-term maintenance of ocean observing systems and monitoring assets on the West Coast, and completing a seafloor map of the bathymetry, benthic substrate, relief, geology, and habitats of all state tidelands and submerged lands out to three miles.

Action 4: Provide local and regional observation systems to support a variety of ocean, coastal, and Great Lake users.

- **Adequately fund the operation and maintenance of Integrated Ocean Observation System (IOOS).**

The West Coast is heavily invested in ocean observations, monitoring, and mapping efforts within state waters. We have comprehensive ocean observation systems (NANOOS, CeNCOOS, and SCCOOS) for the entire coast as part of the US Integrated Ocean Observing System (IOOS) in partnership with federal agencies and academic institutions utilizing various technologies such as high-frequency radar. The three West Coast ocean observation systems recently signed a joint Memorandum of Understanding (MOU) to formalize their commitment to work together and collaborate on projects. With adequate support and funding, ocean observing systems can continue to deliver regional and national benefits and further improve conversion and integration of data into information to support management. For example, to support Coastal Marine Spatial Planning (CMSP), the IOOS system could work with regional planning bodies and regional ocean partnerships to produce mapping products derived from ocean observation data for spill response, search and rescue, and water quality management. In order to further increase coordination, milestones for this action could be created based on priorities identified in the IOOS plans such as the Surface Current Plan and Wave Plan.

Taking on new projects should not come at the expense of such an important initiative as our Integrated Ocean Observing System which underpins the other 8 objectives of the NOP and can be used to make our efforts more streamlined, cost-effective and efficient. As recognized in the plan, moving forward, federal funding will be crucial to continuously improve and maintain this system and infrastructure.

Action 2: Improve unmanned and satellite remote sensing systems.

The WCGA support federal agencies taking a proactive approach to developing a coordinated pool of unmanned assets. This action helps to increase efficiency and coordination among federal and non-federal entities.

Action 5: Coordinate and leverage ocean and coastal mapping efforts to improve access to existing data and efficiently collect future data.

- **Support regional data networks, such as the West Coast data network.**

This support will improve access to existing and future regional data and inform regional planning. Regional data networks are best suited to understanding the specific needs of users and can tailor tools and data products to best meet those needs. There is a need for comprehensive nearshore mapping, as well as seafloor mapping The LIDAR/topographic data that the California Ocean Protection Council, NOAA, USGS and USACE collaboratively collected needs to be regularly repeated to understand the impacts of wave run up, sea level rise, etc. on a very dynamic shoreline. Furthermore, near-real time observations of storm wave runup on beaches and urban coastal areas are necessary to develop reliable models for these changes.

Coordinate and Support

Action 1: Support regional priorities and enhance regional partnerships.

- **Provide for an additional full-time federal position to coordinate federal agencies, ROPs, tribal governments and other entities.**

We'd like to thank the NOC for recognizing the contributions that regional ocean partnerships (ROPs) have made to effective ocean and coastal management and for recognizing that ROPs can be effective partners in helping to implement national priorities. As noted previously, staff time is often the primary constraint in the ROPs working with each other and other groups. The WCGA has been fortunate to have federal grant money to support a nearly full-time coordinator; however, only about a year to a year and a half of funding remains. We ask that the federal government provide for a full-time federal position tasked with coordinating the ROPs, federal government, tribal governments, and other entities. We would respectfully ask for this position be in addition to, not a reassignment of a current federal position to ensure that other programs are not inadvertently impacted. Alternatively, the federal grants to the ROPs might be longer-term MOUs developed through legislation, as is the case with the Integrated Ocean Observing System, to ensure some longer-term consistency. We'd also like to note that our web site address has changed, it is now http://www.westcoastoceans.org and would request that this change be reflected on page 36 of the NOP Implementation Plan.

Action 2: Strengthen existing partnerships and establish new partnerships, as appropriate, to enhance the actions within this Implementation Plan.

- **Reaffirm the need to strengthen and support tribal partnership and participation in NOP initiatives.**

Tribal governments have demonstrated aptitude and ability to manage ocean resources for sustained long-term use. They are integral partners for the Nation and for successful implementation of the NOP. On the West Coast, our success depends on a full partnership with tribal governments.

Action 3: Reduce barriers to implementation of the National Ocean Policy.

We fully support milestone 3 of this action which calls for potentially strengthening the Coastal Zone Management Act (CZMA). The CZMA, often referred to as the "Constitution for our Coasts", is a successful partnership between states and the federal government to enact shared priorities for protecting and managing the nation's coastline. This successful Federal-state partnership should be referenced as such in the NOP IP under Action 2 of the Coordinate and Support Priority. As noted, this federal legislation will be particularly important to enable us to adapt to the effects of climate change.

Action 4: Develop cross-cutting budget analyses that address priority areas in the National Ocean Policy.

- **Obtain new funding for the NOP.**
- **Prioritize the National Ocean Service budget, including reinstatement of funding for the coastal Non-Point Source Pollution Control Program.**

We applaud the NOC's efforts to implement cross-cutting budget analyses and understand the difficult budget situation of the federal government. However, it must be realized that implementation of the NOP, and coastal and marine spatial planning in particular, will require new and sustained federal resources. One particular program, the coastal non-point source pollution control program (section 6217 of CZMA) was completely defunded in 2009. We also note that the budget for National Ocean Services (NOS), which provides many resources to states, is often at the mercy of the needed resources for NOAA weather and satellite programs. If the NOC is to accomplish the goals set forth in the NOP Implementation Plan, it must prioritize the budget of NOS which is specifically aimed at overall (not species specific) ocean management, science, observations and mapping. These programs are essential to the nation's long-term economic and ecological health.

Action 5: Improve efficiency of permitting ocean, coastal, and Great Lakes uses.

- **Clarify that federal consistency authority and state permitting requirements will not be undermined.**

We support efforts to improve the efficiency of permitting activities but seek assurance that federal consistency authority provided to the states through the Coastal Zone Management Act (CZMA) will not be undermined. Federal consistency is an important tool to ensure that federal activities or federally-permitted activities do not jeopardize resources within our respective state waters. Furthermore, it would be helpful to have additional information that describes how federal streamlining efforts will be coordinated so they will not contradict state permitting requirements.

In addition, the state of California may develop a "Guide to Aquaculture Registration, Permits, Licenses, Laws, and Regulations in California" that will help aquaculture developers understand the broader context for aquaculture and the permitting and licensing requirements. Development of this guide could provide the opportunity for state agencies to coordinate more effectively with federal agencies, as California has already done in the area of renewable ocean energy.

Regional Ecosystem Protection and Restoration

We appreciate that the NOC recognizes the importance of ecosystem protection and restoration, as it is a key priority in the 2008 WCGA Action Plan. The WCGA would like to reiterate a previous comment that it would be beneficial to for the NOC to create a common and standardized classification scheme for marine and coastal habitats, and further develop and refine region-wide metrics for the evaluation of marine, estuarine, and coastal habitat conditions (e.g. National Coastal Condition Report, National Eutrophication Report, National Wetlands Inventory, EMAP/CEMPA etc.). Integration of these separate efforts with a unified numerical assessment of the ecological condition of coastal and marine habitats combined with standard classification for habitats will improve and streamline collaboration across states and regions. Additionally, we would like to provide specific comments to Actions 1, 2, 3, 5 and 7.

Action 1: Develop and transfer decision support tools to identify land protection and restoration priorities.

- **We prefer that the NOC not focus on geographically specific areas.**

This action focuses on Chesapeake Bay Region. We prefer that the NOC not focus on a geographically specific area. However, we understand the value in using specific case studies and would recommend that every effort be made so that lessons learned from the Chesapeake Bay case study are readily available and transferable to other regions.

Action 2: Reduce coastal wetland loss and improve understanding of coastal wetland status and trends.

- **Pilot watersheds should be distributed throughout the regions.**

The WCGA appreciates that this action will identify coastal watersheds for pilot assessments, and we think this will be an important step to reverse wetland loss. Vulnerable wetlands are present in all the coastal regions of the United States and can also have different characteristics depending on the region, which should be taken into consideration. An evenly dispersed set of pilot watersheds allows for a more comprehensive and holistic perspective on the state of the nation's watersheds. Because this action addresses wetlands in coastal counties (not just coastal wetlands), agencies such as USDOT, USDA/NRCS, and DOE should be engaged since the greatest wetland losses are typically associated with agriculture, transportation infrastructure, and energy production. We also suggest that more effort be allocated towards coordinated wetlands monitoring and assessment and towards ways for more effective sharing of information across agencies and programs.

Action 3: Incorporate carbon sequestration into coastal habitat conservation.

- **The NOC should ensure that carbon offset projects are ecologically appropriate, designed for multiple benefits, and do not provide harm to ecosystems.**
- **Climate change, especially sea-level rise, will affect carbon sequestration processes.**

The WCGA supports the inclusion of this carbon sequestration into coastal habitat conservation and the acknowledgement that the capability of coastal habitats to sequester carbon is an important but undervalued ecosystem service. Carbon offset projects play an important role, but it is important to be sure that these projects do not provide greater harm to the ecosystem than benefit. Given that climate change, especially sea-level rise, will affect carbon sequestration of coastal habitats, there is a need to understand this on a 100-year time frame. We also need to understand the permanence of carbon sequestration from these habitats and the risk of reversal for carbon offset projects to release the carbon back into the environment.

Action 5: Locate, control, and, where possible, eradicate invasive species.

- **Increase focus on preventing invasions, including incentive programs to strengthen ballast water standards.**
- **Increase capacity of the Aquatic Nuisance Species Task Force (ANSTF) and encourage partnerships with state and local governments.**

First, the WCGA acknowledges and thanks the NOC for incorporating our previous comment to not focus on a single invasive species: the lionfish in the Southeastern U.S. The WCGA and its partners have made great progress towards eradication of invasive *Spartina* on the West Coast. While we appreciate the focus on reducing the threat of aquatic invasive species, it is always more costly to control or eradicate a species than to prevent its introduction in the first place. We encourage the NOC to consider efforts to prevent the introduction of aquatic invasive species, such as supporting ballast water treatments and/or standards, addressing hull fouling, and the trade of live organisms (a largely unmanaged vector). With respect to ballast water, we encourage the NOC to explore innovative ways to strengthen the standards of ballast water discharge in US waters.

As we stated in our July 2011 letter, we support the NOC's recommendation that the Aquatic Nuisance Species Task Force (ANSTF) fulfill a coordinating role amongst federal agencies in implementing fragmented policies for regulating invasive species. While we believe the ANSTF is probably the entity best positioned to take on this role, we are concerned that they do not currently have adequate capacity, particularly if the ANSTF relies upon their regional panels, largely composed of volunteers, to do this work. Our experience has shown that the Western Regional Panel of the ANSTF has focused largely on zebra and quagga mussels, and due to limited capacity, has not been able to address coastal and marine species. We furthermore suggest that the ANSTF reach out to state and local partners to a greater extent.

Action 7: Improve the effectiveness of coastal and estuarine habitat restoration.

- **Add USFWS to the list of federal partners.**
- **Establish baseline characterizations in order to evaluate restoration.**

USFWS manages a significant amount of land through the Reserves and Coastal Program and therefore should be a partner in this endeavor. To assess restoration success it will be paramount to have baseline measurements or reference levels for coastal and estuarine habitats.

Resiliency and Adaptation to Climate Change and Ocean Acidification

Preparing for the effects of climate change is a key action in the 2008 WCGA Action Plan. Assessing West Coast shoreline changes and anticipated impacts to coastal areas and communities due to climate change over the next several decades, and developing actions to mitigate and adapt to the impacts of climate change and related coastal hazards are integral to ensuring the health and economic well-being of coastal communities. In 2010, the WCGA sponsored a West Coast sea level rise study by the National Research Council of the National Academies of Science; this report will be finished in spring/summer 2012. Our governors and the premier of British Columbia also signed an Action Plan for Ocean Conservation and Climate Change Adaptation of the Pacific Coast Collaborative. The WCGA has provided specific comments on the following actions.

Action 1: Strengthen and integrate observations from the Nation's protected areas, research sites, and observing systems into a coordinated network of sentinel sites to track changes in the condition of the ocean, coastal, and the Great Lakes environments and communities.

We support the new milestone under this action to create an interagency plan for topographic and shallow bathymetric mapping (using technologies such as LiDAR). Each of the three West Coast states have invested significant resources in mapping our state waters, yet mapping of the near-shore zone has been difficult to achieve. This mapping is critical to evaluating and predicting how sea-level rise, storm surges, and coastal erosion with affect the shoreline.

Action 2: Determine the impacts of climate change, ocean acidification, and interacting stressors on ecological, economic, and social systems.

- **Develop opportunities, particularly for federal funding, that encourage collaboration among multi-sector key partners to advance research.**
- **Assess how other environmental stressors may interact to exacerbate climate change impacts.**

Collaboration among multi-sector partners (i.e., regional, state, federal, tribal, private) will be particularly important in ensuring the most cost-effective and relevant research on climate change. The impacts of climate change may be magnified by other environmental stressors. For example, hypoxic events can exacerbate acidified waters. The WCGA recommends these synergistic effects of climate change be considered to determine the full impact of climate change effects on ecological, economic, and social systems.

Action 3: Provide critical projections of climate change impacts on coasts and oceans at decision-relevant scales.

- **Incorporate of sea-level rise projections into FEMA flood hazard maps.**
- **Recommend including more explicit language to work through CZMA and states' coastal program.**

- **Fund opportunities to conduct state specific climate change and sea level rise projection research.**

The WCGA would like to commend the changes in this section, particularly the focus on providing projections at decision-relevant scales. We believe that one of the most important ways to ensure that climate change impacts are taken into consideration by land use planners and the insurance industry is for FEMA to revise floodplain mapping to account for predicted changes in flood frequency, intensity, and impact.

Regionally specific studies will be extremely useful in helping regions prepare for climate change. In partnership with NOAA, USGS, and USACE, the WCGA commissioned a study through the National Research Council to evaluate sea level rise for California, Oregon, and Washington for the years 2030, 2050 and 2100; and provide specific values for the regional and local contributions to sea level rise. This study will be disseminated through a series of workshops hosted by the WCGA.

Furthermore, we support the milestone to "Make available coastal inundation and sea-level change visualization and decision-support tools at decision-relevant scales" but feel that this effort should be supported with new funding to build on efforts such as those underway in California by the Coastal Data Information Program (CDIP) and sponsored by the Federal Emergency Management Agency (FEMA) to model wave-driven flooding in coordination with the observational programs outlined above.

Action 4: Assess the vulnerability of coastal and ocean environments and the communities to climate change and ocean acidification.

- **Recommend including more explicit language to work through CZMA and states' coastal programs.**

Decisions about local land use planning in the face of climate change will be made by local governments. State coastal programs, created by CZMA, are in a unique position of bridging state-local-federal perspectives in assessing vulnerability and encouraging smart investments in future infrastructure.

Action 5: Strengthen interagency coordination on the development and provision of information, training, guidance, tools, and support for adaptation practitioners.

- **Catalogue emerging and state-of-the-art adaptation strategies, both engineering and ecosystem-based approaches.**
- **Strengthen forums for sharing best practices for climate change adaptation**.

As science quickly develops on climate change, the WCGA urges the NOC to make real-time research on adaptation strategies available through a clearinghouse or data portal. Forums to share best practices for climate change adaptation will become increasingly important, and the NOC should build off of existing forums such as NOAA's Coastal Climate Adaptation website and EcoAdapt's Climate Adaptation Knowledge Exchange.

Action 6: Design, implement, and evaluate adaptation strategies to reduce vulnerabilities and promote informed decisions.

- **Seek out funding for local governments to implement adaptation strategies.**
- **Include local and state representation on the proposed interagency coordinating framework.**
- **Reinsert milestone regarding pre-disaster mitigation planning.**
- **Reduction of stressors over which we have more direct control is important.**

Guidance about adaptation strategies will be very important and we are glad that the NOC plans to provide guidance to local jurisdictions that may lack the necessary expertise to prepare for climate change. However, appropriate funding (e.g. for revision of local coastal plans) will be necessary in order to implement these adaptation strategies. Engagement with state and local partners will be important to promote informed decisions and the WCGA would like to see these partners represented within the interagency coordinating framework. The previous SAP contained a milestone to '*implement pre-disaster mitigation planning and recovery to prepare for disasters. Revise Federal guidelines to encourage more resilient and sustainable forms of rebuilding and retreat*'. The WCGA supports this sentiment and would like to see this language included in the implementation plan. The SAP also included a milestone to '*reduce the impacts of stressors over which we have more direct control (e.g., pollution, habitat destruction, resource extraction) to enhance the resiliency of coastal, ocean, and Great Lakes ecosystems to climate change and ocean acidification*'. The WCGA would also like to see this milestone included in the implementation plan. For the milestone to "*provide guidance to waterfront property owners on adaptive management options for shoreline erosion*", we recommend that federal agencies ensure that this guidance is well coordinated with state and local land use policies that ultimately govern implementing such management option.

Water Quality and Sustainable Practices on Land

We thank the NOC for thoroughly covering the complexity of ensuring clean water quality through the many outcomes and milestones listed in the Implementation Plan. Water quality programs that reduce polluted runoff, enhance monitoring and enforcement of water quality regulations, combat nonpoint and point source pollution, better predict harmful algal blooms and hypoxia, reduce marine debris, provide for adequate oil spill prevention, preparedness and response, and set stringent emission standards for oceangoing vessels are key objectives in the 2008 WCGA Action Plan.

We also acknowledge the NOC for highlighting the importance of regional partnerships and collaboration with stakeholders as a beneficial method to address this problem. The WCGA understands the value of clean water and has dedicated two working groups to work on this issue - the Marine Debris Action Coordination Team and Polluted Runoff Action Coordination Team. With adequate support and funding, we look forward to continue working on improving water quality on a regional scale through leveraging existing resources and building partnerships.

Action 1-Reduce rural sources of excessive nutrients, sediments, toxics, and pathogens.

- **Ensure accountability and reductions from rural sources of polluted runoff similar to industrial sources to reduce impacts.**

For agricultural runoff sources measures of accountability and reductions for their impacts similar to industrial pollution sources should be considered and enforced using existing authorities.

Action 2-Reduce urban sources of excessive nutrients, sediments, toxins, and pathogens.

- **Refine permitting, regulation, and interagency coordination to improve navigation of the permitting process and ensure development is consistent with Green Infrastructure (GI) and Low Impact Development (LID).**
- **Establish economic and efficacy analyses of pilot LID projects.**

Incentives and funding should encourage communities to implement integrated planning for storm and wastewater treatment, mass transit systems, green infrastructure (GI), low impact development (LID), and protection or restoration of habitat. Additionally, we need to identify opportunities for refining complex regulatory pathways, aligning GI and LID requirements in permits to follow the prioritized principle of "avoidance, minimization, and mitigation", and increasing interagency coordination and permitting processing. Economic and effectiveness assessments of pilot LID projects would help drive local ability to meet the actions goals through targeted planning and regulation changes.

Under CZMA, Congress envisioned NOAA having a role in addressing nonpoint source pollution. For example, NOAA's Coastal Nonpoint Pollution Prevention Program has implemented successful projects at the regional level working with local governments and developers to implement LID. We encourage EPA to partner with NOAA to the greatest extent possible.

Action 3 – Minimize impacts of hypoxia.

- **Ensure adequate monitoring and research for all hypoxic areas, including those not associated with nutrient enrichment from land.**

The West Coast (off of Oregon and Washington, in particular) has had repeated seasonal hypoxic events that may be related to climate changes. Unlike many areas, nutrient enrichment from land is not likely a factor, but resource managers and stakeholders still need improved information on the extent, causes and forecasting for hypoxic events for the West Coast. In particular, this requires more robust monitoring for this vicinity.

Action 4- Minimize impacts of harmful algal blooms.

The WCGA supports this new action item to minimize the impacts of harmful algal blooms. This issue is identified under Priority Area 1: Ensure Clean Coastal Waters and Beaches in the WCGA Action Plan. The WCGA is committed to working with regional partners to better understand the causes and impacts of harmful algal blooms, and disseminating information to help educate stakeholders. For example, through partnerships formed through Ecology and Oceanography of Harmful Algal Blooms (ECOHABS), the West Coast regions has advanced its monitoring, researching, and forecasting of HABs.

Furthermore, we support the milestone for better infrastructure to inform HAB modeling, and would like to emphasize that existing infrastructure such as ocean observing systems (OOS) are valuable resources in researching HABs. Continued federal funding of OOS will provide valuable data to improve predictive HABs models currently under development.

- **Investigate emerging biotoxin threats.**

Researching biotoxin threats will help increase scientific knowledge regarding HAB occurrences and may decrease the exposure of contaminated seafood to humans. Newly present biotoxins in the West Coast region are being researched and support through federal funding will help ensure the continuation of research, monitoring, and forecasting of HABs.

Action 5- Address threats posed by toxic chemicals and land-use practices to human, environmental, and wildlife health.

- **Identify geographic areas most vulnerable to health risks that may require assistance to cope with significant water quality threats.**
- **Enhance and support state and regional strategies to prevent, prepare for, and mitigate oil spills in vulnerable areas.**

Efficiently utilizing our finite resources to maximize protection of the public from health risks will require identifying priority areas in need of assistance and providing the resources (financial and technical expertise) to these key areas, so they can build their capacity and decrease their vulnerability to significant water quality threats.

Action 6 – Reduce the impacts of trash and marine debris on ocean, coastal, and Great Lakes waters and associated watersheds, through cooperative efforts aimed at pollution prevention, reduction, and removal.

- **Establish marine debris location and baselines through standardized monitoring or existing data, and address specific trash and marine debris sources, pathways, and accumulation points.**
- **Determine milestones related to source reduction of trash and marine debris.**
- **Support the creation of a region-wide tsunami debris assistance and tracking program for West Coast states, in coordination with the newly formed West Coast Marine Debris Alliance.**
- **Conduct economic assessment of the costs of marine debris.**

First of all, we'd like to thank the NOC for including greater emphasis within this action on derelict fishing gear. We also believe that establishing a marine debris baseline will be crucial in measuring milestones and outcomes. Without baselines, it is extremely difficult to determine the success of marine debris and trash prevention, reduction, and removal programs. This can be completed in conjunction through quantifying debris when identifying principle sources of debris and areas of accumulation. It is also important to note that several groups along the West Coast are monitoring marine debris and the WCGA is working towards baseline characterization process that will be useful for NOP implementation. Furthermore, preventative actions to address marine debris should be identified and implemented along with establishing a baseline.

West Coast states may be subject to an increased quantity of marine debris in the future as debris from the March 2011 Japanese tsunami travels across the Pacific. States are preparing to deal with this large debris field through state leadership, and leadership of the West Coast Marine Debris Alliance. Although this situation is unique to the West Coast, creating resilience in states along the Pacific Coast is an investment that will provide efficient and cost-effective action for the future. One particular program that would benefit from funding is the Coastal Nonpoint Pollution Control Program (section 6217 of CZMA). Finally, conducting an economic analysis on marine debris impacts could help promote policies, laws, and regulations aimed at reducing source debris input.

Action 7-Identify, seek to protect, and maintain high quality near-shore ocean, coastal, and Great Lakes waters.

- **Continue to improve federal coordination with all stakeholders on prevention, preparedness, and response to coastal and offshore oil/chemical pollution from spills and industrial/shipping operations.**
- **Use case studies, best management practices, and mapping products to educate stakeholders about the importance of sustainable land use practices and policies.**

Looking back on the devastating impacts of the *Cosco Busan* spill in San Francisco Bay in 2007 or the Deep Horizon oil spill in the Gulf of Mexico in the spring of 2010, we commend the NOC for its goal of improving federal coordination on prevention, preparedness, and response to coastal and offshore oil/chemical pollution from spills and industrial/shipping operations. These events further emphasize the importance of protecting high quality offshore and coastal waters of the West Coast and the need for constant improvements to further reduce risks.

Finally, it is crucial that managers and decision makers have easy access to the information such as case studies, lessons learned, and best management practices that demonstrate the successes of integrating land and aquatic planning. This will be important for stakeholders and the public to understand their role not only in protecting coastal waters but also specifically in preventing and removing trash and marine debris (i.e. Action 6)

Coastal and Marine Spatial Planning

The WCGA supports comprehensive planning to protect and manage coastal and ocean resources, and believes Coastal and Marine Spatial Planning (CMSP) can be a valuable tool to achieve regional and national ocean health priorities.

Action 1: Distribute a *Handbook for Regional Coastal and Marine Spatial Planning.*

- **Allow for flexibility for regions to address their unique circumstance when implementing CMSP.**
- **Include lessons learned from states already engaged in CMSP.**
- **Handbook should be web-based and include CMSP messaging material.**

Distributing handbooks is a good way to provide information and guidance on regional planning efforts. As has been stated in various previous comment letters, we believe that states and regions need to have flexibility to implement a process in a way that addresses their own unique circumstance and needs. We do not believe there is a "one size fits all" approach to coastal and marine spatial planning. For example, regions should be permitted to undertake CMSP on a sub-regional basis if that meets their current needs and is agreed upon by the partners involved.

We also believe it will be helpful if the handbook is web-based and contains "results-oriented" messaging materials to help states and local governments talk about and build buy-in for the planning process.

Action 3: By 2015, all of the applicable non-confidential and other non-classified Federal data identified for inclusion will be incorporated into a National Information Management System and Data Portal (ocean.data.gov).

- **Provide guidelines so that regional data portals can be compatible with the national system.**

WCGA has begun investing resources in developing a regional data portal; NROC and MARCO's regional data portals have already been developed. As the regions develop or modify their data portals, it will be helpful to better understand how the regional data portals can be compatible with the national system so that data can be displayed more effectively to the public.

Action 4: Establish Regional Planning Bodies.

- **Identify new federal resources to support the comprehensive stakeholder process necessary for CMSP.**

Establishing and managing a Regional Planning Body (RPB) and CMSP process will require adequate and sustained resources and federal agencies should develop and provide a concrete strategy for supporting CMSP and the work of the RPBs.

We would like to thank the NOC for its recent decision to allow for participation of Regional Fishery Management Councils and local government officials as voting members of the RPB. The participation by these two groups was especially important to the West Coast and we applaud your recent decision.

Action 5: Within 3 to 5 years of their establishment, nine regional planning bodies (i.e., one per region) will have developed Council-certified regional CMS Plans for the sustainable use and long-term protection of the ocean, our coasts, and the Great Lakes.

- **Clarify the criteria for NOC certification early in the national CMSP process.**
- **Recommend adding explicit language that affirms supporting and incorporating each state's Plan into regional/subregional plans so that the efforts already underway can be compatible.**

We acknowledge the amount of resources and energy to implement CMSP and recommend the NOC to add additional regionally assigned staff to support, coordinate, and serve as a contact for CMSP implementation.

Regarding how CMSP will be implemented, California, Oregon, and Washington have already submitted extensive comments on the composition of the RPBs, the RPB Model Charter, and the RPB Collaborative Decision-making Process through our representatives on the Governance Coordination Committee. As those comments are too extensive to repeat here, we direct your attention to those documents.