



# NATIONAL OCEAN POLICY 2016 ANNUAL WORK PLAN

National Ocean Council

January 2016

## National Ocean Council

Council on Environmental Quality  
Office of Science and Technology Policy  
Department of Agriculture  
Department of Commerce  
Department of Defense  
Department of Energy  
Department of Health and Human Services  
Department of Homeland Security  
Department of the Interior  
Department of Justice  
Department of Labor  
Department of State  
Department of Transportation  
Environmental Protection Agency  
Federal Energy Regulatory Commission  
Joint Chiefs of Staff  
National Aeronautics and Space Administration  
National Oceanic and Atmospheric Administration  
National Science Foundation  
U.S. Army Corps of Engineers\*  
U.S. Coast Guard  
Office of the Director of National Intelligence  
Office of Management and Budget  
Office of the Vice President  
National Security Council Staff  
Domestic Policy Council  
National Economic Council

\* *Member of the Deputy-level committee*

# I. Introduction

**A. Background.** In April 2013, the National Ocean Council (NOC) published the [National Ocean Policy \(NOP\) Implementation Plan](#). The Implementation Plan aligned the efforts of the Federal government under five major themes: Ocean Economy, Safety and Security, Coastal and Ocean Resilience, Local Choices, and Science and Information. Since then, Federal agencies have made tremendous progress in carrying out actions described in the Implementation Plan. In March 2015, the NOC released the “[Report on the Implementation of the National Ocean Policy](#),” providing the status of all 214 actions described in the Implementation Plan.

The Implementation Plan provides a solid foundation for enhanced agency collaboration and effectiveness, and resulted in meaningful, beneficial results. The many accomplishments realized through the original Implementation Plan set the stage for a targeted approach to future NOP implementation. As many of the actions in the current Implementation Plan are completed, progress on the NOP will continue under Annual Work Plans to focus on pressing issues in a defined timeframe. A longer-term, higher-level implementation guide<sup>1</sup> (Guide) based on the original Implementation Plan themes will provide the overarching context and vision for crafting the Annual Work Plans and implementing the NOP in future years.

**B. Purpose.** The purpose of Annual Work Plans is to: 1) focus on specific, targeted areas under the five themes articulated in the Implementation Plan; 2) allow for continued work on the remaining actions in the original Implementation Plan; and 3) encourage interagency coordination on emerging areas as needed. Interagency attention to these targeted areas will yield significant results, progress, or accomplishment in a set, short time frame. Under the high-level direction of the longer-term Guide, this approach will build upon and connect the Implementation Plan’s actions (both completed and still underway) to activities described in the Annual Work Plans, an important and tangible step in strategic advancement of the NOP. To support this continuity in NOP implementation, Annual Work Plans will include Priority Areas and Continuing Actions, described below. They will also include, as needed, Emerging Areas to address new topics or issues not previously envisioned. These Emerging Areas may carry forward in subsequent Annual Work Plans as Priority Areas or Continuing Actions. Annual Work Plans are for both Federal agencies and non-Federal partners to use in implementing the NOP, and will be available publicly for transparency.

**C. How This Annual Work Plan Was Developed.** This Annual Work Plan was developed by an ad hoc interagency working group, in close coordination with NOC leadership and the interagency policy committees charged with implementing the NOP actions. The four Priority Areas for 2016 were recommended by these interagency committees, and approved by the NOC Deputies’ Committee. Selection of Priority Areas was – and will be in future Annual Work Plans – based on areas of pressing need that are prime for short-term advancement and contribute to the NOP goal to promote the well-being of the ocean, coasts, and Great Lakes, and the communities that depend on them.

Direction under the Annual Work Plan approach does not negate or stop ongoing work under the original Implementation Plan. Instead, this Annual Work Plan is meant to allow the

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<sup>1</sup> The longer-term guide is in development and will be posted on [www.whitehouse.gov/administration/eop/oceans](http://www.whitehouse.gov/administration/eop/oceans) when completed.

Implementation Plan to evolve (as it originally was described) as a “living document ... designed to be adaptive to new information or changing conditions ... as the Nation continually strives to improve the stewardship of the ocean, coasts, and Great Lakes for the benefit of current and future generations.”

**D. Timeframe.** The NOC will release each year’s Annual Work Plan in January. Some actions will have set due dates for completion during the timeframe of that Annual Work Plan. Some actions may have phased components, allowing significant progress to be made during the timeframe of that Annual Work Plan, with continuation of the action in the next Annual Work Plan under the “Continuing Actions” section. Milestones will measure progress on such actions.

**E. Connectivity.** Actions to implement the NOP, including this and subsequent Annual Work Plans, are to be undertaken in coordination with and support of other, related Administration priorities to the extent appropriate.

## II. Priority Areas

**A. Illegal, Unregulated and Unreported Fishing and Seafood Fraud** (NOP Implementation Plan Themes: Ocean Economy/Safety and Security)

1. Rationale. One of the biggest global threats to the sustainable management of the world’s fisheries is illegal, unreported, and unregulated (IUU) fishing. IUU fishing undermines the biological and economic sustainability of fisheries and the broader marine ecosystem by circumventing conservation measures and avoiding operational costs associated with sustainable fisheries management. In 2014, President Obama established a Task Force on Combatting Illegal, Unreported, and Unregulated Fishing and Seafood Fraud that produced 15 recommendations to implement a comprehensive framework of integrated Federal programs to combat IUU fishing and seafood fraud throughout the seafood supply chain. The recommendations were followed by an action plan for implementation. In April 2015, the Presidential Task Force became a Committee under the NOC. The NOC now oversees progress under the Committee’s action plan, which will be coordinated principally by the Committee’s co-chairs, NOAA and the Department of State.

2. Product/Deliverable. The IUU Fishing and Seafood Fraud Committee agencies will complete actions under the 15 recommendations set out in the “[Action Plan for Implementing the Task Force Recommendations](#).”

3. Responsible Party. NOC IUU Fishing and Seafood Fraud Committee [Members: DOC (NOAA), DOS (OES), USDA, DOD (DON), HHS (FDA), DHS (CBP, ICE, USCG), DOI (USFWS), DOJ, EOP (CEQ, NSC, OMB, OSTP, USTR), FTC, USAID]

4. Completion Date. Actions will be completed by December 2016. Depending on the specific action or product, there may be intermediate completion dates, as outlined in the Action Plan.

5. Connection to NOP Implementation Plan Themes.

I. The Ocean Economy

Supporting Economic Growth

Advance our mapping and charting capabilities and products to support a range of economic activities  
Provide greater accessibility to data and information to support commercial markets and industries, such as commercial fishing, maritime transportation, aquaculture, and offshore energy

Promoting Jobs

Prevent lost employment opportunities and economic losses associate with environmental degradation

II. Safety and Security

Improving Maritime Domain Awareness

Enhance remote sensing systems from ocean observations to support maritime domain awareness

Engage internationally to exchange information, expertise, and knowledge about policy issues in the maritime domain

**B. Harmful Algal Blooms/Hypoxia** (NOP Implementation Plan Themes: The Ocean Economy/Coastal and Ocean Resilience)

1. Rationale. The prevalence and duration of harmful algal blooms (HABs) and hypoxia in American marine and freshwaters are rapidly generating increased public concern. These scientifically complex events negatively impact resources across thousands of miles of coastal waters, inland lakes, and reservoirs, and pose a significant challenge to safeguarding the health of the Nation's coastal and freshwater ecosystems. HABs and hypoxia cause serious adverse effects on commercial and subsistence harvest of seafood, coastal economies, and public and wildlife health. They threaten the safety of seafood, drinking water, and air quality. They can result in lost revenue for lakefront and coastal economies that are dependent on aquatic/seafood harvest or tourism. HABs and hypoxia can impact subsistence activities, contribute to loss of community identity, and disrupt social and cultural practices. Federal agencies have successfully implemented and planned many programs to prevent, control, and mitigate HABs and hypoxia. Progress to this point has demonstrated the clear potential for strong science-based decision making to reduce and mitigate the impacts of HABs and hypoxia. Under the NOC, Federal agencies will improve coordination and communication to make more information on HABs and hypoxia and their impacts available to more communities, managers, and stakeholder groups.

2. Product/Deliverable. Federal agencies will work together and with other levels of government and stakeholders to:

- Expand stakeholder engagement to reduce human impacts from HAB toxins and hypoxia through methods including, but not limited to, a community practice website and risk communication tools. (Completion December 2016)
- Improve communication between scientists, decision-makers, and the public by conducting webinars and other methods of information dissemination. (Completion December 2016)
- Improve coordination among health and environmental agencies on health surveillance for human and animal HAB-related illnesses. (Completion June 2016)
- Promote the development of observation systems and encourage their implementation. (Completion December 2016)
- Advance operational ecological forecasting of HAB events in coastal area using remote sensing monitoring techniques and predictive models. Improve and expand HAB and hypoxia modeling efforts. (Completion December 2016)

3. Responsible Party. IWG-HABHRCA [Members: EPA, DOC (NOAA), HHS (NIEHS, FDA, CDC), USDA, NASA, DOD (DON, USACE), DOI (BOEM, USGS, NPS), NSF]

4. Completion Date. Actions will be completed by June 2016 and December 2016 as noted above. Depending on the specific activity or product, there may be intermediate completion dates.

5. Connection to NOP Implementation Plan Themes.

I. The Ocean Economy

Promoting Jobs

Prevent lost employment opportunities and economic losses associated with environmental degradation

III. Coastal and Ocean Resilience

Reducing Adverse Conditions

Improve and preserve our Nation's coastal and estuarine water quality to provide clean water for healthier waterways, communities, and ecosystems

Recovering and Sustaining Ocean Health

Improve the Nation's preparedness for and response to environmental hazards through better forecasts, increased and more integrated monitoring, and strengthened preparedness

**C. Regional Marine Plans** (NOP Implementation Plan Theme: Local Choices)

1. Rationale. The National Ocean Policy established nine marine regions covering the entire coastline of the United States. Governance entities and communities in these regions have the opportunity to provide strategic direction to Federal agency management actions in their region. Through collaboration across Federal agencies, state governments, tribes, and stakeholders, Regional Planning Bodies (RPB) will develop regional marine plans that will help inform Federal activities. The scope of regional marine plans will be defined by the regions themselves, but marine plans can provide information and guidance on specific issues, resources, and areas of interest.

2. Product/Deliverable. Regional marine plans for the Northeast and Mid-Atlantic RPBs, including robust data management systems containing coastal and marine scientific data and products.

3. Responsible Party. Northeast RPB and Mid-Atlantic RPB for plan development; NOC leadership for concurrence.

4. Completion Date. The Northeast RPB marine plan will be completed by October 2016. The Mid-Atlantic RPB marine plan will be completed by December 2016.

5. Connection to NOP Implementation Plan Themes.

IV. Local Choices

Supporting Regional Priorities

Support marine planning to advance regionally determined economic, social, environmental, and cultural interests

**D. Ocean Acidification** (NOP Implementation Plan Theme: The Ocean Economy/Science and Information)

1. Brief Description. Ocean acidification is occurring because the ocean is absorbing increasing amounts of atmospheric carbon dioxide, leading to lower pH. In addition, land-based sources such as excess nutrients flowing into coastal waters can contribute to the problem, which is significantly altering the chemistry of ocean and coastal waters from pole to pole. Ocean acidification will alter marine ecosystems and impact the services and resources they provide. The effects of ocean acidification on economically important species are still emerging, but it is clear that the impacts could extend beyond local and regional economies. Ocean acidification also has important cultural implications for coastal communities that rely on impacted species for ceremonial and subsistence purposes. Under the NOC, Federal agencies will work together toward a collective approach to understand and address ocean acidification, specifically identifying information needs and data sharing.

2. Product/Deliverable.

- Federal agencies will improve observing capabilities for ocean acidification.
- Federal agencies will encourage additional participation in the [Global Ocean Acidification Observing Network](#).

3. Responsible Party. IWG-OA [Members: DOC (NOAA), DOS, NASA, NSF, DOD (DON), DOI (USGS, BOEM, NPS, USFWS), USGCRP, EPA, USDA, DOE, SI]

4. Completion Date. Actions will be completed by December 2016. There may be intermediate completion dates as activities progress.

5. Connection to NOP Implementation Plan Themes.

I. The Ocean Economy

Supporting Economic Growth

Provide greater accessibility to data and information to support commercial markets and industries, such as commercial fishing, maritime transportation, aquaculture, and offshore energy

V. Science and Information

Strengthening Our Ability to Acquire Marine Data and Provide Information

Advance and sustain ocean, coastal, and Great Lakes observing system infrastructure to support a variety of users

Improving Science-based Products and Services for Informed Decision-Making

Provide high-quality data and tools necessary to support science-based decision-making and ecosystem-based management

### III. Continuing Actions<sup>2</sup>

**Remaining Actions in Current Implementation Plan.** There are approximately 150 remaining actions in the current Implementation Plan. While a few actions cannot be completed

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<sup>2</sup> Future Annual Work Plans will include a section enumerating any carryover actions from the previous Annual Work Plans.

due to changing circumstances since the Implementation Plan was drafted, other actions are progressing as originally written or with varying levels of modification to ensure progress. Federal agencies will continue working on these actions until they are complete, or as a component of their ongoing mission. Updates of the [“Report on the Implementation of the National Ocean Policy”](#) will be posted to provide information on progress.

## IV. Emerging Areas

### A. Coastal Resilience and Sea Level Rise Tools

1. Rationale. Climate change is affecting the American people in far-reaching ways. Impacts related to climate change are evident across regions and in many sectors important to society. For coastal communities, sea level rise, combined with coastal storms, has increased the risk of erosion, storm surge damage, and flooding. The capacity of marine and coastal ecosystems to buffer the impacts of extreme events is being overwhelmed. The rising temperature and changing chemistry of ocean water is combining with other stressors, such as overfishing and pollution, to alter marine-based food production and harm fishing communities. The Federal government repeatedly hears from state, local, and tribal leaders that they need consistent, accessible, authoritative, and regionally appropriate projections and scenarios of future climate change, in particular sea level rise, for supporting preparedness planning. In response, the Federal government is working to provide a set of regional sea level rise and associated coastal flood hazard scenarios and tools for the entire United States.

#### 2. Product/Deliverable.

- Convene relevant Federal agencies for a series of discussions to identify objectives and feasible accomplishments for providing a set of regional sea level rise scenarios, and associated coastal flood hazard tools, at the national scale, with an initial focus in this timeframe on the Atlantic and Gulf Coasts.
- Regionalize the global sea level rise scenarios developed for the National Climate Assessment for these regions out to 2100.
- Guided by these feasibility discussions, begin integrating regional sea level rise scenarios with existing coastal risk assessment capabilities in Federal agencies to create an evolving set of informational and planning tools designed to help stakeholders develop improved insight into the additional risks sea level rise over upcoming decades may pose in coastal settings. This development will be carried out in dialogue with selected state and local partners who can assist in evaluating the utility of these new tools for on-the-ground decision-making. The tools will be deployed through the Climate Resilience Toolkit. Existing capabilities ultimately to be built out to account for future sea level rise include: mapping of horizontal floodplain extent; calculation of flood depth at a given location; tools to assess rates of coastal erosion and shoreline change; and threshold exceedances of chronic, recurrent (“nuisance”) flooding at different levels of severity.

3. Responsible Party. DOC (NOAA), DOI (USGS, USFWS), DOD, FEMA, USACE, USGCRP, EPA, OSTP

4. Completion Date. Actions will be completed by June 2016.



## **B. Emerging Area: Coastal Mapping**

1. Rationale. Informed choices in the coastal zone, whether for the safety of coastal residents, environmental protection, security or economic decisions, require accurate and up-to-date U.S. coastal mapping data. The acquisition of this mapping data – in particular high-accuracy, high-resolution topographic and bathymetric lidar mapping<sup>3</sup> – must be comprehensive, coordinated, cost-effective, and recurring. Such a strategic approach to coordinated land-water lidar mapping at the coasts would bring the United States much closer to becoming a nation that translates robust mapping coordination into a seamless, modern elevation foundation for stronger, more resilient communities and a more competitive U.S. economy.

Recognizing the ongoing progress on lidar mapping coordination in the coastal zone, Federal agencies have produced the first iteration of a National Coastal Mapping Strategy focused on topographic and bathymetric lidar mapping of the U.S. coasts, Great Lakes, territories and possessions. This Strategy presents an approach for the acquisition of coastal mapping data that will eliminate redundancy, reduce costs, and support the widest possible range of coastal data needs.

2. Product/Deliverable. Three deliverables are expected to be complete by the end of 2016:

- Submit to Congress the National Coastal Mapping Strategy 1.0, focused on coordination of topographic and bathymetric data collection, fully vetted through public comment. (Fall 2016)
- Publish Federal Agency Mapping Plans and Stakeholder Mapping Requirements in an online map application in support of the third National Coastal Mapping Summit, to include outside agencies and regional state/local stakeholders. (Summer 2016)
- Draft the National Coastal Mapping Strategy 2.0, focused on additional data collection technologies including bathymetry, acoustic, aerial photography, hyperspectral and satellite imagery. (Fall 2016)

3. Responsible Party. IWG-OCM [Members: DOC (NOAA), DOD (USACE, NAVO, NGA), DOI (USGS, BOEM), DHS (USCG), NSF, EPA, FEMA, NASA]

4. Completion Date. Actions will be completed by December 2016. There may be intermediate completion dates as activities progress.

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<sup>3</sup> “Lidar” stands for “light detection and ranging,” a remote sensing method that uses pulses of light from a laser combined with other data to generate precise, three-dimensional information about the shape of the Earth and its surface characteristics, in particular elevation. More information on lidar can be found at <http://oceanservice.noaa.gov/facts/lidar.html>.