

COASTAL MARINE SPATIAL PLANNING UPDATE

The National Ocean Council (NOC) released its draft National Ocean Policy Implementation Plan in January 2012 (Agenda Item H.1.a, Attachment 1 – *on briefing book website and CD only*). The plan addresses nine priority objectives, including coastal marine spatial planning, and describes actions, outcomes, and milestones, to facilitate implementation. The Pacific Council will hear an update on the essential elements of the draft implementation plan.

The Regional Fishery Management Council's (RFMC) Coordination Committee received a briefing on the draft implementation plan from the NOC leadership, including particular focus on the question of RFMC participation on the regional planning bodies (Agenda Item H.1.a, Attachment 2).

A public comment period on the draft implementation plan closed March 28, and the Pacific Council submitted a letter reiterating its support for consideration of fisheries issues, as well as the inclusion of RFMC in the regional planning bodies in general, and specifically the Pacific Council.

Reference Materials:

1. Agenda Item H.1.a, Attachment 1: Draft National Ocean Policy Implementation Plan (*on briefing book website and CD only*).
2. Agenda Item H.1.a, Attachment 2: Draft National Ocean Policy Implementation Plan Power Point Briefing to the Councils Coordination Committee.

Agenda Order:

- a. Agenda Item Overview
- b. Update on Marine Spatial Planning activities
- c. Reports and Comments of Advisory Bodies and Management Entities
- d. Public Comment
- e. Council Discussion

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Draft National Ocean Policy Implementation Plan

National Ocean Council



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.

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Table of Contents

Introduction	1
List of National Priority Objectives	8
Ecosystem-based Management	9
Inform Decisions and Improve Understanding	18
Observations, Mapping, and Infrastructure	26
Coordinate and Support	35
Regional Ecosystem Protection and Restoration	43
Resiliency and Adaptation to Climate Change and Ocean Acidification	54
Water Quality and Sustainable Practices on Land	63
Changing Conditions in the Arctic	75
Coastal and Marine Spatial Planning	85
Conclusion	93
Appendix: Summary of Public Comments	95
Appendix: List of Acronyms	111

DRAFT IMPLEMENTATION PLAN

Introduction

The ocean, our coasts, and the Great Lakes are integral to who we are as a Nation, and are among our greatest assets. They feed us, support millions of jobs, and provide recreation. They are part of our communities and cultures, and enhance our national security by their mere presence. With 53 percent of our population living in coastal counties according to the most recent census, and that percentage expected to grow to 63 percent by 2020, the United States is a coastal nation. Our valuable ocean and coastal resources are vulnerable to misuse, and need to be thoughtfully managed to ensure they will be healthy and productive for current and future generations.

The Federal Government has a critical role to play as a steward, leading the way in sound management of these ecosystems working with States, Tribes, and other partners to find common solutions to key challenges, and ensuring the Nation’s valuable ocean, coastal, and Great Lakes resources continue to provide us with the wealth of benefits that ensure our well-being and prosperity. Recognizing this, the National Policy for the Stewardship of the Ocean, Our Coasts, and the Great Lakes (hereinafter “National Ocean Policy”) was established by Executive Order 13547 on July 19, 2010. The National Ocean Policy provides that Federal agencies will “ensure the protection, maintenance, and restoration of the health of ocean, coastal, and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification, and coordinate with our national security and foreign policy interests.”

Vision of the National Ocean Policy:

“To achieve 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.”

- Executive Order 13547

For the first time in our Nation’s history, the National Ocean Policy provides the framework for all Federal agencies to work together to pursue these goals with cohesive actions across the Federal Government, and for engaging State, Tribal, and local authorities, regional governance structures, non-governmental organizations, the public, and the private sector. Fishing, energy, transportation, recreation, security, and other uses will be considered collectively and managed comprehensively and collaboratively.

IMPLEMENTATION PLAN

This draft Implementation Plan lays out the initial steps required to achieve the vision and charge of the National Ocean Policy, and to address the most pressing challenges facing the ocean, our coasts, and the Great Lakes. This document describes specific actions the Federal Government will take to deliver tangible results to the American people.

This draft Implementation Plan does not encompass all Federal actions relating to ocean, coastal, and Great Lakes matters; rather, it focuses on the nine priority objectives highlighted under the National Ocean Policy. For each priority objective, a suite of actions and their intended outcomes are described. For each action, key milestones are outlined, lead agencies or other responsible entities are identified, and timeframes are listed. This structure is designed to provide a clear layout of what will be accomplished when and who will be engaged.

THEMES

This draft Implementation Plan is guided by four themes: (1) adopt ecosystem-based management; (2) obtain, use, and share the best science and data; (3) promote efficiency and collaboration; and (4) strengthen regional efforts.

Adopt Ecosystem-Based Management

Ecosystem-based management (EBM) is an integrated approach to resource management that considers the entire ecosystem, including humans. It requires managing ecosystems as a whole instead of separately managing their individual components or uses, considers all the elements that are integral to ecosystem functions, and accounts for economic and social benefits as well as environmental stewardship concerns. The concept of EBM is underpinned by sound science and a commitment to adaptive management as information or changing conditions present new challenges and opportunities. It also recognizes that ecosystems are not defined or constrained by political boundaries; thus, it requires collaboration among Federal agencies and with other entities at local, State, Tribal, and regional scales.

The EBM implementation actions outlined in this document are designed to ensure that the necessary collaborative and scientific frameworks are in place, and that training is provided to support an ecosystem-scale approach to management at national, regional, and local levels. Further, it lays out how pilot projects will be used to develop best practices for implementing EBM at scales relevant to addressing specific resource management objectives. While the EBM concept is not new, the Federal Government-wide implementation of EBM is a major shift in how the Nation considers human uses of ecosystems, moving away from a sector-by-sector approach to management toward a more integrated way of doing business. Through the *Ecosystem-Based Management* priority objective, this draft Implementation Plan provides a foundation for integrating EBM into the other National Ocean Policy priority objectives.

Obtain, Advance, Use, and Share the Best Science and Data

In many regards, our understanding of marine ecosystems has not kept pace with the cumulative impacts of human uses and the environmental changes that are occurring. “Best science” is a guiding concept that requires using the best available science when making a current policy decision and improving upon that knowledge as the basis for future decisions. To implement EBM successfully, decisions must be informed by the best available ecological, social, and economic science and data. At the same time, we must improve greatly upon our understanding of ecosystem structure and function. This is especially true in a world increasingly reshaped by extreme events, climate change, coastal development, and other drivers. Ongoing research, monitoring, and modeling efforts will enable management to adapt to changing conditions.

This draft Implementation Plan aims to ensure that high-quality science is carried out, made available, and used in decision-making so that our knowledge of ecosystem science is advanced, thereby enabling more informed decisions in the future. It also aims to ensure that the quality, quantity, availability, integration, and transparency of management-relevant data are continually improved. It prioritizes ocean research, education, observation, and exploration through actions that provide a strong scientific foundation for management and stewardship and that enable translation of scientific and technological advances into support for decision-making. Two priority objectives focus specifically on advancing knowledge and providing data and science: *Inform Decisions and Improve Understanding*, and *Observations, Mapping, and Infrastructure*.

Access to Federal data and information has been widely identified as a critical need by ocean users, managers, and stakeholders. As a significant example, the ocean.data.gov web portal, described under the *Coastal and Marine Spatial Planning* priority objective, addresses the National Ocean Policy’s call for a “robust national information management system dedicated to coastal and marine scientific data and information products.” The intent of this portal is to manage and disseminate information relevant to conducting collaborative and comprehensive planning and provide access to important information at national and regional scales by making existing and new databases available and interoperable.

Promote Efficiency and Collaboration

The National Ocean Policy depends on coordination across the Federal Government, as well as coordination and collaboration with our partners. Management of ocean and coastal resources will greatly benefit from strengthening and fostering collaboration among Federal agencies and partnerships with State, Tribal, and local authorities, regional governance structures, non-governmental organizations, the private sector, the public, and the international community. While the actions in this draft Implementation Plan provide guidance to Federal entities regarding the use of tools and resources, the effectiveness of these efforts will also depend on management decisions made by communities. There is potential to improve efficiency by

leveraging expertise and resources, identifying and augmenting synergies, reducing redundancies, and streamlining management.

The actions in this draft Implementation Plan will improve cooperation among multiple jurisdictions, and enhance and initiate partnerships within the Federal Government and with external entities. This draft Implementation Plan creates no new regulations. However, within existing authorities, legal and regulatory barriers to full implementation of the National Ocean Policy will be identified and permitting processes will be streamlined. One priority objective, *Coordinate and Support*, is focused exclusively on partnerships and collaboration, but these themes are woven through all nine priority objectives.

Strengthen Regional Efforts

Ocean, coastal, and Great Lakes ecosystem protection and restoration are currently being carried out at State and regional scales. Regionally based efforts to address ocean and coastal issues are already in place. For example, Governors in six regions have established State-led regional ocean governance bodies to advance coastal and ocean use, management, protection, and restoration priorities. Federal agencies are also engaged in various regions through interagency collaborations focused on regional ecosystem restoration and management. This draft Implementation Plan seeks to support these existing efforts, foster new efforts, and provide data and decision-support tools, including coastal and marine spatial planning (CMSP), that would greatly contribute to the success of this important regional work.

The actions in this draft Implementation Plan support regional alliances and move toward a set of shared priorities across the Federal Government and with States and Tribes. Issues range from conservation of coral reef ecosystems, to assessing the impacts of ocean acidification, to minimizing the impacts of harmful algal blooms, to observing and forecasting Arctic sea ice. Five of the priority objectives include a regional focus: *Regional Ecosystem Protection and Restoration, Resiliency and Adaptation to Climate Change and Ocean Acidification, Water Quality and Sustainable Practices on Land, Changing Conditions in the Arctic, and Coastal and Marine Spatial Planning*.

COASTAL AND MARINE SPATIAL PLANNING

CMSP is an important tool for implementing EBM. It involves increased coordination and collaboration across all levels of government, leading to a more efficient, streamlined, and certain decision-making process for managing activities in the ocean, coasts, and Great Lakes. CMSP provides a framework for engaging stakeholders and a process for comprehensively planning how to balance the myriad demands on ocean and coastal resources. It encourages States, Tribes, localities, and regions to collaborate in an inclusive manner to meet regional needs. CMSP offers an opportunity to better facilitate sustainable economic growth, without

compromising national security or ecosystem protection, by providing the data and information, transparency, and predictability the private sector needs to make informed business decisions.

CMSP is science-based. A core component is integrating ocean and coastal data and developing innovative visualization and other decision support tools. Robust science, data, and mapping tools will help managers understand and reduce conflicts among present and potential uses. The results of accomplishing actions and milestones throughout this draft Implementation Plan regarding research, data, and best practices will help the CMSP process realize its full potential.

This draft Implementation Plan includes preliminary national objectives and actions for CMSP. Additional information, guidelines, and implementation options will be included in a separate handbook, addressed by one of the actions, which will provide suggestions for how CMSP may be adapted to suit each region's specific challenges and to best achieve the opportunities it presents.

FISCAL RESPONSIBILITY

In today's fiscal climate, it is important to leverage existing resources and prioritize use of funds among projects and programs. As the actions in this draft Implementation Plan were developed, Federal agencies were asked to consider three questions: What activities can be accomplished with existing Federal and partner resources? How can existing resources be repurposed for greater efficiency and effectiveness? Where do we need to include activities that with minimal additional resources may allow for additional truly transformative and far-reaching impacts? This draft Implementation Plan prioritizes efforts and thereby enables us to better apply limited Federal resources to address some of the key challenges facing the ocean, coasts, and Great Lakes.

Efforts have been made to ensure the actions within this draft Implementation Plan can be achieved based on expected Federal budgets for the coming years. However, given the constrained fiscal climate and the uncertainty in the budget and appropriations processes, completion of every action and milestone in this draft Implementation Plan within the timeframes expected are contingent on the availability of funds. Federal agencies involved in each action will periodically evaluate resource allocations within the parameters of agency-specific statutory or regulatory mandates. Plans for long-term activities requiring additional resources will be further developed in future years. An annual memorandum from the National Ocean Council (NOC) to its member agencies will provide further guidance and prioritization toward allocating Federal resources to achieve implementation goals.

STAKEHOLDER INVOLVEMENT IN DEVELOPMENT OF THE DRAFT IMPLEMENTATION PLAN

Experts from Federal agencies and offices developed the actions in this draft Implementation Plan with significant input from national, regional, and local stakeholders and the general public. The development process included public comment periods from January through April 2011 and June through July 2011, and 12 regional listening sessions around the country. In addition, the NOC's Governance Coordinating Committee—composed of State, Tribal, and local government officials—and the Ocean Research Advisory Panel—composed of expert representatives from a range of ocean sectors—provided input on preliminary documents used in developing this draft Implementation Plan. Many of the actions in this draft Implementation Plan reflect the comments received. A description of how substantive comments were addressed is provided as an Appendix. We will continue to seek public and stakeholder input as the Implementation Plan is finalized. Comments will be used to develop the final approach to improving how the Federal agencies implement the National Ocean Policy.

NEXT STEPS

This draft Implementation Plan is available for public comment through February 27, 2012. In particular, the public is asked to provide comments regarding (1) priorities for the ocean, our coasts, and the Great Lakes and whether this draft Implementation Plan reflects those priorities, and (2) the most effective way to measure outcomes and to detect whether a particular action in the Implementation Plan has achieved its intended outcome.

The NOC expects to complete and approve the final Implementation Plan in the spring of 2012. Federal agencies will then implement its initial set of actions. The Implementation Plan is designed to be adaptive and allow for modification of existing actions and addition of new actions based on new information or changing conditions.

This draft Implementation Plan is not meant to be exhaustive or final. Rather, it represents an alignment of priorities and agreement across the Federal Government on the initial actions required to achieve the goals of the National Ocean Policy. It will be updated periodically as we make progress toward completing these actions, plan new initiatives, and continually strive to improve our stewardship.

While the actions for addressing the National Ocean Policy's priority objectives are presented here in separate chapters, they are not intended to be pursued independently, but as interrelated and often simultaneously executed activities that together form a comprehensive approach to meet the needs of our coastal Nation. The National Ocean Policy and this draft Implementation Plan do not change existing Federal authorities and responsibilities. However, the outlined actions are designed to work synergistically to spur an ecosystem-based management approach, expand our scientific knowledge, forge increased efficiency and collaboration, and strive to meet

regional needs by pursuing stewardship through comprehensive management. Overall, implementing this set of actions will be far more than the sum of its parts, and will represent a pivotal step toward improving the management of the ocean and coastal resources upon which our Nation depends.

MAKING INFORMATION EASILY AVAILABLE: OCEAN.DATA.GOV AND BEYOND

The National Ocean Policy calls for strengthening and integrating Federal and non-Federal ocean observing systems, sensors, data collection platforms, technology, data management, and mapping capabilities into a national system, and integrating that system into international observation efforts. Observations, monitoring, and data are essential to ensuring timely, certain, and objective information for managing ocean, coastal, and Great Lakes resources. Access to Federal data and information has been widely identified as a critical need by ocean users, managers, and stakeholders. A number of actions in this Plan identify efforts to provide easier and more transparent open access to Federal scientific data, tools, and information.

The most prominent tool is the ocean.data.gov web portal, which addresses the National Ocean Policy's call for a "robust national information management system dedicated to coastal and marine scientific data and information products." This portal is an effective and central system for users and stakeholders, as well as NOC partners, to manage and disseminate relevant information at scales needed for regional planning.

This draft Implementation Plan also includes development or use of information systems for specific actions. A key action for the *Observations, Mapping, and Infrastructure* priority objective is to develop an integrated observations and data collection, processing, and management system for coastal and ocean data and information. Federal agencies will also conduct an evaluation of a prototype portal to make available the Federal Oceanographic Fleet schedule. An action addressing the Inform Decisions and Improve Understanding priority objective calls for the delivery of a portal to access decision-support tools and to make results and "lessons learned" of pilot ecosystem-based management studies available to decision-makers and interested non-Federal partners and stakeholders.

Under the *Regional Ecosystem Restoration and Protection* priority objective, to improve the effectiveness of coastal and estuarine habitat restoration projects, information will be made available to the public via an Estuary Habitat Restoration Council website. In addition, the Chesapeake land conservation priority system will be accessible to stakeholders through a regional data portal.

Other actions in this draft Implementation Plan will build on the success of existing Federal data portals. A national hypoxia data portal for seamless data sharing and information dissemination for regional ecosystem protection and restoration will use the EPA/USGS data portal. Another action includes steps that will be taken to further implement the U.S. Integrated Ocean Observing System observational and data management components to provide local and regional observations.

Collectively, these Federal data services will be a coordinated part of an overarching and interoperable national system. The implementation of this Plan will include ways to make existing and new databases and services available and connected through ocean.data.gov and other interconnected systems.

NATIONAL PRIORITY OBJECTIVES

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

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.

Observations, Mapping, and Infrastructure: Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system, and integrate that system into international observation efforts.

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.

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.

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.

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.

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

Ecosystem-Based Management

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

Traditional approaches to management of natural resources focus on single species or uses, and may not adequately consider the entire ecosystem. This single-issue approach is inconsistent with the reality that ecosystems are complex, dynamic assemblages of diverse, interacting organisms, habitats, and environmental factors shaped by natural and human influences. More importantly, this approach has not been effective in preventing degradation of ocean and coastal resources and habitats. Over the past century of management, the health of most ocean and coastal resources has severely declined. The deep interdependence and dynamic relationships between all ecosystem components make it imperative to take an ecosystem-wide approach to protect, maintain, and restore the health, function, and biological diversity of ocean, coastal, and Great Lakes ecosystems and resources. A narrow single-species or single-use approach to resource management is inherently inadequate, and often results in resource depletion, economic hardships, and environmental risks. A holistic approach that examines and accounts for the complex relationships among species and their habitats is required.

For example:

- Fisheries can be better managed by considering not only fishing and targeted fish population dynamics, but also competitors, predators, and prey; the quantity and quality of the habitat that supports each life-stage; cultural, societal, and economic importance; the effects of climate change and invasive species; and the dynamic interactions among these components. Considering interactions with other human uses such as energy, mineral extraction, coastal development, tourism, shipping, and national security will improve future management decisions.

- Wetlands should not be managed by focusing only on the importance of habitat for wildlife species, but should also ensure the ecosystem’s ability to sequester atmospheric carbon, mitigate natural hazards, filter pollution and excess nutrients out of water flowing into the ocean and Great Lakes, and provide nursery grounds for fish species while coastal development and climate change occur.
- The coastal tourism industry should not only endeavor to maintain sandy beaches, but also the value of healthy ecosystems broadly, including water quality and clarity, biodiversity, and healthy habitats that make recreational opportunities such as surfing, SCUBA diving, snorkeling, whale watching, and fishing enjoyable.

This comprehensive, big-picture approach to management is called ecosystem-based management, and is a foundational principle for stewardship and sustainable use of natural resources. In a consensus statement signed by over 200 highly regarded academic scientists, McLeod et al. (2005) defined EBM as “an integrated approach to resource management that considers the entire ecosystem, including humans,” and noted that the goal of EBM is “to maintain an ecosystem in a healthy, productive, and resilient condition so that it can provide the services humans want and need.” The NOC has built upon this definition, and its accompanying list of elements and characteristics, with modifications that reflect the views of multiple Federal agencies as they address implementation of EBM.

Accordingly, the term EBM describes an integrated approach to management, including resource management, that considers the entire ecosystem, including humans, and elements that are integral to ecosystem functioning. Informed by both natural and social science, EBM is intended to conserve and restore our natural and cultural heritage by sustaining diverse, productive, resilient ecosystems and the services they provide, thereby promoting the long-term health, security, and well-being of our Nation. Specifically, EBM:

- Recognizes that humans are a part of ecosystems and that healthy ecosystems are essential to human welfare;

Benefits provided by healthy ecosystems:

Sustainable fisheries provide food, create jobs, and support local economies.

Mangroves and salt marshes are natural filters, trapping harmful sediments and excessive nutrients.

Offshore reefs create sand and protect the shoreline from flooding and severe storm erosion.

Healthy, oxygen-rich seabeds with large invertebrates provide prey and important habitat for sustainable fisheries.

Offshore energy provides power to support the economy.

Healthy coral reefs are hotspots of marine biodiversity, are of major importance for tourism, and can be a source for new medicines and health care products.

Marine ecosystems such as seagrasses, mangroves, and salt marshes are carbon sinks, reducing greenhouse gases.

Clean, navigable oceans enable marine transportation and commerce, and are vital to national and homeland security.

Examples of Implementing EBM around the United States

The Puget Sound Partnership (PSP) is a community effort of citizens, governments, Tribes, scientists, and businesses working together to restore and protect the Puget Sound. The PSP uses ecosystem health metrics and modeling to provide stakeholders and managers with a framework for making decisions.

Landscape Conservation Cooperatives (LCCs) are a network of public-private partnerships seeking to identify best practices, connect efforts, identify gaps, and avoid duplication through improved conservation planning and design.

The National Estuary Program (NEP) is a place-based partnership effort that uses a voluntary, collaborative approach to address protection and restoration priorities in 28 diverse estuarine watersheds. NEPs identify local estuarine watershed priorities, develop long-term management plans, and implement short-term actions to improve water quality and living resources in their watersheds.

Eco-Logical is a framework for integrating plans across agencies, and endorses ecosystem-based mitigation for unavoidable infrastructure impacts.

Integrated Ecosystem Assessments (IEAs) are syntheses and quantitative analyses of information on relevant physical, chemical, ecological, and human processes in relation to specified management objectives. IEAs integrate ecological and economic models that reveal the full suite of trade-offs among different ocean-use sectors inherent in different management actions.

- Focuses on ensuring the abundance and long-term sustainability of natural resources and the benefits they provide (see sidebar) by emphasizing protection and restoration of ecosystem structure, functioning, and key processes;
 - Is place-based, with a focus on a specific ecosystem, is implemented on a range of scales, and addresses a range of activities and cumulative impacts affecting the ecosystem;
 - Recognizes ecological complexity and accounts for the interconnectedness within individual systems, including interactions among target and non-target species and key services;
 - Acknowledges the interconnectedness among different systems, such as between air, land, and sea, while remaining open and flexible to change and adaptation;
 - Is based on sound natural and social science, is information-driven, and is adaptable to changing environmental, social, and economic conditions;
 - Considers diverse ecological, social, economic, cultural, and institutional perspectives, recognizing their strong interdependencies, and assesses trade-offs among diverse management objectives; and
 - Aims to conserve and protect our natural and cultural heritage.

EBM is information-driven, multidisciplinary by nature, comprehensive in scope, and adaptive in practice. Adopting EBM as the foundation for resource stewardship requires a fundamental shift in the way Federal agencies manage the ocean, our coasts, and the Great Lakes. Although there are some examples of EBM efforts with multiple Federal agencies, State and local governments, and other stakeholders working together with a focus on particular ecosystems (for example, under the National Estuary Program), generally management has focused largely on single species, uses, and ecosystem benefits. No single agency can accomplish EBM alone because it requires simultaneous consideration of the gamut of natural resources and human uses—from sharks to shipping, oysters to oil drilling, pharmaceuticals to fish farming, and wetlands to wind energy. To implement EBM, Federal agencies must work together, share their expertise, integrate their data, educate their workforces and constituencies, and provide science-based information to decision-makers. Existing regulatory requirements and programs that were developed based on a fundamentally different model may need to be modified (to the extent consistent with existing statutory frameworks). In addition, Federal agencies must work with Tribal, State, and local governments to best manage the system holistically. This comprehensive approach will not result in increased bureaucracy but will increase efficiency by eroding divisions between Federal agencies, provide a unified framework within

which collaboration among Federal agencies and with States and Tribes can flourish, and unify implementation of all nine National Ocean Policy priority objectives.

Achieving EBM will require application of the information and knowledge gained through the actions identified in the other eight priority objectives. The ocean.data.gov portal, decision support tools, and best practices revealed through pilot studies will be particularly valuable for implementing EBM. Everything from how to adapt to climate change, strengthen ocean observing systems, manage water quality, restore ecosystems, and improve data integration and modeling will inform EBM. This is not to discount important past EBM efforts, but to build on them, institutionalize them within and among Federal agencies, and increase the number of EBM efforts nationally. Furthermore, an EBM approach supports adaptive, iterative management that is responsive to new information and to changing conditions that present new challenges and opportunities. Integrated Ecosystem Assessments (IEAs) and CMSP are important tools for implementing EBM at local to regional scales appropriate for addressing diverse management objectives.

EBM is not viewed as a replacement of our Nation's current management strategies, but rather as a means to capitalize on their strengths, increase efficiency and streamline processes, and expand the scope of information and knowledge to account for the complexity of our oceans, coasts, and Great Lakes. Implementing EBM is an incremental process that builds on existing knowledge and management structures. Since EBM is more about a change in approach, initial implementation will not require major new resources, but possibly some realignment and leveraging of existing resources. As pursued through the actions and milestones identified below, strategic implementation of EBM will establish a framework for collaboration and a shared set of goals (Action 1), establish a scientific framework to provide information to decision-makers (Action 2), train practitioners and decision-makers (Action 3), and develop a set of best practices via pilot projects (Action 4). In the implementation of pilot projects, Federal, State, and Tribal entities will also learn about the impediments to EBM that can be associated with existing statutory and regulatory mandates and requirements that were established based on very different frameworks. Depending on the nature of the pilot project, various responses or actions may become necessary given the limits of existing regulatory or statutory authority. Implementing EBM necessitates a long-term commitment. Progress toward EBM will be more an evolution than a

revolution. The actions below will facilitate efficient collaborative efforts across agencies and levels of governments, and enable well-informed, holistic decisions for managing ocean, coastal, and Great Lakes resources in a manner that promotes the long-term economic and environmental health, security, and well-being of our Nation and to the benefit of all.

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

Establishing a framework to guide Federal agencies will provide the necessary structure for a Government-wide transition toward collaborative EBM, and facilitate the development of measurable standards for effective and streamlined resource management based on existing statutory and regulatory regimes. Developing a shared set of goals will further synchronize and enhance the productivity of interagency EBM implementation. These set the stage for comprehensive EBM.

Outcomes

Shared goals and a collaborative approach to EBM will improve management and yield healthy and productive ecosystems for the long term.

Agencies: OSTP, CEQ, USDA, DOC, DOD, EPA, DOE, HHS, DHS, DOI, DOJ, JCS, DOL, NASA, NSF, DOS, DOT, OVP, DNI, OMB, NSS, DPC, NEC, USACE

Milestones

- Develop EBM principles, goals, and performance measures; produce a policy statement; and coordinate adoption by NOC member agencies. (CEQ, ORM-IPC¹, OST-IPC; 2012)
- Complete formal interagency partnership agreements (e.g., Memoranda of Agreement) between NOC agencies regarding coordination and leveraging efforts to achieve EBM. (NOC; 2013)
- Complete a review of EBM-relevant statutes and regulations to identify agency authorities (particularly those currently underutilized); opportunities to incorporate EBM principles into Federal laws, regulations, and policies; and potential legislative changes that would fill gaps and support full implementation of EBM. (NOC Legal Working Group, 2013)
- Conduct an inventory of and develop plans to strengthen existing agency and interagency EBM efforts, focusing on increasing collaboration, efficiency, consistency, and transparency of management efforts across agencies, and on involving additional

¹ The Ocean Resource Management Interagency Policy Committee (ORM-IPC) and the Ocean Science and Technology Interagency Policy Committee (OST-IPC) themselves do not have the capacity to carry out the milestones in this Implementation Plan to which these two groups are assigned. It is envisioned that, by the time this document is completed, subcommittees within each of the IPCs will be created to coordinate implementation of such milestones by a range of Federal agencies.

agencies in efforts that are currently occurring within a single agency. (ORM-IPC member agencies; 2013)

- Develop guidance for all Federal agencies about how to implement EBM under existing regulatory and legislative authorities, such as the National Environmental Policy Act (NEPA), into agency-specific programs and associated actions (e.g., risk analyses and permit reviews). (ORM-IPC, OST-IPC, NOC Legal Working Group; 2013)
- Incorporate EBM into Federal agency environmental planning and review processes. (CEQ, NOC member agencies; 2016)

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

Sustainably managing human uses of an ecosystem requires a robust understanding of the nature of the dynamically interacting biological, physical, chemical, and geological components and processes; the effects of human and natural forces; and the results of management efforts. A science framework for EBM will provide a mechanism to identify and fill data gaps; target research, monitoring, modeling, assessments, and forecasting to management objectives and priority information needs; and ensure best practices to guide future EBM efforts. This action draws upon data, information, and tools prepared in Action 3 of the *Inform Decisions and Improve Understanding* (i.e., data and tools to support EBM) and Action 5 of the *Coastal and Marine Spatial Planning* priority objective (i.e., development of ocean.data.gov) to identify information requirements to implement EBM and provide guidance on how these data could be used in making decisions.

Outcomes

An EBM science framework will enable reliable natural and social science data and tools to inform management decisions, evaluate trade-offs between alternative management scenarios, and enhance our ability to balance competing demands on ecosystems and adapt to changing resource scenarios.

Agencies: OSTP, CEQ, USDA, DOC, DOD, EPA, DOE, HHS, DHS, DOI, DOJ, JCS, DOL, NASA, NSF, DOS, DOT, OVP, DNI, OMB, NSS, DPC, NEC, USACE

Milestones

- Inventory programs and projects that use EBM, analyze their successes and shortcomings, and identify and fully describe the key characteristics of effective EBM efforts. (ORM-IPC; 2012)

- Phase EBM principles and goals (developed under Action 1) into the Federal process for awarding future grants related to the restoration of ocean, coastal, and Great Lakes ecosystems, to the extent practicable. Require future funded projects to collect data in accordance with the data practices developed in Action 3 of the *Coastal and Marine Spatial Planning* priority objective, to the extent feasible. (NOAA; 2013)
- Using ocean.data.gov and other data sources, identify regional information gaps to fully enable science-based EBM, and develop a plan to fill them. In addition to necessary basic data, this should focus on gaps in synergistic and cumulative ecosystem effects of various human and natural forces. (OST-IPC; 2013)
- Develop national guidelines and best practices for EBM implementation based on engagement of non-Federal partners and stakeholders. This should be based on the inventory above and honed considering the results of pilot projects. (CEQ, OSTP, ORM-IPC, OST-IPC; 2013)
- Establish a process for adaptive resource management, engaging partners and stakeholders. (CEQ, OSTP, ORM-IPC, OST-IPC; 2013)
- Monitor performance and complete biannual progress reports on meeting EBM and adaptive management goals and objectives. (CEQ, OSTP, ORM-IPC, OST-IPC; 2014, 2016)
- Identify and validate ecosystem indices and routinely incorporate them into EBM tools (e.g., integrated ecosystem assessments). (NOAA; 2017)

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

The data, tools, and guidance developed to support EBM will only be valuable if they are applied to management. It is important to train Federal and other managers to use these decision-support tools to inform their approach to and implementation of EBM. Training will enable decision-makers to better assess trade-offs associated with alternative policy options, and promote collaboration and innovation among agencies responsible for managing our oceans, coasts, and Great Lakes. Training is important to ensure the successful shift in management that an EBM approach represents, and to inform non-

Federal partners and stakeholders to ensure they understand the processes and benefits of implementing EBM. Training will be made available to State, Tribal, and local government partners.

Outcomes

Building proficiency in EBM principles, best practices, and use of decision-support tools will further enable decision-makers and managers to fully adopt an EBM approach and balance competing demands on ecosystems by evaluating trade-offs within alternative management scenarios.

Agencies: OSTP, CEQ, USDA, DOC, DOD, EPA, DOE, FERC, HHS, DHS, DOI, DOJ, JCS, DOL, NASA, NSF, DOS, DOT, OVP, DNI, OMB, NSS, DPC, NEC

Milestones

- Develop and initiate an outreach and education program to inform stakeholders and the public of the benefits and principles of EBM. (NOAA, DOI; 2012)
- Develop introductory and advanced training materials for Federal managers and scientists to obtain a common understanding of EBM principles, best practices, and latest decision-support tools. (ORM-IPC; OST-IPC; 2013)
- Provide formal training on EBM principles, best practices, and latest decision-support tools to Federal managers and scientists. (NOAA, EPA, DOI, USDA, DOT; 2013)

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

Conducting pilot projects will hone EBM best practices, test on-the-ground effectiveness of decision-support tools, and demonstrate the practical utility of the EBM approach. Pilot projects will determine what additional data, tools, and training are required; identify how the collaborative and scientific frameworks may need to be altered to achieve EBM objectives; enable decision-makers and managers to understand how EBM can be most effectively implemented; and help identify what, if any, changes may be needed in existing statutory and regulatory mandates and requirements.

Outcomes

Pilot projects in locations primed for near-term implementation of EBM will facilitate the development and improvement of tools, methods, and capabilities for broader use. EBM is implemented at regional scales relevant to address specific resource management objectives.

Agencies: OSTP, CEQ, USDA, DOC, DOD, EPA, DOE, FERC, HHS, DHS, DOI, DOJ, JCS, DOL, NASA, NSF, DOS, DOT, OVP, DNI, OMB, NSS, DPC, NEC, USACE

Milestones

- Develop criteria for identifying priority geographic areas for pilot implementation of EBM, and use those criteria to identify three locations for pilot projects. (ORM-IPC; 2012)
- Determine what additional data and tools are needed for implementing EBM in the selected pilot project locations, develop plans to fill those gaps, and initiate the requisite research, monitoring, and modeling needed to support EBM in pilot project locations. (OST-IPC; 2013)
- Conduct EBM pilot projects in the identified areas, ensuring that EBM data and tools (e.g. Integrated Ecosystem Assessments) are available for use, data/tool gaps are filled, and data are collected in accordance with ocean.data.gov requirements. (ORM-IPC; 2016)
- Compile and disseminate initial EBM best practices and case studies to Federal agencies, non-Federal partners, and stakeholders via the EBM portal developed in Action 3 of “Inform Decisions and Improve Understanding,” and refine best practices based on results of pilot projects (ORM-IPC member agencies; 2017)

GAPS AND NEEDS IN SCIENCE AND TECHNOLOGY

Implementation of EBM requires research to improve our understanding of ecosystem structure, functions, and processes. This includes understanding how ecosystems respond to various drivers and stressors over various spatial and temporal scales. Key indicators of ecosystem health and spatial areas of high or unique value must be identified. To effectively apply EBM principles and guidance to decision-making, protocols or standards must be developed and adopted to account for ecosystem services and the value of EBM-relevant nonmarket goods and services that are not represented in current decision-making. Adequate capability and capacity for state-of-art decision support, ecosystem modeling, and forecasting are needed. Models that effectively integrate disparate ecological, social, and economic data are an important component of this capacity. EBM relies on a data and information management system. This begins with enhanced ocean observing systems (e.g., the Integrated Ocean Observing System, the Ocean Observatories Initiative) to collect physical, chemical, biological, and ocean use data in (near) real-time. Technology must be available to easily input, archive, access, share, integrate, analyze, visualize, and explain disparate data and information, using mapping and geospatial analysis tools. Data access must be facilitated by developing formal metadata standards and specific guidance for data input, integration, and preservation. Requirements for “open access” and “open science” for data and research methods must be followed.

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.

Strong science, technology, and engineering capabilities are the foundation for making informed decisions and improving our understanding of how best to manage the Nation's ocean, coastal, and Great Lakes resources. These capabilities also provide the innovative spark that drives our economy and improves our quality of life. Advances in science allow us to adapt to a changing environment and foster economic growth across multiple existing and emerging sectors, which benefit our overall economic and environmental health and security.

The health and productivity of regional economies requires a balanced and judicious approach to managing human activities in our ocean and coastal areas. Sound management of our valuable natural resources requires accurate scientific information. Improved science is particularly needed in regard to emerging sectors such as renewable energy, aquaculture, and biotechnology. More remains to be learned about traditional economic sectors as well, such as water resource development; fisheries; marine transportation; oil, gas, and mineral extraction; and tourism. Augmenting the breadth and depth of the knowledge upon which we base our decisions will allow us to respond more appropriately to new challenges and resource uses, and to adapt to changing conditions. Science supports increased understanding of the interactions between natural and human social systems. Improved information will enable management to become more proactive and visionary, identify opportunities for growth, and create effective, long-term, ecosystem-based strategies for sustainable resource use.

Advances in science and technology will provide significant opportunities for international commerce. For example, improving communication, observational, and predictive capabilities can increase the security of shipping, which is critical because 90 percent of international goods are shipped over the oceans. Enhancing aquaculture technologies will create jobs, provide affordable and accessible food, and lower our trade deficit (currently 86-percent of seafood consumed in the United States is

imported). Improving biotechnology will lead to medical discoveries that increase the quality and duration of our lives. Advancing renewable energy technologies will reduce our dependency on foreign sources, reduce greenhouse gas emissions, and stimulate local economies.

The actions in this section are designed to provide significant, long-term commitments of intellectual, financial, and educational support to build increasingly nuanced and management-applicable knowledge. Discoveries and technological advances will provide data to improve decision-making and enhance the effectiveness of management actions. A focus on fundamental and exploratory activities must be maintained to ensure continued advances in basic scientific understanding. An informed society and workforce will enable innovative and effective entrepreneurship and stewardship. Collectively, these actions will lead to enhanced economies, improved human well-being, and increased national security.

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

This action focuses on the importance of conducting fundamental and mission-driven research and sustaining Federal research and exploration activities. It promotes scientific exploration, particularly of the 95-percent of the ocean that remains poorly known, through international and Federal–non-governmental partnerships. New ocean discoveries will expand our knowledge and understanding of Great Lakes and oceanic biodiversity, biogeochemical processes, ecosystem services, and climate interactions at local to global scales. Increased scientific knowledge will improve our awareness of changing environmental conditions and trends, and help us understand the causes of such changes. Scientific information will help us better understand the range of human activities in ocean, coastal, and Great Lakes waters, and of the potential to make more responsible and effective use of available renewable and non-renewable resources. Scientific insights and innovative technologies will enhance the Nation’s competitiveness by increasing scientific and technological capability and discovering new opportunities for biomedical and business development. Scientific activities will be informed by recommendations from *Science for an Ocean Nation: An Update of the Ocean Research Priorities Plan*, a comprehensive and interagency Federal ocean research plan.

Outcomes

Insight gained from scientific research and innovative technologies will strengthen the Nation’s competitiveness and enhance sustainable uses of ocean, coastal, and Great Lakes resources.

Agencies: OST-IPC, IPC member agencies, NOAA, NASA

Milestones

- Release *Science for an Ocean Nation: An Update of the Ocean Research Priorities Plan*. (OST-IPC; 2012)

- Prioritize Federal research activities informed by recommendations from *Science for an Ocean Nation: An Update of the Ocean Research Priorities Plan* as appropriate. (IPC member agencies; 2013)
- Establish a new cost-sharing partnership with domestic and international governmental and nongovernmental entities that supports global-scale systematic exploration. (NOAA, NASA; 2014)
- Execute expeditions in poorly known or unknown Great Lakes and national and international ocean regions. (NOAA, NASA; 2014)

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

Quality scientific information will strengthen our confidence that emerging and future uses of ocean, coastal, and Great Lakes resources are economically and ecologically sustainable. Fundamental and applied scientific information and technology are used to characterize features of ocean resources, their uses, and potential environmental impacts. Scientific information will increase opportunities for economic growth, create new jobs, and optimize traditional ocean uses such as working waterfronts, sustainable fisheries, tourism, and domestically produced energy. Collaboration among Federal government agencies, private industry, and other partners will facilitate the transition from basic research to applying the findings in commercial markets.

Outcomes

Greater access to data and information will enable better informed decisions about the feasibility and optimization of operations for sustainable uses of ocean, coastal, and Great Lakes resources and services.

Agencies: NOAA, DOC, USDA, DOE, DOI, FERC, DOL, NSF

Milestones

- Establish a National Shellfish Initiative, in partnership with commercial and restoration aquaculture communities, that includes pilot projects to identify ways to simultaneously maximize the ecosystem benefits (i.e., nutrient filtration, habitat provision, restoration) and commercial value of shellfish aquaculture, and develop a plan to increase shellfish production in U.S. waters. (NOAA, USDA-ARS, USDA-NIFA; 2013)
- Establish an interagency aquaculture initiative that supports jobs and innovation, through the National Science and Technology Council’s Interagency Working Group on Aquaculture and other partnerships. (DOC, USDA-NIFA, USDA-ARS; 2015)
- Estimate the contribution and impacts (including job creation) of emerging uses—including renewable energy, aquaculture, and biotechnology—on the economies of the communities and regions dependent on marine and coastal resources. (NOAA, DOE, DOI, FERC, DOL, DOC; 2015)

- Compile and make available relevant climate, water, wind, and weather data; environmental models of seasonal and extreme conditions; and other information to support development of the Nation’s coastal and offshore renewable energy, including wind, ocean thermal, and hydrokinetic (e.g., waves, tidal energy) resources. (DOE, NOAA, DOI, DOC, NSF; 2017)
- To the extent they may be discovered, characterize new natural products and biotechnological processes from ocean, coastal, and Great Lakes environments and evaluate their potential for commercial development. (NOAA, DOI, DOE, DOC, NIH, NSF; 2017).

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

To enable science-based decisions, Federal agencies and partners will provide data and information; develop and refine decision-support tools; and expand outreach, training, technical assistance, and expertise. Robust decision-support tools and processes will provide ecological, social, and economic data and information to support timely and effective policy development and EBM. Timely, objective, and high-quality scientific information can be evaluated for management purposes through the use of decision-support tools. These tools enable informed, iterative decision-making that can adapt to changing resource scenarios, better understanding of ecosystem functioning, and improved scientific assessments of the efficacy and consequences of management approaches.

Outcomes

Improved decision-support tools and information services will further enable evaluation of trade-offs between alternative management scenarios, and enhance our ability to balance competing demands on ecosystems.

Agencies: ORM-IPC, OST-IPC, NOAA, DOI, EPA, DOE

Milestones

- Develop and complete an assessment of existing and needed decision-support tools, including tools for EBM, and training

to support ocean and coastal decision-makers. (OST-IPC, ORM-IPC; 2013)

- Develop and provide decision-support tools and information services to meet the needs of Federal, State, Tribal, regional, and local ocean, coastal, and Great Lakes resource managers, policymakers, and stakeholders. (NOAA, DOI, EPA, DOE, DOD; 2016)
- Provide training curricula to meet the needs of Federal, State, Tribal, regional, and local ocean, coastal, and Great Lakes resource managers, policymakers, and stakeholders. (USDA, NOAA, USACE, DOD, DOI; 2016)
- Deliver an EBM portal for agencies and stakeholders to access decision-support tools and share the results of and lessons learned from pilot studies. (DOI, NOAA; 2016)

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

Many controversial or urgent ocean policy issues need to place biophysical scientific research into political and socioeconomic contexts. Integration of natural and social science data, information, and knowledge is necessary to support the development and maintenance of sustainable ocean, coastal, and Great Lakes resources and economies, and to understand the social context for planning and implementing ocean policy. We need to understand how ocean science, environmental resources, and human socioeconomic systems affect each other and communicate these interactions to stakeholders and the public.

Knowledge of human behavior, attitudes, and preferences; societal values; economics; and human use of and dependence on ecosystem services will be routinely acquired and incorporated into research, ecosystem assessments, decision-making, and management of ocean, coastal, and Great Lakes resources. Natural and social scientific data will be incorporated into models and analyses that inform planning, policy, and management decisions. Public attitudes and preferences will be routinely incorporated into ecosystem assessments, policy, and management decisions.

Outcomes

Incorporating natural, social, and behavioral information in decision support tools will enable Federal, State, and Tribal authorities to manage ocean, coastal, and Great Lakes resources more efficiently and effectively.

Agencies: NOAA, DOC, DOI, DOL, DOT, IWG-OSS, EPA

Milestones

- Develop a set of indicators to characterize human interactions with the ocean, our coasts, and Great Lakes and identify cutting-edge issues, with intent to maintain relevant data collections and analyses for long-term trends. (NOAA; 2012)
- Complete an initial analysis of ocean and coastal economic statistics and jobs. (DOC, DOI, DOL, DOT, USACE; 2012)

- Plan and conduct one or more showcase projects employing public input that use socioeconomics and natural sciences to identify, develop, and apply valuation frameworks for ecosystem services. (IWG-OSS; 2014)
- Initiate a pilot project to include one or more public health or economic indicators, such as port commerce and storm damage prevented, in the Coastal Condition Report. (EPA, DOT; 2015)

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

A diverse workforce with interdisciplinary skills and training is needed to keep the United States a world leader in ocean science research, and to provide the most knowledgeable management of our ocean, coastal, and Great Lakes resources possible. Current graduation rates in the ocean sciences are low. Support for students, particularly those from underrepresented groups, is needed to expand these ocean and coastal topics to a wider demographic that better represents the U.S. population.

This action will build the technical, scientific, and managerial workforce capacity to ensure that management of and research on the ocean and U.S. coastal and Great Lakes regions are of the highest quality possible; that educational programs include a diverse group of students; and that a highly competent workforce, including experts capable of communicating with and understanding many different cultures, is available for U.S. employers.

Outcomes

More students, particularly from underrepresented groups at the undergraduate and graduate level, graduating in academic fields related to ocean, coastal, and Great Lakes science and management will support U.S. leadership in ocean research and development and application of the best management approaches possible.

Lead Agencies: NOAA, DOT, DOC, DOL, NSF, DOE, DOI, DOD, USCG, EPA

Milestones

- Complete studies of future ocean workforce requirements, including in the areas of science and technology, ocean industry and infrastructure, and water transportation. (NOAA, DOT, DOC, DOL; 2014).
- Provide scholarship, fellowship, and internship opportunities in ocean, coastal, and Great Lakes programs to underrepresented groups, working with professional societies, nonprofits, and minority-serving institutions. (NOAA, EPA, DOT; 2016)
- Support periodic competitions and other activities for middle and high school students that demonstrate a positive impact on students' choices of future academic and career paths. (NOAA, NSF, NASA, DOI, SI, EPA, USACE; 2017)

- Provide scholarship, fellowship, and internship opportunities to high school, undergraduate, and graduate/postgraduate students that leverage Federal investment in ocean research, laboratories, and natural areas to support education. (NOAA, NSF, DOE, DOT, DOI, DOD, USCG; 2016)

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

Every student in the Nation should encounter ocean sciences concepts in their K-12 educational experience. Federal agencies seek to improve ocean literacy through a variety of programs for students, educators, and the public. These programs provide professional development opportunities for teachers to engage students in science and work with partners at aquariums, museums, and science centers to engage the public. These activities are responsive to studies by the National Research Council and others that show how formal and informal science education programs are effective at raising levels of knowledge and awareness and at improving understanding about trade-offs. This action addresses increased opportunities for systematic inclusion of ocean topics and concepts into mainstream K-12 and informal education systems.

Outcomes

Increased public understanding of ocean and coastal science and the importance of the ocean in Earth systems will produce a more informed citizenry; create better stewards of ocean, coastal, and Great Lakes resources; and increase awareness of business opportunities related to these resources. It will also increase interest in activities to address the issues facing the ocean, our coasts, and the Great Lakes.

Lead Agencies: IWG-OE, CEQ, NOAA, DOI, NSF

Milestones

- Include ocean content in Next Generation Science Standards. (IWG-OE; 2012)
- Incorporate, in collaboration with the Department of Education, ocean and coastal criteria into the Green Ribbon Schools initiative. (CEQ; 2012)
- Execute formal and informal education strategies for the Chesapeake Bay region that build on Federal and non-Federal education resources. (NOAA, DOI; 2017)

- Complete a study of environmental knowledge of middle school students and use study results to refine educational programming. (NOAA; 2017)
- Execute infrastructure and demonstration projects that deliver ocean observing data for formal and informal education. (NOAA, NSF; 2017)
- Enhance incorporation of native and traditional observations and knowledge, along with information on native peoples and their cultural traditions, into ocean education materials. (NSF, DOI; 2017)
- Make available education and training tools that can be used to improve national and international educational opportunities on ocean issues (EPA; 2014)
- Develop stories and data sets to deliver the latest ocean science content for coordinated networks of innovative exhibits in aquariums, museums, science centers, and National Parks (NOAA; 2014)

Observations, Mapping, and Infrastructure

Strengthen and integrate Federal and non-Federal ocean observing systems, sensors, data collection platforms, data management, and mapping capabilities into a national system and integrate that system into international observation efforts.

Vital to ocean and coastal research and management in the United States is the availability of modern ships, undersea vehicles, moorings, satellites, laboratories, instruments, and observing systems. Ocean data provide the information needed to support decisions every day, from routine operations to emergency responses. A glider in the Gulf of Mexico maps contaminants below the ocean's surface. A wave buoy supplies real-time information for safe marine operations. A network of floats provides the first-ever global real-time observations of the deep sea. Coastal and ocean observations and mapping provide critical information for protecting human lives and property from marine hazards, enhancing national and homeland security, predicting global climate change, improving ocean health, and providing for the protection, sustainable use, and enjoyment of ocean resources.

Many years of integrated infrastructure and technology planning and coordination have allowed us to provide this critical information to enable decision-making, further cross-disciplinary research efforts, improve predictive models, and deliver essential baseline mapping data. However, continued interagency coordination is needed to plan for the most cost-effective acquisition, maintenance, and operation of these expensive, large-scale assets.

In addition, collecting and delivering data to better support future decisions in a complex environment requires an understanding of the requirements of the other eight National Ocean Policy priority objectives and matching them with a well-coordinated effort that integrates Federal and non-Federal expertise, resources, and assets. The actions below will allow us to continue to increase efficiency, enable integration, and provide sustainability of observations, data, and information while laying the foundation for continuing long-term efforts.

Action 1: Assess the status of the Federal Oceanographic Fleet.

The Federal Oceanographic Fleet (Fleet) is a critical national infrastructure that supports Federal agency and academic oceanographic operations, surveys, and research across a broad spectrum of needs. Ships provide access to the sea and Great Lakes and enable data collection and research that informs and/or addresses needs in national security, weather and climate, ocean mapping, biomedical research, seismic and tsunami activity, living and non-living marine resources, disaster warnings and response, and ocean and seafloor physical, chemical, geological, and biological processes. The Fleet is composed of Federally-owned research and survey ships greater than 40 meters in length owned and operated by Federal agencies, Federally owned ships operated by academic organizations, and the human capital required to operate the Fleet to modern standards.

This action will provide a status report of the Fleet to inform future planning, and address the Fleet's capacity to support the National Ocean Policy. A more efficient interagency approach to managing the Fleet could lessen the impact of steadily increasing operational costs by ensuring efficient and effective operations are conducted at the lowest possible life-cycle costs.

Outcomes

Assessing the Federal Oceanographic Fleet will provide a foundation to ensure an efficient and effective infrastructure to address the Nation's seagoing data collection and research needs.

Agencies: IWG-FI

Milestones

- Identify at-sea survey (oceanographic and living marine resource) and research mission requirements to support the National Ocean Policy. (IWG-FI; 2013)
- Update the *Federal Oceanographic Fleet Status Report*. (IWG-FI; 2013)
- Complete analysis and selection of Fleet utilization performance measurements. (IWG-FI; 2013)
- Complete evaluation of a prototype Fleet schedule portal. (IWG-FI; 2013)
- Assess the capabilities for oceanographic ships to support multi-mission agency activities in the Arctic. (IWG-FI; 2013)

Action 2: Improve unmanned and satellite remote sensing systems.

Observing the environment with unmanned systems reduces uncertainties in our science, thereby improving predictive capability and, ultimately, decision-making. Improving unmanned and satellite remote sensing systems, Federal and non-Federal unmanned undersea vehicles (both tethered and autonomous), unmanned airborne systems, and unmanned surface vehicles will improve our research and management capabilities. Developing a fully coordinated pool of

unmanned assets designed for multiple users within 10 years will increase our Nation's capabilities for thorough environmental sampling by coupling the spatial and temporal coverage of multiple unmanned and satellite remote sensing system types.

This action will determine the priorities for unmanned observing systems and conduct an inventory of Federal and non-Federal systems. It will produce a status report on the use and application of unmanned and satellite remote sensing systems, an examination of the inherent efficiencies attributable to their use, and ongoing identification of ways to improve use of these systems to achieve the priorities of the National Ocean Policy. This is a first step toward improvements in the Nation's unmanned and satellite remote-sensing fleets.

Outcomes

Better coordinated and efficient use of existing unmanned observing systems will improve cost-effective data collection to meet National Ocean Policy operational and research mission priorities. Examining unmanned systems will identify gaps in and potential for expanding capacity and infrastructure for such systems based on clearly defined requirements for the future.

Agencies: IWG-FI

Milestones

- Identify observation priorities for all National Ocean Policy priority objectives that are suitable for accomplishment with unmanned and/or satellite remote-sensing systems, including an assessment for developing unmanned undersea vehicles with under-ice data collection capability. (IWG-FI; 2012)
- Complete an inventory of available Federal and non-Federal unmanned undersea vehicles (both tethered and autonomous) and satellite remote-sensing systems. (IWG-FI; 2013)
- Complete an analysis and selection of performance measurements for unmanned and satellite remote-sensing system utilization. (DOD, NASA, NOAA, NSF; 2014)
- Complete an evaluation of a prototype unmanned system inventory and allocation planning tool. (IWG-FI; 2014)
- Identify and report on regulatory restrictions to the use of Federal and non-Federal unmanned systems and identify ways

Global Earth Observation System of Systems is a distributed system of systems, built on current international cooperation efforts among existing Earth observing and processing systems, that enables the collection and distribution of accurate, reliable Earth observation data, information, products, and services to both suppliers and consumers worldwide.

Integrated Ocean Observing System (IOOS®) is a partnership of Federal and State agencies, regional partners, private enterprise, academia, and nongovernmental organizations that gathers physical, geological, chemical, and biological information on our oceans and coasts— and conditions that affect, and are affected by, humans and their activities. This coordinated network of people and technology generates and disseminates continuous data, information, models, products, and services on our coastal waters, Great Lakes, and oceans.

Ocean Observatories Initiative (OOI) is a long-term, NSF-funded program to provide 25 to 30 years of sustained ocean measurements to study climate variability, ocean circulation and ecosystem dynamics, air-sea exchange, seafloor processes, and plate-scale geodynamics.

to enable better use of these systems to achieve National Ocean Policy priorities. (IWG-FI; 2014)

- Demonstrate capability for coordinated unmanned and satellite remote sensor sampling in a limited region of environmental interest as a step toward a fully operational capability. (DOD, NASA, NOAA, NSF; 2017).

Action 3: Advance observation and sampling technologies for exploring and understanding the complexities of land, ocean, atmosphere, ice, biological, and social interactions on a global scale.

Short-term experimental and pilot observation projects support new discoveries and improvements to our understanding of the ocean. These observations provide the basis for informing decision-making and EBM. Our Nation needs a broad array of observations from an infrastructure that incorporates in situ observation systems, satellites, data use and integration, and the development and testing of the next generation of observation technologies and capabilities. These new technologies are critical to improve understanding of the underlying physical and ecological processes driving the ocean, coasts, and Great Lakes and to identify less costly means of monitoring these ecosystems. This new understanding will inform planning, decision-making, management, and stewardship of these ecosystems.

Outcomes

Advanced technologies will improve scientific understanding of the underlying physical and ecological processes driving the ocean, coasts, and Great Lakes to inform and support EBM, CMSP, and other decision-making.

Agencies: NASA, NOAA, NSF, USGS

Milestones

- Identify the limitations of existing methodologies for integrating observational data, including coastal and global ocean remote and in situ data, physical and biological data, and ocean observations and socioeconomic data. (NASA, NOAA, NSF, USGS; 2013)
- Identify the potential for developing deep Argo profiling floats and integrating additional sensors on them. (NOAA, NSF; 2013)
- Construct and deploy the Ocean Observatories Initiative as a long-term platform for testing and developing innovative ocean sensors and communication standards. (NSF; 2015)
- Identify the limitations of existing methodologies for integrating short-term and sustained long-term ocean observational data, and develop initial activities to improve integration. (NASA, NOAA, NSF; 2016)
- Implement data and modeling techniques to support a global mapping capability for seasonal, inter-annual, and decadal changes. (NASA, USGS; 2017)

Offshore remote-sensing observations allow:

Utility companies to monitor cooling water intake at their nuclear power plants for safety.

Oil companies to assess impact of local oceanographic conditions on offshore rigs to assist with oil platform management.

State and local governments to make decisions whether to close a beach to protect public safety, while allowing them to limit the amount of time it is closed to minimize economic impacts on local business.

Maritime situational awareness to support our homeland and national security and maritime law enforcement needs.

Regional Fishery Management Councils to inform their decisions to set annual quotas and prevent overfishing.

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

Sustained observation systems provide the observational backbone underlying decisions made at regional and local scales to address maritime commerce, safety at sea, weather and climate forecasts and effects, national and homeland security, maritime law enforcement, sustainable living marine resources, and ecosystem health. Easier and better access to observations and information is improving our ability to understand and predict ecosystem events—such as harmful algal blooms and changes in habitat—as well as long-term planning and decision-making. This action will coordinate with specific observing activities outlined for the *Resiliency and Adaptation to Climate Change and Ocean Acidification* and *Changing Conditions in the Arctic* priority objectives.

This action includes the steps that will be taken to further implement the U.S. Integrated Ocean Observing System (IOOS®) observational and data management components and the Physical Oceanographic Real-Time System (PORTS), bringing them to a baseline operational level. These components will provide users with standardized data discovery and access to a minimum set of ocean observing data from Federal and non-Federal sources.

Outcomes

Sustained observing systems in the ocean, coasts, and Great Lakes will provide the information for sound planning and decision-making at regional and local scales.

Agencies: NOAA, USACE, IOOC, USGS, EPA, NASA, NOAA

Milestones

- Complete a detailed inventory of non-fleet operational ocean observation assets for the 11 IOOS® Regions and develop/release build-out plans within available resources. (NOAA; 2013)
- Develop and release an inventory of both Federal and non-Federal IOOS® capabilities by comparing observing requirements with standardized requirement specifications. (NOAA; 2013)
- Within existing statutory authorities, develop, evaluate, and expand an integrated geospatial database of Federal and non-Federal, certified and non-certified ocean observation data to provide access to public

information and provide extracts or contact information for privately held information. (IOOC member agencies, NOAA, DOD; 2013)

- Establish a mechanism for obtaining external expert advice (e.g., a Federal Advisory Committee) to advise the IOOC. (NOAA; 2013).
- Announce the standards for certifying non-Federal data providers to IOOS® and certify at least one provider. (NOAA; 2014)
- Update the National Surface Current Mapping Plan to include a gap-filling component and up-to-date coverage, including prioritization of new radar sites. (NOAA; 2014)
- Update the National Operational Wave Observation Plan. (USACE, NOAA; 2015)
- Complete plans for the PORTS. (NOAA, 2015)
- Provide remotely sensed imagery and data, including those from shore-based and sea-mounted sensors, to the National Water Quality Monitoring Network design. (USGS, EPA, NASA, USCG, NOAA; 2017)

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

Improvements in providing fundamental baseline data for defining and mapping ocean, coastal, and Great Lakes areas—notably critical habitat—will support spatial planners and decision-makers in improving resource management. Interagency coordination will provide more effective planning, acquisition, processing, and access to ocean and coastal mapping data by increasing data sharing, developing appropriate data acquisition and metadata standards, and facilitating the interoperability of in situ data collection systems, data processing, archiving, and distribution of data products.

This action will strengthen and integrate Federal and non-Federal ocean and coastal mapping resources. It will improve the efficiency of mapping assets (including program, platforms, technologies, and resultant data), facilitate the use and re-use of our mapping data, and enable the integration of these data and products. This will in turn allow us to better define critical habitat areas, assess vulnerability to coastal change, manage marine resources, and identify and mitigate threats to marine transportation. Specifically, this action will develop a comprehensive, integrated inventory of ocean and coastal mapping data, to improve planning for the efficient response of Federally-funded mapping programs to the diverse needs in the National Ocean Policy.

Outcomes

Sustained and coordinated ocean and coastal mapping will support planning and decision-making about ocean and coastal uses.

Agencies: NOAA, USGS, USACE, IC-OCM

Milestones

- Integrate existing and emerging coastal and seafloor mapping guidelines, best practices, and standards to ensure interoperability of data. (IC-OCM, NOAA; 2013)
- Develop, evaluate, and expand a prototype interagency Ocean and Coastal Mapping (OCM) Inventory that includes information (metadata) on existing and planned acquisition of framework data meeting agreed standards, including elevation, imagery, and geophysical data. (NOAA, USGS, USACE, IC-OCM; 2014)
- Obtain modern high-resolution seafloor mapping data in key coastal and shelf waters, including the National Shoreline, in accordance with the priorities and standards of the National Ocean and Coastal Mapping Plan. (IC-OCM; 2014)
- Develop an annually updated National Ocean and Coastal Mapping Plan, using the OCM Inventory, that defines priority mapping needs and gaps, and implement the plan through interagency collaboration in planning, budgeting, and execution. (IC-OCM; 2017)

Action 6: Improve mapping capabilities and mapping products.

The majority of the ocean and our coasts is not mapped to modern standards. Improved mapping capabilities and products—inventoried in a national system—will serve user communities with varied interests, needs, and responsibilities, as well as support tsunami modeling and storm surge planning, enhance safety of navigation, improve EBM and decision-making for conservation and management of marine resources and habitats, and advance ocean and coastal science.

This action will improve technologies and methodologies that are needed to acquire data in a manner that enables re-use. It will develop methods and strategies for more consistent and integrated data products. Integration of mapping data will allow timely access to high-quality ocean and coastal mapping data and derived products.

Outcomes

Improved mapping capabilities and products will better support a range of activities, including navigation, emergency planning, search and rescue, and conservation practices.

Agencies: IC-OCM, USGS, USACE, NOAA

Milestones

- Improve and implement coastal change analysis products and a sustained and seamless description of coastal and marine elevation extending from on-shore coastal areas (Coastal National Elevation Dataset) through the U.S. Exclusive Economic Zone and extended continental shelf, including elevation models and derived map products, which meet the needs of decision-makers. (IC-OCM, USGS, USACE, NOAA; 2013)

- Improve and implement technology and techniques for acoustic characterization of seafloor properties to enable multiple uses of data for nautical charting and marine habitat mapping. (IC-OCM, NOAA; 2014)
- Improve and implement airborne and other techniques for coastal elevation, bathymetric mapping, and nautical charting, including low-lying coastal areas with turbid waters. (USACE, USGS, NOAA, IC-OCM; 2017)

Action 7: Develop an integrated ocean and coastal data collection, processing, and management system to support real-time observations.

Development of a national, enterprise-wide, integrated management system for physical, biological, chemical, and social data is an essential component of the larger, overarching ocean and coastal infrastructure that supports all nine National Ocean Policy priority objectives. A system for data and information management, archiving, access, and stewardship—with supporting policies—is needed to ensure the full value of the Nation’s investment in ocean, coastal, and Great Lakes data and information. This effort will be part of the national information management infrastructure to provide easy access to relevant data and information for research, planning, and decision support, and will be closely linked with ocean.data.gov and other ocean and coastal data portals and services.

This action provides the initial steps that will identify and integrate the data and information required by the eight other priority objectives. It will also provide the end-to-end data services required (e.g., data collection, management, stewardship, integration, and product dissemination to all end users) to make this a truly national capability for current and future applications. Data collected from existing systems will be submitted regularly to relevant national archive centers for long-term stewardship. The action includes a long-term commitment to integrating biological data with other natural and social data.

Outcomes

A national data and information management system and supporting policies will ensure the full value of the Nation’s investment in ocean, coastal, and Great Lakes data and information.

Agencies: IOOC member agencies, IC-OCM, NOAA, DOI, NSF, USDA, EPA, NASA, DOC, United States Global Change Research Program (USGCRP), USACE

Milestones

- Define Federal and non-Federal partners' data and information management, archive, access, and long-term stewardship systems modeled on the U.S. IOOS®: A Blueprint for Full Capability. (NOAA; 2012)
- Within existing statutory authorities, create a program for the notification, collection, and organization of Federal and non-Federal ocean observing systems that will reduce redundancies in collection, provide a central database for public information and connect to privately held information, and assist in prioritizing areas in need of additional collection. (IOOC member agencies, NOAA, DOD; 2012)
- Identify the existing data services and systems, as well as the requirements to support integrated discovery and access through an information management system and integrative functions required for the management system. (IOOC member agencies; 2013)
- Adopt recommended best practices and standards (such as the Coastal and Marine Ecological Classification Standard) to ensure consistent terminology for coastal and marine ecological features when describing and delivering ocean and coastal mapping data and derived products. (IC-OCM; 2013)
- Implement a fully coordinated, nationally integrated system that includes international partners under the Global Earth Observation System of Systems framework and supports the Global Climate Observing System Implementation Plan. (IOOC member agencies, USGCRP; 2016)
- Begin implementing well-accepted international standards for data transmission formats, metadata, and version control via the Global Telecommunications System (GTS), as well as best practices for observing and data quality. (NOAA, USACE; 2016)
- Extend the current data standards within the biological domain to allow for increased interoperability between marine biological data and physical and social data within an ocean observation context. (NOAA, DOI, NSF, USDA, EPA, NASA, DOC; 2020)

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.

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 for resource management and conservation. Managing resources and uses consistently is difficult to achieve given statutorily mandated divisions of authority among overlapping jurisdictions of the various Federal agencies. In addition, many of the Nation's most pressing ocean and coastal issues are local or regional in nature and their resolution requires strong support for regional governance structures.

The effects of climate change, overfishing, and the depletion of many of the world's fish stocks, the global reach of regional disasters, ocean habitat degradation, and an increased need to take advantage of observation platforms have drawn attention to the international nature of ocean and coastal challenges and opportunities that our Nation faces. These far-reaching issues require both bilateral and multilateral collaboration and cooperation with our international partners.

To move toward EBM, the Nation needs to improve its ability to respond to ocean and coastal issues in a coordinated fashion across jurisdictional boundaries and at all levels of governance. The actions below will increase communication, streamline processes, leverage resources, resolve disparities, and enhance synergies within and between Federal, State, Tribal, regional, and local ocean, coastal and Great Lakes programs, and, as appropriate, with the international community. The actions work to strengthen and leverage existing partnerships and build new partnerships, such as assisting the States in advancing the network of regional alliances to protect ocean, coastal, and Great Lakes health. Partnerships with local governments and private interests are also needed to leverage limited resources. Cooperation among Federal agencies in regionally focused efforts, as described in the *Regional Ecosystem Protection and Restoration* priority objective, is critical. Development of cross-cutting budget

analyses for ocean activities will further identify areas of redundancy and opportunities for partnering.

Action 1: Support regional priorities and enhance regional partnerships.

Existing regional ocean and Great Lakes partnerships (ROPs) are voluntary, usually multi-state, Governor-established forums that develop shared priorities and take critical action on a broad diversity of ocean, coastal, and Great Lakes needs as relevant to their region. They have different structures and employ varied methods and approaches to enhance the ecological and economic health of the region. Their efforts involve nongovernmental stakeholders and multiple State and Federal agencies involved in coastal and ocean management.

The ROPs have many priorities in common—such as habitat restoration, outreach and education, and increasing science and data—and in many cases are well aligned with the National Ocean Policy. Enhancing communication and coordination among these groups and with the NOC will further the priorities addressed in the Policy. For example, with the anticipated creation of regional planning bodies to implement the National Ocean Policy’s framework for effective coastal and marine spatial planning (hereinafter “CMSP Framework”), several ROPs are considering possible ways to align their existing regional collaborations with those envisioned specifically for CMSP.

In implementing this action, Federal agencies will enhance progress in the regions by supporting ROP priorities and by improving coordination among Federal offices based in the regions. Increased involvement by Federal agencies in ROPs will facilitate greater exchange of information and access to technical, scientific, and training support. (See also the “Restoration in Action” text box in the *Regional Ecosystem Protection and Restoration* priority objective.) In addition, this action will assist ROPs with sharing lessons learned about methods or techniques they have found most effective in achieving regional objectives using limited resources.

Outcomes

Improved inter-jurisdictional cooperation and collaboration will facilitate the development of regional goals and priorities and improve responses to regional challenges.

Regional Ocean and Great Lakes Partnerships

Great Lakes Regional Collaboration

(www.glrc.us)

Illinois
Indiana
Michigan
Minnesota
New York
Ohio
Pennsylvania
Wisconsin

Governors’ South Atlantic Alliance

(www.southatlanticalliance.org)

Florida
Georgia
North Carolina
South Carolina

Gulf of Mexico Alliance

(<http://gulfofmexicoalliance.org>)

Alabama
Florida
Louisiana
Mississippi
Texas

Mid-Atlantic Regional Council on the Ocean

(www.midatlanticocean.org)

Delaware
Maryland
New Jersey
New York
Virginia

Northeast Regional Ocean Council

(<http://community.csc.noaa.gov/nroc>)

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

West Coast Governors’ Alliance on Ocean Health

(<http://westcoastcoceans.gov>)

California
Oregon
Washington

Leveraging Partnerships

National Oceanographic Partnership Program (NOPP) works to coordinate and strengthen oceanographic efforts to support national security, economic development, and ocean science and education. The NOPP identifies and carries out partnerships among Federal agencies, academia, industry, and other members of the oceanographic scientific community in the areas of data, resources, education, and communication.

Corporate Wetlands Restoration Partnership (CWRP) is an innovative private–public initiative aimed at preserving, restoring, enhancing, and protecting aquatic habitats throughout the United States. Bringing together over 300 corporations, Federal and State agencies, non-profit organizations, and academia, the CWRP allows members to contribute in a fundamental way to crucial projects involving America’s coastal and inland aquatic resources and to support related education programs.

National Fish Habitat Partnerships are regional partnerships among State and Tribal governments, the Federal Government, businesses, and NGOs working to reverse declines in fish habitat across the Federal Government.

Agencies: NOAA, EPA, DOI, all agencies who are members of Federal regional task forces.

Milestones

- Identify grant and non-monetary opportunities to support the continued development and organization of regional alliances and existing ROPs (e.g., support for regional action plans). (NOAA, EPA, DOI; 2012)
- Compile a list of tools, resources, and in-kind services that are available to ROPs to enhance accomplishment of mutual regional goals (e.g., facilitators, use of Federal facilities, grant opportunities, decision-support tools, scientific information, and technical experts). (NOAA, EPA, DOI, USACE; 2012)
- Identify and distribute, in coordination with ROPs, Best Management Practices (BMPs) that are broadly applicable for all ROPs (e.g., how to effectively engage stakeholders, develop partnerships, identify priorities, develop regional action plans, measure success). (NOAA, EPA, DOI, USACE; 2012)

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

Improving collaboration through partnerships allows the Federal Government to leverage the unique and diverse strengths of Tribal and State partners, the private sector, and other stakeholders. These partnerships allow Federal agencies to better address national problems that are beyond the mandate or capability of any single Federal agency or the Federal Government acting alone. Engaging the private sector and communities in ocean, coastal, and Great Lakes stewardship promotes environmental conservation, economic growth, and other societal benefits.

In addition to facilitating new partnerships, this action will improve leveraging of existing partnerships (e.g., National Oceanographic Partnership Program, Corporate Wetlands Restoration Partnership, and National Fish Habitat Partnerships). This action aligns with other national and regional initiatives, including “America’s Great Outdoors” and the Administration’s “Commitment to Clean Water.” NOC member

agencies would also work through their ongoing stakeholder partnerships as appropriate to address actions in this draft Implementation Plan.

Outcomes

Strengthening existing and establishing new partnerships will result in greater efficiency, extended capacity, improved effectiveness, and greater joint public–private partnerships to support mutual objectives.

Agencies: ORM-IPC, OST-IPC, NOAA, USDA, NFHP Federal Caucus

Milestones

- Identify and prioritize specific opportunities to partner with non-Federal entities and organizations on National Ocean Policy priorities. (ORM-IPC, OST-IPC; 2012)
- Establish and work with a national coastal conservation corps network to identify potential sites and projects for phased regional implementation. (NOAA; 2012)
- Identify and prioritize ocean, coastal, and Great Lakes protection and restoration projects that would benefit from involvement of public–private partnerships, such as Corporate Wetlands Restoration Partnerships. (ORM-IPC; 2012)
- Identify, in coordination with the National Oceanographic Partnership Program, funding opportunities to support National Ocean Policy priorities. (OST-IPC; 2013)
- Officially recognize one new coastal, estuarine, or marine focused Fish Habitat Partnership. (NFHP Federal Caucus; 2013)
- Assess Federal grant solicitations to determine whether additional criteria can be identified and added to better coordinate with priorities of the coastal and marine Fish Habitat Partnerships. (NFHP Federal Caucus; 2014)

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

When authorities and responsibilities remain dispersed, poorly defined, or nonexistent, the decision-making process is unclear. The resulting confusion can create roadblocks to public participation, discourage private investment, cause harmful delays, and generate unnecessary costs. This action will help Federal agencies identify and make recommendations to resolve gaps, inconsistencies, and duplications in statutory authorities, policies, and regulations. This will be particularly beneficial in instances when decision-making responsibilities are poorly defined or non-existent due to lack of coherency among differing agency mandates, policies, regulations, practices, or funding. As part of this analysis, opportunities to incorporate EBM principles into statutory authorities, policies, and regulations will be identified.

Outcomes

Identification and resolution of legal barriers will improve the Federal Government's ability to improve management of activities taking place or being proposed in our ocean, coasts, and Great Lakes.

Agency: NOC Legal Working Group

Milestones

- Identify Federal legal or regulatory gaps, overlaps, redundancies, and inconsistencies to effective collaboration and governance that require further analysis. (NOC Legal Working Group; 2012)
- Review the interpretation and, as necessary, propose to strengthen content and/or application of Federal legislation, including the Coastal Zone Management Act, Coastal Barriers Resources Act, the Stafford Act, and others to incorporate and better support climate change adaptation efforts. (NOAA, DOI; 2013)
- Deliver a report on priority recommendations to accelerate Federal decision-making with actions that would address the regulatory and legislative issues identified in the milestone above. (NOC Legal Working Group; 2014)

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

Ocean and coastal cross-cutting Federal budget analyses will help to address the complexity of organizing, managing, and implementing the National Ocean Policy, including EBM, and will facilitate the formation of a comprehensive Federal management scheme. These analyses can also assist in making budget information more understandable across the 26 agencies, offices, and departments represented on the NOC. It may also be used to track accomplishments, measure progress toward achieving policy goals, and compare activities conducted by various agencies aimed at the same goal.

Outcomes

Federal cross-cutting budget analyses will result in more efficient and economical uses of limited Federal resources.

Agencies: NOC Co-Chairs, OMB, NOC Member Agencies

Milestones

- In consultation with the NOC and OMB, develop a timely annual interagency budget guidance memo on ocean priorities consistent with the goals and objectives of the National Ocean Policy. (NOC Co-Chairs; 2012)

- In consultation with the NOC and OMB, identify Federal programs that contribute significantly to the National Ocean Policy. (NOC Co-Chairs; 2013)
- In consultation with the NOC and OMB, develop crosscuts to inform the annual priorities on ocean, coastal, and Great Lakes stewardship. (NOC Co-Chairs; 2014)

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

There are a number of overlapping, redundant, and sometimes conflicting permit review processes that result in unnecessary delays, increased costs, and lack of predictability for commercial investments. Relevant agencies, offices, and departments represented on the NOC will work together to review permitting processes to determine how these processes may be better coordinated. The initial focus, or pilot, will be on aquaculture permitting. Currently, at least five Federal agencies must be consulted or grant permits before an aquaculture facility can proceed. This includes NOAA, USFWS, the USACE for shellfish operations or for operations attached to the sea floor, the U.S. Coast Guard if there is a potential obstruction to safe navigation, and EPA for any facility that discharges a pollutant into U.S. navigable waters or the exclusive economic zone. Additionally, Federal agencies need to coordinate with the States on the respective State aquaculture permit requirements. To facilitate and ensure interagency coordination, the Interagency Working Group on Aquaculture under the National Science and Technology Council will collaborate with the NOC to create a senior-level interagency coordinating task force to improve permitting efficiencies for aquaculture and address key milestones.

Outcomes

Efficient, coordinated permitting processes will allow ocean industries to save time and money and encourage economic development and growth without compromising Federal agency responsibilities to protect health, safety, and the environment. Improved coordination and decreased redundancies will also reduce administrative waste and burden on Federal agencies.

Agencies: NOAA, USDA, EPA, USACE, USCG, DOI

Milestones

- Develop and make available communication tools that educate the U.S. aquaculture community and public on Federal laws and regulations that apply to aquaculture operations. (NOAA, USDA; 2012)
- Identify opportunities and pursue agreements to integrate aquaculture operations permit review processes (e.g., NEPA). (NOAA, USDA, EPA, USACE, USFWS; 2012)
- Identify and pursue aquaculture permitting regulatory efficiencies. (NOAA, USDA, EPA, USACE, USCG, USFWS; 2013)
- Identify and make available BMPs to inform and improve other Federal permitting processes. (NOAA, USDA, EPA, USACE, USCG, USFWS; 2015).

Action 6: Address high-priority ocean policy issues through international engagement by promoting the exchange of information and expertise.

Greater collaboration by U.S agencies with international partners to share scientific knowledge and to develop and expand scientific expertise is important for addressing ocean and coastal issues on a global scale. These efforts will increase awareness of the National Ocean Policy by other countries and international organizations. This may lead to strengthened coordination with countries sharing a maritime boundary with the United States, improve the exchange of information, and address key transboundary and relevant ocean issues, as well as generally enhance communication and collaboration with the international community on ocean issues.

Outcomes

International engagement and cooperation on information and science will enhance support for and collaboration on addressing ocean issues. At this point in the implementation of the National Ocean Policy, we envision that such engagement will yield three main outcomes internationally: (1) awareness of the National Ocean Policy by other interested countries and appropriate international organizations and fora; (2) enhanced U.S. efforts at information exchange on matters related to the National Ocean Policy; and (3) engagement with countries sharing a maritime boundary with the United States, in particular on matters relating to CMSP.

Agencies: DOS, CEQ, OSTP, DOJ, DOD, NOAA, USCG, NSS, EPA, NSF, NASA, DOI, DOT

Milestones

- At international fora, the United States will present relevant information on the National Ocean Policy in an effort to raise awareness of the Policy. Specific aspects of the Policy to be highlighted (e.g., CMSP, EBM) and specific fora in 2012 and 2013 (e.g., the UN Conference on Sustainable Development [“Rio +20”]) will be determined through interagency preparations. (DOS, DOJ; 2012)

- Identify and pursue specific opportunities to exchange information, expertise, and science on matters related to the National Ocean Policy with international organizations that address ocean and maritime issues contained in the Policy and with countries that may have an interest on such matters. (DOS, USCG, NOAA, EPA, NSF, NASA, USCG, DOI, USACE, DOT, DOJ; 2013)
- Engage with relevant countries sharing a maritime boundary with the United States to make them aware of the National Ocean Policy, in particular the CMSP efforts. (DOS, DOJ; 2012)

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.

Regional ocean, coastal, and Great Lakes ecosystems are diverse and complex, ranging from tropical coral reefs and mangroves to temperate salt marshes and sea grass beds. They comprise 25 percent of the Nation's wetlands, and include our bays, estuaries, and gulfs. They provide spawning grounds, nurseries, shelter, and food for finfish, shellfish, migratory birds and waterfowl, and other wildlife. They provide a multitude of services; for example, more than half of the recreational and commercial fish caught in U.S. waters depend on estuaries and coastal wetlands at some point in their life cycles. Ocean, coastal, and Great Lakes ecosystems provide components for pharmaceuticals, act as a barrier against hurricanes, and offer areas of natural beauty for recreation and relaxation. Coastal wetlands also sequester vast amounts of carbon in organic material and sediments. The combined value of these ecosystems is estimated to be in the hundreds of billions of dollars.

However, the health of ocean, coastal, and Great Lakes ecosystems and their ability to provide such a wealth of products and services is being degraded by urban, rural, and agricultural development; unsustainable land-use practices; and other human activities. An estimated 27 percent of coral reefs have already been lost, and an estimated 60 percent are threatened by ocean warming and reef bleaching, as well as human impacts. Between 1998 and 2004, an estimated 59,000 acres of coastal freshwater and saltwater wetlands were lost each year. These threats are exacerbated by the environmental impacts of climate change, invasive species, and shifts in wildlife populations and abundance. Marine and aquatic invasive species alter habitats and push out native species. They cost hundreds of millions of dollars each year because invasions limit the ability of natural ecosystems to support fisheries, raw water uses, wildlife watching, and other uses. In addition, they damage vessels, piers, bridges, water systems, and other coastal infrastructure. As

development and human activity in coastal areas increase and resources decline, addressing these threats is becoming more complex.

Ocean, coastal, and Great Lakes ecosystem protection and restoration is being carried out at local, Tribal, State, and regional scales through implementation of Federal and State resource management and land-use planning initiatives. Programs aimed at reducing impacts in coastal landscapes, bays, wetlands, and estuaries include innovative growth-management initiatives that incorporate low-impact design elements, plans for improving management and control of storm water and wastewater discharges into coastal and ocean waters, and removal of incentives for new infrastructure and increased density in vulnerable or high-quality habitat areas.

Federal agencies implement a variety of habitat conservation programs at national, regional, and local scales to sustain valuable ecosystem services for the benefit of future generations of Americans. These programs help keep working forests and farmland in production, protect high-quality fish and wildlife habitats, direct development away from flood hazard areas, conserve cultural sites, and provide opportunities for outdoor recreation. (See text box on “Restoration in Action” for specific regional interagency efforts.)

While many restoration efforts have identified priority areas, there is no mechanism to assemble this information and align priorities across the landscape. The following actions address areas where increased coordination and prioritization among Federal agencies and with their non-Federal partners, enhancement of program effectiveness, or development and improvement of methodologies and protocols will help increase conservation success. The actions will build on and be informed by the processes, priorities, and existing ecosystem restoration and protection programs at the State, regional, and local levels. They will also complement other place-based EBM and CMSP efforts. Future updates will provide an opportunity to include next steps to advance solutions to the issues and identify other issues and priorities.

RESTORATION IN ACTION

The National Ocean Council is charged with implementing the National Ocean Policy and addressing broad, national enhanced stewardship of our ocean, coasts, and Great Lakes, including economic, environmental, social, and national security issues. One priority area is regional ecosystem restoration, including issues such as water quality impacts and other large-scale threats, ecosystem-based management, and coordination and support among Federal and State agencies at the regional scale.

Federal agencies are engaged in various regions through interagency collaborations focused on regional ecosystem restoration and management. The National Ocean Policy and the National Ocean Council provide an overarching framework for ongoing ecosystem-specific efforts.

Two ongoing restoration initiatives that exemplify the principles of the National Ocean Policy are the Great Lakes Restoration Initiative (GLRI) and the Gulf Coast Ecosystem Restoration Task Force. Both initiatives demonstrate how regional, State, and local entities can work together to address common goals for protecting and restoring natural resources in concert with building strong coastal economies and resilient communities.

The GLRI integrates and aligns restoration plans for the Great Lakes region. This initiative is an excellent example of how regional efforts can address common goals and build broad consensus throughout a larger ecosystem and community. It is the largest investment in the Great Lakes in two decades. It addresses urgent issues such as toxics, invasive species, near-shore health, and wetland restoration. Through reduced duplication of effort, the GLRI plans are addressing high-priority issues. The initial GLRI effort continues to be strengthened by the additional focus on implementing the National Ocean Policy.

The Gulf Coast Ecosystem Restoration Task Force supports implementing an important piece of the National Ocean Policy—ecosystem restoration. As the varied communities come together, their collective restoration activities promote and sustain a culture of shared stewardship, both across Federal agencies and between Federal, Tribal, State, and local jurisdictions. Through the Task Force, these multi-level entities work together to better coordinate planning, decision-making, and regulatory enforcement. Together, these activities ensure that best practices, information, discoveries, and advancements in science and management of coastal ecosystems are integrated and aligned with common goals that benefit multiple stakeholders and sectors.

Additionally, through groups such as the U.S. Coral Reef Task Force (USCRTF) and the Aquatic Nuisance Species Task Force, interagency efforts are coordinated across several regions to preserve and protect coral reef ecosystems and to prevent and control aquatic nuisance species.

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

Coastal landscapes, bays, wetlands, and estuaries provide numerous ecosystem services: habitat for fish and wildlife, a resource base for communities that depend on fishing and other water-dependent or water-based industries, rich farmland, productive forests, scenic and recreational opportunities that enhance quality of life, and natural buffers from floods and storms.

This action will promote better coordination between Federal agencies and local, Tribal, State, and regional entities in identifying protection and restoration priorities across the coastal landscape. As an initial step, agencies would build on the work under Executive Order 13508 to create a mapping tool for the Chesapeake Bay that provides such a mechanism for coordination. This tool will enable the sharing of information, data, and ideas between geographically based initiatives and provide opportunities for addressing gaps or areas of common concern and mutual benefit. It will focus initially on the Chesapeake Bay watershed, with a focus on transferability to other regions where Federal agencies are working collaboratively with States, local governments, other stakeholders, and Tribes to support regional ecosystem priorities. The Chesapeake Land Conservation Priority System (Chesapeake System) will be made available to stakeholders through a regional data portal linked to ocean.data.gov.

Outcomes

Watershed-wide decision support tools will promote strategic coastal land conservation, restoration planning, and decision-making.

Agencies: USGS, NPS, DOD

Milestones

- Institute collaborative partnership(s) (e.g., State, local, private, academic) within the Chesapeake Bay to augment an initial system prototype. (USGS, NPS, DOD; 2013)
- Complete the initial build-out of the Chesapeake System and initiate its use for collaborative conservation efforts, including development of data standards. (USGS, NPS, DOD; 2013)
- Assess the Chesapeake System's functionality and accessibility via focus groups. (USGS, NPS, DOD; 2013)
- Deliver a documented plan for storage, access, updating, and maintenance of source data used in prioritization tool. (USGS, NPS; 2013)
- Convene a small working group of representatives from other interested regions to advise on system infrastructure development and to facilitate transferability. (USGS, NPS, DOD; 2014)
- Make the Chesapeake System infrastructure available for other regional initiatives. (USGS, NPS, DOD; 2014)

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

To reduce, and work toward the goal of reversing, coastal wetland loss, Federal agencies (principally EPA, NOAA, USACE, and USFWS) will work together and in cooperation with States and Tribes to identify the underlying causes of loss and opportunities to more effectively protect and restore the important functions and values provided by wetlands in coastal watersheds. Due to a number of factors, which include natural processes and increasing human impacts in densely populated coastal areas, wetlands in coastal counties are being lost at a rate four to five times higher than inland wetlands. Some of the most well-known coastal wetland losses are estuarine saltmarsh wetlands, particularly along the coast of Louisiana and throughout the Gulf of Mexico. The overarching strategy to address wetland loss will be based on the results of pilot studies conducted to identify the most common underlying factors responsible for coastal wetland loss and the most successful tools for addressing this loss. There are numerous ongoing efforts to protect and restore coastal wetland ecosystems (e.g., the Gulf Coast Ecosystem Restoration Task Force, the South Florida Ecosystem Restoration Task Force). The actions discussed here are intended to complement these ecosystem restoration plans.

Outcomes

Conservation of coastal wetlands (including freshwater and saltwater wetlands in coastal watersheds) will improve through recommended strategies and collaborative actions that can be taken by Federal, State, Tribal, regional, and/or local entities to reduce and ultimately reverse the loss of coastal wetlands.

Agencies: NOAA, USFWS, EPA, USACE

Milestones

- Complete an assessment of the status and trends of coastal wetlands using the most recent data from 2004 to 2009, including status and trends across the U.S. coastal regions. (NOAA, USFWS; 2012)
- Develop an analytical framework and pilot assessment selection strategy. (EPA, NOAA, USACE, USFWS; 2012)
- Identify coastal watersheds for pilot assessments using the pilot assessment selection strategy and updated wetland inventories and geospatial data. (EPA, NOAA, USACE, USFWS; 2012)
- For each pilot watershed, complete analyses of data and information from the 2011 *Status and Trends of Wetlands in the Conterminous United States*, NOAA's Coastal Change Analysis Program, Clean Water Act Section 404 program, State regulatory programs, USACE Civil Works programs, and geospatial sources. (EPA, NOAA, USACE, USFWS; 2013)

- Complete a report recommending actions Federal agencies can take, in coordination with State, Tribal, regional, and local agencies, to improve the management of coastal wetlands and reduce losses nationwide. (EPA, NOAA, USACE, USFWS; 2014)

Action 3: Incorporate carbon sequestration into coastal habitat conservation.

The capability of coastal habitats to sequester carbon is an important but undervalued ecosystem service. It could provide incentives for increased protection of these habitats. This capability requires increased protection and restoration of salt marsh, mangrove, and sea grass habitats and better implementation of mitigation requirements for impacts to these systems. A greater understanding of the opportunities and barriers to including carbon sequestration in ecosystem service assessments is also needed.

Federal agencies will incorporate the carbon sequestration and storage function of coastal wetlands into public policy regarding management, protection, and restoration of coastal wetlands, and develop a better understanding of this ecosystem service. Agencies will also develop tools, models, and methods for quantifying greenhouse gas impacts of coastal habitat alteration to improve the ability of Federal and State agencies to implement effective protection and restoration programs. The ability to quantify carbon sequestration as an offset in a voluntary carbon market could also lead to significant private investment in coastal habitat conservation.

Outcomes

Accounting for coastal wetlands' carbon sequestration and storage functions will increase their protection and restoration, contribute to reducing the release of greenhouse gases (GHGs) to the atmosphere, and facilitate a greater understanding of the opportunities and barriers to including carbon sequestration in ecosystem service assessments.

Agencies: DOI, NOAA, USDA, EPA, USFWS, USGS, NSF

Milestones

- Assess the role of coastal habitat carbon storage and sequestration to increase the ability to incorporate these ecological services into habitat protection, restoration, management, and adaptation efforts. (DOI, NOAA; 2013)
- Complete an assessment of Federal policy opportunities and barriers for including carbon sequestration in ecosystem service assessments for coastal wetlands. (NOAA, USDA, EPA, USFWS; 2012)
- Develop methods and models to improve the assessment of carbon sequestration capacities for different coastal wetland types (e.g. mangroves and sea grasses). (USGS; 2013)

- Identify coastal wetland demonstration sites appropriate for carbon sequestration and emission research, with emphasis on sites already identified for the purposes of long-term ecological research. (USGS, USDA, EPA, NSF, NOAA, USACE; 2013)
- Develop a protocol for carbon sequestration as an ecosystem service that can be incorporated into existing Federal policies and laws that require the use of ecosystem-based management approaches for environmental management. (USGS, NOAA, USDA; 2015)
- Provide quantitative data on coastal habitat carbon sequestration and facilitate the use of results from pilot projects in supporting private-sector development of greenhouse gas offset protocols for use in voluntary carbon markets. (USGS; 2015)

Action 4: Strengthen interagency collaboration to protect and conserve coral reef ecosystems.

Coral reefs are among the most diverse and biologically complex ecosystems on Earth, and they support more species per unit area than any other marine environment. They provide important fish, areas of natural beauty, recreational opportunities, and effective shoreline protection. Under threat from multiple environmental stressors, coral reefs are deteriorating worldwide at an alarming rate.

Agencies will coordinate to address two key threats to coral reef ecosystems: impacts from land-based sources of pollution, and impacts from planned (e.g., permitted/authorized) and unplanned (e.g., vessel groundings, spills) activities. Principal agencies engaged in coral reef activities (e.g., regulation, management, water quality, and damage response) and agencies conducting and/or funding activities that take place in coral reef ecosystems working in partnership with the U.S. Coral Reef Task Force (USCRTF), will work within existing authorities, mandates, and programs to effectively enhance protection and conservation of coral reef ecosystems.

Outcomes

Improving coral reef conservation by strengthening interagency coordination will promote a ridge-to-reef or watershed approach to

address land-based sources of pollution and facilitate a more consistent approach to evaluating, assessing, and mitigating impacts to coral reef ecosystems.

Agencies: USCRTF, USACE, EPA, NOAA, DOI, USDA

Milestones

- Compile and make publically available an online reference library to include general background materials, case studies, and protocols for addressing planned and unplanned activities impacting coral reef ecosystems. (USCRTF; 2012).
- Complete and disseminate a reference handbook to include a review of existing policies, agency and State/territory roles and responsibilities, a compendium of best practices, science-based methodologies for quantifying ecosystem services, and protocols for use when responding, assessing, mitigating, and restoring coral reef ecosystems. (USCRTF; 2014).
- Implement coordinated projects in targeted locations to reduce land-based pollutants. Provide information and tools necessary for managers and decision-makers to identify and implement the most effective and efficient management practices in upstream environments. (USCRTF; 2014)

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

Invasive species introduced into our coastal and Great Lakes waters can rapidly spread and degrade marine, estuarine, and freshwater ecosystems habitats, and push out native species. Slowing the spread of invasive species and reducing the likelihood of future invasions will improve protection of commercial and recreational fish stocks, shellfish, native plants, and threatened and endangered species and their habitats. It will also improve water quality, sustain jobs, and save millions of dollars in lost revenue and infrastructure damage.

The National Invasive Species Council (NISC), supported by the Aquatic Nuisance Species Task Force (ANSTF), will partner with the National Fish and Wildlife Foundation (NFWF) to establish a mechanism to support Federal, State, regional, and local actions to prevent the establishment and spread of invasive species, particularly those species that impact aquatic environments. This partnership will protect native marine and freshwater species and their habitats by encouraging and supporting coordinated efforts to locate, monitor, control, and, where possible, eradicate invasive species populations.

Outcomes

Controlling invasive species will improve water quality and ecosystem services; protect commercially, recreationally, culturally, and ecologically important marine species and their habitats; and help sustain the jobs and industries that depend upon healthy aquatic ecosystems.

Agencies: NISC, ANSTF

Milestones

- Analyze potential models and identify strategic gaps and opportunities, with the ANSTF, to improve our ability to conduct Early Detection Rapid Response operations. (NISC; 2013)
- Develop the processes for requesting Early Detection Rapid Response proposals and evaluation criteria in concert with the Invasive Species Advisory Committee, Aquatic Nuisance Species regional panels, and Federal invasive species program experts. (NISC, ANSTF; 2013)
- Develop mechanisms to facilitate public–private partnerships such as Memoranda of Understanding and related joint planning documents, and submit them for review and approval by participating entities. (NISC; 2013)
- Identify potential Federal and non-Federal funding sources that can contribute to the funding of a pilot-scale request for proposals. (NISC; 2013)
- Review the initial round of pilot-scale proposals, and report on the pilot program’s effectiveness and make recommendations for its continued improvement. (NISC, ANSTF; 2014)

Action 6: Identify nationally significant marine and Great Lakes natural and cultural areas in need of protection.

Identifying ecologically important and culturally significant areas in need of protection is the first step in planning for future marine protected or managed areas, and for other ocean uses. Several Federal agencies have processes by which to identify important marine areas for management or protection under various authorities, such as designation of national marine sanctuaries, national estuary programs, and national marine monuments. This action will address the protection of essential fish habitat (EFH) and support reactivation of the National Marine Sanctuary Site Evaluation List (SEL)—a tool for evaluating marine areas that may be considered for national marine sanctuaries—and conducting a gap analysis to identify areas that may be considered for other levels of protection.

Prioritizing actions to identify and conserve habitat for priority fish species will enhance existing EFH efforts and provide both ecosystem and economic benefits. An updated SEL will include marine areas that have been identified as nationally significant due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological,

educational, or aesthetic qualities, and inform the designation of future national marine sanctuaries. The SEL process is designed specifically to help designate national marine sanctuaries. However, the information gained through communities' identification of significant marine areas could also be used to inform other processes. Showcasing a comprehensive marine gap analysis in one region will develop the methodology for conducting a broader scientific analysis, and will integrate information on ecological resources, human uses, threats, and current levels of protection to identify ecologically important and culturally significant marine areas that should be considered for additional protection through existing marine protected area (MPA) programs and authorities. This information could be used in other site selection processes as well.

Outcomes

Nationally significant marine areas will be identified for science-based protection that balances conservation and human uses.

Agencies: NOAA, NFHP Federal Caucus, DOI

Milestones

- Identify actions encouraging the conservation and enhancement of habitat for priority species through EFH Provisions, including Habitat Areas of Particular Concern (HAPCs), to avoid, minimize, or compensate for adverse effects from impacts. (NOAA; 2012)
- Identify priority species and their high-value habitats that would benefit most from habitat assessments and conservation actions. (NOAA; 2013)
- As part of the national fish habitat assessment, complete a marine fish habitat assessment that includes an analysis of the links between estuarine and upland habitats to inform future habitat conservation work under the National Fish Habitat Partnership. (NFHP Federal Caucus; 2015)
- Reactivate and repopulate the SEL with marine areas that have been identified as nationally significant due to their conservation, recreational, ecological, historical, scientific, cultural, archaeological, educational, or aesthetic qualities. (NOAA; 2012)
- Develop and pilot a methodology for conducting a marine gap analysis and inventorying information sources to support the analysis. (NOAA; 2012)
- Showcase the gap analysis in one U.S. region. (NOAA; 2013)
- Evaluate cultural resources for additional protection based on the National Historic Preservation Act. (DOI, NOAA; 2014)

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

Several Federal agencies fund and implement coastal and estuarine habitat restoration projects. These efforts must be coordinated, evaluated, and tracked to ensure that restoration is effective

and efficient. Project monitoring provides an opportunity to improve the science of restoration and document the benefits to the ecosystem and society, such as increases in fishing opportunities, fish populations, and biological diversity.

Outcomes

Increased monitoring and data collection to document the ecological and socioeconomic benefits of habitat restoration projects will improve the effectiveness of habitat restoration.

Agencies: NOAA, USACE, DOI, EPA, USDA

Milestones

- Complete an interagency review of existing monitoring data standards; revise and approve minimum ecological monitoring data standards for coastal and estuarine habitat restoration projects. (NOAA, USACE, DOI, EPA, USDA; 2014)
- Make project information available for projects using the approved minimum monitoring standards available to the public via an Estuary Restoration Act website. (NOAA, USACE, DOI, EPA; 2014)
- Implement the revised ecological monitoring standards for restoration projects where project monitoring is required. (NOAA, USACE, DOI, EPA, USDA; 2015)

GAPS AND NEEDS IN SCIENCE AND TECHNOLOGY

Methods for evaluating ecosystem response to conservation measures are evolving, as is the approach to conserving historically altered landscapes. Data and information have not been sufficiently integrated to describe the environmental, economic, and social impacts to working coastal communities and culturally significant landscapes. For example, coral reef ecosystems are extremely complex and can vary considerably from one area to the next. A case-by-case approach must be used to assess the complexity and services provided by ecosystems, as well as mitigation costs.

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.

We have an opportunity and a responsibility to reduce the vulnerability and increase the resilience of human and natural systems to climate change impacts. The scale, scope, and pace of climate change is having and will continue to have complex impacts on food, flood protection, tourism and recreation, economic activity, jobs, and cultural heritage. Sea-level rise, increased severe storm events, rapid erosion, changing ocean temperature, and saltwater intrusion present serious and growing threats to low-lying coastal communities through the destruction of infrastructure, flood inundation, loss of arable land, and the potential displacement of millions of people. At the same time, climate change is predicted to lower the water levels of the Great Lakes, thereby altering water cycles and supply, habitats, and economic uses of the Lakes. In addition, changing ocean temperature and ocean acidification are expected to have significant impacts on many marine species, food webs, and ocean ecosystem structure and function, and the many benefits they provide.

The best scientific information must be accessible and relevant to inform decisions that enhance the resiliency of the Nation in the face of climate change and ocean acidification. Decision-makers rely on science to understand and envision potential impacts, assess vulnerability and risk to a plausible range of climate change scenarios, and inform adaptive actions. Sustained, mutual information exchange among scientists, decision-makers, and practitioners increases the Nation's ability to provide early warnings and to track, model, and project climate-related impacts over time and geography, fostering more timely and effective responses in support of managing and adapting to changing conditions. Fostering coordination and advancements in understanding, observing, and projecting the impacts of climate change will result in the core information base needed for vulnerability assessments and adaptation efforts.

Decision-makers at all levels are beginning to implement actions to enhance the resilience of ecosystems and coastal communities. We can make significant progress in this area by building on current efforts at Federal, State, Tribal, regional, and local levels and coordinating across political jurisdictions. Strengthening and integrating observations from the Nation’s protected areas, research activities, and observing systems into a coordinated network is an efficient and effective way to provide decision-makers with the information they need to reduce risks and increase resilience of ocean and coastal environments and communities in a changing climate. In addition, coordinated vulnerability assessments of ecosystems, communities, and economies will inform adaptation actions. Investing now by developing and deploying adaptive approaches to climate change will better enable the Nation to manage the risks and reduce negative impacts to society now and into the future.

The following set of coordinated, interdependent actions will yield better understanding of, preparation for, and response to the impacts of climate change and ocean acidification on ecosystems and communities.

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 ocean, coastal, and Great Lakes environments and communities.

Robust information on the magnitude, scope, and timing of climate-related changes is critical for providing decision-makers with the current trends, early warnings, and future scenarios they need in order to take action to reduce vulnerabilities and impacts on environments and communities. While the *Observations, Mapping, and Infrastructure* priority objective focuses on ocean, coastal, and Great Lakes observations, integrating observations is essential to advancing our understanding of how communities and ecosystems respond and adapt to climate change. Strengthening and integrating observations from the Nation’s protected areas, research activities, and observing systems into a coordinated and integrated network of climate “sentinel sites” is an efficient and effective way to provide decision-makers with the information they need to reduce risks and increase

Among other concerns, climate change poses challenges to our national, homeland, and economic security, including rising seas that threaten low-lying bases, increasing ocean temperatures and acidification that threaten food sources, an increasingly accessible Arctic frontier, and increasing demand for humanitarian aid.

resilience of ocean and coastal environments and communities in a changing climate.

A network of sentinel sites, including a number of existing monitoring systems, will strengthen the Nation's ability to provide early warnings, risk assessments, and forecasts for climate and ocean acidification impacts. This network will allow the Federal Government and partners to track changes in the conditions of ocean and coastal ecosystems and communities. Common protocols and mechanisms will ensure collecting, synthesizing, and communicating this information is consistent and on decision-relevant scales.

Outcomes

Decision-makers have increased information about past and current climate-related changes that improves assessment of risks and impacts, and significantly increases the efficiency and effectiveness of adaptation efforts.

Agencies: USGCRP, NOAA, USGS, DOD, USACE, DOC, DOL, EPA, DOI, IWG-OA

Milestones

- Develop a framework for indicators of community and ecosystem impacts (physical, biological, chemical, cultural, social, and economic) to track changes in vulnerability and resiliency through time as part of the sustained National Climate Assessment process. (USGCRP, NOAA; 2013)
- Develop an interagency plan for topographic (primarily LiDAR or equivalent accuracy) and shallow bathymetric mapping in order to ensure comprehensive and accurate seamless elevation information for coastlines. (USGS, NOAA, USACE; 2013)
- Integrate relevant socioeconomic monitoring information (e.g., U.S. Census and Bureau of Labor Statistics data) with ecosystem monitoring information to understand changes in coupled human–natural systems in selected areas. (NOAA, DOC, DOL; 2013)
- Produce an inventory and assessment of observations and monitoring capabilities in networks and systems of ocean, coastal, and Great Lakes protected areas, research sites, and observing systems. (NOAA, DOI, EPA, DOD; 2014)
- Disseminate and implement best practices (including guidance for relevant parameters that should be measured at each observing system), standardized monitoring protocols, and quality assurance and quality control procedures and provide appropriate training opportunities. (NOAA, EPA; 2014)
- Develop and begin to implement a plan for incorporating species phenology information (i.e., the annual timing of major life cycle events such as migration, reproduction, and flowering) from coastal and ocean ecosystems into the National Phenology Network. (DOI, NOAA; 2014)
- Build and expand on partnerships with both Federal and non-Federal entities (e.g., State agencies, Tribal agencies, and academic institutions) to increase integration of their existing observing activities into sentinel site networks. (NOAA; 2014)

- Integrate and strengthen sentinel site networks to track the impacts of climate change and ocean acidification on living marine resources (e.g., fisheries and marine protected species), protected areas, and coastal and Great Lakes communities in selected areas. (NOAA, DOI; 2015)
- Create and implement an interagency plan for coordinated monitoring of the impacts of climate change and ocean acidification through existing networks using standardized and/or interoperable techniques, databases, and indicators when and wherever possible, to maximize integration of information across networks and agencies, leveraging existing protocols where practical and relevant. (IWG-OA, USGCRP Ecosystems Working Group, IOCM, IOOS; 2020)

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

Preparing for and responding to the impacts of climate change and ocean acidification requires improved understanding of the scale, scope, and intensity of these impacts on the Nation's valuable ocean and coastal ecosystems, and on the human communities that depend on them. An integrated research agenda, including physical, chemical, biological, and social sciences, will help address gaps in our current understanding and build a foundation for the development of models, tools, and services to better inform future planning and decisions.

This integrated, interdisciplinary agenda will foster understanding of climate change and ocean acidification impacts in the context of other environmental stressors to more accurately predict and enhance resilience to future conditions. It will provide information for improved forecasts of changes in ecological, economic, and social systems due to climate change and ocean acidification. It will fill critical gaps in understanding and build a foundation for the development of observations, models, tools, and services that support the information needs of decision-makers at all levels. This improved knowledge will underlie the development of effective EBM and adaptation strategies to increase resilience of ecologically and economically important populations and ecosystems, and the coastal communities that rely on them.

Outcomes

Increased understanding of climate change and ocean acidification impacts improves vulnerability assessments and effectiveness of adaptation actions reducing risks and impacts.

Agencies: NOAA, NSF, DOT, DOI, USACE

Milestones

- Conduct targeted research and disseminate findings to address valuable information needs related to the direct and indirect impacts of climate change, ocean acidification, and interacting stressors (e.g., land-use changes) on coastal communities, infrastructure, and economies. (NOAA, NSF, DOT; 2013)

- Conduct targeted research and disseminate findings to address valuable information needs related to the direct and indirect impacts of climate change, ocean acidification, and interacting stressors (e.g. land-use changes) on key species, habitats, and ecosystems. (NSF, NOAA, DOI, USACE; 2014)

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

Planning and management communities have identified the need for accurate, timely, and relevant multi-decadal projections of future impacts of climate change and ocean acidification to inform planning and prepare for future conditions. As current and new information on climate change and ocean acidification is collected and assimilated, we can provide increasingly robust projections of impacts at scales useful to decision-makers.

This action will allow Federal agencies and the external research community to improve regional-scale projections and provide decision-makers with information and tools to conduct vulnerability assessments and adaptation efforts.

Outcomes

Access to a range of regional projections of future climate conditions on physical, ecological, and social systems will help decision-makers reduce risks and increase the effectiveness of adaptation efforts.

Agencies: USGCRP, NOAA, USGS, DOI, USACE

Milestones

- Develop and disseminate a suite of regional climate projections for all coastal and marine regions of the United States. (USGCRP, NOAA; 2014)
- Develop and disseminate a set of estimates for global mean sea-level rise that incorporates thermal expansion and ice-sheet melting, as well as a summary of what is known regarding regional variations from the global trend. (USGCRP, NOAA; 2014)
- Develop regional-scale, decision-relevant models and projections for selected areas that link changes in climate to changes in the physical, chemical, and biological conditions of coastal and marine ecosystems (e.g., ocean currents, primary and secondary productivity, trophic relationships, species interactions, and higher trophic levels such as fish and marine mammals). (NOAA, USGS; 2014)
- Make available coastal inundation and sea-level change visualization and decision support tools at decision-relevant scales. (NOAA, DOI, USACE; 2015)
- Provide and integrate county-level coastal and ocean job trends data via NOAA's Digital Coast to enable decision-makers and planners to better assess the economic impacts of climate change. (NOAA,DOI, USACE, FEMA; 2015)

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

Assessing vulnerability is a crucial step in preparing for and responding to the impacts of climate change and ocean acidification on coastal and ocean environments and coastal communities and economies. A vulnerability assessment is the identification of current and foreseeable risks that provides decision-makers with information they need to develop appropriate responses to reduce vulnerability and impacts, and strengthen resiliency in a changing climate. Understanding the current and future threats to and vulnerabilities of environments and communities enables decision-makers and stakeholders to plan and implement more effective actions to reduce risks and impacts in a changing climate.

Methods, best practices, and guidance will be developed for assessing the vulnerability and resiliency of resources, infrastructure, and communities to a changing climate. These tools will help avoid actions that increase vulnerability (i.e., maladaptation) and identify how coastal and ocean managers can reduce risks and increase adaptation of human communities and economies.

Outcomes

Improved information on vulnerability of coastal and ocean environments and communities will enable decision-makers at Federal, State, Tribal, regional, and local levels to design and implement actions that more effectively reduce risks and impacts.

Agencies: CEQ, EPA, NOAA, DOI, FEMA, USACE, USGCRP, DOT

Milestones

- Provide guidance for performing comprehensive, risk-based vulnerability assessments of climate change impacts for voluntary adoption by coastal programs. (EPA, NOAA, DOI; 2013)
- Develop and disseminate methods, best practices, and standards for assessing the resiliency of natural resources, cultural resources, populations, and infrastructure in a changing climate. (DOI, NOAA, EPA, FEMA; DOT; 2013)
- Update USACE guidance on incorporating sea-level rise into project planning. (USACE, NOAA; 2013)

- Develop tools for and conduct training courses on design and implementation of vulnerability assessments for coastal and ocean infrastructure, communities, and natural and cultural resources. (NOAA, EPA, FEMA, USACE, DOT; 2013)
- Develop a national synthesis and assessment of coastal and ocean vulnerability to climate change, ocean acidification, and sea-level change, in cooperation with stakeholder groups. (USGCRP; 2014)
- Develop best practices for climate change vulnerability assessments for Federally managed cultural and natural resources, tailored to different ecosystems and landscapes as needed. (NOAA, DOI, DOT, EPA; 2014)
- Develop best practices for climate change vulnerability assessments for Federally funded and/or managed coastal and ocean facilities and infrastructure in high-hazard areas. (NOAA, DOI, EPA, DOD, DOT; 2014)
- Collaborate with State, Tribal, and local efforts on climate change vulnerability assessments for communities. (NOAA, DOI/USGS, EPA; 2014)

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

Accessible and relevant scientific information will enhance the resilience of our Nation in the face of a changing climate. Decision-makers rely on science that understands and envisions potential impacts, assesses vulnerability and risk to a plausible range of climate change scenarios, and informs adaptive actions. However, they often have difficulty navigating the complex landscape of Federally produced science to locate, access, and use information that meets their needs.

Through sustained, mutual information exchange among scientists, decision-makers, and managers, the Federal Government can help ensure that decision-makers have the information they need to make adaptation decisions. Online infrastructure will support these efforts by improving the accessibility of relevant science and sharing lessons learned among practitioners. Guidance and training will help Federal, State, regional, and local managers understand and use climate information, tools, and projections in vulnerability assessments and adaptation planning.

Outcomes

Improved access and utility of information, tools, and guidance will support actions by individuals, communities, and governments that increase the resilience of ecosystems, societies, and economies to climate change and ocean acidification.

Agencies: USGCRP, NOAA, EPA, DOI

Milestones

- Develop a strategic plan for continuously identifying information needs of decision-makers and addressing them through an integrated research agenda. (USGCRP; 2014)
- Integrate ocean, coastal, and Great Lakes climate change risks, impacts, and vulnerabilities into national and international climate assessments. (USGCRP; 2014)
- Integrate climate information, tools, and services on coasts and oceans into the online interagency global change information system. (USGCRP, NOAA, EPA, DOI; 2014)
- Provide accessible, standardized guidance and training for incorporating climate change and ocean acidification information into ecosystem management, restoration, and CMSP activities. (NOAA, DOI, EPA; 2014)
- Provide guidance on the effective use of regional climate projections and local sea-level rise scenarios, including associated uncertainties. (USGCRP, ; 2013)
- Train science “translators,” such as Sea Grant Extension agents, to communicate and connect adaptation-relevant information to practitioners. (NOAA, DOI; 2014)

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

Climate change adaptation is a critical component of the broader effort to build a more sustainable future through enhancing social, economic, and ecosystem resilience. Developing and deploying adaptive approaches now will better enable the Nation to manage the risks posed by climate change, thus reducing negative impacts to society now and in the future. Adaptation actions can lead to more robust and forward-looking management strategies, as well as co-benefits.

This action will develop and promote strategies to allow coastal communities and the public to prepare to address the risks posed by climate change and ocean acidification. The result will be reduced vulnerability and improved resilience of communities, ecosystems, and infrastructure through actions that lead to smart siting and design, restoration and protection of ecosystem services, improved public health and safety, reductions in the loss of life and property, decreased costs of disaster response, and avoidance of maladaptive actions. Improved communication of adaptation actions across levels of government will enable a more coordinated approach to enhance resiliency to climate change and ocean acidification.

Outcomes

Implementation of adaptation actions will reduce vulnerability and improve resilience of communities, ecosystems, and infrastructure.

Agencies: DOI, NOAA, USDA, FEMA, USCG, DOT, CEQ, EPA, USACE

Milestones

- Foster and apply ecosystem-based approaches to adaptation, using the adaptive services of natural systems to help reduce vulnerabilities and risks to people and the built environment. (DOI, NOAA; 2013)
- Develop adaptation strategies, in consultation with Tribes and State Historic Preservation Offices, to address the impacts of climate change on coastal and ocean cultural resources. (DOI, NOAA, USDA; 2013)
- Develop an interagency coordinating framework to strengthen the institutions, mechanisms, and capacities for systematically enhancing resilience to hazards. (FEMA, USCG, DOT, working with National Science and Technology Council Subcommittee on Disaster Reduction; 2013)
- Complete the National Fish, Wildlife, and Plants Climate Adaptation Strategy to help guide development and application of vulnerability assessments for coastal and ocean living resources and environments. (DOI, NOAA, CEQ, USACE; 2013)
- Provide guidance to waterfront property owners on adaptive management options for shoreline erosion. (USACE, DOI, EPA, FEMA, NOAA; 2015)
- Develop and incorporate adaptation strategies for coastal and ocean species and habitats into future planning and management processes (e.g., fisheries, protected species, and shellfish aquaculture). (NOAA, DOI; 2016)

GAPS AND NEEDS IN SCIENCE AND TECHNOLOGY

To advance our understanding of climate change and its impacts on marine ecosystems and human communities, our monitoring capacity must be strengthened. Improved design of chemical and biological sensors and development of an integrated, geographically distributed database would help meet this need. In addition, existing social, behavioral, and economic monitoring efforts should be coordinated with ecosystem monitoring efforts. Comprehensive vulnerability assessments will be important elements in the development of adaptation strategies in response to climate change. Effective vulnerability assessments require mechanisms to incorporate improved knowledge about sensitivity, exposure, and adaptive capacity, as well as future environmental changes and impacts. A mechanism also is needed to deploy and maintain an interagency adaptation information clearinghouse, and additional research is needed to improve risk communication.

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.

There is nothing more vital to life on our planet than clean water. Healthy watersheds and coasts contribute to our health and our Nation's well-being by providing sources of clean water, as well as food and shelter for both human and natural communities. Healthy coastal watersheds also support commercial enterprises, recreational activities, and tourism. When the health of our watersheds and coasts is in danger, so is the health of our Nation's people and economy. Maintaining high-quality waters and healthy watersheds is key to ensuring resilient and adaptable aquatic ecosystems so they may withstand human and natural stresses and continue to provide services to humans and all other species that depend on them.

What we do on our land impacts our waters. Runoff from suburban streets and lawns, agricultural and industrial uses, transportation activities, and urban development—even hundreds of miles away—affects water quality. The resulting effects on the ocean, our coasts, and the Great Lakes manifest as beach and fisheries closures, fish kills, harmful algal blooms, areas of toxic sediments, “dead zones,” increased incidents of human illness, and massive amounts of plastic debris that kill seabirds and other marine life.

Because this pollution comes from an array of sources throughout the country, addressing it requires a commitment to cooperation among Federal, State, and Tribal governments, regional governance structures, local authorities, multiple stakeholders, and the public. Water quality can be improved by coordinating protection and restoration efforts that occur on land with those that occur across our coastlines and into the ocean. Successful implementation will require concerted activities, including the

use of regulatory and non-regulatory measures to enhance water quality.

Marine debris warrants particular attention. The debris and trash entering our waterways from both land and ocean sources and the damage it causes is preventable. But it can only be dealt with effectively using a comprehensive approach that is local in scale and global in scope involving engagement and action by stakeholders and the public. This approach will ensure changes in attitudes and practices to prevent marine debris, especially plastic waste, at the source and reduce its long-term impact.

A number of programs at various levels exist to address point and non-point source pollution. They offer opportunities to significantly reduce the input of pollutants to water through concrete mechanisms that integrate and coordinate with land-based pollution reduction programs. The actions in this Plan are designed to address the major impacts of urban and suburban development and agriculture—including forestry and animal feedlots—on ocean, coastal, and Great Lakes waters. Voluntary participation by agricultural producers, supported by a strong public-private partnership to provide technical and financial assistance, is needed. Strong partnerships can be achieved through improved coordination of existing programs. The overarching goal of the actions below is to identify and

Preventing and Responding to Oil Spills

The Federal Government has a long history of ongoing programs and regulations to prevent, prepare for, and mitigate oil spills. There have been many significant changes and advances on these topics during this Administration. In particular, a number of interagency efforts are underway. The Department of the Interior's Bureau of Safety and Environmental Enforcement (BSEE), through coordinated interagency review, approves oil spill prevention and response plans submitted by private-sector entities engaged or proposing to engage in oil exploration and production in the offshore environment. BSEE has established the Offshore Energy Safety Advisory Committee—made up of 15 members from Federal agencies, the offshore oil and gas industry, academia, and research organizations—to provide critical policy advice to the Secretary of the Interior through the BSEE Director on improving all aspects of ocean energy safety. USCG and the EPA lead regional and local area oil spill preparedness and response contingency planning efforts in cooperation with Tribal, State, and local officials and the private sector. These efforts focus on optimizing community awareness of threats, consensus understanding of priorities for protection and mitigation, the tools and strategies available to protect and mitigate, and the challenges in employing those tools effectively in the environment. USCG and NOAA lead coordination efforts on research and development needs and activities through the Interagency Coordination Committee on Oil Pollution Research and the National Response Team Science and Technology Committee. In addition, Federal agencies coordinate with industry and international efforts on research and development of enhanced oil spill prevention and response tools and methods. The National Ocean Policy will help to accelerate these efforts nationally, fostering even greater coordination and helping to identify priorities.

address the most significant land-based sources of pollutants and contaminants to coastal waters.

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

Pollution to our streams, rivers, estuaries, and coasts from diffuse sources (non-point source pollution) is the leading cause of water quality problems in the United States and a major cause of rapidly declining ocean and coastal ecosystem health. Pollutants from rural sources include nutrients, sediment, toxins, pesticides, and pathogens. Reducing the rural input of these materials means considering all components of the landscape, including soil, water, air, and plant and animal communities.

Well-managed watersheds are fundamental to clean and abundant water resources. This action will enhance water quality in the ocean, along our coasts, and in the Great Lakes by promoting conservation and best management practices in rural and forested watersheds to reduce non-point sources of pollution. Because this pollution comes from many diffuse sources throughout rural watersheds, addressing it requires a strong commitment to setting priorities and collaboration between multiple sectors and among Federal, State, and Tribal governments; regional governance structures; and local authorities.

Outcomes

Reducing pollutants from rural sources will improve local water quality and enhance ecosystem services and benefits within rural watersheds and in downstream waters.

Agencies: USDA, EPA, USGS, NOAA, USACE, DOI

Milestones

- Establish Priority Watersheds within current Regional Landscape Initiatives (e.g., Mississippi River Basin Healthy Watershed Initiative) and other water quality restoration efforts on public and private lands. (USDA, EPA, USGS; 2012)
- Evaluate the effectiveness of restoration efforts and BMPs for mitigating hypoxia through watershed nutrient loading reductions, using quantitative performance measures and an adaptive management approach. (NOAA, NRCS; 2013)
- Establish integrated interagency monitoring, modeling, and assessment partnerships in priority watersheds to better evaluate the effectiveness of land treatment practices (e.g., the Mississippi River Basin Healthy Watersheds Initiative, Chesapeake Bay Initiative, and Great Lakes Restoration Initiative). (USDA, EPA, USACE, DOI, NOAA; 2013)
- Make financial cost-sharing assistance available to assist private landowners in priority watersheds (e.g., Mississippi River Basin Healthy Watersheds Initiative) on a voluntary basis with the application of conservation practices to reduce excessive nutrient and sediment loadings from entering the Nation's waters. (USDA; 2012)

- Complete implementation of the EPA 2008 Concentrated Animal Feeding Operations regulation. (EPA; 2012)
- Implement environmental market pilot projects (e.g., USDA Chesapeake Bay Watershed Initiative) between Federal and regional partners for nutrient and sediment reduction. (USDA, DOI, EPA; 2013)
- Identify and develop specific Federal, State, regional, and local partnership opportunities through the USCRTF to reduce watershed pollution in coral reef areas. (USDA, NOAA; 2013)
- Support the development and implementation of State-wide nitrogen and phosphorus reduction strategies in the Mississippi River Basin and Gulf region, working collaboratively with interested states, and verify and communicate these results to the public. (EPA; 2014)
- Target State CWA section 319 programs to current regional landscape initiatives and other priority areas identified by States as they develop comprehensive strategies for reducing nitrogen and phosphorus pollution, and encourage the use of Clean Water State Revolving Fund funding to high-priority projects in each state, including those that address nutrient pollution. (EPA; 2015)
- Support development of State regulatory certainty programs for reducing nutrient and sediment loads that will accelerate the adoption of voluntary conservation efforts. (USDA, EPA; 2013)

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

More than half of the U.S. population lives in coastal counties, which has a significant impact on the quality of the waters that reach the ocean, coasts, and Great Lakes. Cities, suburbs, and towns have large areas of impervious surfaces (e.g., paved streets, roads, parking lots, and rooftops) that do not allow rain to drain into the ground, resulting in polluted storm-water runoff. Runoff from roads and highways can have adverse effects if measures are not taken to remove sediments before the runoff reaches the receiving water. Municipal wastewater treatment plants contribute significant amounts of nitrogen and phosphorus to waterways, and septic systems, lawns, and golf courses contribute materials that harm water quality.

This action will enhance water quality in the ocean, along our coasts, and in the Great Lakes by reducing urban, suburban, and ex-urban sources of water pollution. A collaborative approach at the national level, along with targeted State and regional efforts, will be the most successful approach to reduce pollutant loadings in the near term. Federal agencies in partnership with States and Tribes, and in collaboration with stakeholders, will make greater progress in reducing pollutant loadings in the Great Lakes, coastal zone, and in downstream communities from both land-based and air-based pollution sources. This action also will lead to innovation in improving water quality by linking upstream actions to downstream impacts. It will complement the efforts of the Urban Waters Partnership.

Outcomes

Reducing urban, suburban, and ex-urban pollutant loads in coastal and Great Lakes communities will improve water quality and lead to healthier waterways and communities, both at the source and downstream.

Agencies: DOT, EPA, Urban Waters Federal Partnership

Milestones

- Reduce air deposition of sulfur, nitrogen, and other pollutants to ocean, coastal, and Great Lakes waters. (EPA; 2012)
- Determine number of significant municipal wastewater treatment plants in coastal and Great Lakes States that have National Pollutant Discharge Elimination System (NPDES) permit limits for nitrogen and phosphorus based on numeric water quality criteria and those based on narrative water quality criteria. Implement strategies to promote information sharing about reduction levels among States, Tribes, regional partners, landowners, and local stakeholders. (EPA; 2013)
- Develop pilot projects to increase access to the Urban Waters Federal Partnership for nearby residents, implement environmental improvements in or near these areas, and increase economic activity in or near urban water bodies. (Urban Waters Federal Partnership; 2015)
- Implement an effective storm-water control program that promotes green infrastructure and low-impact development approaches in urban and suburban areas to reduce impacts of discharges from newly developed and existing sites. (EPA; 2015)
- Inventory and evaluate best management practices to address storm-water runoff from the Federal-aid highway system, the efficiency of measures implemented to reduce pollutants, and the costs associated with construction, operation, and maintenance to establish performance measures that can be applied consistently across the Nation. (DOT; 2015)
- Reduce air deposition of mercury and other toxic pollution to help achieve water quality standards. (EPA;2015)

Action 3: Minimize impacts of hypoxia.

Hypoxia occurs when the amount of oxygen in water becomes too low to support most life (usually around 2 mg/L or less). This condition can kill aquatic organisms, resulting in depleted fisheries and disrupted ecosystems. Hypoxia is predominantly regional in nature and is often associated with excess nutrients entering water from the watershed, but it can form farther offshore, away from direct coastal influences.

More than 80 bodies of water on the U.S. East Coast alone have been identified as having symptoms of hypoxia and its associated ecological, public health, and economic consequences. Both Congress and the Administration have recognized hypoxia's increasing frequency and severity. The Harmful Algal Bloom and Hypoxia Research and Control Act provides a national framework for research, education, and support for coastal resource management strategies for preventing, forecasting, reducing, and controlling hypoxia and harmful algal blooms, addressed in Action 4 for this priority objective. The Administration has developed a restoration strategy for the Gulf of Mexico hypoxia zone, the Nation's largest.

This action will address and reverse widespread environmental degradation and ensure a healthier environment and improved regional economies. Monitoring, science, data access, modeling, and forecasting of hypoxia will be strengthened.

Outcomes

Increased scientific knowledge and more effective environmental monitoring and forecasting will provide decision-makers with the necessary information to minimize and mitigate impacts of hypoxia on regional ecosystems, fisheries resources, wildlife, and human populations.

Agencies: NOAA, USDA, USGS, Gulf of Mexico Hypoxia Task Force, , EPA, DOC

Milestones

- Identify collaborative measures with regional partnerships to improve water quality in the Gulf of Mexico. (NOAA, USDA, USGS, Gulf of Mexico Hypoxia Task Force; 2012)
- Advance the development and application of scenario-based ecosystem models to quantitatively evaluate hypoxia causes and impacts, using an integrative modeling approach, and develop outreach tools to communicate advanced understanding to coastal managers and other stakeholders. (NOAA, USGS; 2013)
- Produce and implement at least 12 State-wide nutrient reduction strategies. (EPA; 2013)
- Provide results of integrated modeling and resulting tool kits for communicating hypoxia-related information to coastal managers and other stakeholders. (NOAA, USGS, USDA; 2013)

- Produce an interagency report on socioeconomic benefits to coastal communities of restoring hypoxic zones. (NOAA, EPA, DOC; 2015)
- Develop a national hypoxia data portal for seamless data sharing and information dissemination, building on the success of the EPA/USGS data portal, and link to ocean.data.gov. (NOAA, USGS, EPA; 2015)

Action 4: Minimize impacts of harmful algal blooms.

Harmful algal blooms (HABs) are occurrences of certain algal species and other micro-organisms, often in large concentrations, that produce potent toxins or cause other harm to humans, domestic animals, regional fisheries, and wildlife. The nature, frequency, and severity of HABs in the United States have changed markedly over the past two decades. Coastal and inland states are now increasingly threatened by their occurrence, which often results in exposure of humans, wildlife, and seafood to toxins; habitat degradation and loss of species; restricted commercial and sport fishing areas; and reduced recreational use of the coast and shorelines. We can improve our understanding of the factors responsible for HABs—and our ability to forecast, monitor, and reduce their impacts—through enhanced observation and experiments to fill in missing data and understand their sources.

This action will improve infrastructure and monitoring for detecting HABs regionally, understanding the science behind their occurrence, and providing State and local officials with products and guidance for more rapid and certain decision-making.

Outcomes

Increased scientific knowledge, monitoring, and forecasting will minimize and mitigate the impacts of harmful algal blooms on regional ecosystems and human populations.

Agencies: NOAA, USGS, CDC

Milestones

- Develop and deploy rapid, field-based detection systems for various HAB-causing species and their toxins. (NOAA, USGS; 2015)
- Develop consistent and comparable reporting procedures for HABs and associated environmental parameters. (NOAA, CDC; 2013)
- Improve infrastructure—including availability of standards and probes, shared-use facilities, monitoring platforms, and training—to develop the expertise necessary for state-of-the-art national capabilities for HAB monitoring and detection and improving accuracy of HAB forecasting. (NOAA, NIST, USGS; 2015)
- Provide more reliable models for HAB forecasts and coordinated training for State and local officials to improve regional capabilities for HAB monitoring, assessment, forecasting, and response. (NOAA, CDC; 2015)

- Produce analysis of human dimensions of impacts and economic benefits of HAB forecasting at various spatial and temporal scales, and identify human sub-populations and wildlife that may be at increased health risk. (NOAA; 2015)

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

Contaminated seafood, disease outbreaks, and other threats to human and animal health not only take a toll on our Nation’s people and environments, but impose economic costs. Identifying and understanding essential links between human, environmental, and wildlife health and the threats posed by toxic chemicals and land-use alterations on valued coastal and marine resources is an important national priority. Federal agencies have long been engaged in research and related activities that deal with fish, shellfish, marine mammal, and coral health and with environmental aspects of human and wildlife health, notably in the context of contaminants, pathogens, and toxins.

This action will provide a measureable reduction in targeted land-derived contaminants by focusing on water quality improvements through coordinated, cohesive approaches. It will improve analytical and monitoring methods, indicators, and models, and result in operational forecasts of pathogens on beaches, shorelines, and shellfish harvesting areas that allow more time to respond and minimize economic impacts. The result will be more reliable seafood consumption advisories, fewer unwarranted beach and shellfish fisheries closures, and a proactive outreach program aimed at seafood processors, consumers, regulators, and medical providers.

Outcomes

Improved analyses, monitoring, and notifications will protect human and wildlife health, and safeguard valuable coastal and marine resources and habitats.

Agencies: NOAA, EPA, CDC, FDA, USGS, USACE

Milestones

- Establish a Health Early Warning (HEW) System (i.e., a disease/toxin/pathogen surveillance system) to provide effective procedures for information dissemination and to alert public health officials and managers to protect against emerging threats to human, wildlife, and ecosystem health posed by degraded water quality. (NOAA, EPA, CDC; 2014)
- Institute an outreach program aimed at seafood processors, consumers, regulators, and medical providers. (NOAA, EPA, CDC, FDA; 2014)
- Establish baseline levels of selected contaminants in bays, estuaries, and Great Lakes waters, sentinel species, and people living in coastal communities and, where sufficient data exist, describe temporal trends and an assessment of the impact of Federal programs designed to abate degradation of water quality. (NOAA, EPA, USGS, USACE; 2014)
- Enhance contaminant monitoring and disease surveillance programs in a showcase region, ensuring broader agency participation by providing a continuum of observations from the watershed to the coastal ocean, and producing a government-wide monitoring portfolio that links across States, Tribes, regions, academia, and other stakeholders and volunteer organizations. (NOAA, EPA, USGS; 2014)
- Develop new, rapid assessment methods to detect microbial contamination and spoilage in seafood, and broadly disseminate information or transfer the technology to the seafood industry. (NOAA; 2015).
- Deliver an assessment of the impacts of toxic chemicals on valued resources and an evaluation of current measures to curtail or eliminate environmental contamination for a State or region where such strategies exist (such as the Great Lakes). (NOAA, EPA, USGS; 2015)
- Incorporate into forecast models more realistic hydrological characterization of the coastal watershed and of human-use activities, and deliver the model output (or forecasts) to coastal resource managers in a timely manner. (NOAA, EPA; 2015)
- Develop or enhance conceptual or analytical models that simulate contaminant transport, fate, and effects; take a holistic “atmosphere-watershed-coastal ocean” approach; and offer a capability of resolving outcomes of cost-effective options to achieve further reduction in the use and disposition of the target chemical or chemicals. (NOAA, EPA, USGS; 2016)

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.

Marine debris and trash, especially non-biodegradable plastics, are pervasive problems in and along our watersheds, Great Lakes, coasts, and the ocean. They enter our waterways through land- and ocean-based sources, and injure and kill marine wildlife; degrade ocean habitats; interfere with navigation safety; cause economic losses to shipping, fishing, tourism, and coastal

communities; and pose a threat to human health. This issue can be effectively resolved only through a comprehensive approach involving all levels, from local to global. Marine debris prevention efforts must focus on source reduction and prevention, and on community education and empowerment to action.

This action will increase research and monitoring efforts regarding marine debris baselines and volumes along the coast and in the oceans, and the environmental and human health impacts of key marine debris items. It will strengthen partnerships with affected communities, Tribes, stakeholders, industry, and government for a more comprehensive approach to addressing marine debris and trash in the environment. Promoting and identifying the availability of both non-regulatory and regulatory tools will prevent the build-up of trash and marine debris in our coastal waters.

Outcomes

Pollution prevention, mitigation, research, and removal activities will reduce impacts from marine debris and trash on ocean, coastal, and Great Lakes waters and associated watersheds.

Agencies: NOAA, USCG, EPA, DOI; Interagency Marine Debris Coordinating Committee

Milestones

- Publish a report on derelict traps/pots and fishing gear as a source of marine debris, and include information regarding the extent of the problem, mechanisms of the debris transport and accumulation in the sea, its impacts on wildlife and on ocean users, and the success of voluntary efforts and best management practices for reuse, accountability, or recycling of fishing gear and equipment. (NOAA; Interagency Marine Debris Coordinating Committee; 2012)
- Create a Federal Marine Debris Information Clearinghouse for scientific literature and information products that is accessible to researchers and other interested persons to improve marine debris source identification, research collaboration, and open sharing of data. (NOAA; Interagency Marine Debris Coordinating Committee; 2012)
- Identify and promote non-regulatory measures to reduce marine debris, such as market-based incentives, use of litter receptacles along shorelines, and use of litter traps in rivers and estuaries. (EPA, NOAA; 2013)
- Establish a marine debris monitoring protocol—including consistent nomenclature, sampling methods, source attrition, and data reporting requirements—and encourage its use by Federal agencies and non-Federal entities, including nongovernmental organizations and volunteer groups. (NOAA; 2013)
- Facilitate removal of trash and marine debris through community-based grants and other means. (NOAA, USCG, EPA, DOI; 2014)

- Increase research efforts regarding the relationship between marine debris (specifically microplastics) and toxic chemicals and the resulting impacts to marine organisms and human health via the food chain. (EPA, NOAA; 2014)
- Conduct research to identify the types of marine debris producing significant negative effects on the marine environment, and quantify these impacts to focus targeted prevention, removal, and mitigation efforts. (NOAA; 2014)
- Identify principal sources of debris and areas of accumulation in coastal waters, along shorelines, and in marine areas in each region. (NOAA; 2016)
- Improve use of existing regulatory tools (e.g., TMDLs, Combined Sewer Overflow controls, waste management, storm-water management, and Superfund) to reduce land-based sources of trash and marine debris (EPA; 2014)

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

Abundant, high-quality coastal waters provide billions of dollars annually in economic benefits to the Nation. Identifying and maintaining high-quality waters—those waters in healthy watersheds whose existing quality is better than the established standards—is a key to ensuring the continued resiliency and adaptability of aquatic ecosystems. Protecting high-quality waters and healthy watersheds is an economically beneficial long-term solution for ensuring the sustainable conditions of ocean, coastal, and Great Lakes habitats, along with the services healthy, high-quality waters provide, including human uses.

This action will identify and assess high-quality ocean and coastal waters and the waters that drain into them, establish new or modify existing water quality monitoring protocols and programs, and reduce or eliminate the impacts of vessel discharge on marine waters, with a special focus on invasive species. This action will also establish a comprehensive ocean and coastal water quality monitoring framework that will be integrated with other Federal, State, Tribal, and regional governance structures and local activities, as well as with existing freshwater water quality monitoring programs.

Outcomes

Maintaining the integrity of high-quality waters will sustain the valuable services they provide.

Agencies: DOI, EPA, NOAA, USDA, USACE, USFWS

Milestones

- Produce a biennial report card on the status of water quality in identified Federally managed or protected areas and outline success of management actions to conserve or enhance water quality. (DOI, EPA, NOAA, USFS; 2013)

- Protect, restore, or enhance 100,000 acres of wetlands, wetland-associated uplands, and high-priority coastal, upland, urban, and island habitat. (USDA, USACE, NOAA, DOI, EPA; 2014)
- Develop, coordinate, and integrate stakeholder/partner monitoring programs to encourage community involvement, education, and stewardship in the protection of healthy watersheds. (DOI, EPA, NOAA, USDA; 2015)
- Develop tools (e.g., climate change models) and water quality protection measures (e.g., BMPs) aimed at assessing and mitigating the impact of future climate change within existing ocean and coastal programs (e.g., National Wildlife Refuge System, National Park System, National Forests, National Estuarine Research Reserves, National Estuary Program, and State counterpart areas). (DOI, EPA, NOAA, USFS; 2015)
- Implement the design of the National Water Quality Monitoring Network for U.S. coastal waters and their tributaries through the National Water Quality Monitoring Council. (DOI, EPA, NOAA, USDA; 2017)
- Assess and augment water quality information in the NFHP National Assessment (see Action 7 in Regional Ecosystem Protection and Restoration), to identify high-quality coastal and Great Lakes waters. (DOI, EPA, USDA, NOAA; 2017)
- Initiate a showcase project linking healthy watershed protection to estuary protection, and evaluate the success in protecting and conserving high-quality coastal waters. (EPA, USDA; 2017)
- Protect 2 million acres of lands identified as high conservation priorities, with at least 35 percent being forestlands of highest value for maintaining water quality. (USDA; 2025)
- Improve control and regulation of water pollutants and other constituents in discharges (e.g., invasive species, pathogens, toxics, sediments) from vessels and ocean dumping. (EPA, USCG; 2015)
- Propose a draft permit, take public comments, and finalize a Vessel General Permit that will reduce the risk of the introduction of invasive species via ballast water from vessels through effective treatment and management of ballast water discharges. (EPA; 2012)
- Evaluate and disseminate lessons learned from efforts to improve the quality and quantity of freshwater flow into priority estuaries to protect their health and resiliency. (NOAA, , EPA, 2014)

GAPS AND NEEDS IN SCIENCE AND TECHNOLOGY

Our ability to address overall water quality, as well as hypoxia and harmful algal blooms, would be greatly enhanced by a coordinated monitoring network to assess nutrients, suspended sediment, and other chemicals. Basic information about new chemicals is also needed to improve predictions of impacts. In addition, resources could be prioritized if the costs associated with poor water quality, marine debris, and harmful algal blooms could be quantified.

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.

The Arctic is rapidly changing. The United States has broad interests in this region, from national security and territorial sovereignty to sustainable management of domestic energy and living resources, environmental protection, cultural heritage, and scientific research, all of which must be addressed in the context of these dramatic changes. The Nation, the State of Alaska, Tribal governments, and coastal communities are faced with critical decisions about how best to maintain natural resources and manage sustainable human activities in this region. They must do so in concert with other countries which share a stake in the Arctic.

One of the most dramatic changes in the Arctic is the decrease in sea ice. Protective barriers provided by the sea ice are diminishing, leaving large coastal areas vulnerable to threats from rising sea level, stronger storms, and increased erosion. Marine and terrestrial ecosystems, regional weather patterns, and even the global climate system are affected by the retreat of sea ice. Ice-diminished transit routes in the Bering, Chukchi, and Beaufort Seas and other regions of the Arctic invite increased international resource development, commerce, and transportation, which will, in turn, bring new socioeconomic and environmental stressors.

Such rapid changes underscore the need for better and timelier information across diverse scales and disciplines to provide effective stewardship, ensure that natural resource management and economic development in the region are environmentally sustainable, and support effective early warning and emergency response systems. Improved science and technology are needed to help the scientific community forecast changes with greater certainty and provide guidance for local communities, resource managers, and commercial interests in this remote region. Improvements in daily and weekly sea ice forecasts, for example, would benefit local community activities and safety, while also helping to provide a safe, secure, and reliable Arctic marine transportation system.

Improved mapping resources for mariners and other users of marine transportation systems are also needed. These resources could reduce the risks of maritime incidents and facilitate more resilient ocean and coastal economies. Another crucial resource will be a distributed biological observatory that will allow us to collect and share baseline ecosystem data, and better monitor, assess, and forecast environmental conditions under changing climate scenarios.

For the Arctic region, this draft Implementation Plan strives to balance economic growth, community resilience, and environmental stewardship. By working through interagency structures, and by placing an emphasis on improved coordination among Federal, State, and local governments; academia; the private sector and non-governmental organizations; and native communities and entities, the draft Implementation Plan will ensure that initiatives to advance national priorities in the Arctic are informed by the latest developments in science and technology and that this new information is shared across sectors. The transboundary effectiveness of all of these activities, including meeting the needs of the indigenous communities of Alaska, will be enhanced primarily through sustained cooperation within the Arctic Council.

ADDRESSING A CHANGING ARCTIC: PROGRESS THROUGH COORDINATION

Undertaking a comprehensive approach to U.S. Arctic Ocean policy relies on a foundation of coordination among Federal, State, and local entities; engagement with Alaska natives; and clear links between domestic and international Arctic activities. Through partnerships and collaboration, Federal resources and capabilities will be better leveraged and awareness of Arctic Ocean activities will increase. For example, collaborative planning can help address the increased risk of pollution incidents and help mitigate impacts of pollution events should they occur. Coordinating Arctic research will increase data sharing and improve understanding of the Arctic Ocean, providing more and better information to guide natural resource management. Clearer communication among Federal agencies will also benefit interactions between Federal groups and the State of Alaska, Alaska native communities, and international organizations.

In the United States, a number of interagency groups have coordination roles when it comes to Arctic Ocean policy. These include the Arctic Policy Group, led by the State Department to coordinate domestic efforts that relate to initiatives and activities of the Arctic Council (see below), and the Interagency Arctic Research Policy Committee, established through the Arctic Research Policy Act of 1984 to convene leadership from Federal agencies to develop an integrated Arctic Research Program Plan based on the recommendations of the U.S. Arctic Research Commission. The Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska facilitates coordinated and efficient domestic energy development and permitting in Alaska, and ensures the integrity of scientific, environmental, and cultural information that supports the permit evaluation process of energy development projects there. Internationally, the Arctic Council is an intergovernmental forum for promoting coordination and interaction among the Arctic States and other entities to help strengthen cooperation. Collaboration among these and other groups is essential to implement the Arctic priorities in the National Ocean Policy, as well as the overarching U.S. Arctic Region Policy, which guides interagency coordination and provides guidance on security, economics, energy, science, and environmental protection across the Arctic region.

Achieving a comprehensive approach to U.S. Arctic Ocean Policy requires taking full advantage of Federal interagency efforts now focused on the Arctic region, clarifying the division of labor and responsibilities among these groups, and strengthening interaction with local, State, and native entities. To this end, a number of Federal entities are developing a joint report describing interagency roles, responsibilities, and mechanisms for coordinated decision-making. We also are working toward routine coordination with regional groups such as the Alaska Climate Change Executive Roundtable, the North Slope Science Initiative, the Landscape Conservation Cooperatives, and the Arctic Ocean Observing System. The United States is also increasing its involvement in the Arctic Council to help strengthen cooperation among the Arctic nations and increase the involvement of the Arctic's indigenous communities in decisions that affect them.

Action 1: Improve Arctic environmental response management.

The melting of sea ice will facilitate access for developing natural resources in the Arctic. A commensurate rise in marine traffic could increase the potential for significant marine accidents and pollution incidents. Preparing and responding to emergencies related to resource development and marine transportation in the Arctic requires improved coordination, planning, and training; stronger interagency research; and enhanced international cooperation and collaboration.

In the event that responsible private parties fail to meet their statutory responsibilities for prevention, mitigation, and cleanup of marine pollution events in the Arctic, this action addresses development and implementation of response coordination, procedures, and decision support systems to protect communities and ecosystems from oil spills and other incidents associated with resource extraction (e.g., oil and gas) and Arctic marine transportation (e.g., commercial shipping and tourism). Specifically, this action supports the development and implementation of response coordination and decision-support mechanisms to support agency responsibilities, such as the Arctic Environmental Response Management Application (ERMA®), Alaska Joint Assessment Team, State–Federal Alaska Data Integration Working Group, and Alaska Regional Response Team (ARRT). A number of Federal departments and agencies are charged with ensuring that resource development projects and marine transportation comply with health, safety, and environmental protection standards. Implementation of this action will require close coordination with a number of existing entities, including the Interagency Working Group on Coordination of Domestic Energy Development and Permitting in Alaska, and internationally with the working groups and task forces of the Arctic Council.

Outcomes

A coordinated and prepared response management system will mitigate the impacts of pollution events on protected Arctic communities and ecosystems.

Agencies: NOAA, USCG, BSEE, DOT, DOS, ARRT, BOEM, NOAA, EPA, DOD

Milestones

- Compile integrated datasets needed to populate an Arctic oil spill planning, coordination, and response tool such as ERMA® and complete and deploy a public and responder Arctic ERMA®. (NOAA; 2013)
- In cooperation with other Arctic Council members, participate in the U.S. co-chaired Task Force on Oil Spill Preparedness and Response to develop an Arctic-wide instrument on oil spill preparedness and response and provide technical expertise and political support. (USCG, NOAA, DOJ, DOS; 2012-2013)

- Participate in joint training and workshops with other Arctic nations on oil spill response activities in the Arctic, such as the use of mechanical recovery, dispersants, and in situ burning following major spill events. (USCG, MARAD, NOAA, BSEE, DOT; 2012)
- In cooperation with other Arctic countries, develop international guidelines for both spill prevention and for spill response activities in the Arctic, such as the provision of improved sea ice forecasts for mariners and the use of mechanical recovery, dispersants, and in situ burning following major spill events. (USCG, NOAA, BSEE, DOJ, DOS; 2012)
- Identify resource and infrastructure shortfalls for high-risk scenarios and assess strategies to address those shortfalls. Complete a resource-neutral plan to address the significant logistical issues (e.g., housing and feeding personnel, staging and deploying equipment, and managing waste) that would be involved in a large-scale oil spill response in the Arctic during any season. (BSEE, NOAA, USCG, ARRT, DOT; 2014)
- Improve oil spill prevention, containment, and response infrastructure, plans, and technology for use in ice-covered seas, using all available sources, such as Federal agencies, industry, academia, and international partners. (BSEE, USCG, DOT, NOAA; 2013)
- Make available through ocean.data.gov assessments of current scientific research as well as traditional knowledge related to the impacts of resource development and pollution applicable to the Arctic. (USCG, BOEM; 2013)
- Initiate interagency research and integration of data to improve models for spill trajectory, oil fate, and weathering, and natural resource maps based on Arctic conditions in order to feed scenario development and risk assessment. (USCG, BSEE, BOEM, NOAA; 2013)
- If permits can be secured, complete scientifically based field experiments and tests of response tools in U.S. Arctic marine waters. If not, continue to conduct experiments in test tank facilities (e.g., National Oil Spill Response Research and Renewable Energy Test Facility (OHMSETT)) and partner with non-U.S. entities in Norway and Canada to conduct field experiments in foreign waters. (USCG, BSEE, EPA; 2013)
- Identify options to minimize and/or mitigate the risk associated with vessel use and carriage of heavy-grade fuel oil in the Arctic. (NOAA, DOS, DOJ, USCG; 2013)

Action 2: Observe and forecast Arctic sea ice.

Sea ice forecasting is one of the most urgent and timely ocean issues in the Arctic region. Continued rapid loss of sea ice will be a major driver of changes throughout the Arctic. Polar regions, although physically remote from major population centers, have profound significance for the global climate. They act not only as regulators of global temperature, but also as barometers of change. The loss of sea ice affects marine access, regional weather, global climate, marine and terrestrial ecosystems, and coastal communities. For example, a better

understanding of how loss of sea ice in the Bering Sea, the largest commercial fishery in the United States, will influence the entire marine ecosystem is of critical importance.

All-season observations from spaceborne and airborne platforms, ships and ice camps, and instruments on and under Arctic sea ice provide short-term information on ice conditions for tactical users. Such observations also support research into understanding Arctic processes and environmental variability and in improving forecasts, predictions, and projections. This action will improve daily to weekly sea ice models and provide forecasts and new seasonal predictions in formats that are amenable to a wide variety of government agencies and regional users.

Outcomes

Improved sea ice maps, analyses, and forecasts will support the management of protected marine resources, community and subsistence activities, homeland and national security, and safe ship operation and navigation through Arctic waters. It will also provide the information needed to forecast changes in the composition of three Large Marine Ecosystems (LMEs) that make up the U.S. Arctic.

Agencies: NOAA, DOD, USCG

Milestones

- Initiate international activity to improve sea ice forecasting through generalization of buoy/mooring data from a single point to a broader area and satellite data calibration using this buoy/mooring data. (NOAA, DOD; 2012)
 - Initiate a study of the marginal ice zone to better measure the rate of sea ice melt and regrowth. (NOAA, DOD; 2012)
 - Initiate data cataloging to improve and update the existing U.S. Arctic Sea Ice Atlas. (NOAA; 2012)
 - Train and expand Volunteer Observing Ship and coastal community participation in the sea ice observation program, and catalog user requirements for sea ice products, services, and delivery. (NOAA; 2012)
 - Deliver tactical-scale sea ice analysis and forecasts in GIS-enabled broad-scale format to meet USCG requirements. (NOAA, DOD, USCG; 2012)
 - Deliver tactical-scale sea ice analysis and forecasts in formats that meet additional user requirements. (NOAA, DOD; 2014)

- Develop better maps of the ice edge, and make field data available early enough in the year to be useful for seasonal ice forecasts (NASA, 2013).

Action 3: Implement a distributed biological observatory.

Changes in location and timing of the seasonal ice edge can have profound effects on benthic and pelagic marine ecology and human activity. These changes affect the distribution and abundance of baleen whales, and the ability of ice-dependent marine mammals to reproduce and rear young on ice. Likewise, stranding of ice-dependent species on land reduces their likelihood of survival or reproductive rate, and may make the animals less available to subsistence hunters. The effects of these changes on Arctic ecosystems and Alaska Natives who depend on these species are poorly understood.

Continued observations are needed to form the basis of understanding the changing processes in the Arctic region. A distributed biological observatory (DBO) is one distinct component of the integrated Arctic Observing Network. A distributed biological observatory will improve our understanding of how changes in climate and the Arctic ecosystem will affect subsistence cultures in the region. New collaborations and partnerships will increase our capacity to monitor and assess changing environmental conditions. In addition, all participating agencies will be better able to determine and mitigate the effects of their decisions on marine resources, resulting in improved conservation, protection, and management of Arctic coastal and ocean resources.

Outcomes

A distributed biological observatory will help experts track and understand changing environmental conditions in the Arctic.

Agencies: NOAA, USFWS

Milestones

- Conduct and coordinate multi-year DBO research cruises with Federal, State, and international partners to document change in distribution, abundance, biomass, species composition, and rates of primary production at two of five stations along the DBO latitudinal gradient. (NOAA; 2012)
- Review pilot DBO activities and plan upcoming cruises in collaboration with international partners via Pacific Arctic Group meetings. (NOAA; 2012)
- Complete pilot phase analysis and prepare international report on distributed biological observatory activities and results to date. (NOAA; 2013)
- Update DBO concept and Implementation Plan for longer-term implementation. (NOAA, USFWS; 2014)
- Execute DBO plans and prepare annual assessments on physical and ecological state of Pacific Arctic marine environment. (NOAA, USFWS; 2015)

Action 4: Enhance communication systems in the Arctic.

Communications are essential to implementing the Arctic priorities in the National Ocean Policy and the overarching U.S. Arctic Region Policy. Early warning and emergency response systems would improve our ability to assess the timing and nature of emerging events in the Arctic region, such as environmental disasters, and will improve responses to them.

The Federal Government will advance two aspects of communications: technical capabilities and outreach. On the technical side, the Federal Government will strengthen existing communication systems to allow vessels, aircraft, and other users to effectively communicate with each other and to receive information (e.g., real-time weather and sea ice forecasts) that will significantly decrease the risk of environmental damage and loss of life and property at sea. On the outreach side, special emphasis will be placed on communications with native communities. This is in addition to enhancing the technical capabilities in these areas. The enhancements described here will build upon and support the guidelines and responsibilities in the Arctic Search and Rescue Agreement, to which the United States is a signatory.

Outcomes

A stronger communications infrastructure will improve our capability to prevent and respond to environmental disasters and maritime incidents, which will reduce loss of life or loss or damage to property at sea.

Agencies: DOD, USCG, DOT, NOAA, USAF

Milestones

- Complete inventory of existing DHS, DOD and partner communication capabilities in the Arctic region. (DOD, USCG; 2012)
- Coordinate and integrate common assets for voice/data and distress communications. (DOD, USCG, DOT; 2012)
- Incorporate the inventory above into GIS-based decision-support tools for planning, preparedness, and response such as Arctic ERMA®. (NOAA, 2013)
- Establish and strengthen at least one partnership each with industry (e.g., oil companies, ship operators), other governments (e.g., Canada, Russia, Norway), and Alaska native organizations to build on existing and new communications solutions and capabilities, such as the Canadian Space Agency Polar Communication and Weather Mission. (DOD, USCG, NOAA; 2012)
- Establish baseline of the performance capabilities of mid-frequency (MF), high-frequency (HF), very high-frequency (VHF), and ultra high-frequency (UHF) communications systems to air and surface vessels in the Arctic. (USAF; 2012)

- Establish baseline of the performance of air-, surface-, and available shore-based sensors. (USAF; 2013)
- Identify, analyze, rank, and implement the most cost-effective options to reduce communication gaps and boost Federal capabilities in the Arctic Operational Region, commensurate with available resources and user needs. (DOD, USCG, NOAA; 2014)

Action 5: Advance Arctic mapping and charting.

Maps and charts are central to our understanding of the Arctic region, and they are essential for effective stewardship of this rapidly evolving environment. Knowledge of Arctic marine ecosystems, marine transportation, Arctic sovereignty and governance, and climate change adaptation strategies that coastal communities must develop to sustain their cultures and traditions all fundamentally rely on maps to visualize and depict critical aspects of the operating environment.

While ocean and coastal mapping in general is part of the *Observations, Mapping, and Infrastructure* priority objective in this draft Implementation Plan, this action will support the unique needs for accurate hydrographic surveys and shoreline mapping essential to modernizing nautical charts of U.S. Arctic waters and the Alaskan coastline. The action will enhance maritime commerce and help coastal communities develop adaptation strategies and disaster preparedness plans. It will increase the effectiveness of decisions regarding permitting, future ecosystem studies, and environmental stewardship. Mapping also supports biological habitat characterizations for ecosystem stewardship and restoration, development of storm readiness adaptation strategies for coastal communities facing the impacts of climate change, and emergency preparedness and response tools such as Arctic ERMA®.

Outcomes

Advanced mapping and charting will improve navigation and reduce the risk of maritime incidents, loss of life, and environmental damage.

Agencies: NOAA, IC-OCM, DOD, DOS, USGS, USCG, CMTS

Milestones

- Establish mapping guidelines, standards, vessel of opportunity protocols, and standard operating procedures to facilitate integrated ocean and coastal mapping and acquisition of Arctic hydrographic, shoreline, habitat mapping, and water column data in the Bering, Chukchi, and Beaufort Seas. (NOAA, IC-OCM, DOD; 2013)
- Prepare the material that could support a U.S. submission on Extended Continental Shelf delimitation. (NOAA, DOJ, DOS, USGS; 2015)

- Archive a minimum of 1 terabyte of Arctic physical and biological mapping data annually at national data centers to facilitate additional uses and scientific study. (NOAA; 2012)
- Update nautical charts, environmental sensitivity indices, and other Arctic feature maps with mapping data acquired during annual field seasons. (NOAA; 2012)
- Refine, in collaboration with stakeholders, a priority list of Arctic maritime regions and shorelines for surveying. (NOAA, USGS; 2012)
- Conduct coordinated interagency ocean and coastal mapping operations and incorporate results into the Ocean and Coastal Mapping Inventory. (IC-OCM, NOAA; 2013)
- Conduct Waterway Analysis and Management System (WAMS) assessments and Port Access Route Studies (PARS) of the Arctic region, beginning with ongoing PARS for the Bering Strait, and focusing on other areas indicated by risk/return analysis, to support decisions on mapping and charting priorities and waterways management. (USCG; 2013)
- Complete electronic navigational chart coverage as agreed to by the Arctic Regional Hydrographic Commission. (NOAA; 2013)
- Advance appropriate tidal or hydrodynamic models, and datum transformation tools to foster accurate and efficient Arctic surveys. (NOAA; 2013)
- Conduct airborne gravity data collection over the State of Alaska to help correct meters-level errors in Arctic positioning. (NOAA; 2013, (over the Aleutians, 2019))

GAPS AND NEEDS IN SCIENCE AND TECHNOLOGY

In the Arctic, research is needed to describe ecosystem changes and impacts from ocean acidification, sea ice retreat, increased use of land, human disturbance, and food web dynamics. In the area of communications, current capabilities restrict effective operation and management in the unique Arctic environment, particularly to support safe maritime operations. Also critically needed are real-time monitoring and measurements of atmosphere, ice, and ocean variables that control sea ice movement, melt, and growth, as well as the foundational geospatial infrastructure upon which to base operational and scientific decisions. Improved applications of remote sensing and buoy/mooring data collection technology are needed for sea ice characteristics and related scientific variables—including new real-time *in situ* observational technologies. Research, development, and testing of oil spill response and containment in Arctic conditions is another area in need of attention. All involved agencies and officials must understand the assets and capabilities in the U.S. Arctic in the event of an oil spill or other emergency.

In addition to this section on Coastal and Marine Spatial Planning, there will be a supporting Handbook to assist regions as they implement the framework for effective CMSP. This priority objective identifies national CMSP objectives, specific actions, and milestones to support implementation of CMSP on the regional level.

Coastal and Marine Spatial Planning

Implement comprehensive, integrated, ecosystem-based coastal and marine spatial planning and management in the United States.

Americans treasure the ocean, our coasts, and the Great Lakes as sources of food, income, energy, and security, and as places to recreate and connect with our cultural history. However, our uses of the ocean are expanding, and it is becoming increasingly challenging to effectively coordinate sometimes competing uses through traditional management approaches that historically were designed to manage single activities and sectors independent of other objectives. Today there is a need to consider human uses through a broader lens that more accurately reflects the connectivity and diversity of marine resources. To that end, an ecosystem-based approach to management is required, and an effective way to advance such an approach is through CMSP.

The national framework for effective CMSP assumes increased coordination and collaboration across the Federal Government, leading to a more efficient, streamlined, and predictable decision-making process on activities in the ocean, coasts, and Great Lakes. CMSP is an important tool to meet today's challenges by empowering coastal communities through a public planning process to use integrated data and information to make decisions about ongoing and emerging activities in their ocean and coastal regions. CMSP is a tool for looking across the full spectrum ocean, coastal, and Great Lakes activities and for using the best available science and information to identify specific areas that can simultaneously sustain desired activities and the ecosystem services they require. Through this open and transparent science-based participatory process, industry, government, and citizens can work together to evaluate broad categories of current and emerging ocean uses, such as renewable energy and aquaculture, and to consider how those uses might be most appropriately pursued.

Benefits of State and Tribal participation in the CMSP process

- Encourage and inform the Federal Government to better manage resources or address processes that transcend jurisdictional boundaries
- Define local and regional objectives and develop and implement CMSP in a way that is meaningful to regionally specific concerns
- Leverage, strengthen, and magnify local planning objectives through integration with regional and national planning efforts
- Proactively address concerns over proposed activities impacting State and Tribal interests and minimize use conflicts before they escalate
- Leverage support from the Federal Government to build CMSP capacity, access CMSP data, and acquire scientific, technical, and financial assistance
- Access data through CMSP portals and use science tools developed, established, and maintained for CMSP efforts
- Improve intergovernmental decision-making
- Achieve regulatory efficiencies, reduction in administrative delays, and cost savings

For CMSP purposes, the United States is geographically subdivided into nine regional planning areas based on recognized LMEs and the Great Lakes (with modifications as necessary to ensure inclusion of the entire U.S. EEZ and Continental Shelf and to allow for consistency with existing regional ocean governance bodies). This geographic scope may include inland bays and estuaries, and excludes privately owned lands as defined by law. Each region may also decide to consider inland areas in the planning area. Each of the nine planning regions may decide whether one coastal and marine spatial plan (CMS Plan) for the whole region can meet the regional objectives for the process, or whether a sub-regional approach may better suit regional needs.

The NOC will work with the States and Federally-recognized Tribes, including Alaska Native Villages, to create nine regional planning bodies—coinciding with the nine regional planning areas—for the development of regional CMS Plans. The membership of each regional planning body will consist of Federal, State, and Tribal authorities relevant to CMSP for that region (e.g., resource management [including coastal zone management and fisheries management], science, homeland and national security, transportation, and public health). Members will be of an appropriate level of responsibility within their respective governing body to be able to make decisions and commitments throughout the process. Each regional planning body will identify Federal and non-Federal co-leads. Appropriate State and Tribal representation will be determined by applicable States and Tribes.

A core component of CMSP is integrating ocean and coastal data and developing innovative visualization and other decision support tools. Providing access to data for transparent, science-based decision-making will translate to businesses and all stakeholders knowing what information government agencies have, and being able to use it without having to spend time and money searching for it. Today, when an industry proposes a coastal or ocean activity, the information needed to obtain permits or to determine the most suitable placement is often hard to find or is fragmented. The National Ocean Policy calls

for the creation of an information management system and portal to provide public access to those data and information in support of coordinated planning. The prototype portal, www.ocean.data.gov, is designed to provide streamlined access to the full suite of data needed for transparent and science-based collaborative planning. Relevant visualization and analytical tools to support the planning process will also be provided through the portal. The public is invited to provide feedback and suggestions through a forums page, and the NOC will further develop and expand the portal based upon the feedback received. While only Federal data will initially be accessible through the portal, users of the portal will eventually be able to discover and access both Federal and non-Federal data to combine for their own needs.

This priority objective differs from the other eight in this draft Implementation Plan because it includes elements (e.g., national objectives) specifically identified in the CMSP Framework. The CMSP Framework describes the scope and elements of CMSP. Topics not covered in this draft Implementation Plan will be included in a CMSP handbook as discussed in Action 1 below.

NATIONAL OBJECTIVES AND ACTIONS

This draft Implementation Plan identifies the Council's two preliminary national objectives and five actions for the successful implementation of CMSP.

National Objectives

The national objectives afford the regional planning bodies maximum flexibility in developing regional objectives. These national objectives should serve as models for regions to develop their own regional objectives based on their unique circumstances. The two national objectives are based on and complement the national goals and guiding principles described in the CMSP Framework. Designed to tier off these goals and guiding principles, these national objectives are not a stand-alone list of objectives. Rather, the national objectives will help inform a regional planning body's participation in collaborative regional planning and the development of CMS Plans and subsequent Federal implementation.

National Objective 1: Preserve and enhance opportunities for sustainable ocean use through the promotion of regulatory efficiency, consistency, and transparency, as well as improved coordination across Federal agencies.

Efficient regulatory processes are essential to preserve and enhance sustainable use of the ocean, coasts, and Great Lakes. Sustainability in this context means compatibility of current and proposed ocean and coastal uses with the long-term maintenance of important ecosystem services, including other uses. Improving efficiency and coordination across Federal agencies and with States, Tribes, territories, and international partners, where appropriate, will help reduce

conflicts among user groups, promote compatible uses, illustrate the net benefits of alternative uses, ensure effective environmental protection, and minimize the burdens of regulatory processes on both agencies and ocean users.

Most Federal laws prescribe timeframes within which review and analysis of permitted activities must be completed. However, it is currently difficult to meet these timeframes, which often leads to increased scrutiny, legal filings, and even financial constraints for the industries seeking the permits as well as the responsible Federal, State, and local agencies. A well-designed and data-supported CMSP process can reduce these delays and reduce costs by pre-assessing areas where certain uses may be better suited; providing frameworks for compiling all the relevant environmental, economic, and social data and information; and identifying in advance those uses that might have synergistic relationships. Coordinated efforts for data integration as outlined above through ocean.data.gov will also provide efficiencies and consistencies, and should aid in the reduction of effort and time (by both Federal and private entities) required to support comprehensive determinations under NEPA and other Federal law. An example of how this approach could work—although for only a single type of activity rather than on a comprehensive basis as will occur under CMSP—is the Department of the Interior’s “Smart from the Start” initiative for offshore renewable energy projects, which looks at existing uses and resources in the NEPA process.

This national objective will help meet the Administration's goal of creating more efficient Federal regulatory review. An overall reduction in delays and costs through CMSP allows for the mandates of environmental laws such as NEPA to be fulfilled more efficiently and should not be interpreted as weakening them or subverting their requirements in any way.

National Objective 2: Reduce cumulative impacts on environmentally sensitive resources and habitats in ocean, coastal, and Great Lakes waters.

A cumulative effect to sensitive ocean and coastal resources and habitats is that which results from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Properly accounting for cumulative effects can be challenging. The CMSP Framework allows for a comprehensive look at multiple sector demands, which would provide a more complete evaluation of cumulative effects.

Regional CMSP should strive to improve our ability to characterize the past, present, and, if possible, potential future conditions of an ecosystem spatially—*before* any particular new activity is implemented. Past conditions provide information on what ecosystem services we already may have lost, in order to maintain or restore natural ecosystems. As comprehensive integrated assessment tools and analytical methods (e.g., bioassessment, modeling) are developed and strengthened, so too will be the outputs of these efforts. Thus, this objective strives to provide tools and information that will improve the ability of decision-makers to

identify and define sensitive areas and habitats, identify opportunities to mitigate or completely avoid impacts to sensitive areas, identify areas where future activities would cause the least amount of negative impact, maximize sustainable and beneficial uses of the marine environment, and protect the integrity of marine and coastal ecosystems.

Actions

The following are specific actions to implement regional CMSP.

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

The NOC is developing a *Handbook for Regional Coastal and Marine Spatial Planning* (Handbook) to assist regional planning bodies with the CMSP process. As called for in the CMSP Framework, the Handbook will provide further guidance and information intended to support the regional planning process, identify potential ways ocean.data.gov could enhance regional efforts, and provide more detailed information about visualization and analytical tools and their development to help compare proposed alternatives for future ocean uses. Engaging the public and stakeholders in the CMSP process is essential, and the Handbook will also provide relevant informational guidance, including how to comply with the Federal Advisory Committee Act (FACA). Such information will assist regional planning bodies in determining how best to engage with certain groups of scientific, technical, and other experts or establish regional advisory councils, as appropriate.

Agencies: NOC Office, Federal regional planning body co-leads

Milestones

- Provide the Interim Handbook to Federal agency regional planning body co-leads. (NOC Office; 2012)
- Concurrently post the Interim Handbook on the NOC website. (NOC Office; 2012)
- Finalize the Handbook and distribute to Federal agency regional planning body co-leads. (NOC Office; 2012)
- Circulate the Handbook among State and Tribal co-leads and regional planning body members. (Federal regional planning body co-leads; 2012)

Action 2: Convene regional workshops and CMSP exercises

In June 2011, the NOC brought together more than 500 Federal, Tribal, State, territorial, and local government representatives; indigenous community leaders; and stakeholders and members of the public from across the country for a National CMSP Workshop. This workshop allowed

the Federal Government to collaboratively identify key challenges, solutions, and strategies for regional CMSP, and respond to stakeholder priorities. Workshop participants emphasized the importance of science, evidence-based data, and traditional knowledge in the CMSP process; representation and coordination with existing local and regional entities; and the challenges associated with balancing the value of national consistency with the need for regional flexibility.

The National CMSP Workshop provided an overview of the CMSP process, presented an opportunity to bring together future CMSP practitioners from across the Nation, and helped set the stage for future locally focused regional workshops. Like the National CMSP Workshops, the regional workshops will have the following objectives:

- Develop and carry forward a shared understanding of regional CMSP and the development of CMS Plans.
- Build greater understanding of the value of regional CMSP in the United States.
- Identify key challenges, solutions, and collaborative strategies for regional CMSP, including next steps for developing the tools, resources, and guidance to implement regional CMSP.
- Engage the public and other stakeholders in a dedicated session that provides further opportunity to educate, listen to, and connect with the American people about CMSP.

Technology such as webinars and teleconferencing will be considered as low-cost mechanisms for engaging a large number of people in these workshops.

Agency: NOC Office, Federal regional planning body co-leads

Milestones

- Hold, in conjunction with regional, State, and Tribal partners, CMSP workshops and simulation exercise in four regions. (NOC Office, 2013)
- Hold, in conjunction with regional, State, and Tribal partners, CMSP workshops and simulation exercise in five additional regions. (NOC Office, 2014)

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).

The underpinning of the National Ocean Policy and its CMSP framework is science-based decision-making. While additional data are needed in some sectors or regions, the United States has a solid information foundation to begin CMSP. However, not all existing data are accessible or in a useable format for CMSP purposes. This action calls for integrating data across the Federal Government, as well as creating the opportunity to extend this approach to State, local, Tribal, and territorial governments and to industry, academia, and nongovernmental

organizations (NGOs). The ocean.data.gov portal provides open access to the National information management system called for in the National Ocean Policy. It not only targets the integration of diverse datasets, but also makes these data readily available to decision-makers, ocean users, stakeholders, and the public. These data will directly support the development of new and/or improved decision support tools critical to the CMSP process.

Agencies: NOC Interagency Information Management System and CMSP Data Portal Working Group, NOAA, USCG, DOD, DOI, EPA, DOE, USACE, NOC Office

Milestones

- Develop a prototype data portal and adoption of minimum data standards. (NOC Interagency Information Management System and CMSP Data Portal Working Group; 2011)
- Complete initial individual agency data plans for accessibility through ocean.data.gov. (NOAA, USCG, DOD, DOI, EPA, DOE, USACE; 2012)
- Identify and begin making available analytical decision support tools and visualization capabilities via ocean.data.gov. (NOAA, USCG, DOD, DOI, EPA, DOE, USACE; 2012)
- Implement data integration plans into the complete ocean.data.gov portal. (NOAA, USCG, DOD, DOI, EPA, DOE, USACE 2013)
- Integrate and synthesize the ecological, social, and economic data provided by Federal agencies and non-Federal partners for inclusion in ocean.data.gov. (All NOC agencies; 2013)
- Launch initial ocean.data.gov system and CMSP national portal. (NOC Office; 2015)

Action 4: Establish Regional Planning Bodies

As envisioned by the National Ocean Policy, nine regional planning bodies will bring together Federal, State, and Federally-recognized Tribal partners to engage in collaborative regional planning and develop regional CMS Plans to improve stewardship and streamline processes. The regional planning body structure acknowledges the sovereign status of Federally-recognized American Indian and Alaska Native Tribal Governments, preserves the principle of government-to-government consultation, recognizes the authorities and responsibilities delegated to the various Federal agencies by Congress, and improves intergovernmental processes. While membership on each regional planning body is currently reserved for Federal, State, and Tribal entities with authorities relevant to CMSP, the policy is explicit about the importance of stakeholder participation throughout the key steps of the process. To contribute to its success and scope, CMSP will also ensure coordination and collaboration with existing ROPs, engagement with stakeholders and the public, and consultation with scientific, technical, and other experts.

Agencies: Regional planning bodies

Milestones

- Phase 1: Establish a regional planning body in up to four of the nine regions, and complete initial regional steps as described in the CMSP framework. (Regional planning bodies; 2013)
- Phase 2: Establish regional planning bodies in the remaining five regions, and complete initial steps as described in the CMSP framework. (Regional planning bodies; 2015)

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.

Regional planning bodies will implement CMSP leading to the development of CMS Plans appropriate for each region. Each region is unique in geographic scope, natural resources, cultural expectations and sensitivities, economic homeland and national security attributes, and existing structures and planning for environmental protection and resource management. This action is premised on the Council's recognition that development of CMS Plans will occur along different timelines among the regions—including differing timelines for establishing the regional planning bodies—with differing specific regional objectives consistent with the national goals and objectives for CMSP. Each region under the framework for CMSP has 3 to 5 years to develop and secure NOC certification of its initial CMS Plan.

Agencies: Regional planning bodies

Milestones

- Complete regional capacity assessments in at least four regions—beginning with Phase 1 areas—within 2 years of release of this draft Implementation Plan, identify initial regional steps, develop NOC-approved work plans, and initiate the CMSP process as described in the CMSP Framework. (Regional planning bodies; 2014)
- Complete regional capacity assessments in remaining Phase 2 regions within 4 years of release of this strategic action plan, identify initial regional steps, develop NOC-approved work plans, and initiate the CMSP process as described in the CMSP Framework. (Regional planning bodies; 2016)
- Complete initial regional CMS Plan and submit for NOC certification within 5 years of a regional planning body's establishment. (Regional planning bodies; 2019)

CONCLUSION

Since long before our Nation was founded, the ocean has been a source of nourishment, protection, employment, inspiration, and adventure. The National Ocean Policy responds to more than a decade of bipartisan discussions and was established to resolve a long-standing, well-recognized, and significant problem: the oceans, coasts, and Great Lakes are a crucial resource for America and they are in trouble. This Implementation Plan presents the initial actions Federal agencies will take to change how we conduct our work to realize the benefits that the National Ocean Policy will provide to our Nation by supporting our people, resources, economy, security, and opportunities.

We realize improvements must be centered on EBM to managing resources and uses. This approach considers all ecosystem inhabitants, processes, and impacts as a holistic unit rather than focusing on each in isolation. It recognizes humans and human activities as part of ecosystems. Making progress on this new management foundation is not something a single agency, or level of government, can do on its own. Nor is it something government can do on its own. But it will be done without creating new bureaucracy and without negative economic impacts, by improved incorporation and use of solid science, collaboration and efficiency in action, and a focus on regional issues and interests.

The actions for each of the priority objectives in this draft Implementation Plan were developed to meet high standards for ecosystem-

It is the policy of the United States to:

- 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;
- 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;
- Support sustainable, safe, secure, and productive access to and uses of the ocean, our coasts, and the Great Lakes;
- Respect and preserve our Nation's maritime heritage, including our social, cultural, recreational, and historical values;
- 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;
- 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.

based management, sound data and information, efficiency in process, and coordinated effort. Through this draft Implementation Plan, Federal agencies will work together to take prioritized action to make a difference in the most pressing needs facing the ocean, our coasts, and the Great Lakes. Guided by the National Ocean Policy, the Federal Government will set out on a new science-driven, coordinated, efficient path to maximize the wise use of marine and Great Lakes environments, and the ecosystem services they provide. As we move ahead, we will regularly revisit this Plan and seek input from those who live and work on the ocean and along the coasts, as well as experts in science and traditional knowledge who know and understand these ecosystems and the communities they support. Simply put, the result of this draft Implementation Plan will be the environmental, economic, social, and cultural benefits that accrue from ecosystems and resources that are better managed.

This draft Implementation Plan presents what the Federal agencies will do to ensure healthy ocean, coasts, and Great Lakes now and for generations to come. But we also want it to serve as an open book for localities, States, Tribes, organizations, industry, and individual citizens to view and understand how and where the Federal agencies will focus their resources and attention. This draft Implementation Plan does not direct action beyond Federal efforts, but it is prefaced on the need for partnership and collaboration across the Nation at all levels to build *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.*

APPENDIX: PUBLIC COMMENTS ON DRAFT STRATEGIC ACTION PLAN OUTLINES

The National Ocean Council (NOC) released nine strategic action plan outlines for public review to provide an initial view as to how Federal agencies might address the priority objectives as described in the National Ocean Policy (Policy). The outlines, by design, were draft products that served as an early and valuable point in the plan development process for focusing public and stakeholder input.

During the public comment period June 2-July 2 2011, the NOC received over 400 contributions to the NOC web page from over 200 individuals and groups. In addition, about 1000 individuals and groups participated in and provided comments at 12 regional listening sessions.² The NOC agencies evaluated more than 850 specific comments from stakeholders and the public, many representing multiple submissions of very similar comments. The NOC considered all of the comments and accepted many of these, incorporating them into the draft Implementation Plan.

This Appendix summarizes the most substantive and frequent public comments and how they are addressed in this draft Implementation Plan. Reflecting the diversity of stakeholder input, this Appendix consolidates the comments and NOC responses under four themes, which the NOC used to guide the development of this draft Implementation Plan. These are: (1) adopt ecosystem-based management; (2) obtain, use, and share the best science and data; (3) promote efficiency and collaboration; and (4) strengthen regional efforts.

ADOPT ECOSYSTEM-BASED MANAGEMENT (EBM)

The public comments on EBM indicated broad support for this approach to management. Some mentioned that EBM has been used with success previously.

The Executive Order specifies that EBM is critical to how we govern and manage our ocean, coasts, and Great Lakes, and charges the Plan to address how it will be defined and implemented. In the draft Implementation Plan, the EBM section (pp. 9-17) focuses on actions that will provide the collaboration and science frameworks, training and education, and best practices for implementing EBM. In addition, actions to support EBM or apply it to specific regional efforts are included throughout the draft Plan.

² Washington, DC; Barrow, AK; Anchorage, AK; Chicago, IL; Jacksonville, FL; Honolulu, HI; Exeter, NH; Galveston, TX; Ocean Shores, WA; San Francisco, CA; West Long Branch, NJ; Portland, OR

Many comments pointed out the need for a clear and consistent definition for EBM that will be incorporated into management decisions, including project planning, policies, and programs.

The Final Recommendations of the Interagency Ocean Policy Task Force called upon the NOC to define EBM as it develops strategic action plans (now the draft Implementation Plan). The NOP started with MacLeod et al. (2005), which defined EBM as “an integrated approach to resource management that considers the entire ecosystem, including humans”, and noted that the goal of EBM is “to maintain an ecosystem in a healthy, productive, and resilient condition so that it can provide the services humans want and need”. The NOC built upon this definition, and its accompanying list of elements and characteristics, with modifications that reflect the views of multiple Federal agencies as they address implementation of EBM. The resulting definition is on pages 10-11 of the Plan.

Several comments suggested that potential actions to address the EBM priority objective should focus on the important beginning steps that will lead to EBM forming the foundation for management decisions regarding the ocean, our coasts, and Great Lakes. However, this must be based on good science and scientific information that is transparent to all participants and interested parties, and communicated to all levels of government and to all stakeholders and users.

Strategic use of EBM as an approach to implementing the NOP and science-based planning and decision-making is an incremental process. The Ecosystem-based Management section of the draft Plan describes actions establishing frameworks for the science to support EBM and for Federal collaboration. Other actions provide training and the conduct of EBM pilot projects. These are important initial steps toward implementing EBM nationally. Action 3 in the Inform Decisions and Improve Understanding section (pp. 21-22) supports EBM through robust science, information, and decision-support tools. Other actions throughout the draft Implementation Plan will apply these frameworks and tools to implement EBM regionally.

EBM should rely on science-based decision-support tools, including but not limited to CMSP, so that CMSP is not a goal, but a process to help inform and implement EBM.

The draft Plan clarifies that CMSP is an important EBM tool that provides transparent information about ocean use, relies upon significant public and stakeholder participation, and will inform management decisions affecting the ocean, coasts, and Great Lakes. It creates an inclusive, bottom-up, regionally-driven planning approach that gives Federal agencies, States, Tribes, and regions the ability to make informed decisions about how best to use ocean and coastal resources. The regional CMSP process will build upon and expand, as appropriate, successful regional efforts.

Some comments recommended that EBM should be included in non-Federal planning and regulatory frameworks for coastal development.

Action 3 in the Ecosystem-based Management section (pp. 15-16) will make training on EBM principles, best practices, and decision-support tools available to State, Tribal, and local government officials.

A range of comments was received concerning the use of the precautionary approach. Many comments supported its adoption while others were concerned it would restrict ongoing or future activities.

One of the Policy's guiding stewardship principles provides that decision-making will 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" The United States has long taken the position that precaution is a tool or approach rather than a "principle," given the lack of a single definition or agreed formulation and the differing implications of its various forms. However, it is clear that the precautionary approach does not mandate action or prohibit activities. Application of a precautionary approach as so defined is consistent with the EBM approach and essential for improved stewardship.

Some comments expressed concern that potential changes in legislation to incorporate EBM principles into policy and governance are premature without a shared understanding of its meaning and application. EBM efforts should consider broader science-based authorities and regulations of marine resources, in addition to broader consideration of information and interactions.

As described above, the Plan provides a definition of EBM for the purposes of implementing the NOP. Any recommendations to seek changes to existing statutory or regulatory authorities—as part of any priority objective – would only be made based upon the experiences of those agencies charged with implementing the Policy. No such changes are mandated by the Policy and it would be premature to suggest any such changes at this juncture. The draft Implementation Plan calls for the NOC Legal Working Group to further analyze these efforts in Action 3 in the Coordinate and Support section (pp. 38-39).

OBTAIN, USE, AND SHARE THE BEST SCIENCE AND DATA

Many comments emphasized the great value of and need for the best data, science, analyses, information, and tools to guide managers and policymakers in evaluating trade-offs and decision support. The Implementation Plan should include actions that focus on better-informed decisions through improvements on the linkage between science and management actions.

The Policy places a great emphasis on increasing our scientific understanding. Under the Policy, a fundamental stewardship principle guiding U.S. management decisions and actions affecting the ocean, our coasts, and the Great Lakes is that such decisions will be informed by and consistent with the best available science. Accordingly, numerous actions, milestones, and national objectives set forth throughout the draft Implementation Plan have the specific intent to foster, strengthen, and improve the linkage between science and management actions. Further, the Inform Decisions and Improve Understanding section (pp. 18-25) of the draft Plan outlines actions to sustain and expand the science framework to provide knowledge for improved decision-making and an informed society and workforce.

One key to successful implementation of the Policy is to determine the critical science questions that can best inform decisions about emerging and future uses of the ocean, and to focus limited resources on understanding and addressing them.

Action 2 in the Inform Decisions and Improve Understanding section (pp. 20-21) focuses on providing the science to support emerging uses of the ocean and Great Lakes, which will increase opportunities for sustainable economic development and new jobs.

Many comments emphasized the great need for science-based data, information, and tools to implement the NOP. The foundation for better stewardship must include accurate and timely data and information about the environment and human activities. Active and continuous observations are necessary to obtain these.

Actions in the Observations, Mapping, and Infrastructure section (pp. 26-34) address the national need for maintaining and modernizing observing systems, and collecting and delivering data to better support decisions. The Changing Conditions in the Arctic section (pp. 75-84) includes actions to meet the specific observing and data requirements of the Arctic region. These are linked with actions from the Inform Decisions and Improve Understanding section (pp. 18-25) to ensure data and information meet high scientific standards and inform models, assessments, and decisions.

Data and information are a high priority for most stakeholder groups, as well as resource managers. Comments from a broad range of sectors expect actions in the Implementation Plan to make Federal data readily available, maintain existing observations and product sources, and provide new data that regions and stakeholders need. Socio-economic and traditional knowledge data and information should be made available and used in addition. Standards for including non-governmental and industry data need to be identified. A number of comments called for a national data and information management system.

Providing natural and socio-economic data and information to support management and business decisions is a high priority in implementing the Policy. A national integrated information management system is an essential component of the infrastructure that supports

the NOP. The NOC has established a prototype national information management system and portal (ocean.data.gov) as a mechanism to more easily discover and access Federal data and information for use in regional planning. Action 7 in the Observations, Monitoring, and Infrastructure section (pp. 33-34) will develop an integrated data collection, processing, and management system. Data and information will be provided through other actions in the draft Plan. Action 3 in the Coastal and Marine Spatial Planning section (pp. 90-91) provides that 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).

Several comments urged the development and application of new, efficient, low-cost technologies to assess environmental change across a broad range of spatial and temporal scales, and keep the nation in the forefront of ocean science and technology.

Modern observing systems are essential to ocean research and management. Cost-effective and advanced technology sensors and platforms are addressed in the Observations, Monitoring, and Infrastructure section. Actions 2 and 3 (pp. 27-29) focus on developing, testing, and deploying new observing and sampling technologies.

A number of comments highlighted the importance of improved seafloor mapping and bathymetry.

Coordinating ocean and coastal mapping efforts, improving access to mapping data, and upgrading mapping capabilities and products are the focus of Actions 5 and 6 in the Observations, Monitoring, and Infrastructure section (p. 31-33).

PROMOTE EFFICIENCY AND COLLABORATION

Numerous comments from many sectors called for improved coordination among all levels of government, including with the international community. Federal support for these coordinating activities should be the focus of actions in this Implementation Plan. All levels of government must participate in coordinating and planning, from local to Federal. Tribal governments should be consulted during these coordination efforts.

Improved coordination and increased efficiency are key elements throughout the draft Implementation Plan. The focus of the Coordinate and Support section (pp. 35-42) is to coordinate our response to ocean and coastal issues across jurisdictional boundaries and at all levels of governance. The actions are designed to strengthen and leverage partnerships and develop new partnerships. Federal agencies will support regional partnerships through grants, tools, resources, and other services. Agencies will consult with Tribal representatives on relevant activities.

The Implementation Plan should clearly define which Federal agencies will be responsible for which actions – both as lead and supporting agencies – and how collaboration between the agencies will be addressed. Lead agencies should be given clear guidance by the NOC on how to incorporate the implementation actions.

The draft Plan clearly identifies the Federal agencies responsible for accomplishing each action and milestone. Most milestones include multiple agencies who will work collaboratively to increase efficiencies, leverage resources, and improve the ability to achieve successful outcomes.

Several comments recommended that the Plan encourage the use of existing regulations and statutory authorities, and coordinate with them. It should include the promotion of uniform regulations.

The Policy emphasizes better coordination of existing authorities and does not impose new regulations. The NOC Legal Working Group will identify gaps, inconsistencies, and duplications in statutory authorities, policies, and regulation, and the NOC will work to reduce barriers to implementing the Policy, per Action 3 of the Coordinate and Support section (pp. 38-39).

Much is already known about how to solve problems using existing authorities; what is needed is action. A number of comments expressed concern that the strategic action plan outlines did not identify enough near-term actions. The Implementation Plan must include more concrete and immediate actions with specific timelines for which Federal agencies can be held accountable. More specificity to actions should be provided.

The draft Implementation Plan recognizes the need to include specific actions, with well-defined milestones, to establish Federal agency accountability. The draft Plan includes a better balance of near-term actions, to foster timely implementation of the National Ocean Policy. Milestones have been expanded and refined, and the NOC is also determining how to establish performance measures to track progress on actions.

Adaptability and flexibility should be built into the implementation of the Policy. The Implementation Plan should be adaptive to regional context and regulatory frameworks.

The Policy recognizes as a guiding stewardship principle the need for adaptive management in a coordinated and collaborative approach to respond to environmental, social, economic, and security challenges. The draft Implementation Plan adopts this approach through numerous actions, and affords flexibility in achieving these actions and milestones as conditions change, knowledge is updated, or new issues or uses emerge.

More efficient permitting was requested in some comments. Planning needs to ensure that the Federal permitting processes are well coordinated, grounded in standards that provide for changing conditions, and assure protection of the natural and built environments.

Action 5 of the Coordinate and Support section (pp. 40-41) will seek efficient, coordinated Federal permitting processes. It will consider ways to save applicants and permitting agencies time and money, and encourage economic investment without compromising public safety, health, and the environment.

Numerous comments called for the NOC to pick some priority areas to initiate projects. These comments recommended the use of pilot projects to develop realistic approaches to implementing the Policy, keep initial costs down, and determine approaches to maximize benefits-to-cost.

Action 4 in the Ecosystem-based Management section (pp 16-17) will identify and implement pilot projects to demonstrate the practicality of the EBM approach. Pilot projects are proposed elsewhere throughout the draft Plan.

Some comments advised that international coordination is required for many ocean, coastal, and Great Lakes issues, noting that some mechanisms for coordination are already in place and should be used.

The draft Implementation Plan recognizes the need for international coordination to address many ocean, coastal, and Great Lakes issues, and allows for Federal agencies to work through existing mechanisms as appropriate to achieve the best results. Actions in the Inform Decisions and Improve Understanding; Observations, Mapping, and Infrastructure; Adaptation to Climate Change and Ocean Acidification; and Changing Conditions in the Arctic sections highlight international connections.

Some comments recommended that the NOC develop a closer linkage between the actions to address the priority objectives.

This draft Implementation Plan builds upon the actions as proposed in the outlines submitted for public comment in June 2011 and, based on comments received, now reflects a more cohesive approach to addressing the nine priority objectives identified by the Policy.

STRENGTHEN REGIONAL EFFORTS

Many of the public comments focused on some aspect of regional coordination, planning, and implementation of the Policy. The Implementation Plan should support actions where Federal agencies work with States, Tribes, and regions. Actions should be

tailored to regional and local needs and priorities. Planning frameworks need to be national (providing for both horizontal integration across agencies, and vertical integration across levels of government), but adaptable to regional variations.

Throughout the draft Plan, the NOC places an emphasis on supporting regional activities and regionally-focused implementation, as appropriate, of the Policy. Five priority objectives include actions with a regional focus: Regional Ecosystem Protection and Restoration, Resiliency and Adaptation to Climate Change and Ocean Acidification, Water Quality and Sustainable Practices on Land, Changing Conditions in the Arctic, and Coastal and Marine Spatial Planning.

Many of the actions designed to address these priority objectives build upon the efforts of existing partnerships, priorities, and programs, and are adaptable to local, state, and regional needs. They also cut across the priority objectives to connect national frameworks for science, information management, or coordination, for example, to regional and local actions as varied as restoring coastal wetlands, reducing excess nutrients and sediment in local watersheds, developing climate adaptation strategies for vulnerable coastal communities, minimizing the impacts of harmful algal blooms, and observing and forecasting Arctic sea ice.

Actions need to explicitly include integration between Federal agencies and their partners. The Implementation Plan should encourage public/private partnerships and incentivize private-sector cooperation and investment. It should increase collaboration with outreach partners.

The draft Plan emphasizes the value of public-private partnerships in leveraging and incentivizing investments. Actions in the Coordinate and Support, Regional Ecosystem Protection and Restoration, and Water Quality and Sustainable Practices on Land sections promote opportunities for public-private partnerships and private investments.

Several comments recommended that the Implementation Plan should complement and build on regional activities and successes, existing programs, and pending actions, and not duplicate existing programs and processes. It should reinforce the implementation of existing regional or State management plans, rather than create new management systems. It should take full advantage of the existing resources, capabilities, and knowledge of the myriad organizations that play a role in the management of resources. The NOC should ensure that Federal agencies implement their activities to ensure increased and better coordination between and among these entities.

The draft Plan contemplates that Federal agencies will collaborate closely with existing Regional Ocean and Great Lakes Partnerships (ROPs) to apply the most successful approaches in those areas of greatest need. The nine regional planning bodies that will be established under the CMSP Framework provide for State and Tribal membership, and will

closely coordinate with existing ROPs. The CMSP Framework provides that the regional planning bodies will build upon the efforts of these existing partnerships. Essential steps of the CMSP require engagement with the public and stakeholders at key steps throughout the process, as well as consultation with scientific, technical, and other experts. The CMSP Handbook called for by Action 2 in the Coastal and Marine Spatial Planning section (pp. 89-90).

Several comments addressed the importance of partnerships between the NOC and States and Territories. Actions in the Implementation Plan should be developed and implemented in coordination with the States to ensure that Federal resources address States priorities. The development and implementation of Federal guidance, programs, and protocols should take into consideration existing State and Territorial priorities and protocols. ROPs can help identify the restoration projects of greatest concern in each region.

The Federal-State partnership is addressed directly or indirectly in actions for all priority objectives. Action 1 in the Coordinate and Support section (pp. 36-37) will support ROP priorities and facilitate access to information, training, and resources that meet ROP goals. State agency managers and decision-makers will benefit from the information, tools, strategies, and practices developed through actions in the Regional Ecosystem Protection and Restoration (pp. 43-53), and Water Quality and Sustainable Practices on Land (pp. 63-74) sections. The regional planning bodies established by Action 4 in the CMSP section (pp. 91-92) include States as members. In addition, CMSP National Objective 1 (pp. 87-88) notes the need to improve efficiency and coordination across Federal agencies and with States, Tribes, and others.

A number of comments emphasized the unique consultative relationship between the United States Government and the Tribal Governments, and the need for this to be reflected in the implementation of the Policy.

The draft Implementation Plan addresses the need to work with Tribes in a number of areas. For example, Action 6 in the Adaptation to Climate Change and Ocean Acidification section (pp. 61-62) calls for developing adaptation strategies in consultation with Tribes. Action 5 in the Water Quality and Sustainable Practices on Land section (pp. 70-71) addresses the need for enhancing contaminant monitoring and disease surveillance programs, ultimately producing a government-wide monitoring portfolio that links across States, Tribes, regions, and stakeholders. The regional planning bodies established in Action 4 in the CMSP section (pp. 91-92) include Tribes as members. In addition, CMSP National Objective 1 (pp. 87-88) notes the need to improve efficiency and coordination across Federal agencies and with States, Tribes, and others.

Some comments recommended scale-appropriate actions. Planning must initiate sub-regional development with full consideration of local impacts, empowering local coastal communities to care for and nurture the long-term well-being of the coast.

The draft Implementation Plan recognizes the importance of working at the local community level to provide resources, information, and projects for sound planning and decision-making. Actions in each of the priority objectives directly or indirectly address this need.

Several comments urged the NOC to work within the existing statutory framework, and to complement existing ocean and coastal resources management efforts.

As with the importance of engaging at the local level, the draft Implementation Plan recognizes the need to collaborate closely with existing ROPs to build upon existing programs, protocols, and successes, and to apply the most successful approaches in areas of greatest need, including interaction between the existing partnerships and the regional planning bodies that will be established under the CMSP Framework. Actions in each of the priority objectives directly or indirectly address this need.

Some comments recommended that the NOC incorporate the Policy and its guiding stewardship principles into agency procedures, rules, and guidance.

Federal agencies will implement the Policy consistent with existing legal authorities. Under Action 3 in the Coordinate and Support section (pp. 38-39), the NOC Legal Working Group will identify gaps, inconsistencies, and duplications in statutory authorities, policies, and regulation, and the NOC will work to reduce barriers to implementing the Policy.

Some comments endorsed the value of strict regional water quality and sustainable environmental waste management practices, and actions to promote them. A comprehensive approach is needed. Standards should be applied uniformly across similar industry activities.

Many of the regional comments refer to specific strategic action plan outlines submitted for public comment in June 2011, which were drafted to address specific priority objectives. Some of these objectives are addressed with a combination of national actions to develop the processes and tools to meet them, and regional activities that will apply those processes and tools on the ground and in the water.

A number of programs exist at various levels to address water quality and pollution. The draft Implementation Plan includes actions to coordinate, through existing regulatory and non-regulatory measures, protection and restoration efforts on land and in coastal areas that will enhance water quality. Actions in the Water Quality and Sustainable Practices on Land section (pp. 63-74) will develop consistent water quality standards, identify priority areas,

and support and implement projects between Federal, State, and local partners to improve and maintain healthy coastal watersheds.

Several comments called for science-based uniform standards for wastewater that are consistently and fairly applied. These standards should be based on the best available data, raise the standards for everybody, and not disadvantage local coastal communities.

Action 2 in the Water Quality and Sustainable Practices on Land (pp. 66-67) will enhance water quality in the ocean, along our coasts, and in the Great Lakes by reducing municipal wastewater and other urban sources of water pollution. A collaborative approach at the national level, along with targeted State, Tribal, and regional efforts, will apply national standards to reduce pollutant loadings during the near-term. Pilot projects will promote information sharing about reduction levels, improve water quality at the source and downstream, and increase economic activity in or near urban water bodies.

Several comments identified that reducing nutrients and sediment from regional land-based sources should be an area of focus. Increased monitoring is needed. Comments indicate trash debris, particularly plastics, is a major concern.

Actions 1 and 2 (pp. 65-67) in the Water Quality and Sustainable Practices on Land section address the major urban and rural sources of excessive nutrients and sediments, as well as toxics and pathogens. These actions will enhance water quality in priority watersheds through a collaborative national approach combined with targeted state and regional efforts. Action 6 (pp. 71-73) will increase research and monitoring of marine debris, to reduce its impacts through cooperative pollution prevention, reduction, and removal efforts.

Several comments requested action to strengthen coordination of environmental science, technology, and management of oil production and transportation to avoid unacceptable impacts on water quality and on environmental, wildlife, and human health.

The Federal government has a number of ongoing programs and regulations to prevent, prepare for, and mitigate oil spills. These are highlighted in the box on page 64. Agencies also coordinate with industry and international efforts. The Policy will help accelerate these programs and efforts nationally, foster greater cooperation, and help identify priorities.

Several comments focused on protecting and restoring ecosystem components on a regional level. An ecosystem protection and restoration plan developed by multi-stakeholders should be the basis for activity by the NOC. It should not place a disproportional burden on the viability of resource-based businesses and local coastal communities.

Actions in the Regional Ecosystem Protection and Restoration section address areas where improved coordination between Federal agencies and with non-Federal partners will enhance the effectiveness of conservation programs that will increase the success of these programs at the regional and local levels. Action 1 (p. 46) will institute collaborative partnerships to develop tools to identify land protection and restoration priorities for the Chesapeake Bay watershed, and make these tools available for other regions.

Several comments emphasized the need to build upon regional ecosystem projects that are underway across the country. The Implementation Plan should focus on sharing lessons learned, such as identifying successful restoration practices. In addition to existing coastal and Great Lakes activities, the Implementation Plan should identify ecologically important ocean areas for preservation or restoration. Some comments identified the importance of coastal ecosystems, particularly marshes, for carbon sequestration.

The draft Plan reflects the NOC's acknowledgement that there are many existing regional restoration and protection projects that support stewardship of the ocean, coasts, and Great Lakes, and their value to inform Federal programs. Action 2 in the Regional Ecosystem Protection and Restoration section (pp. 47-48) will enable Federal agencies to learn from and complement coastal wetland protection and restoration efforts in areas such as the Gulf of Mexico. Action 6 (pp. 51-52) will identify nationally significant ecologically and culturally areas in need of protection. Action 3 (pp. 48-49) focuses on carbon sequestration services provided by coastal habitats.

Several comments identified invasive species as an economic and environmental issue in many regions.

Action 5 in the Regional Ecosystem Protection and Restoration section (pp. 50-51) provides Federal activities to locate, control, and, where possible, eradicate invasive species in our nation's coastal and Great Lakes waters. This action is broader in scope than that proposed in the strategic action plan outline.

Several comments identified the rapidly changing conditions in the Arctic as warranting special focus on this region. Actions should improve forecasts of sea ice change to enable better planning for future human activities. Local coastal communities, which rely on the ocean, request research to improve understanding of the marine ecosystems and the changes that are occurring.

The draft Implementation Plan features a series of actions in the Changing Conditions in the Arctic section (pp. 75-84) that specifically address these comments. Actions strive to balance economic growth, community resilience, and environmental stewardship. Concern for the ability to respond to an unintentional release of oil is addressed through Action 1 on improving response management. Actions 2, 3, and 5 provide the observations and science to

improve understanding and support operations in the Arctic. Action 2 specifically addresses improving sea ice forecasts. These actions are linked with those in the Inform Decisions and Improve Understanding and Observations, Monitoring, and Infrastructure sections.

A number of comments asked for actions to address the full spectrum of activities necessary for resiliency and adaptation in the face of climate change and ocean acidification. These include forecasting impacts, integrating observations, delivering information, assessing vulnerability, developing and evaluating strategies, and implanting on the ground. It is important to define areas of high risk to climate change and to identify sentinel sites to monitor the effects of climate change. The Implementation Plan should recognize that resiliency and adaptation strategies will occur at the local level.

The draft Plan features a series of actions in the Resiliency and Adaptation to Climate Change and Ocean Acidification section (pp. 54-62) that specifically incorporate these comments. Actions 5 and 6 support the development and implementation of adaptation strategies that will allow vulnerable coastal communities to adapt and to increase the resilience of ecosystems, societies, and economies to climate change.

OTHER AREAS OF COMMENT

Several stakeholders recommended that the Implementation Plan should seek economic and environmental balance. This balance was not adequately emphasized in the strategic action plan outlines. The Policy must not create additional, unnecessary barriers to responsible development and use of natural resources. It should develop actions that allow managers to consider all consequences of a decision - economic, environmental, security, and social/cultural.

The Policy provides that Federal agencies will “ensure the protection, maintenance, and restoration of the health of ocean, coastal and Great Lakes ecosystems and resources, enhance the sustainability of ocean and coastal economies, preserve our maritime heritage, support sustainable uses and access, provide for adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification, and coordinate with our national security and foreign policy interests”. Through a number of actions, the draft Plan clarifies that effective stewardship of our ocean, coastal, and Great Lakes ecosystems is directly tied to a strong national economy, affecting multiple sectors and thousands of jobs in many ocean, coastal, and Great Lakes communities.

Many comments recognized the current fiscal climate and expressed concerns about funding programs or diverting resources from existing critical programs and activities. Regions and States need resources targeted to their priority areas.

The Policy provides a framework for the improved application of predominantly existing budget authorities across the entire portfolio of Federal ocean and coastal activities. The Implementation Plan will help agencies to structure their ocean and coastal activities to better complement those of other agencies. Action 4 in the Coordinate and Support section (pp. 39-40) will develop a cross-cutting analysis of the Federal ocean and coastal budget to make more efficient and economical use of limited financial resources. While we cannot speak to the details of the FY 2013 Budget at this time, agencies have been instructed to prioritize the Policy in their budgets, such as ocean.data.gov.

Several comments raised the importance of ocean education and literacy, including integrating ocean literacy into science education guidelines, and targeting K-12 or early childhood-adult age groups. What tools will the NOC provide the next generation of leaders in terms of education about the oceans and Great Lakes? Educating the public about the pressing issues facing our oceans is vital. Recognize the value of informal education programs in raising awareness, improving the public's abilities to assess risk and trade-offs, and to make informed and responsible decisions based. The NOC should increase collaboration with its aquarium and zoo partners.

Actions 5 and 6 in the Inform Decisions and Improve Understanding section (pp. 23-25) focus on developing a skilled workforce and increasing ocean and coastal literacy, respectively.

OTHER COMMENTS

A small subset of the public comments received were outside the scope of the draft Implementation Plan or would require changes to the Executive Order or to existing legal authorities, and therefore, are not addressed in the draft Implementation Plan.

Similarly, some of the public comments addressed the Framework for Coastal and Marine Spatial Planning. Action #3 in the Coastal and Marine Spatial Planning section (pp. 90-91) requires the NOC to develop a separate CMSP Handbook. This Handbook will provide further guidance, recommendations, and information intended to support the regional planning process, identify potential ways ocean.data.gov could enhance regional efforts, and provide more detailed information about visualization and analytical tools and their development to help compare proposed alternatives for future ocean uses. Engaging the public and stakeholders in the CMSP process is essential, and the Handbook will also provide relevant informational guidance, including how to comply with the Federal Advisory Committee Act (FACA). Such information will also assist regional planning bodies in determining how best to engage with certain groups of scientific, technical, and other experts or establish regional advisory councils, as appropriate.

While many of these comments will be addressed by the Handbook, the NOC has determined that the following comments warrant a response as they are tied to the development of the Handbook.

The planning process must bring everyone to the table through robust public and stakeholder participation. It must provide for significant input opportunities for regional, State and local stakeholders. The process should be regionally flexible.

CMSP is inherently a regionally-focused effort. The regional planning body would ensure there is frequent and regular stakeholder engagement throughout all phases of the CMSP process, including development, adoption, implementation, evaluation, and adaptive management phases. To better ensure all concerns and ideas are considered, stakeholder engagement should be emphasized with those most impacted (or potentially impacted) by the planning process.

Considerations should also be given to ensuring inclusion of underserved communities. Regions would establish an inclusive and transparent process for stakeholder participation (or, if applicable, utilize an existing process) that ensures engagement with a representative balance of major social, cultural, economic, environmental, recreational, human health, and security interests. The draft Implementation Plan provides for the development of a CMSP Handbook, which will recognize the need for maximum flexibility among the regions, and will provide specific suggestions and recommendations to regional planning bodies to maximize these engagement and outreach efforts.

Planning bodies should work with existing regional bodies and structures. There should be a mechanism to get input from industries and economic user sectors.

Per the CMSP Framework, an essential step in the CMSP process is the requirement to engage stakeholders and the public at key steps throughout the process. This necessarily includes industries and economic user sections. Further, recognizing that many of these same stakeholders have scientific, technical, and other knowledge relevant to the development of CMS Plans, the CMSP process also requires regional planning bodies to consult with scientific, technical, and other experts. The draft Implementation Plan provides for the development of a CMSP Handbook, which will provide specific suggestions and recommendations to maximize these engagement and consultation efforts, including establishment of regional advisory committees as provided for in the Executive Order.

The Administration should clarify that it will not be the purpose of Regional Planning Bodies to override the duties of regional fishery management councils.

The Executive Order expressly provides that Federal agencies will implement NOC-certified CMS Plans consistent with existing statutory authority, including the Magnuson-Stevens Act. Regional planning bodies will be established to develop these plans. They do not have any legal

authority or mandate that would override the statutory or regulatory duties of any existing entity, including Regional Fishery Management Councils.

Several commenters advocated that a formal role for non-governmental stakeholders is needed.

The CMSP Framework provides that the regional planning bodies are inherently intergovernmental bodies. The Framework, however, recognizes that substantial and meaningful public and stakeholder engagement is essential to the success of CMSP. Accordingly, essential elements of the CMSP process require engagement with the public and stakeholders throughout the CMSP process, and consultation with scientific, technical, and other experts. Each region has substantial flexibility in meeting these requirements, with options ranging from formal structures such as establishment of a Federal advisory committee (identified as Regional Advisory Committees in the Executive Order) to informal engagement mechanisms. Action 3 in the Coastal and Marine Spatial Planning section (pp xx) calls for the development of a CMSP handbook, which will provide recommendations and guidance to regional planning bodies in meeting these requirements.

Appendix: List of Acronyms

ANSTF	Aquatic Nuisance Species Task Force
APG	Arctic Policy Group
ARC	Arctic Research Commission
ARPA	Arctic Research Policy Act of 1984
ARRT	Alaska Regional Response Team
BMP	Best management practice
BOEM	Bureau of Ocean Energy Management
BSEE	Bureau of Safety and Environmental Enforcement
CDC	Centers for Disease Control and Prevention
CEQ	White House Council on Environmental Quality
CMECS	Coastal and Marine Ecological Classification Standards
CMSP	Coastal and Marine Spatial Planning
CWRP	Corporate Wetlands Restoration Partnership
DBO	Distributed Biological Observatory
DHS	Department of Homeland Security
DNI	Director of National Intelligence
DOC	Department of Commerce
DOD	Department of Defense
DOE	Department of Energy
DOI	Department of the Interior
DOJ	Department of Justice
DOL	Department of Labor
DOS	Department of State

DOT	Department of Transportation
DPC	Domestic Policy Council
EA	Environmental Assessment
EBM	Ecosystem-based management
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
ERMA®	Environmental Response Management Application
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FACA	Federal Advisory Committee Act
FDA	U.S. Food and Drug Administration
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FY	Fiscal Year
GHG	Greenhouse gas
GIS	Geographic Information System
GLRI	Great Lakes Restoration Initiative
GTS	Global Telecommunications System
HAB	Harmful algal bloom
HAPC	Habitat Area of Particular Concern
HEW	Health Early Warning
HF	High frequency
HHS	Department of Health and Human Services
HSPD	Homeland Security Presidential Directive

IARPC	Interagency Arctic Research Policy Committee
IC	Interagency Committee
ICCOPR	Interagency Coordination Committee on Oil Pollution Research
IC-OCM	Interagency Committee for Ocean and Coastal Mapping
IEA	Integrated Ecosystem Assessment
IMS	Information Management System
IOOC	Interagency Ocean Observation Committee
IOOS®	Integrated Ocean Observing System
IPC	Interagency Policy Committee
IWG	Interagency Working Group
IWG-FI	Interagency Working Group on Facilities and Infrastructure
IWG-OA	Interagency Working Group on Ocean Acidification
IWG-OSS	Interagency Working Group for Ocean Social Science
IWG-OE	Interagency Working Group on Ocean Education
JCS	Joint Chiefs of Staff
LCC	Landscape Conservation Cooperative
LME	Large Marine Ecosystem
LiDAR	Light Detection and Ranging
MARAD	Maritime Administration
MF	Medium frequency
MPA	Marine protected area
MRBI	Mississippi River Basin Healthy Watersheds Initiative
NASA	National Aeronautics and Space Administration
NEC	National Economic Council
NEPA	National Environmental Policy Act

NFHP	National Fish Habitat Partnership
NFWF	National Fish and Wildlife Foundation
NGO	Non-governmental organization
NISC	National Invasive Species Council
NOAA	National Oceanic and Atmospheric Administration
NOC	National Ocean Council
NOP	National Ocean Policy
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NRTS&T	National Response Team Science and Technology Committee
NSF	National Science Foundation
NSPD	National Security Presidential Directives
NSS	National Security Staff
OA-IWG	Ocean Acidification Interagency Working Group
OCM	Ocean and Coastal Mapping
OHMSETT	National Oil Spill Response Research & Renewable Energy Test Facility
OOI	Ocean Observations Initiative
OMB	Office of Management and Budget
ORM- IPC	Ocean Resource Management Interagency Policy Committee
OST-IPC	Ocean Science and Technology Interagency Policy Committee
OSTP	White House Office of Science and Technology Policy
OVP	Office of the Vice President
PARS	Port Access Route Studies

PSP	Puget Sound Partnership
PCW	Polar Communication and Weather
PORTS	Physical Oceanographic Real-time System
ROPs	Regional ocean and Great Lakes partnerships
SCUBA	Self contained underwater breathing apparatus
SEL	Site Evaluation List
STEM	Science, Technology, Engineering, and Mathematics
TFUS	Task Force on Unmanned Systems
UHF	Ultra high frequency
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USCG	U.S. Coast Guard
USCRTF	U.S. Coral Reef Task Force
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGCRP	U.S. Global Change Research Program
USGS	U.S. Geological Survey
VHF	Very high frequency
WAMS	Waterway Analysis and Management System



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

Council Coordination Committee
Washington, DC
January 25, 2012

Michael Weiss
Acting Director
National Ocean Council Office

Jeff Luster
Ocean Policy Advisor
National Ocean Council Office

National Ocean Policy Update

- ✓ Established inter-jurisdictional Governance Coordinating Committee
- ✓ Launch of ocean.data.gov
- ✓ Draft Implementation Plan
- ✓ Coastal and Marine Spatial Planning



Coastal and Marine Spatial Planning

- ✓ National Coastal and Marine Spatial Planning Workshop & release of the Workshop Report
- ✓ Upcoming Regional Workshops
- ✓ CMSP Interim Handbook
- ✓ Regional Planning Body Guidance Development
 - RPBs and Regional Fishery Management Councils



RFMC Membership on RPBs

- The National Ocean Council will extend RPB membership to Federal, State, Tribal, and local government officials serving as voting members on the RFMCs, recognizing that the RPBs are inherently intergovernmental committees
- Each RFMC would identify one of its Federal, State, tribal, or local government voting members to serve as a voting member on the geographically associated RPB
- The RFMC may provide support as necessary— including attendance of non-Federal, State, tribal, or local government RFMC members or RFMC staff at RPB meetings



Coordination on Scientific and Technical Matters

- Each RPB will also establish a standing technical committee comprised of the RFMC scientific and technical experts
 - This will ensure availability to and consideration by the RPB of facts and information developed by the RFMC relevant to fishery management and coastal and marine spatial planning
- The standing technical committee is exempt from FACA



EU8

Questions

“America's stewardship of the ocean, our coasts, and the Great Lakes is intrinsically 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.”

President Barack Obama

Executive Order 13547



National Ocean Policy -- Update



THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

*Final Recommendations
Of The
Interagency Ocean Policy
Task Force
July 19, 2010*

- National Ocean Council
- 9 National Priority Objectives (e.g., EBM)
- Framework for Coastal and Marine Spatial Planning (CMSP)

CMSP: A Regional Planning Process

Regional Planning Bodies

State, Tribal, and Federal representatives with authorities relevant to CMSP

CMSP Process

CMS Plan

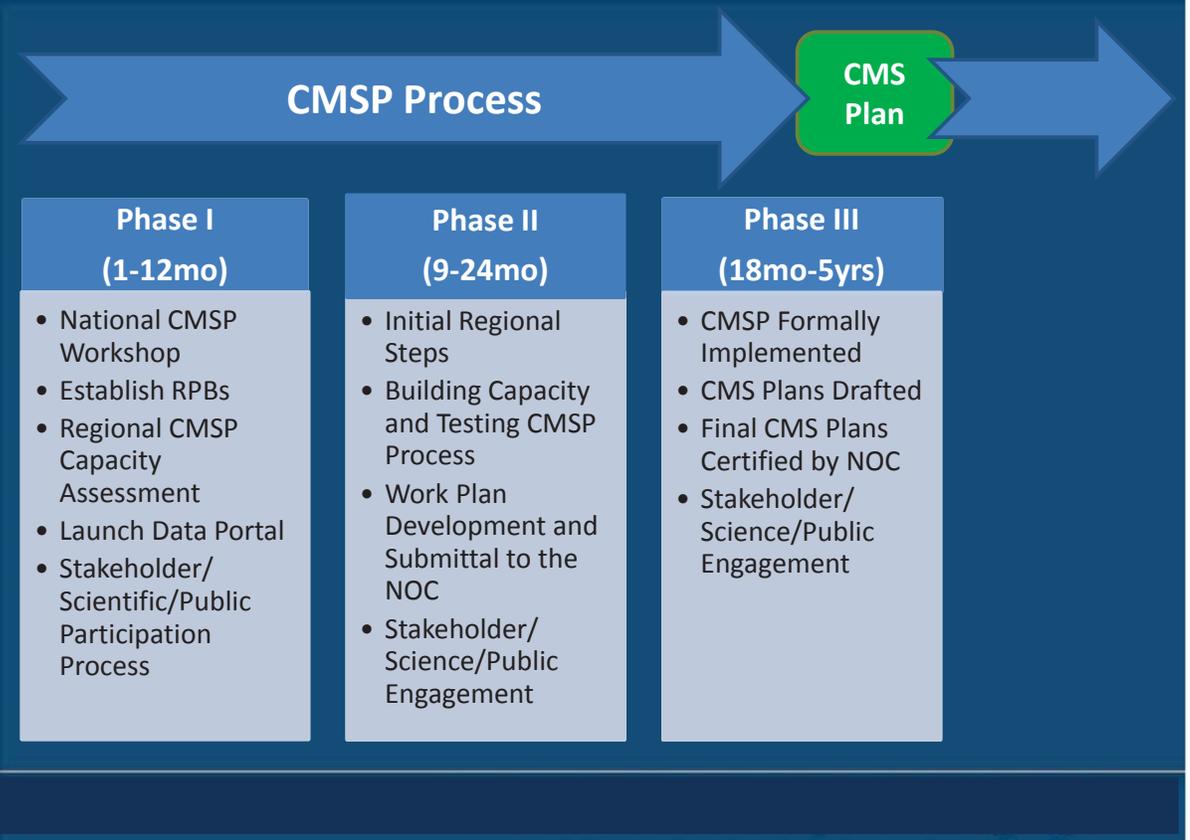
Coordination/Engagement

- Local Authorities
- Indigenous Community Reps

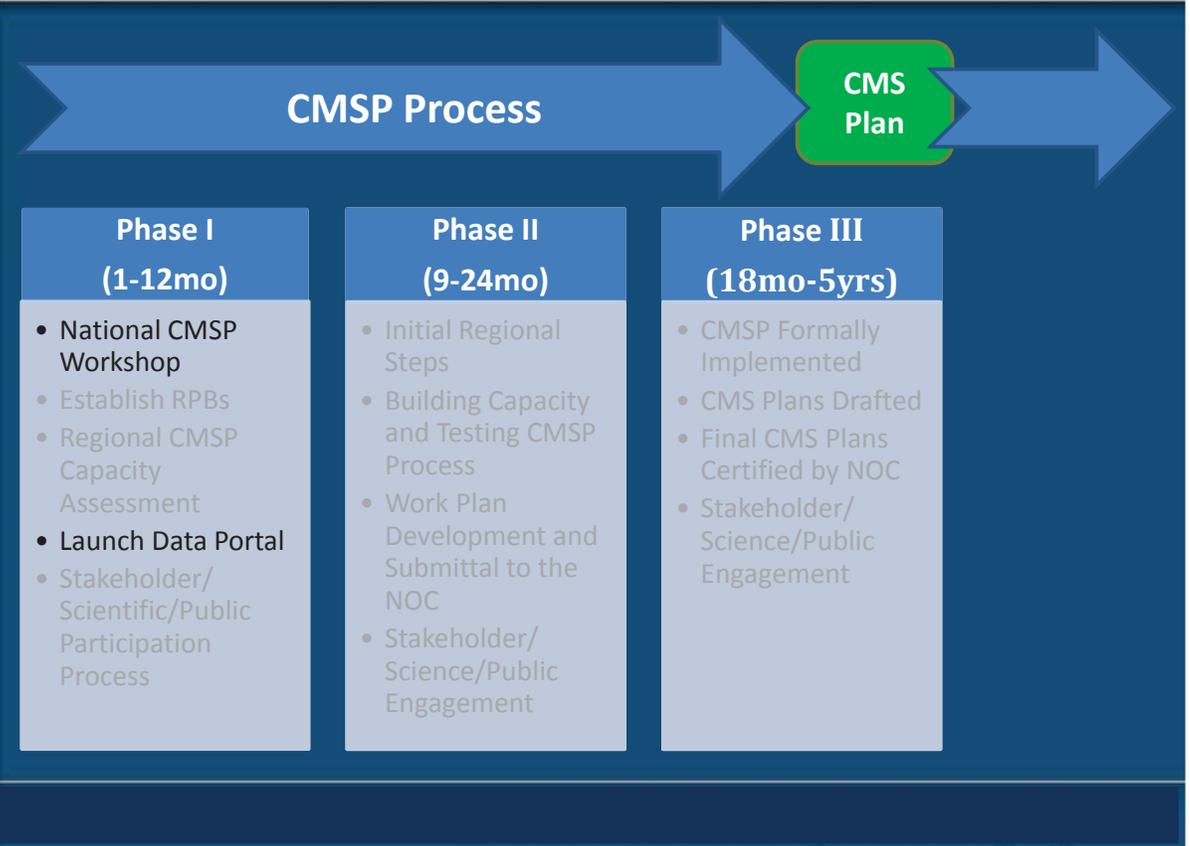
Engagement

- Stakeholders
- Scientists & Technical Experts
- Public

Framework: A Regional Planning Process



Framework: A Regional Planning Process





Formation of Regional Planning Bodies

When

- Invitation letters and guidance on membership will be sent to governors and tribes on a tiered basis (NE, Mid-Atlantic in March/April, other regions later when ready)

Membership

- Federal, State, and Tribal Representation
- Each RPB will have Federal, State and Tribal co-leads
- **Representation from fishery councils approved**

What

- Each RPBs will prepare a CMS Plan for their region
- CMSP will be stakeholder-informed
- CMSP will be science based



National Ocean Policy: Progress

National CMSP Workshop held in June, 2011

- 500 participants—federal, state, tribal, local governmental agencies, community leaders, stakeholders, public, etc.
- Final summary report published online:
www.whitehouse.gov/administration/eop/oceans

NOP Strategic Action Plan Listening Sessions

- Held nationwide—for west coast, Ocean Shores (WA), San Francisco (CA), Portland (OR) in Summer 2011

NOP Implementation Plan drafted

- Released for public comment from January - March 2012; complete final draft by end of May 2012



National Ocean Policy: Progress

Data Portal Prototype developed for CMSP

- Provides accessible data information and tools to support ocean planning efforts (www.data.gov/ocean)

CMSP Handbook being developed by NOC

- Handbook will provide additional information to regions to help with regional CMSP implementation.



Recent Changes in CMSP

- Congressional interest in CMSP
- New NOC Director appointed – Deerin Babb-Brott
- Regional Planning Bodies—NOC completing guidance, release expected soon
- NOAA Leadership changes—Eric Schwaab, AA for NMFS, detailed to be Asst. Sec. for Conservation and Management and NOAA's lead for NOP
- NOAA CMSP Program—no specific funding
- CMSP priorities—renewed focus on regional data, tools and services
- Budget reductions across much of NOAA



What now, my perspective:

- Align efforts to make incremental progress
- Initially focus on science, data, decision support
- Leverage existing efforts that complement CMSP
- Focus on high priority regional priorities and determine cost effective stakeholder engagement

National Ocean Policy -- Update



THE WHITE HOUSE COUNCIL ON ENVIRONMENTAL QUALITY

*Final Recommendations
Of The
Interagency Ocean Policy
Task Force
July 19, 2010*

- National Ocean Council
- 9 National Priority Objectives (e.g., EBM)
- Framework for Coastal and Marine Spatial Planning (CMSP)

CMSP: A Regional Planning Process

Regional Planning Bodies

State, Tribal, and Federal representatives with authorities relevant to CMSP

CMSP Process

CMS Plan

Coordination/Engagement

- Local Authorities
- Indigenous Community Reps

Engagement

- Stakeholders
- Scientists & Technical Experts
- Public



Framework: A Regional Planning Process

CMSP Process

CMS
Plan

Phase I (1-12mo)

- National CMSP Workshop
- Establish RPBs
- Regional CMSP Capacity Assessment
- Launch Data Portal
- Stakeholder/Scientific/Public Participation Process

Phase II (9-24mo)

- Initial Regional Steps
- Building Capacity and Testing CMSP Process
- Work Plan Development and Submittal to the NOC
- Stakeholder/Science/Public Engagement

Phase III (18mo-5yrs)

- CMSP Formally Implemented
- CMS Plans Drafted
- Final CMS Plans Certified by NOC
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CMSP Process

CMS
Plan

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Formation of Regional Planning Bodies

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- Focus on high priority regional priorities and determine cost effective stakeholder engagement



LEGISLATIVE MATTERS

The Pacific Fishery Management Council's (Council's) Legislative Committee (Committee) is scheduled to meet Saturday, March 31st at 3:00 p.m. to review a variety of legislative matters of interest to the Council. Council staff has provided a summary of legislation introduced in the 112th U.S. Congress (Agenda Item H.2.a, Attachment 1) for potential review at the April Council meeting. It is anticipated that the Committee will focus the majority of its time discussing H.R. 1837, the Sacramento-San Joaquin Valley Water Reliability Act (Agenda Item H.2.a, Attachment 2). Additional references included in the reference materials is a summary of the bill by the Congressional Research Service (Agenda Item H.2.a, Attachment 3) and as well as a comparison of the original Central Valley Project Improvement Act (CVPIA) and the proposed changes in H.R. 1837 and its amendments (Agenda Item H.2.a, Attachment 4).

On May 11, 2011 U.S. Congressman Devin Nunes (CA) and two cosponsors introduced H.R. 1837, which addresses water use in California's Central Valley Project (CVP) through, among other things, amendments to the CVPIA, changes to the implementation of the Endangered Species Act (ESA), and repeal of the San Joaquin River Restoration Settlement Act. Specific to fishery matters, the bill changes the CVPIA definition of "anadromous fish" to include only native salmon and sturgeon stocks present in the Sacramento and San Joaquin Rivers as of October 30, 1992, prohibits the Secretary of Commerce from distinguishing between natural-spawned and hatchery-spawned or otherwise artificially propagated strains of a species in making ESA determinations, and considers all requirements for the protection and conservation of the species listed under the ESA to be fully met if water projects are operated in a manner consistent with the Bay-Delta Accord of December 15, 1994. Additionally, H.R. 1837 would change the way funds dedicated to river and wildlife restoration would be collected and administered.

H.R. 1837 has raised considerable concerns within the Oregon and California salmon industry, including several former members of the Council and the Council family (Agenda Item H.2.a, Attachment 5). Salmon industry representatives and Mr. Will Stelle, the National Marine Fisheries Service's (NMFS) West Coast Salmon Coordinator and Administrator for NMFS Northwest Regional Office testified in opposition to the bill at a June 2011 hearing held by the U.S. House Subcommittee on Water and Power. Mr. Stelle concluded his testimony by stating that, "If enacted, this law would hasten the decline of salmon in the Central Valley and Delta and negatively impact the Delta ecosystem and the economy of the state of California and the nation."

In her July 5, 2011 letter to Council Executive Director, Dr. Donald McIsaac (Agenda Item H.2.a, Attachment 6), Congresswoman Napolitano acknowledged the economic impacts of the 2008 and 2009 fishery closures enacted by the Council in response to the collapse of Sacramento River fall Chinook stocks and specifically requested Council comments on H.R. 1837's impacts to salmon populations, habitat, fisheries management, and fishermen. In response, Council staff has prepared a summary report on H.R. 1837 that highlights the potential impacts H.R. 1837 could have on Central Valley salmon stocks and the fisheries that depend on them (Agenda Item, H.2.a, Attachment 7).

On February 16, 2012 the U.S. House of Representatives Committee on Natural Resources considered the bill and held a markup session on H.R. 1837 and reported the bill favorably (27-17) to the U.S. House floor. After considerable floor debate on February 29, 2012, H.R. 1837 (as amended) passed the U.S. House of Representative on a vote of 246-175. In early March 2012, the bill was reported in the U.S. Senate where, as of this writing, it has been placed on the U.S. Senate Legislative calendar for consideration.

Council Action:

1. **Consider the recommendations of the Legislative Committee.**
2. **Approve a report to Congresswoman Napolitano regarding H.R. 1837.**

Reference Materials:

1. Agenda Item H.2.a, Attachment 1: April 2012 Staff Summary of Federal Legislation in the 112th U.S. Congress.
2. Agenda Item H.2.a, Attachment 2: H.R. 1837, the Sacramento-San Joaquin Valley Water Reliability Act.
3. Agenda Item H.2.a, Attachment 3: Congressional Research Service Report on H.R. 1837, the Sacramento-San Joaquin Valley Water Reliability Act.
4. Agenda Item H.2.a, Attachment 4: Comparison of CVPIA and H.R. 1837 as amended.
5. Agenda Item H.2.a, Attachment 5: List of Groups Opposed to H.R. 1837 including the Council.
6. Agenda Item H.2.a, Attachment 6: July 5, 2011 formal request for Council comments on H.R. 1837 from U.S. Congresswoman Grace Napolitano.
7. Agenda Item H.2.a, Attachment 7: Draft Council Staff Report on H.R. 1837.
8. Agenda Item H.2.b, Supplemental Legislative Committee Report.

Agenda Order:

- a. Agenda Item Overview
- b. Legislative Committee Report
- c. Reports and Comments of Advisory Bodies and Management Entities
- d. Public Comment
- e. **Council Action:** Consider Legislative Committee Recommendations

Mike Burner
Dave Hanson

PFMC
03/15/12

STAFF SUMMARY OF FEDERAL LEGISLATION IN THE 112TH U.S. CONGRESS

This summary is intended as a general overview for discussion purposes. Full text of these bills, additional summary and background information, and current status can be found by entering the bill number in the search engine at the THOMAS web site of the Library of Congress (<http://thomas.gov>). Portions of this report are derived from summaries provided by the Congressional Research Service of the Library of Congress.

Key Legislation for the April 2012 Legislative Committee (Committee) Meeting

H.R. 1837 Sacramento-San Joaquin Valley Water Reliability Act - Amends the Central Valley Project Improvement Act (CVPIA) to redefine "anadromous fish" for purposes of such Act as those native stocks of salmon and sturgeon that, as of October 30, 1992, were present in the Sacramento and San Joaquin Rivers and their tributaries and ascend those rivers and their tributaries to reproduce after maturing in San Francisco Bay or the Pacific Ocean. Excludes striped bass and American shad from such definition.

Regarding non-native species, the bill would preempt State of California restrictions on the quantity or size of take of non-native species that prey upon on or more native fish species in the Central Valley or the Delta.

Considers all requirements of the Endangered Species Act of 1973 (ESA) to be fully met for the protection and conservation of the species listed pursuant to that Act for the operations of the CVP and the California State Water Project (SWP) if such Projects are operated in a manner consistent with the "Principles for Agreement of the Bay-Delta Standards Between the State of California and the Federal Government" dated December 15, 1994 (Bay-Delta Accord). Preempts California requirements for the conservation of any species listed under ESA for the CVP and SWP that are more restrictive than the 1994 Bay-Delta Accord.

Prohibits the Secretary from distinguishing between natural-spawned and hatchery-spawned or otherwise artificially propagated strains of a species in making ESA determinations.

Directs the Secretary of the Interior, upon request of the contractor, to renew any existing long-term repayment or water service contract that provides for the delivery of water from the CVP for a period of 40 years and renew such contracts for successive 40-year periods. Requires a contract entered into or renewed pursuant to this provision to include a provision that requires the Secretary to charge only for water actually delivered.

Directs the Secretary to take actions to facilitate and expedite CVP water transfers. Prohibits the Secretary from imposing mitigation or other requirements on a proposed transfer. Authorizes the Secretary to modify CVP operations to provide reasonable water flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish.

Prohibits the Secretary from requiring a payment to the CVP Restoration Fund, or environmental restoration or mitigation fees not otherwise provided by law, as a condition to providing for storage or conveyance of non-CVP water. Requires the Secretary to submit a plan for the expenditure of funds in the Fund, including a cost effectiveness analysis of each expenditure. Establishes a Restoration Fund Advisory Board. Preempts any state law that imposes more restrictive requirements or regulations on activities authorized with respect to San Joaquin River restoration.

Introduced May 11, 2011 by Representative Nunes (CA). Referred to the Subcommittee on Water and Power. Hearings held in June 2011.

On February 16, 2012, the U.S. House Subcommittee on Water and Power referred the bill to the U.S. House Committee on Natural Resources for consideration and markup where an amended bill was reported back to the full U.S. House for consideration.

On February 29, 2012, after considerable floor debate, H.R. 1837 (as amended) passed the U.S. House of Representative on a vote of 246-175.

In early March 2012, the bill was reported in the U.S. Senate where, as of this writing, it has been placed on the U.S. Senate Legislative calendar for consideration.

Legislation in 112th Congress Previously Reviewed and Commented on by the Council

Legislation in the U.S. House of Representatives

H.R. 946 Endangered Salmon Predation Prevention Act - Amends the Marine Mammal Protection Act of 1972 to authorize the Secretary of the department in which the National Oceanic and Atmospheric Administration (NOAA) is operating to issue one-year permits for the lethal taking of California sea lions on the waters of the Columbia River or its tributaries if the Secretary determines that alternative measures to reduce sea lion predation on salmonid stocks listed as threatened or endangered under the ESA do not adequately protect such stocks.

Introduced March 8, 2011 by Congressman Hastings, Washington Status: Referred to the Subcommittee on Fisheries, Wildlife, Oceans, and Insular Affairs on March 10th.

Hearings were held on June 14, 2011 and Council comments approved at the June 2011 were submitted via letter from Executive Director, Dr. Donald McIsaac. No Congressional action since.

Other Legislation in 112th Congress of Interest to the Council

Many of the bills listed in the section are focused on amending the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Bills in the U.S. House on this topic were the subject of a hearing on December 1, 2011. Witnesses at the hearing included North Pacific Fishery Management Council Executive Director, Mr. Chris Oliver and Mr. Eric Schwab, then Assistant Administrator, National Marine Fisheries Service.

H.R. 594 Coastal Jobs Creation Act– Directs the Secretary of Commerce to implement a Coastal Jobs Creation Grant Program which shall include: (1) cooperative research to collect and compile economic and social data related to recreational and commercial fisheries management; (2) establishment and implementation of state recreational fishing registry programs; (3) training and deploying observers authorized or required under the Magnuson-Stevens Fishery Conservation and Management Act; (4) preservation or restoration of coastal resources identified for their conservation, recreational, ecological, historic, or aesthetic values; (5) redevelopment of deteriorating and underutilized working waterfronts and ports; (6) research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies; (7) cooperative research to collect data to improve, supplement, or enhance fishery and marine mammal stock assessments; and (8) other specified activities.

Amends the MSA to require the Secretary to enter into contracts with, or provide grants to, states for the purpose of establishing and implementing a registry program to meet the requirements for the exemption from registration of a regional standardized fishing vessel registration and information management system program for state licensed recreational fishermen and charter fishing vessels when the Secretary determines that information from the state program is suitable for the Secretary's use in completing marine recreational fisheries statistical surveys or evaluating the effects of proposed conservation and management measures for marine recreational fisheries.

Introduced February 9, 2011 by Representative Pallone, New Jersey, and referred to the House Committees on Natural Resources and Science, Space and Technology. Hearing held on December 1, 2011.

H.R. 1646 - American Angler Preservation Act - Amends the MSA to require each SSC of the eight Regional Councils to provide ongoing risk neutral scientific advice. Prohibits SSCs from recommending to increase or decrease an annual catch limit by 20% or greater unless the recommendation has been approved in a nongovernmental peer review process. Requires fishery management plans, amendments, or regulations for overfished fisheries to specify a time period for ending overfishing and rebuilding the fishery as short as practicable (under current law, as short as possible). Modifies the exceptions to the requirement that such period not exceed ten years. Related bills include H.R. 3061, the Flexibility and Access in Rebuilding American Fisheries Act of 2011 and S. 632 Flexibility in Rebuilding American Fisheries Act of 2011.

Introduced April 15, 2011 by Congressman Runyan, New Jersey and referred to the House Committee on Natural Resources. Hearing held on December 1, 2011.

H.R. 2304 (S.1916) Fishery Science Improvement Act of 2011 Amends the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 to postpone from fishing year 2011 to 2014 the effective date upon which a mechanism for specifying annual catch limits and accountability measures for fisheries other than those determined by the Secretary of Commerce to be subject to overfishing must be established in fishery management plans prepared by any Regional Fishery Management Council or the Secretary, implementing regulations, or annual specifications.

Makes the catch limit mechanism, for all fisheries, inapplicable to a fishery for any stock of fish: (1) for which a peer reviewed stock survey and stock assessment have not been performed during the five-year period before enactment of this Act and for which the Secretary determines overfishing is not occurring, and (2) that is an ecosystem stock. Defines "ecosystem stock" as a stock of fish determined by the Secretary to be a nontarget stock that is not overfished or likely to become overfished.

Requires the Secretary, within 270 days after determining that a fishery is overfished, to perform a stock survey and stock assessment of each of the overfished stocks in the fishery and transmit the assessment to the appropriate Council.

Introduced June 22, 2011 by Representative Whittman, Virginia, and referred to the House Committee on Natural Resources. Hearings held December 1, 2011.

H.R. 2610 Asset Forfeiture Fund Reform and Distribution Act of 2011 -- Amends the MSA to require the Secretary of Commerce (Secretary) or the Secretary of the Treasury, after September 30, 2011, to use each of the sums received as fines, penalties, and forfeitures of property for violations of any provisions of such Act, or of any other fishery resource law enforced by the Secretary, to make a payment to: (1) the state in which the violation occurred, (2) the state in which the vessel involved in the violation is homeported if the violation did not occur in a state, or (3) the state most directly affected by a violation neither occurring in a state nor involving a vessel. (Current law authorizes using such sums for certain civil and criminal enforcement costs.)

Directs states to use such amounts for specified research and monitoring activities.

Sets forth transitional rules authorizing the Secretary to use such amounts received before October 1, 2011, to reimburse appropriate legal fees and costs, up to \$200,000 per person, to specified persons the Secretary directed to receive a remittance of at least a portion of a fisheries enforcement penalty.

Introduced July 21, 2011 by Representative Frank, Massachusetts, and referred to the House Committee on Natural Resources. Hearings held December 1, 2011.

H.R. 2753 Fishery Management Transparency and Accountability Act— Amends Section 302(i)(2) of the to require regional fishery management councils to provide on their web sites a live broadcast of each meeting of the Council, the Science and Statistical Committee, and the Council Coordination Committee and to provide three years worth of audio and/or video recordings as well as transcripts.

Introduced August 1, 2011 by Representative Jones, North Carolina, and referred to the House Committee on Natural Resources. Hearings held December 1, 2011.

H.R. 2772 Saving Fishing Jobs Act of 2011— This bill is not directly applicable to the Pacific Council, but contains provisions of interest to limited access privilege programs. Amends the Magnuson-Stevens Fishery Conservation and Management Act, with respect to multispecies fishing permits in the Gulf of Mexico, to remove a provision limiting the eligible signers (a group of fishermen constituting more than 50% of the permit holders, or holding more than 50% of the allocation in the fishery) of a petition to the Secretary of Commerce requesting that the

relevant Regional Fishery Management Council or Councils be authorized to initiate the development of a limited access privilege program to only those participants who have substantially fished the species proposed to be included in the program.

Introduced August 1, 2011 by Representative Runyon, New Jersey, and referred to the House Committee on Natural Resources. Hearings held December 1, 2011.

Legislation in the U.S. Senate

S.46 Coral Reef Conservation Amendments Act of 2011 – A bill to increase protective measures for the Nation’s coral reefs through amendment of the Coral Reef Conservation Act of 2000 and the development of a national coral reef ecosystem action strategy.

Introduced January 25, 2011 by Senator Inouye, Hawaii and referred to the U.S. Senate Committee on Commerce, Science, and Transportation.

On May 5, 2011, the Committee on Commerce, Science, and Transportation ordered the bill be reported to the full Senate without amendment favorably. No new activity at the time of this report.

S.50 Commercial Seafood Consumer Protection Act – A bill to strengthen Federal consumer product safety programs and activities with respect to commercially marketed seafood by directing the Secretary of Commerce to coordinate with the Federal Trade Commission and other appropriate Federal agencies to strengthen and coordinate those programs and activities.

Introduced January 25, 2011 by Senator Inouye, Hawaii and referred to the U.S. Senate Committee on Commerce, Science, and Transportation.

On January 26, 2012 the bill was reported without amendment by the Committee on Commerce, Science and Transportation and entered on the calendar for consideration by the full U.S. Senate.

S. 52 International Fisheries Stewardship and Enforcement Act - A bill to establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes including implement the Antigua Convention. Includes the Antigua Convention Implementing Act of 2011 that amends the Tuna Conventions Act of 1950 to revise provisions regarding: (1) the Inter-American Tropical Tuna Commission; (2) the General Advisory Committee; (3) the Scientific Advisory Subcommittee; (4) prohibited acts; and (5) enforcement.

Introduced January 25, 2011 by Senator Inouye, Hawaii and referred to the U.S. Senate Committee on Commerce, Science, and Transportation.

On May 5, 2011, the Committee on Commerce, Science, and Transportation ordered the bill be reported to the full Senate without amendment favorably.

On January 26, 2012 the bill was reported without amendment by the Committee on Commerce, Science and Transportation and entered on the calendar for consideration by the full U.S. Senate.

The Committee and the Council reviewed a similar bill in the 11th Congress (see Agenda Item K.1.b, Supplemental Legislative Committee Report, April 2010).

S.171 West Coast Ocean Protection Act of 2011 - A bill to amend the Outer Continental Shelf Lands Act to permanently prohibit the conduct of offshore drilling on the outer Continental Shelf off the coast of California, Oregon, and Washington.

Introduced January 25, 2011 by Senator Boxer, California and cosponsored by the other five U.S. Senators from the West Coast States. The bill has been referred to the U.S. Senate Committee on Energy and Natural Resources. No new activity.

S.229 and S.230 Pertaining to genetically-engineered fish - Bills to amend the Federal Food, Drug, and Cosmetic Act to require labeling (S.229) or prevent the approval of (S.230) genetically-engineered fish. Similar legislation has been introduced in the U.S. House.

Introduced January 25, 2011 by Senator Begich, Alaska and referred to the U.S. Senate Committee on Health, Education, Labor, and Pensions. No new activity.

S.238 FISH Act of 2011 - A bill to amend the MSA to require that Fishery Impact Statements (1) be prepared by an objective person (prohibits U.S. government officers, employees, or entities) selected by the Comptroller General; and (2) determine if the fishery management plan or amendment is consistent with specified national standards for fishery conservation and management, including whether the relevant measures provide for the sustained participation of fishing communities and minimize adverse economic impacts.

Introduced January 31, 2011 by Senator Brown, Massachusetts and referred to the U.S. Senate Committee on Commerce, Science, and Transportation. No new activity.

S.632 Flexibility in Rebuilding American Fisheries Act of 2011 - Amends the MSA to require fishery management plans, amendments, or regulations for overfished fisheries to specify a time period for ending overfishing and rebuilding the fishery that is as short as practicable (under current law, as short as possible). Modifies the exceptions to the requirement that such period not exceed ten years.

Introduced March 17, 2011, by Senator Schumer, New York and referred to referred to the U.S. Senate Committee on Commerce, Science, and Transportation. Similar bill introduced in the U.S. House. Similar bills have been introduced in previous Congresses and reviewed by the Committee. No new activity.

S.1451 (H.R.2706) Billfish Conservation Act of 2011 - Prohibits any person from offering billfish or billfish products for sale, selling them, or having custody, control, or possession of them for purposes of offering them for sale or selling them.

Treats a violation of this Act as an act prohibited by the MSA. Subjects a person to a maximum civil penalty of \$100,000 for each violation, with each day of a continuing violation constituting a separate offense. Exempts the state of Hawaii and the Pacific Insular Area, except that billfish may be sold under such exemption only in Hawaii and the Pacific Insular Area.

Defines "billfish" as any of the following: (1) blue marlin, (2) striped marlin, (3) black marlin, (4) sailfish, (5) shortbill spearfish, (6) white marlin, (7) roundscale spearfish, (8) Mediterranean spearfish, or (9) longbill spearfish. Excludes swordfish from such definition.

Introduced July 29, 2011, by Senator Vitter, Louisiana and referred to the U.S. Senate Committee on Commerce, Science, and Transportation.

S.2184 Fisheries Investment and Regulatory Relief Act of 2012 – Amends the Saltonstall-Kennedy Act to create a fund dedicated to supporting scientific research, monitoring, and data collection programs that are important to sustainable fishery management. Each regions fishery management Council would be required to establish a fishery investment committee charged with developing a fishery investment plan to establish a grant process for distribution of funds to eligible projects in support of fishery management.

Introduced March 12, 2012, by Senator Kerry, Massachusetts and referred the U.S. Senate Committee on Commerce, Science, and Transportation.

PFMC
03/15/12

Calendar No. 332

112TH CONGRESS
2D SESSION

H. R. 1837

IN THE SENATE OF THE UNITED STATES

MARCH 1, 2012

Received

MARCH 2, 2012

Read the first time

MARCH 5, 2012

Read the second time and placed on the calendar

AN ACT

To address certain water-related concerns on the San
Joaquin River, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) SHORT TITLE.—This Act may be cited as the
5 “Sacramento-San Joaquin Valley Water Reliability Act”.

6 (b) TABLE OF CONTENTS.—The table of contents for
7 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—CENTRAL VALLEY PROJECT WATER RELIABILITY

- Sec. 101. Amendment to purposes.
- Sec. 102. Amendment to definition.
- Sec. 103. Contracts.
- Sec. 104. Water transfers, improved water management, and conservation.
- Sec. 105. Fish, wildlife, and habitat restoration.
- Sec. 106. Restoration fund.
- Sec. 107. Additional authorities.
- Sec. 108. Bay-Delta Accord.
- Sec. 109. Natural and artificially spawned species.
- Sec. 110. Authorized service area.
- Sec. 111. Regulatory streamlining.

TITLE II—SAN JOAQUIN RIVER RESTORATION

- Sec. 201. Repeal of the San Joaquin River settlement.
- Sec. 202. Purpose.
- Sec. 203. Definitions.
- Sec. 204. Implementation of restoration.
- Sec. 205. Disposal of property; title to facilities.
- Sec. 206. Compliance with applicable law.
- Sec. 207. Compliance with Central Valley Project Improvement Act.
- Sec. 208. No private right of action.
- Sec. 209. Implementation.
- Sec. 210. Repayment contracts and acceleration of repayment of construction costs.
- Sec. 211. Repeal.
- Sec. 212. Water supply mitigation.
- Sec. 213. Additional Authorities.

TITLE III—REPAYMENT CONTRACTS AND ACCELERATION OF REPAYMENT OF CONSTRUCTION COSTS

- Sec. 301. Repayment contracts and acceleration of repayment of construction costs.

TITLE IV—BAY-DELTA WATERSHED WATER RIGHTS PRESERVATION AND PROTECTION

- Sec. 401. Water rights and area-of-origin protections.
- Sec. 402. Sacramento River settlement contracts.
- Sec. 403. Sacramento River Watershed Water Service Contractors.
- Sec. 404. No redirected adverse impacts.

TITLE V—MISCELLANEOUS

- Sec. 501. Precedent.

1 **TITLE I—CENTRAL VALLEY**
 2 **PROJECT WATER RELIABILITY**
 3 **SEC. 101. AMENDMENT TO PURPOSES.**

4 Section 3402 of the Central Valley Project Improve-
 5 ment Act (106 Stat. 4706) is amended—

1 (1) in subsection (f), by striking the period at
2 the end; and

3 (2) by adding at the end the following:

4 “(g) to ensure that water dedicated to fish and wild-
5 life purposes by this title is replaced and provided to Cen-
6 tral Valley Project water contractors by December 31,
7 2016, at the lowest cost reasonably achievable; and

8 “(h) to facilitate and expedite water transfers in ac-
9 cordance with this Act.”.

10 **SEC. 102. AMENDMENT TO DEFINITION.**

11 Section 3403 of the Central Valley Project Improve-
12 ment Act (106 Stat. 4707) is amended—

13 (1) by amending subsection (a) to read as fol-
14 lows:

15 “(a) the term ‘anadromous fish’ means those native
16 stocks of salmon (including steelhead) and sturgeon that,
17 as of October 30, 1992, were present in the Sacramento
18 and San Joaquin Rivers and their tributaries and ascend
19 those rivers and their tributaries to reproduce after matur-
20 ing in San Francisco Bay or the Pacific Ocean;”;

21 (2) in subsection (l), by striking “and,”

22 (3) in subsection (m), by striking the period
23 and inserting “; and”, and

24 (4) by adding at the end the following:

1 “(n) the term ‘reasonable flows’ means water flows
2 capable of being maintained taking into account com-
3 peting consumptive uses of water and economic, environ-
4 mental, and social factors.”.

5 **SEC. 103. CONTRACTS.**

6 Section 3404 of the Central Valley Project Improve-
7 ment Act (106 Stat. 4708) is amended—

8 (1) in the heading, by striking “**LIMITATION**
9 **ON CONTRACTING AND CONTRACT REFORM**”
10 and inserting “**CONTRACTS**”; and

11 (2) by striking the language of the section and
12 by adding:

13 “(a) **RENEWAL OF EXISTING LONG-TERM CON-**
14 **TRACTS.**—Upon request of the contractor, the Secretary
15 shall renew any existing long-term repayment or water
16 service contract that provides for the delivery of water
17 from the Central Valley Project for a period of 40 years.

18 “(b) **ADMINISTRATION OF CONTRACTS.**—Except as
19 expressly provided by this Act, any existing long-term re-
20 payment or water service contract for the delivery of water
21 from the Central Valley Project shall be administered pur-
22 suant to the Act of July 2, 1956 (70 Stat. 483).

23 “(c) **DELIVERY CHARGE.**—Beginning on the date of
24 the enactment of this Act, a contract entered into or re-
25 newed pursuant to this section shall include a provision

1 that requires the Secretary to charge the other party to
2 such contract only for water actually delivered by the Sec-
3 retary.”.

4 **SEC. 104. WATER TRANSFERS, IMPROVED WATER MANAGE-**
5 **MENT, AND CONSERVATION.**

6 Section 3405 of the Central Valley Project Improve-
7 ment Act (106 Stat. 4709) is amended as follows:

8 (1) In subsection (a)—

9 (A) by inserting before “Except as pro-
10 vided herein” the following: “The Secretary
11 shall take all necessary actions to facilitate and
12 expedite transfers of Central Valley Project
13 water in accordance with this Act or any other
14 provision of Federal reclamation law and the
15 National Environmental Policy Act of 1969.”;

16 (B) in paragraph (1)(A), by striking “to
17 combination” and inserting “or combination”;

18 (C) in paragraph (2), by adding at the end
19 the following:

20 “(E) The contracting district from which
21 the water is coming, the agency, or the Sec-
22 retary shall determine if a written transfer pro-
23 posal is complete within 45 days after the date
24 of submission of such proposal. If such district
25 or agency or the Secretary determines that such

1 proposal is incomplete, such district or agency
2 or the Secretary shall state with specificity
3 what must be added to or revised in order for
4 such proposal to be complete.

5 “(F) Except as provided in this section,
6 the Secretary shall not impose mitigation or
7 other requirements on a proposed transfer, but
8 the contracting district from which the water is
9 coming or the agency shall retain all authority
10 under State law to approve or condition a pro-
11 posed transfer.”; and

12 (D) by adding at the end the following:

13 “(4) Notwithstanding any other provision of
14 Federal reclamation law—

15 “(A) the authority to make transfers or ex-
16 changes of, or banking or recharge arrange-
17 ments using, Central Valley Project water that
18 could have been conducted before October 30,
19 1992, is valid, and such transfers, exchanges,
20 or arrangements shall not be subject to, limited,
21 or conditioned by this title; and

22 “(B) this title shall not supersede or re-
23 voke the authority to transfer, exchange, bank,
24 or recharge Central Valley Project water that
25 existed prior to October 30, 1992.”.

1 (2) In subsection (b)—

2 (A) in the heading, by striking “METER-
3 ING” and inserting “MEASUREMENT”; and

4 (B) by inserting after the first sentence
5 the following: “The contracting district or agen-
6 cy, not including contracting districts serving
7 multiple agencies with separate governing
8 boards, shall ensure that all contractor-owned
9 water delivery systems within its boundaries
10 measure surface water at the district or agen-
11 cy’s facilities up to the point the surface water
12 is commingled with other water supplies.”.

13 (3) By striking subsection (d).

14 (4) By redesignating subsections (e) and (f) as
15 subsections (d) and (e), respectively.

16 (5) By amending subsection (e)(as redesignated
17 by paragraph (4))—

18 (A) by striking “as a result of the in-
19 creased repayment” and inserting “that exceed
20 the cost-of-service”;

21 (B) by inserting “the delivery of” after
22 “rates applicable to”; and

23 (C) by striking “, and all increased reve-
24 nues received by the Secretary as a result of the

1 increased water prices established under sub-
2 section 3405(d) of this section.”.

3 **SEC. 105. FISH, WILDLIFE, AND HABITAT RESTORATION.**

4 Section 3406 of the Central Valley Project Improve-
5 ment Act (106 Stat. 4714) is amended as follows:

6 (1) In subsection (b)—

7 (A) in paragraph (1)(B)—

8 (i) by striking “is authorized and di-
9 rected to” and inserting “may”;

10 (ii) by inserting “reasonable water”
11 after “to provide”;

12 (iii) by striking “anadromous fish, ex-
13 cept that such” and inserting “anad-
14 romous fish. Such”;

15 (iv) by striking “Instream flow” and
16 inserting “Reasonable instream flow”;

17 (v) by inserting “and the National
18 Marine Fisheries Service” after “United
19 States Fish and Wildlife Service”; and

20 (vi) by striking “California Depart-
21 ment of Fish and Game” and inserting
22 “United States Geological Survey”;

23 (B) in paragraph (2)—

24 (i) by striking “primary purpose” and
25 inserting “purposes”;

1 (ii) by striking “but not limited to”
2 before “additional obligations”; and

3 (iii) by adding after the period the fol-
4 lowing: “All Central Valley Project water
5 used for the purposes specified in this
6 paragraph shall be credited to the quantity
7 of Central Valley Project yield dedicated
8 and managed under this paragraph by de-
9 termining how the dedication and manage-
10 ment of such water would affect the deliv-
11 ery capability of the Central Valley Project
12 during the 1928 to 1934 drought period
13 after fishery, water quality, and other flow
14 and operational requirements imposed by
15 terms and conditions existing in licenses,
16 permits, and other agreements pertaining
17 to the Central Valley Project under appli-
18 cable State or Federal law existing on Oc-
19 tober 30, 1992, have been met. To the full-
20 est extent possible and in accordance with
21 section 3411, Central Valley Project water
22 dedicated and managed pursuant to this
23 paragraph shall be reused to fulfill the
24 Secretary’s remaining contractual obliga-
25 tions to provide Central Valley Project

1 water for agricultural or municipal and in-
2 dustrial purposes.”;

3 (C) by amending paragraph (2)(C) to read:

4 “(C) If by March 15th of any year the
5 quantity of Central Valley Project water fore-
6 casted to be made available to water service or
7 repayment contractors in the Delta Division of
8 the Central Valley Project is below 75 percent
9 of the total quantity of water to be made avail-
10 able under said contracts, the quantity of Cen-
11 tral Valley Project yield dedicated and managed
12 for that year under this paragraph shall be re-
13 duced by 25 percent.”.

14 (2) By adding at the end the following:

15 “(i) SATISFACTION OF PURPOSES.—
16 By pursuing the activities described in this
17 section, the Secretary shall be deemed to
18 have met the mitigation, protection, res-
19 toration, and enhancement purposes of this
20 title.”.

21 **SEC. 106. RESTORATION FUND.**

22 (a) IN GENERAL.—Section 3407(a) of the Central
23 Valley Project Improvement Act (106 Stat. 4726) is
24 amended as follows:

1 (1) By inserting “(1) IN GENERAL.—” before
2 “‘There is hereby”.

3 (2) By striking “Not less than 67 percent” and
4 all that follows through “Monies” and inserting
5 “Monies”.

6 (3) By adding at the end the following:

7 “(2) PROHIBITIONS.—The Secretary may not directly
8 or indirectly require a donation or other payment to the
9 Restoration Fund—

10 “(A) or environmental restoration or mitigation
11 fees not otherwise provided by law, as a condition
12 to—

13 “(i) providing for the storage or convey-
14 ance of non-Central Valley Project water pursu-
15 ant to Federal reclamation laws; or

16 “(ii) the delivery of water pursuant to sec-
17 tion 215 of the Reclamation Reform Act of
18 1982 (Public Law 97–293; 96 Stat. 1270); or

19 “(B) for any water that is delivered with the
20 sole intent of groundwater recharge.”.

21 (b) CERTAIN PAYMENTS.—Section 3407(c)(1) of the
22 Central Valley Project Improvement Act is amended—

23 (1) by striking “mitigation and restoration”;

24 (2) by striking “provided for or”; and

1 (3) by striking “of fish, wildlife” and all that
2 follows through the period and inserting “of carrying
3 out all activities described in this title.”.

4 (c) ADJUSTMENT AND ASSESSMENT OF MITIGATION
5 AND RESTORATION PAYMENTS.—Section 3407(d)(2) of
6 the Central Valley Project Improvement Act is amended
7 by inserting “, or after October 1, 2013, \$4 per megawatt-
8 hour for Central Valley Project power sold to power con-
9 tractors (October 2013 price levels)” after “\$12 per acre-
10 foot (October 1992 price levels) for municipal and indus-
11 trial water sold and delivered by the Central Valley
12 Project”.

13 (d) COMPLETION OF ACTIONS.—Section
14 3407(d)(2)(A) of the Central Valley Project Improvement
15 Act is amended by inserting “no later than December 31,
16 2020,” after “That upon the completion of the fish, wild-
17 life, and habitat mitigation and restoration actions man-
18 dated under section 3406 of this title,”.

19 (e) REPORT; ADVISORY BOARD.—Section 3407 of the
20 Central Valley Project Improvement Act (106 Stat. 4714)
21 is amended by adding at the end the following:

22 “(g) REPORT ON EXPENDITURE OF FUNDS.—At the
23 end of each fiscal year, the Secretary, in consultation with
24 the Restoration Fund Advisory Board, shall submit to
25 Congress a plan for the expenditure of all of the funds

1 deposited into the Restoration Fund during the preceding
2 fiscal year. Such plan shall contain a cost-effectiveness
3 analysis of each expenditure.

4 “(h) ADVISORY BOARD.—

5 “(1) ESTABLISHMENT.—There is hereby estab-
6 lished the Restoration Fund Advisory Board (herein-
7 after in this section referred to as the ‘Advisory
8 Board’) composed of 12 members selected by the
9 Secretary, each for four-year terms, one of whom
10 shall be designated by the Secretary as Chairman.
11 The members shall be selected so as to represent the
12 various Central Valley Project stakeholders, four of
13 whom shall be from CVP agricultural users, three
14 from CVP municipal and industrial users, three
15 from CVP power contractors, and two at the discre-
16 tion of the Secretary. The Secretary and the Sec-
17 retary of Commerce may each designate a represent-
18 ative to act as an observer of the Advisory Board.

19 “(2) DUTIES.—The duties of the Advisory
20 Board are as follows:

21 “(A) To meet at least semiannually to de-
22 velop and make recommendations to the Sec-
23 retary regarding priorities and spending levels
24 on projects and programs carried out pursuant
25 to the Central Valley Project Improvement Act.

1 “(B) To ensure that any advice or rec-
2 ommendation made by the Advisory Board to
3 the Secretary reflect the independent judgment
4 of the Advisory Board.

5 “(C) Not later than December 31, 2013,
6 and annually thereafter, to transmit to the Sec-
7 retary and Congress recommendations required
8 under subparagraph (A).

9 “(D) Not later than December 31, 2013,
10 and biennially thereafter, to transmit to Con-
11 gress a report that details the progress made in
12 achieving the actions mandated under section
13 3406 of this title.

14 “(3) ADMINISTRATION.—With the consent of
15 the appropriate agency head, the Advisory Board
16 may use the facilities and services of any Federal
17 agency.”.

18 **SEC. 107. ADDITIONAL AUTHORITIES.**

19 (a) AUTHORITY FOR CERTAIN ACTIVITIES.—Section
20 3408(c) of the Central Valley Project Improvement Act
21 (106 Stat. 4728) is amended to read as follows:

22 “(c) CONTRACTS FOR ADDITIONAL STORAGE AND
23 DELIVERY OF WATER.—

24 “(1) IN GENERAL.—The Secretary is authorized
25 to enter into contracts pursuant to Federal reclama-

1 tion law and this title with any Federal agency, Cali-
2 fornia water user or water agency, State agency, or
3 private organization for the exchange, impoundment,
4 storage, carriage, and delivery of nonproject water
5 for domestic, municipal, industrial, fish and wildlife,
6 and any other beneficial purpose.

7 “(2) LIMITATION.—Nothing in this subsection
8 shall be deemed to supersede the provisions of sec-
9 tion 103 of Public Law 99–546 (100 Stat. 3051).

10 “(3) AUTHORITY FOR CERTAIN ACTIVITIES.—
11 The Secretary shall use the authority granted by
12 this subsection in connection with requests to ex-
13 change, impound, store, carry, or deliver nonproject
14 water using Central Valley Project facilities for any
15 beneficial purpose.

16 “(4) RATES.—The Secretary shall develop rates
17 not to exceed the amount required to recover the
18 reasonable costs incurred by the Secretary in con-
19 nection with a beneficial purpose under this sub-
20 section. Such rates shall be charged to a party using
21 Central Valley Project facilities for such purpose.
22 Such costs shall not include any donation or other
23 payment to the Restoration Fund.

24 “(5) CONSTRUCTION.—This subsection shall be
25 construed and implemented to facilitate and encour-

1 age the use of Central Valley Project facilities to ex-
2 change, impound, store, carry, or deliver nonproject
3 water for any beneficial purpose.”.

4 (b) REPORTING REQUIREMENTS.—Section 3408(f) of
5 the Central Valley Project Improvement Act (106 Stat.
6 4729) is amended—

7 (1) by striking “Interior and Insular Affairs
8 and the Committee on Merchant Marine and Fish-
9 eries” and inserting “Natural Resources”;

10 (2) in the second sentence, by inserting before
11 the period at the end the following: “, including
12 progress on the plan required by subsection (j)”;

13 (3) by adding at the end the following: “The fil-
14 ing and adequacy of such report shall be personally
15 certified to the Committees referenced above by the
16 Regional Director of the Mid-Pacific Region of the
17 Bureau of Reclamation.”.

18 (c) PROJECT YIELD INCREASE.—Section 3408(j) of
19 the Central Valley Project Improvement Act (106 Stat.
20 4730) is amended as follows:

21 (1) By redesignating paragraphs (1) through
22 (7) as subparagraphs (A) through (G), respectively.

23 (2) By striking “In order to minimize adverse
24 effects, if any, upon” and inserting “(1) IN GEN-
25 ERAL.—In order to minimize adverse effects upon”.

1 (3) By striking “needs, the Secretary,” and all
2 that follows through “submit to the Congress, a”
3 and inserting “needs, the Secretary, on a priority
4 basis and not later than September 30, 2013, shall
5 submit to Congress a”.

6 (4) By striking “increase,” and all that follows
7 through “options:” and inserting “increase, as soon
8 as possible but not later than September 30, 2016
9 (except for the construction of new facilities which
10 shall not be limited by that deadline), the water of
11 the Central Valley Project by the amount dedicated
12 and managed for fish and wildlife purposes under
13 this title and otherwise required to meet the pur-
14 poses of the Central Valley Project including satis-
15 fying contractual obligations. The plan required by
16 this subsection shall include recommendations on ap-
17 propriate cost-sharing arrangements and authorizing
18 legislation or other measures needed to implement
19 the intent, purposes, and provisions of this sub-
20 section and a description of how the Secretary in-
21 tends to use the following options—”.

22 (5) In subparagraph (A), by inserting “and
23 construction of new water storage facilities” before
24 the semicolon.

1 (6) In subparagraph (F), by striking “and” at
2 the end.

3 (7) In subparagraph (G), by striking the period
4 and all that follows through the end of the sub-
5 section and inserting “; and”.

6 (8) By inserting after subparagraph (G) the fol-
7 lowing:

8 “(H) Water banking and recharge.”.

9 (9) By adding at the end the following:

10 “(2) IMPLEMENTATION OF PLAN.—The Sec-
11 retary shall implement the plan required by para-
12 graph (1) commencing on October 1, 2013. In order
13 to carry out this subsection, the Secretary shall co-
14 ordinate with the State of California in imple-
15 menting measures for the long-term resolution of
16 problems in the San Francisco Bay/Sacramento-San
17 Joaquin Delta Estuary.

18 “(3) FAILURE OF THE PLAN.—Notwithstanding
19 any other provision of Federal reclamation law, if by
20 September 30, 2016, the plan required by paragraph
21 (1) fails to increase the annual delivery capability of
22 the Central Valley Project by 800,000 acre-feet, im-
23 plementation of any non-mandatory action under
24 section 3406(b)(2) shall be suspended until the plan

1 achieves an increase in the annual delivery capability
2 of the Central Valley Project by 800,000 acre-feet.”.

3 (d) TECHNICAL CORRECTION.—Section 3408(h) of
4 the Central Valley Project Improvement Act (106 Stat.
5 4729) is amended—

6 (1) in paragraph (1), by striking “paragraph
7 (h)(2)” and inserting “paragraph (2)”; and

8 (2) in paragraph (2), by striking “paragraph
9 (h)(i)” and inserting “paragraph (1)”.

10 (e) WATER STORAGE PROJECT CONSTRUCTION.—

11 The Secretary, acting through the Commissioner of the
12 Bureau of Reclamation, may partner or enter into an
13 agreement on the water storage projects identified in sec-
14 tion 103(d)(1) of the Water Supply Reliability, and Envi-
15 ronmental Improvement Act (Public Law 108–361)(and
16 Acts supplemental and amendatory to the Act) with local
17 joint powers authorities formed pursuant to State law by
18 irrigation districts and other local water districts and local
19 governments within the applicable hydrologic region, to
20 advance these projects. No additional Federal funds are
21 authorized for the activities authorized in sections
22 103(d)(1)(A)(i), 103(d)(1)(A)(ii), and 103(d)(1)(A)(iii) of
23 Public Law 108–361. However, each water storage project
24 under sections 103(d)(1)(A)(i), 103(d)(1)(A)(ii), and
25 103(d)(1)(A)(iii) of Public Law 108–361 is authorized for

1 construction if non-Federal funds are used for financing
2 and constructing the project.

3 **SEC. 108. BAY-DELTA ACCORD.**

4 (a) CONGRESSIONAL DIRECTION REGARDING CEN-
5 TRAL VALLEY PROJECT AND CALIFORNIA STATE WATER
6 PROJECT OPERATIONS.—The Central Valley Project and
7 the State Water Project shall be operated pursuant to the
8 water quality standards and operational constraints de-
9 scribed in the “Principles for Agreement on the Bay-Delta
10 Standards Between the State of California and the Fed-
11 eral Government” dated December 15, 1994, and such op-
12 erations shall proceed without regard to the Endangered
13 Species Act of 1973 (16 U.S.C. 1531 et seq.) or any other
14 law pertaining to the operation of the Central Valley
15 Project and the California State Water Project. Imple-
16 mentation of this section shall be in strict conformance
17 with the “Principles for Agreement on the Bay-Delta
18 Standards Between the State of California and the Fed-
19 eral Government” dated December 15, 1994.

20 (b) APPLICATION OF LAWS TO OTHERS.—Neither a
21 Federal department nor the State of California, including
22 any agency or board of the State of California, shall im-
23 pose on any water right obtained pursuant to State law,
24 including a pre-1914 appropriative right, any condition
25 that restricts the exercise of that water right in order to

1 conserve, enhance, recover or otherwise protect any species
2 that is affected by operations of the Central Valley Project
3 or California State Water Project. Nor shall the State of
4 California, including any agency or board of the State of
5 California, restrict the exercise of any water right obtained
6 pursuant to State law, including a pre-1914 appropriative
7 right, in order to protect, enhance, or restore under the
8 Public Trust Doctrine any public trust value. Implementa-
9 tion of the “Principles for Agreement on the Bay-Delta
10 Standards Between the State of California and the Fed-
11 eral Government” dated December 15, 1994, shall be in
12 strict compliance with the water rights priority system and
13 statutory protections for areas of origin.

14 (c) COSTS.—No cost associated with the implementa-
15 tion of this section shall be imposed directly or indirectly
16 on any Central Valley Project contractor, or any other per-
17 son or entity, unless such costs are incurred on a voluntary
18 basis.

19 (d) NATIVE SPECIES PROTECTION.—California law is
20 preempted with respect to any restriction on the quantity
21 or size of nonnative fish taken or harvested that preys
22 upon one or more native fish species that occupy the Sac-
23 ramento and San Joaquin Rivers and their tributaries or
24 the Sacramento-San Joaquin Rivers Delta.

1 **SEC. 109. NATURAL AND ARTIFICIALLY SPAWNED SPECIES.**

2 After the date of the enactment of this title, and re-
3 gardless of the date of listing, the Secretaries of the Inte-
4 rior and Commerce shall not distinguish between natural-
5 spawned and hatchery-spawned or otherwise artificially
6 propagated strains of a species in making any determina-
7 tion under the Endangered Species Act of 1973 (16
8 U.S.C. 1531 et seq.) that relates to any anadromous fish
9 species present in the Sacramento and San Joaquin Rivers
10 or their tributaries and ascend those rivers and their trib-
11 utaries to reproduce after maturing in San Francisco Bay
12 or the Pacific Ocean.

13 **SEC. 110. AUTHORIZED SERVICE AREA.**

14 The authorized service area of the Central Valley
15 Project shall include the area within the boundaries of the
16 Kettleman City Community Services District, California,
17 as those boundaries exist on the date of the enactment
18 of this title. Notwithstanding the provisions of the Act of
19 October 30, 1992 (Public Law 102-575, 106 Stat. 4600
20 et seq.), upon enactment of this title, the Secretary is au-
21 thorized and directed to enter into a long-term contract
22 in accordance with the reclamation laws with the
23 Kettleman City Community Services District, California,
24 for the delivery of up to 900 acre-feet of Central Valley
25 Project water for municipal and industrial use. The Sec-
26 retary may temporarily reduce deliveries of the quantity

1 of water made available pursuant to up to 25 percent of
2 such total whenever reductions due to hydrologic cir-
3 cumstances are imposed upon agricultural deliveries of
4 Central Valley Project water. If any additional infrastruc-
5 ture or related-costs are needed to implement this section,
6 such costs shall be the responsibility of the non-Federal
7 entity.

8 **SEC. 111. REGULATORY STREAMLINING.**

9 (a) **APPLICABILITY OF CERTAIN LAWS.**—Filing of a
10 Notice of Determination or a Notice of Exemption for any
11 project, including the issuance of a permit under State
12 law, related to any project of the CVP or the delivery of
13 water therefrom in accordance with the California Envi-
14 ronmental Quality Act shall be deemed to meet the re-
15 quirements of section 102(2)(C) of the National Environ-
16 mental Protection Act of 1969 (42 U.S.C. 4332(2)(C)) for
17 that project or permit.

18 (b) **CONTINUATION OF PROJECT.**—The Bureau of
19 Reclamation shall not be required to cease or modify any
20 major Federal action or other activity related to any
21 project of the CVP or the delivery of water there from
22 pending completion of judicial review of any determination
23 made under the National Environmental Protection Act
24 of 1969 (42 U.S.C. 4332(2)(C)).

1 (c) PROJECT DEFINED.—For the purposes of this
2 section:

3 (1) CVP.—The term “CVP” means the Central
4 Valley Project.

5 (2) PROJECT.—The term “project”—

6 (A) means an activity that—

7 (i) is undertaken by a public agency,
8 funded by a public agency, or that requires
9 an issuance of a permit by a public agency;

10 (ii) has a potential to result in phys-
11 ical change to the environment; and

12 (iii) may be subject to several discre-
13 tionary approvals by governmental agen-
14 cies;

15 (B) may include construction activities,
16 clearing or grading of land, improvements to
17 existing structures, and activities or equipment
18 involving the issuance of a permit; or

19 (C) as defined under the California Envi-
20 ronmental Quality Act in section 21065 of the
21 California Public Resource Code.

1 **TITLE II—SAN JOAQUIN RIVER**
2 **RESTORATION**

3 **SEC. 201. REPEAL OF THE SAN JOAQUIN RIVER SETTLE-**
4 **MENT.**

5 As of the date of enactment of this title, the Secretary
6 shall cease any action to implement the Stipulation of Set-
7 tlement (Natural Resources Defense Council, et al. v. Kirk
8 Rodgers, et al., Eastern District of California, No. Civ.
9 S–88–1658 LKK/GGH).

10 **SEC. 202. PURPOSE.**

11 Section 10002 of the San Joaquin River Restoration
12 Settlement Act (Public Law 111–11) is amended by strik-
13 ing “implementation of the Settlement” and inserting
14 “restoration of the San Joaquin River”.

15 **SEC. 203. DEFINITIONS.**

16 Section 10003 of the San Joaquin River Restoration
17 Settlement Act (Public Law 111–11) is amended—

18 (1) by striking paragraph (1) and inserting the
19 following:

20 “(1) The term ‘Restoration Flows’ means the
21 additional water released or bypassed from Friant
22 Dam to insure that the target flow entering
23 Mendota Pool, located approximately 62 river miles
24 downstream from Friant Dam, does not fall below
25 50 cubic feet per second.”;

1 (2) by striking paragraph (3) and inserting the
2 following:

3 “(3) The term ‘Water Year’ means March 1
4 through the last day of February of the following
5 Calendar Year, both dates inclusive.”; and

6 (3) by adding at the end the following new
7 paragraph:

8 “(4) The term ‘Critical Water Year’ means
9 when the total unimpaired runoff at Friant Dam is
10 less than 400,000 acre-feet, as forecasted as of
11 March 1 of that water year by the California De-
12 partment of Water Resources.”.

13 **SEC. 204. IMPLEMENTATION OF RESTORATION.**

14 Section 10004 of the San Joaquin River Restoration
15 Settlement Act (Public Law 111–11) is amended—

16 (1) in subsection (a)—

17 (A) in the matter preceding paragraph (1),
18 by striking “authorized and directed” and all
19 that follows through “in the Settlement:” and
20 inserting “authorized to carry out the fol-
21 lowing:”;

22 (B) by striking paragraphs (1), (2), (4),
23 and (5);

24 (C) in paragraph (3)—

1 (i) by striking “(3)” and inserting
2 “(1)”; and

3 (ii) by striking “paragraph 13 of the
4 Settlement” and inserting “this part”; and

5 (D) by adding at the end the following new
6 paragraphs:

7 “(2) In each Water Year, commencing in the
8 Water Year starting on March 1, 2013—

9 “(A) shall modify Friant Dam operations
10 so as to release the Restoration Flows for that
11 Water Year, except in any Critical Water Year;

12 “(B) shall ensure that the release of Res-
13 toration Flows are maintained at the level pre-
14 scribed by this part, but that Restoration Flows
15 do not reach downstream of Mendota Pool;

16 “(C) shall release the Restoration Flows in
17 a manner that improves the fishery in the San
18 Joaquin River below Friant Dam, but upstream
19 of Gravelly Ford in existence as of the date of
20 the enactment of this part, and the associated
21 riparian habitat; and

22 “(D) may, without limiting the actions re-
23 quired under paragraphs (A) and (C) and sub-
24 ject to subsections 10004(a)(3) and 10004(l),
25 use the Restoration Flows to enhance or restore

1 a warm water fishery downstream of Gravelly
2 Ford to and including Mendota Pool, if the Sec-
3 retary determines that it is reasonable, prudent,
4 and feasible to do so; and

5 “(3) Not later than 1 year after the date of the
6 enactment of this section, the Secretary shall develop
7 and implement, in cooperation with the State of
8 California, a reasonable plan, to fully recirculate, re-
9 capture, reuse, exchange, or transfer all Restoration
10 Flows and provide such recirculated, recaptured, re-
11 used, exchanged, or transferred flows to those con-
12 tractors within the Friant Division, Hidden Unit,
13 and Buchanan Unit of the Central Valley Project
14 that relinquished the Restoration Flows so recir-
15 culated, recaptured, reused, exchanged, or trans-
16 ferred. Such a plan shall address any impact on
17 ground water resources within the service area of
18 the Friant Division, Hidden Unit, and Buchanan
19 Unit of the Central Valley Project and mitigation
20 may include ground water banking and recharge
21 projects. Such a plan shall not impact the water
22 supply or water rights of any entity outside the
23 Friant Division, Hidden unit, and Buchanan Unit of
24 the Central Valley Project. Such a plan shall be sub-
25 ject to applicable provisions of California water law

1 and the Secretary’s use of Central Valley Project fa-
2 cilities to make Project water (other than water re-
3 leased from Friant Dam pursuant to this part) and
4 water acquired through transfers available to exist-
5 ing south-of-Delta Central Valley Project contrac-
6 tors.”;

7 (2) in subsection (b)—

8 (A) in paragraph (1), by striking “the Set-
9 tlement” and inserting “this part”; and

10 (B) in paragraph (2), by striking “the Set-
11 tlement” and inserting “this part”;

12 (3) in subsection (c), by striking “the Settle-
13 ment” and inserting “this part”;

14 (4) by striking subsection (d) and inserting the
15 following:

16 “(d) MITIGATION OF IMPACTS.—Prior to October 1,
17 2013, the Secretary shall identify—

18 “(1) the impacts associated with the release of
19 Restoration Flows prescribed in this part;

20 “(2) the measures which shall be implemented
21 to mitigate impacts on adjacent and downstream
22 water users, landowners and agencies as a result of
23 Restoration Flows prescribed in this part; and

24 “(3) prior to the implementation of decisions or
25 agreements to construct, improve, operate, or main-

1 tain facilities that the Secretary determines are
2 needed to implement this part, the Secretary shall
3 implement all mitigations measures identified in sub-
4 section (d)(2) before Restoration Flows are com-
5 menced.”;

6 (5) in subsection (e), by striking “the Settle-
7 ment” and inserting “this part”;

8 (6) in subsection (f), by striking “the Settle-
9 ment” and all that follows through “section 10011”
10 and insert “this part”;

11 (7) in subsection (g)—

12 (A) by striking “the Settlement and” be-
13 fore this part; and

14 (B) by striking “or exchange contract” and
15 inserting “exchange contract, or water rights
16 settlement or holding contracts”;

17 (8) in subsection (h)—

18 (A) by striking “INTERIM” in the header;

19 (B) in paragraph (1)—

20 (i) in the matter preceding subpara-
21 graph (A), by striking “Interim Flows
22 under the Settlement” and inserting “Res-
23 toration Flows under this part”;

24 (ii) in subparagraph (C)—

1 (I) in clause (i), by striking “In-
2 terim” and inserting “Restoration”;
3 and

4 (II) in clause (ii), by inserting
5 “and” after the semicolon;

6 (iii) in subparagraph (D), by striking
7 “and” at the end; and

8 (iv) by striking subparagraph (E);

9 (C) in paragraph (2)—

10 (i) by striking “Interim” and insert-
11 ing “Restoration”;

12 (ii) by striking subparagraph (A); and

13 (iii) by striking “(B) exceed” and in-
14 serting “exceed”;

15 (D) in paragraph (3), by striking “In-
16 terim” and inserting “Restoration”; and

17 (E) by striking paragraph (4) and insert-
18 ing the following:

19 “(4) CLAIMS.—Within 60 days of enactment of
20 this Act the Secretary shall promulgate a rule estab-
21 lishing a claims process to address current and fu-
22 ture claims including, but not limited to, ground
23 water seepage, flooding, or levee instability damages
24 caused as a result of, arising out of, or related to

1 implementation of subtitle A of title X of Public
2 Law 111–11.”;

3 (9) in subsection (i)—

4 (A) in paragraph (1)—

5 (i) in the matter preceding subpara-
6 graph (A), by striking “the Settlement and
7 parts I and III” and inserting “this part”;

8 (ii) in subparagraph (A), by inserting
9 “and” after the semicolon;

10 (iii) in subparagraph (B)—

11 (I) by striking “additional
12 amounts authorized to be appro-
13 priated, including the”; and

14 (II) by striking “; and” and in-
15 serting a period; and

16 (iv) by striking subparagraph (C); and

17 (B) by striking paragraph (3); and

18 (10) by adding at the end the following new
19 subsections:

20 “(k) NO IMPACTS ON OTHER INTERESTS.—No Cen-
21 tral Valley Project or other water other than San Joaquin
22 River water impounded by or bypassed from Friant Dam
23 shall be used to implement subsection (a)(2) unless such
24 use is on a voluntary basis. No cost associated with the
25 implementation of this section shall be imposed directly

1 or indirectly on any Central Valley Project contractor, or
2 any other person or entity, outside the Friant Division,
3 the Hidden Unit, or the Buchanan Unit, unless such costs
4 are incurred on a voluntary basis. The implementation of
5 this part shall not result directly or indirectly in any re-
6 duction in water supplies or water reliability on any Cen-
7 tral Valley Project contractor, any State Water Project
8 contractor, or any other person or entity, outside the
9 Friant Division, the Hidden Unit, or the Buchanan Unit,
10 unless such reductions or costs are incurred on a voluntary
11 basis.

12 “(l) PRIORITY.—All actions taken under this part
13 shall be subordinate to the Secretary’s use of Central Val-
14 ley Project facilities to make Project water available to
15 Project contractors, other than water released from the
16 Friant Dam pursuant to this part.

17 “(m) IN GENERAL.—Notwithstanding section 8 of
18 the Reclamation Act of 1902, except as provided in this
19 part, including title IV of the Sacramento and San Joa-
20 quin Valleys Water Reliability Act, this part preempts and
21 supersedes any State law, regulation, or requirement that
22 imposes more restrictive requirements or regulations on
23 the activities authorized under this part. Nothing in this
24 part shall alter or modify the obligations, if any, of the
25 Friant Division, Hidden Unit, and Buchanan Unit of the

1 Central Valley Project, or other water users on the San
2 Joaquin River or its tributaries, under orders issued by
3 the State Water Resources Control Board pursuant to the
4 Porter-Cologne Water Quality Control Act (California
5 Water Code sections 13000 et seq.). Any such order shall
6 be consistent with the congressional authorization for any
7 affected Federal facility as it pertains to the Central Val-
8 ley Project.

9 “(n) PROJECT IMPLEMENTATION.—Projects to im-
10 plement this title shall be phased such that each project
11 shall follow the sequencing identified below and include at
12 least the—

13 “(1) project purpose and need;

14 “(2) identification of mitigation measures;

15 “(3) appropriate environmental review; and

16 “(4) prior to releasing Restoration Flows under
17 this part, the Secretary shall—

18 “(A) complete the implementation of miti-
19 gation measures required; and

20 “(B) complete implementation of the
21 project.”.

22 **SEC. 205. DISPOSAL OF PROPERTY; TITLE TO FACILITIES.**

23 Section 10005 of the San Joaquin River Restoration
24 Settlement Act (Public Law 111–11) is amended—

1 (1) in subsection (a), by striking “the Settle-
2 ment authorized by this part” and inserting “this
3 part”;

4 (2) in subsection (b)—

5 (A) in paragraph (1)—

6 (i) by striking “(1) IN GENERAL.—
7 The Secretary” and inserting “The Sec-
8 retary”; and

9 (ii) by striking “the Settlement au-
10 thorized by this part” and inserting “this
11 part”; and

12 (B) by striking paragraph (2); and

13 (3) in subsection (c)—

14 (A) in paragraph (1), by striking “the Set-
15 tlement” and inserting “this part”;

16 (B) in paragraph (2)—

17 (i) by striking “through the exercise
18 of its eminent domain authority”; and

19 (ii) by striking “the Settlement” and
20 inserting “this part”; and

21 (C) in paragraph (3), by striking “section
22 10009(c)” and inserting “section 10009”.

23 **SEC. 206. COMPLIANCE WITH APPLICABLE LAW.**

24 Section 10006 of the San Joaquin River Restoration
25 Settlement Act (Public Law 111–11) is amended—

1 (1) in subsection (a)—

2 (A) in paragraph (1), by inserting “unless
3 otherwise provided by this part” before the pe-
4 riod at the end; and

5 (B) in paragraph (2), by striking “the Set-
6 tlement” and inserting “this part”;

7 (2) in subsection (b), by inserting “, unless oth-
8 erwise provided by this part” before the period at
9 the end;

10 (3) in subsection (c)—

11 (A) in paragraph (2), by striking “section
12 10004” and inserting “this part”; and

13 (B) in paragraph (3), by striking “the Set-
14 tlement” and inserting “this part”; and

15 (4) in subsection (d)—

16 (A) by inserting “, including without limi-
17 tation to sections 10004(d) and 10004(h)(4) of
18 this part,” after “implementing this part”; and

19 (B) by striking “for implementation of the
20 Settlement”.

21 **SEC. 207. COMPLIANCE WITH CENTRAL VALLEY PROJECT**

22 **IMPROVEMENT ACT.**

23 Section 10007 of the San Joaquin River Restoration
24 Settlement Act (Public Law 111–11) is amended—

25 (1) in the matter preceding paragraph (1),

1 (A) by striking “the Settlement” and in-
2 serting “enactment of this part”; and

3 (B) by inserting: “and the obligations of
4 the Secretary and all other parties to protect
5 and keep in good condition any fish that may
6 be planted or exist below Friant Dam including
7 any obligations under section 5937 of the Cali-
8 fornia Fish and Game Code and the public
9 trust doctrine, and those of the Secretary and
10 all other parties under the Endangered Species
11 Act of 1973 (16 U.S.C. 1531 et seq.)” before
12 “, provided”; and

13 (2) in paragraph (1), by striking “, as provided
14 in the Settlement”.

15 **SEC. 208. NO PRIVATE RIGHT OF ACTION.**

16 Section 10008(a) of the San Joaquin River Restora-
17 tion Settlement Act (Public Law 111–11) is amended—

18 (1) by striking “not a party to the Settlement”
19 after “person or entity”; and

20 (2) by striking “or the Settlement” before the
21 period and inserting “unless otherwise provided by
22 this part. Any Central Valley Project long-term
23 water service or repayment contractor within the
24 Friant Division, Hidden unit, or Buchanan Unit ad-
25 versely affected by the Secretary’s failure to comply

1 with section 10004(a)(3) of this part may bring an
2 action against the Secretary for injunctive relief or
3 damages, or both.”.

4 **SEC. 209. IMPLEMENTATION.**

5 Section 10009 of the San Joaquin River Restoration
6 Settlement Act (Public Law 111–11) is amended—

7 (1) in the header by striking “; **SETTLEMENT**
8 **FUND**”;

9 (2) in subsection (a)—

10 (A) in paragraph (1)—

11 (i) by striking “the Settlement” the
12 first place it appears and inserting “this
13 part”;

14 (ii) by striking “, estimated to total”
15 and all that follows through “subsection
16 (b)(1),”; and

17 (iii) by striking “provided however,”
18 and all that follows through
19 “\$110,000,000 of State funds”;

20 (B) in paragraph (2)—

21 (i) in subparagraph (A), by striking
22 “(A) IN GENERAL.—The Secretary” and
23 inserting “The Secretary”;

24 (ii) by striking subparagraph (B); and

25 (C) in paragraph (3)—

1 (i) by striking “Except as provided in
2 the Settlement, to” and inserting “To”;
3 and

4 (ii) by striking “this Settlement” and
5 inserting “this part”;

6 (3) in subsection (b)(1)—

7 (A) by striking “In addition” through
8 “however, that the” and inserting “The”;

9 (B) by striking “such additional appropria-
10 tions only in amounts equal to”; and

11 (C) by striking “or the Settlement” before
12 the period;

13 (4) in subsection (c)—

14 (A) in paragraph (1)—

15 (i) in the matter preceding subpara-
16 graph (A), by striking “the Settlement”
17 and inserting “this part”;

18 (ii) in subparagraph (C), by striking
19 “from the sale of water pursuant to the
20 Settlement, or”; and

21 (iii) in subparagraph (D), by striking
22 “the Settlement” and inserting “this
23 part”;

24 (B) in paragraph (2), by striking “the Set-
25 tlement and” before “this part”; and

1 (5) by striking subsections (d) through (f).

2 **SEC. 210. REPAYMENT CONTRACTS AND ACCELERATION OF**
3 **REPAYMENT OF CONSTRUCTION COSTS.**

4 Section 10010 of the San Joaquin River Restoration
5 Settlement Act (Public Law 111–11) is amended—

6 (1) in subsection (a)—

7 (A) in paragraph (3)(D), by striking “the
8 Settlement and” before “this part”; and

9 (B) in paragraph (4)(C), by striking “the
10 Settlement and” before “this part”;

11 (2) in subsection (c), by striking paragraph (3);

12 (3) in subsection (d)(1), by striking “the Settle-
13 ment” in both places it appears and inserting “this
14 part”;

15 (4) in subsection (e)—

16 (A) in paragraph (1)—

17 (i) by striking “Interim Flows or Res-
18 toration Flows, pursuant to paragraphs 13
19 or 15 of the Settlement” and inserting
20 “Restoration Flows, pursuant to this
21 part”;

22 (ii) by striking “Interim Flows or” be-
23 fore “Restoration Flows”; and

24 (iii) by striking “the Interim Flows or
25 Restoration Flows or is intended to other-

1 wise facilitate the Water Management
2 Goal, as described in the Settlement” and
3 inserting “Restoration Flows”; and

4 (B) in paragraph (2)—

5 (i) by striking “except as provided in
6 paragraph 16(b) of the Settlement” after
7 “Friant Division long-term contractor”;
8 and

9 (ii) by striking “the Interim Flows or
10 Restoration Flows or to facilitate the
11 Water Management Goal” and inserting
12 “Restoration Flows”.

13 **SEC. 211. REPEAL.**

14 Section 10011 of the San Joaquin River Restoration
15 Settlement Act (Public Law 111–11) is repealed.

16 **SEC. 212. WATER SUPPLY MITIGATION.**

17 Section 10202(b) of the San Joaquin River Restora-
18 tion Settlement Act (Public Law 111–11) is amended—

19 (1) in paragraph (1), by striking “the Interim
20 or Restoration Flows authorized in part I of this
21 subtitle” and inserting “Restoration Flows author-
22 ized in this part”;

23 (2) in paragraph (2), by striking “the Interim
24 or Restoration Flows authorized in part I of this

1 subtitle” and inserting “Restoration Flows author-
2 ized in this part”; and

3 (3) in paragraph (3)—

4 (A) in subparagraph (A), by striking
5 “meet the Restoration Goal as described in part
6 I of this subtitle” and inserting “recover Res-
7 toration Flows as described in this part”;

8 (B) in subparagraph (C)—

9 (i) by striking “the Interim or Res-
10 toration Flows authorized in part I of this
11 subtitle” and inserting “Restoration Flows
12 authorized in this part”; and

13 (ii) by striking “, and for ensuring ap-
14 propriate adjustment in the recovered
15 water account pursuant to section
16 10004(a)(5)”.

17 **SEC. 213. ADDITIONAL AUTHORITIES.**

18 Section 10203 of the San Joaquin River Restoration
19 Settlement Act (Public Law 111–11) is amended—

20 (1) in subsection (b)—

21 (A) by striking “section 10004(a)(4)” and
22 inserting “section 10004(a)(3)”; and

23 (B) by striking “, provided” and all that
24 follows through “section 10009(f)(2)”; and

25 (2) by striking subsection (c).

1 **TITLE III—REPAYMENT CON-**
2 **TRACTS AND ACCELERATION**
3 **OF REPAYMENT OF CON-**
4 **STRUCTION COSTS**

5 **SEC. 301. REPAYMENT CONTRACTS AND ACCELERATION OF**
6 **REPAYMENT OF CONSTRUCTION COSTS.**

7 (a) CONVERSION OF CONTRACTS.—

8 (1) Not later than 1 year after enactment, the
9 Secretary of the Interior, upon request of the con-
10 tractor, shall convert all existing long-term Central
11 Valley Project contracts entered under subsection (e)
12 of section 9 of the Act of August 4, 1939 (53 Stat.
13 1196), to a contract under subsection (d) of section
14 9 of said Act (53 Stat. 1195), under mutually agree-
15 able terms and conditions.

16 (2) Upon request of the contractor, the Sec-
17 retary is further authorized to convert, not later
18 than 1 year after enactment, any Central Valley
19 Project long-term contract entered under subsection
20 (c)(2) of section 9 of the Act of August 4, 1939 (53
21 Stat. 1194), to a contract under subsection (c)(1) of
22 section 9 of said Act, under mutually agreeable
23 terms and conditions.

24 (3) All contracts entered into pursuant to para-
25 graph (1) shall—

1 (A) require the repayment, either in lump
2 sum or by accelerated prepayment, of the re-
3 remaining amount of construction costs identified
4 in the most current version of the Central Val-
5 ley Project Schedule of Irrigation Capital Allo-
6 cations by Contractor, as adjusted to reflect
7 payments not reflected in such schedule, and
8 properly assignable for ultimate return by the
9 contractor, no later than January 31, 2013, or
10 if made in approximately equal annual install-
11 ments, no later than January 31, 2016; such
12 amount to be discounted by the Treasury Rate.
13 An estimate of the remaining amount of con-
14 struction costs as of January 31, 2013, as ad-
15 justed, shall be provided by the Secretary of the
16 Interior to each contractor no later than 180
17 days after enactment;

18 (B) require that, notwithstanding sub-
19 section (c)(2), construction costs or other cap-
20 italized costs incurred after the effective date of
21 the converted contract or not reflected in the
22 schedule referenced in subparagraph (A), and
23 properly assignable to such contractor, shall be
24 repaid in not more than 5 years after notifica-
25 tion of the allocation if such amount is a result

1 of a collective annual allocation of capital costs
2 to the contractors exercising contract conver-
3 sions under this subsection of less than
4 \$5,000,000. If such amount is \$5,000,000 or
5 greater, such cost shall be repaid as provided by
6 applicable reclamation law, provided that the
7 reference to the amount of \$5,000,000 shall not
8 be a precedent in any other context; and

9 (C) provide that power revenues will not be
10 available to aid in repayment of construction
11 costs allocated to irrigation under the contract.

12 (4) All contracts entered into pursuant to para-
13 graph (2) shall—

14 (A) require the repayment in lump sum of
15 the remaining amount of construction costs
16 identified in the most current version of the
17 Central Valley Project Schedule of Municipal
18 and Industrial Water Rates, as adjusted to re-
19 flect payments not reflected in such schedule,
20 and properly assignable for ultimate return by
21 the contractor, no later than January 31, 2016.
22 An estimate of the remaining amount of con-
23 struction costs as of January 31, 2016, as ad-
24 justed, shall be provided by the Secretary of the

1 Interior to each contractor no later than 180
2 days after enactment; and

3 (B) require that, notwithstanding sub-
4 section (c)(2), construction costs or other cap-
5 italized costs incurred after the effective date of
6 the contract or not reflected in the schedule ref-
7 erenced in subparagraph (A), and properly as-
8 signable to such contractor, shall be repaid in
9 not more than 5 years after notification of the
10 allocation if such amount is a result of a collec-
11 tive annual allocation of capital costs to the
12 contractors exercising contract conversions
13 under this subsection of less than \$5,000,000.
14 If such amount is \$5,000,000 or greater, such
15 cost shall be repaid as provided by applicable
16 reclamation law, provided that the reference to
17 the amount of \$5,000,000 shall not be a prece-
18 dent in any other context.

19 (b) FINAL ADJUSTMENT.—The amounts paid pursu-
20 ant to subsection (a) shall be subject to adjustment fol-
21 lowing a final cost allocation by the Secretary of the Inte-
22 rior upon completion of the construction of the Central
23 Valley Project. In the event that the final cost allocation
24 indicates that the costs properly assignable to the con-
25 tractor are greater than what has been paid by the con-

1 tractor, the contractor shall be obligated to pay the re-
2 maining allocated costs. The term of such additional re-
3 payment contract shall be no less than 1 year and no more
4 than 10 years, however, mutually agreeable provisions re-
5 garding the rate of repayment of such amount may be de-
6 veloped by the parties. In the event that the final cost allo-
7 cation indicates that the costs properly assignable to the
8 contractor are less than what the contractor has paid, the
9 Secretary of the Interior is authorized and directed to
10 credit such overpayment as an offset against any out-
11 standing or future obligation of the contractor.

12 (c) APPLICABILITY OF CERTAIN PROVISIONS.—

13 (1) Notwithstanding any repayment obligation
14 under subsection (a)(3)(B) or subsection (b), upon a
15 contractor's compliance with and discharge of the
16 obligation of repayment of the construction costs as
17 provided in subsection (a)(3)(A), the ownership and
18 full-cost pricing limitations of any provision of Fed-
19 eral reclamation law shall not apply to lands in such
20 district.

21 (2) Notwithstanding any repayment obligation
22 under paragraph (3)(B) or paragraph (4)(B) of sub-
23 section (a), or subsection (b), upon a contractor's
24 compliance with and discharge of the obligation of
25 repayment of the construction costs as provided in

1 paragraphs (3)(A) and (4)(A) of subsection (a), such
2 contractor shall continue to pay applicable operation
3 and maintenance costs and other charges applicable
4 to such repayment contracts pursuant to the then-
5 current rate-setting policy and applicable law.

6 (d) CERTAIN REPAYMENT OBLIGATIONS NOT AL-
7 TERED.—Implementation of the provisions of this section
8 shall not alter the repayment obligation of any other long-
9 term water service or repayment contractor receiving
10 water from the Central Valley Project, or shift any costs
11 that would otherwise have been properly assignable to any
12 contractors absent this section, including operations and
13 maintenance costs, construction costs, or other capitalized
14 costs incurred after the date of enactment of this Act, to
15 other such contractors.

16 (e) STATUTORY INTERPRETATION.—Nothing in this
17 part shall be construed to affect the right of any long-
18 term contractor to use a particular type of financing to
19 make the payments required in paragraph (3)(A) or para-
20 graph (4)(A) of subsection (a).

21 (f) DEFINITION OF TREASURY RATE.—For purposes
22 of this section, “Treasury Rate” shall be defined as the
23 20-year Constant Maturity Treasury rate published by the
24 United States Department of the Treasury as of October
25 1, 2012.

1 **TITLE IV—BAY-DELTA WATER-**
2 **SHED WATER RIGHTS PRES-**
3 **ERVATION AND PROTECTION**

4 **SEC. 401. WATER RIGHTS AND AREA-OF-ORIGIN PROTEC-**
5 **TIONS.**

6 Notwithstanding the provisions of this Act, Federal
7 reclamation law, or the Endangered Species Act of 1973
8 (16 U.S.C. 1531 et seq.)—

9 (1) the Secretary of the Interior (“Secretary”)
10 is directed, in the operation of the Central Valley
11 Project, to strictly adhere to State water rights law
12 governing water rights priorities by honoring water
13 rights senior to those belonging to the Central Valley
14 Project, regardless of the source of priority;

15 (2) the Secretary is directed, in the operation of
16 the Central Valley Project, to strictly adhere to and
17 honor water rights and other priorities that are ob-
18 tained or exist pursuant to the provisions of Cali-
19 fornia Water Code sections 10505, 10505:5, 11128,
20 11460, and 11463; and sections 12200 to 12220, in-
21 clusive; and

22 (3) any action that affects the diversion of
23 water or involves the release of water from any Cen-
24 tral Valley Project water storage facility taken by
25 the Secretary or the Secretary of the Department of

1 Commerce to conserve, enhance, recover, or other-
2 wise protect any species listed under the Endangered
3 Species Act of 1973 (16 U.S.C. 1531 et seq.) shall
4 be applied in a manner that is consistent with water
5 right priorities established by State law.

6 **SEC. 402. SACRAMENTO RIVER SETTLEMENT CONTRACTS.**

7 In the implementation of the Endangered Species Act
8 of 1973 (16 U.S.C. 1531 et seq.), in the Bay-Delta and
9 on the Sacramento River, the Secretary and the Secretary
10 of Commerce are directed to apply any limitations on the
11 operation of the Central Valley Project or to formulate any
12 “reasonable prudent alternative” associated with the oper-
13 ation of the Central Valley Project in a manner that strict-
14 ly adheres to and applies the water rights priorities for
15 “Project Water” and “Base Supply” provided for in the
16 Sacramento River Settlement Contracts. Article 3(i) of the
17 Sacramento River Settlement Contracts shall not be uti-
18 lized by the United States as means to provide shortages
19 to the Sacramento River Settlement Contracts that are
20 different than those provided for in Article 5(a) of those
21 contracts.

22 **SEC. 403. SACRAMENTO RIVER WATERSHED WATER SERV-**
23 **ICE CONTRACTORS.**

24 (a) IN GENERAL.—Subject to subsection (b) and the
25 absolute priority of the Sacramento River Settlement Con-

1 tractors to Sacramento River supplies over Central Valley
2 Project diversions and deliveries to other contractors, the
3 Secretary is directed, in the operation of the Central Val-
4 ley Project, to allocate water provided for irrigation pur-
5 poses to existing Central Valley Project agricultural water
6 service contractors within the Sacramento River Water-
7 shed in compliance with the following:

8 (1) Not less than 100% of their contract quan-
9 tities in a “Wet” year.

10 (2) Not less than 100% of their contract quan-
11 tities in an “Above Normal” year.

12 (3) Not less than 100% of their contract quan-
13 tities in a “Below Normal” year.

14 (4) Not less than 75% of their contract quan-
15 tities in a “Dry” year.

16 (5) Not less than 50% of their contract quan-
17 tities in a “Critically Dry” year.

18 (b) PROTECTION OF MUNICIPAL AND INDUSTRIAL
19 SUPPLIES.—Nothing in subsection (a) shall be deemed to
20 (i) modify any provision of a water service contract that
21 addresses municipal and industrial water shortage policies
22 of the Secretary, (ii) affect or limit the authority of the
23 Secretary to adopt or modify municipal and industrial
24 water shortage policies, (iii) affect or limit the authority
25 of the Secretary to implement municipal and industrial

1 water shortage policies, or (iv) affect allocations to Central
2 Valley Project municipal and industrial contractors pursu-
3 ant to such policies. Neither subsection (a) nor the Sec-
4 retary’s implementation of subsection (a) shall constrain,
5 govern or affect, directly or indirectly, the operations of
6 the Central Valley Project’s American River Division or
7 any deliveries from that Division, its units or its facilities.

8 (c) DEFINITIONS.—In this section:

9 (1) The term “existing Central Valley Project
10 agricultural water service contractors within the
11 Sacramento River Watershed” means water service
12 contractors within the Shasta, Trinity, and Sac-
13 ramento River Divisions of the Central Valley
14 Project, that have a water service contract in effect,
15 on the date of the enactment of this section, that
16 provides water for irrigation.

17 (2) The year type terms used in subsection (a)
18 have the meaning given those year types in the Sac-
19 ramento Valley Water Year Type (40–30–30) Index.

20 **SEC. 404. NO REDIRECTED ADVERSE IMPACTS.**

21 The Secretary shall insure that there are no redi-
22 rected adverse water supply or fiscal impacts to those
23 within the Sacramento River or San Joaquin River water-
24 shed or to the State Water Project arising from the Sec-
25 retary’s operation of the Central Valley Project to meet

1 legal obligations imposed by or through any State or Fed-
2 eral agency, including, but not limited to those legal obli-
3 gations emanating from the Endangered Species Act of
4 1973 (16 U.S.C. 1531 et seq.) or this Act, or actions or
5 activities implemented to meet the twin goals of improving
6 water supply or addressing environmental needs of the
7 Bay Delta.

8 **TITLE V—MISCELLANEOUS**

9 **SEC. 501. PRECEDENT.**

10 Congress finds and declares that—

11 (1) coordinated operations between the Central
12 Valley Project and the State Water Project, pre-
13 viously requested and consented to by the State of
14 California and the Federal Government, require as-
15 sertion of Federal supremacy to protect existing
16 water rights throughout the system; and

17 (2) these circumstances are unique to Cali-
18 fornia.

19 Therefore, nothing in this Act shall serve as precedent in
20 any other State.

Passed the House of Representatives February 29,
2012.

Attest:

KAREN L. HAAS,

Clerk.

Calendar No. 332

112TH CONGRESS
2^D SESSION
H. R. 1837

AN ACT

To address certain water-related concerns on the
San Joaquin River, and for other purposes.

MARCH 5, 2012

Read the second time and placed on the calendar



H.R. 1837—The Sacramento-San Joaquin Valley Water Reliability Act

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Summary

For most of the last 20 years, some water contractors in California have received less than their full contract water supplies from federal and state facilities. Although such allocations are in part the result of the prior appropriation doctrine in western water law and are consistent with the expectation of a “junior” water user in times of drought, tensions over water delivery reliability have been exacerbated by reductions in deliveries even in non-drought years. Such reductions are significant because much of the California urban and agricultural economy operates under junior water rights, and reductions in water allocations can cause significant disruption and economic loss for individual farmers and communities, particularly in drought years. At the same time, fish populations throughout the Central Valley of California have dramatically declined due to water diversions and other factors, and have been accompanied by significant losses for fishing communities and others dependent on fish and wildlife resources. The state and federal governments have been working to address water supply reliability and ecosystem issues through pursuit of a Bay-Delta Conservation Plan (BDCP); however, the plan is not complete and remains controversial.

On February 16, 2012, the House Natural Resources Committee ordered reported H.R. 1837, the Sacramento-San Joaquin Valley Water Reliability Act. Proponents of H.R. 1837 argue that implementation of the Central Valley Project Improvement Act of 1992 (CVPIA) and state and federal environmental laws (e.g., the federal Endangered Species Act and its state equivalent) have compounded the impact of drought on water deliveries; the bill is designed to remedy these effects. Others argue that the bill would harm the environment and resource-dependent local economies, particularly coastal communities. Some also argue that it would undermine efforts to resolve environmental and water supply reliability issues through development of the BDCP.

At issue for Congress is the extent to which the bill changes decades of federal and state law, including state and federal environmental laws, and at what benefit and cost. For example, there are tradeoffs embedded in the bill’s preemption of state water law, including fish and wildlife protections, as a means to increase the water deliveries to some irrigation contractors and municipalities. It appears these changes likely would most benefit water contractors in the southern portion of the CVP service area, but might harm others and potentially reduce environmental protections and improvements and the services and industries they support (e.g., recreational and fishing industries). What impact such tradeoffs might have on other stakeholders is unclear. H.R. 1837 would preempt “any” (including state and federal) law pertaining to operation of the federal Central Valley Project (CVP) and California’s State Water Project (SWP) and substitute for those laws operational principles from a 1994 interim agreement, originally supported by many diverse parties, known as the Bay-Delta Accord. The bill also addresses other California water management issues, making significant changes to the San Joaquin River Restoration Settlement Act and allowing early repayment of CVP construction cost obligations.

While much attention has been paid to the effects of federal and state environmental laws on reductions in water supplies south of the Sacramento and San Joaquin Rivers delta confluence with San Francisco Bay (Bay-Delta, or Delta), the extent to which the bill would relieve water supply shortages, particularly in drought years, is uncertain. For example, many factors affect pumping restrictions and the overall water allocation regime for CVP contractors. The federal ESA and CVPIA are only two factors in the regime. Other key factors include state water quality regulations (particularly flow and salinity requirements in the Delta), SWP pumping, and state water rights. How H.R. 1837 would in practice affect these factors remains uncertain.

Contents

Introduction.....	1
Summary of H.R. 1837	2
Title I—Central Valley Project Water Reliability	3
Title II—San Joaquin River Restoration	6
Background	6
Title II Proposals	7
Title III—Repayment Contracts and Acceleration of Repayment of Construction Costs	8
Title IV—Bay-Delta Watershed Water Rights Preservation and Protection.....	10
Title V	11
Concluding Remarks	11

Contacts

Author Contact Information.....	13
Acknowledgments	13

Introduction

On February 16, 2012, the House Natural Resources Committee ordered reported H.R. 1837, the Sacramento-San Joaquin Valley Water Reliability Act. The bill aims to address water shortages experienced by some California state and federal water contractors, shortages that sponsors attribute to implementation of the Central Valley Project Improvement Act of 1992 (CVPIA, Title 34 of P.L. 102-575), as well as state and federal environmental laws (e.g., the federal Endangered Species Act, its state equivalent, and possibly state rules implemented to comply with the federal Clean Water Act). The bill also addresses many other issues associated with California water management, including making substantial changes to the San Joaquin River Restoration Settlement Act (Title X of P.L. 111-11) and allowing early or accelerated repayment by private parties of outstanding construction cost obligations. The bill would make numerous changes to federal and state law regarding the management of water, fish, and wildlife resources in California. It also preempts “any” law (subject to certain state water rights priorities identified in Title IV of the bill) pertaining to operation of the federal Central Valley Project (CVP) and the California State Water Project (SWP)¹ and substitutes for those laws operational principles elaborated in a 1994 interim agreement among CVP and SWP parties and others, known as the Bay-Delta Accord.² Because the CVP and SWP are operated in a coordinated manner, actions taken by either the state or federal government can and do affect the other’s operations.

The tensions among the different stakeholders in California water policy are particularly high given current low snowpack conditions and recent state and federal water allocations, which project that some water users will get 30% of their contracted water supplies and that many others, including many municipalities and senior water rights holders, are projected to receive 75% of their contracted supplies. In other drought years, some south-of-Delta contractors have received as little as 10% to 35% of their contracted amounts. Overall, some south-of-Delta contractors have received 90%-100% of their contracts in just five of the last 20 years. At the same time, fish populations throughout the Central Valley of California have dramatically declined due to water diversions and other factors.³ Fishing communities have also experienced significant losses as a result of salmon population declines. For example, a fishery disaster declaration was in effect for the California and Oregon coast in 2008 and through 2010.⁴ Per the

¹ The operations of the SWP and CVP are coordinated per coordinated operations agreements, established pursuant to the Act of October 27, 1986 (P.L. 99-546).

² *Principles for Agreement on Bay-Delta Standards Between the State of California and the Federal Government*, Washington, DC, December 15, 1994, <http://www.calwater.ca.gov/content/Documents/library/SFBayDeltaAgreement.pdf>. The Bay-Delta Accord was a three-year interim agreement intended to coordinate and clarify how various environmental laws and regulations would affect pumping of water from the federal CVP and SWP. Water quality and flow protections or restrictions in the accord are very similar to those contained in the state’s current Water Quality Control Plan for the Delta (also known as D-1641); however, it is not clear to what extent they overlap. At issue is whether a nearly 20-year old negotiated agreement is an adequate foundation for management of the state and federal water systems, given increases in total pumping in ensuing years and declines in threatened and endangered species populations.

³ In 2009, the National Marine Fisheries Service released a report on the collapse of the Sacramento fall Chinook salmon stock. The report identified unfavorable ocean conditions when juvenile salmon entered the ocean in 2005 and 2006 as the likely cause of the collapse. Long-standing and ongoing degradation of freshwater and estuarine habitats and reliance on hatchery production were also identified as likely contributors to the decline. See <http://swr.nmfs.noaa.gov/media/salmondeclinereport.pdf>.

⁴ The California ocean commercial Chinook salmon fishery was closed in 2008 and 2009, and limited in 2010. The California recreational fishery was also closed in 2008 (a very small limited fishery was allowed in 2009). Coastwide commercial and recreational ocean salmon fisheries were limited to relatively low levels throughout the 2008-2010 (continued...)

disaster declaration, Congress appropriated \$170 million to be used to compensate some communities for losses due to the closed fisheries.⁵

At issue for Congress is how to address chronic shortages for some in the CVP system without disrupting decades-long federal and state law addressing senior water rights and other priorities. Also at issue is to what degree Congress is willing to change or allow preemption of long-standing federal and state environmental laws, including state water quality and endangered species laws, and at what benefit and cost. For example, what are the tradeoffs embedded in the bill's preemption of state law and fish and wildlife protections as a means to increase the water deliveries to some irrigation contractors and municipalities? What will be the impact on the state's recreation and sport and commercial fishing industries and its long-term flexibility to manage water for new uses? Will potential benefits to some irrigators outweigh such costs? Will water remain in agricultural use or will new and less costly transfer provisions result in more water flowing to more affluent urban areas and water brokers? Will such an outcome create efficiency gains? These are some of the questions that arise in changes proposed by H.R. 1837. Many of these questions remain unanswered.

The remainder of this report provides a brief title-by-title summary of the key provisions and water policy changes proposed in H.R. 1837. A legal analysis of the proposed legislation is beyond the scope of this report.

Summary of H.R. 1837

Each title of H.R. 1837 addresses a different aspect of California water policy.

- Title I makes numerous changes to the CVPIA: broadening purposes for which water previously dedicated to fish and wildlife can be used; changing the definitions of fish covered by the act; broadening purposes for which the Central Valley Project Restoration Fund (CVPRF) monies can be used; reducing revenues into the CVPRF, mandating operation per a 1994 interim agreement; and mandating development and implementation of a plan to increase the water yield of the CVP by October 1, 2013.
- Title II directs the Secretary to cease implementation of the San Joaquin River Restoration Settlement Agreement, which is the foundation of the San Joaquin River Restoration Settlement Act (SJRRS). The title also removes the salmon restoration requirement and makes other changes to the SJRRS.
- Title III directs the Secretary of the Interior, upon request from water contractors, to convert utility-type water service contracts to repayment contracts, and then allows accelerated repayment of those outstanding repayment obligations. (Irrigation and municipal & industrial [M&I] repayment obligations for the CVP

(...continued)

period. The fishery disaster determination included California and Oregon for 2008-2010 and Washington for 2008.

⁵ National Oceanic and Atmospheric Administration, Department of Commerce, "Commerce Secretary Gary Locke Extends 2008 Disaster Declaration Due to Poor Salmon Returns," press release, Washington, DC, April 30, 2009, http://www.nmfs.noaa.gov/sfa/sf3/disasters/west_coast_salmon2009/press_release.pdf. Funding was distributed to communities affected in California, Oregon, and Washington.

for 2010, the last year for which such data are readily available, total approximately \$1.2 billion.)⁶

- Title IV outlines water rights protections for those with water rights senior to the CVP, including Sacramento River Valley contractors and addresses shortage policy for certain north-of-Delta CVP water service contracts.⁷
- Title V declares that the unique circumstances of coordinated operations of the CVP and SWP “require assertion of Federal supremacy to protect existing water rights throughout the system” and that as such shall not set precedent in any other state. (There has been concern from some western states that the state and federal preemptions contained in H.R. 1837 might be used as precedent in other western states and threaten their allocation of state water rights.)

Title I—Central Valley Project Water Reliability

Title I of H.R. 1837 makes numerous changes to the CVPIA. When enacted, the CVPIA made broad changes to operations of the Bureau of Reclamation’s Central Valley Project. The act set protection, restoration, and enhancement of fish and wildlife on par with other project purposes (such as delivering water to irrigation and M&I contractors), dedicated a certain amount of water for fish and wildlife purposes, established fish restoration goals, and established a restoration fund (Central Valley Project Restoration Fund) to pay for fish and wildlife restoration, enhancement, and mitigation projects and programs. It also made contracting changes and operational changes. The CVPIA was quite controversial when enacted and has remained so, particularly for junior water users whose water allocations were ultimately limited due to implementation of the act. Compounding the controversy over water allocation are other factors that limit water deliveries—namely state water quality control requirements, variable hydrological limitations, the state system of water rights priorities,⁸ and implementation of state and federal endangered species and other environmental laws.⁹

Title I of H.R. 1837 addresses many provisions of the CVPIA opposed by irrigators, namely dedication of project water to address fish and wildlife purposes, enhancement and mitigation activities, water transfer limitations, tiered pricing formulas, and other restoration and mitigation charges.

⁶ U.S. Bureau of Reclamation, Dept. of the Interior, Central Valley Project Schedule of M&I Capital Costs to be Repaid by Component and/or Facility as of September 30, 2010 (2012 M&I Water Rates), Mid-Pacific Region, CVP ratebooks, Sacramento, CA, January 3, 2012, p. 2, http://www.usbr.gov/mp/cvpwaterrates/ratebooks/mi/2012/2012_mi_sch_a-4.pdf; and Central Valley Project Schedule of Irrigation Capital Costs to be Repaid by Component and/or Facility as of September 30, 2010 (2012 Irrigation Water Rates), Mid-Pacific Region, CVP ratebooks, Sacramento, CA, January 4, 2012, p. 3, http://www.usbr.gov/mp/cvpwaterrates/ratebooks/irrigation/2012/2012_irr_sch_a-4.pdf.

⁷ Like many other western states, California uses a system of prior appropriation as part of its hybrid water rights system. Under a prior appropriation system, water rights permits are issued on a first-come, first-served basis (also known as first-in-time, first-in-right), resulting in senior and junior water rights based on their priority under the system. For more information on California water law, see CRS Report RL34554, *California Water Law and Related Legal Authority Affecting the Sacramento-San Joaquin Delta*, by Cynthia Brougher.

⁸ For information on water rights and California water law see CRS Report RL34554, *California Water Law and Related Legal Authority Affecting the Sacramento-San Joaquin Delta*, by Cynthia Brougher.

⁹ For more information on the hydrological and regulatory restrictions on CVP water supplies, see CRS Report R40979, *California Drought: Hydrological and Regulatory Water Supply Issues*, by Betsy A. Cody, Peter Folger, and Cynthia Brougher.

Title I of H.R. 1837 would amend the CVPIA in numerous ways, including the following:

- Narrows the scope and definition of fish stocks provided protection by the act (limiting coverage to those found in 1992, and eliminating coverage for non-native species such as bass and shad). Some stocks were already in severe decline by 1992,¹⁰ including winter run Chinook salmon, which were listed as endangered under the ESA in 1990, and some (San Joaquin River runs) had become extinct by the 1950s.
- Adds a new definition for “reasonable flows,” which is arguably more broadly defined than in the CVPIA.
- Removes a qualified prohibition on new contracts, thus presumably allowing new contracts.
- Increases the maximum contract term from 25 years to 40 years.¹¹
- Directs the Secretary of the Interior (Secretary) to perpetually renew contracts. It is not clear if such renewals would be subject to negotiation or review (as they are now), or whether such direction would preclude further National Environmental Policy Act (NEPA) review and Endangered Species Act consultation on contract renewals. (This provision is proposed to be stricken in a manager’s amendment, and replaced with language referring to renewals under the Act of July 2, 1956).¹²
- Directs the Secretary to facilitate and expedite water transfers and prohibits environmental or mitigation requirements as a condition to transfers.
- Eliminates the tiered pricing requirement and other revenue streams that fund fish and wildlife enhancement, restoration, and mitigation under the CVPRF.
- Removes the mandate that the Secretary modify CVP operations to provide flows to protect fish, and adds the term “reasonable”¹³ to the authority to provide such flows. Also directs that any such flows shall be provided from the 800,000 acre feet of water in Section 3406(b)(2), which H.R. 1837 would allow to be used for purposes other than fish protection (also, fish and wildlife purposes would no longer be the “primary” purpose of such flows).
- Adjusts accounting for Section 3406(b)(2)¹⁴ water. It appears that state water quality requirements, ESA, and all other contractual requirements would need to be met via use of the (b)(2) water; however this is not entirely clear in the language. Also would direct that (b)(2) water be reused. (It currently is reused, but reuse is not currently mandated.)

¹⁰ See CVPIA salmon “doubling graphs” at <http://www.fws.gov/stockton/afrp/>.

¹¹ CVPIA reduced the contract term from 40 years to 25 years, although as originally introduced the legislation would have reduced the maximum term to 10 years.

¹² See http://www.rules.house.gov/amendments/MCCLIN_081_xml228121122132213.pdf.

¹³ Defined in H.R. 1837 to mean “capable of being maintained taking into account competing consumptive uses of water and economic, environmental, and social factors” (§102).

¹⁴ The 800,000 acre-feet of water under §3406(b)(2) of CVPIA that is dedicated and managed primarily for fish and wildlife purposes is often simply referred to as (b)(2) water.

- Mandates an automatic 25% reduction of (b)(2) water when Delta Division water supplies are also reduced by 25%. (The Delta Division is a unit of the CVP that serves water districts that often receive less water than under their full contract amount.)
- Deems *pursuit* (as opposed to accomplishment) of fish and wildlife programs and activities authorized by the amended Section 3406 as meeting the mitigation, protection, restoration, and enhancement purposes of the CVPIA, as amended.
- Prohibits donations or other payments or any other environmental restoration or mitigation fees to the CVPRF as a condition to providing for the storage or conveyance of non-CVP water, delivery of surplus water, or for any water that is delivered with the sole intent of groundwater recharge.
- Requires completion of fish, wildlife and habitat mitigation and restoration actions by 2020, thus reducing water and power contractor payments into the CVPRF. Currently, the CVPRF payments will continue until such actions are complete; then payments are cut substantially. (Note, however, that H.R. 1837 would also deem pursuit of such actions as meeting the obligations to do so, which would also presumably trigger the reduced payments.)
- Establishes an advisory board responsible for reviewing and recommending CVPRF expenditures. The board is to be primarily made up of water and power contractors (10 of 12).
- Facilitates transfer and wheeling of non-project water from any source using CVP facilities.
- Requires a least-cost plan by the end of FY2013 to increase CVP water supplies by the amount of water dedicated and managed for fish and wildlife purposes under CVPIA and otherwise required to meet all purposes of the CVP, including contractual obligations (which are currently approximately 9.3 million acre feet (maf)). Deliveries ranged from 4.9 maf in 2009 (a drought year) to 6.2 maf over the last five years, and are closer to 7 maf in normal hydrologic years. Thus, a gap exists between CVP contractual obligations and average or normal deliveries.
- Requires implementation of the increased water plan (including any construction of new water storage facilities that might be included in the plan), beginning on October 1, 2013, in coordination with the state of California. If the plan fails to increase the water supply by 800,000 acre feet, implementation of any non-mandatory action under Section 3406(b)(2) shall be suspended until the 800,000 acre feet is replaced.
- Authorizes the Secretary to partner with local joint power authorities and others in pursuing storage projects (e.g., Sites Reservoir, Upper San Joaquin Storage, Shasta Dam and Los Vaqueros Dam raises) authorized for study under CALFED (P.L. 108-361), but would prohibit federal funds to be used for this purpose or for financing and constructing the projects. (Also would authorize construction as long as no federal funds are used.)
- Directs that the CVP and the SWP be operated per principles outlined in the Bay-Delta Accord, without regard to the ESA “or any other law” pertaining to operation of the two projects. (§108)

- Prohibits federal or state imposition of any condition restricting the exercise of valid water rights in order to conserve, enhance, recover, or otherwise protect any species that is affected by operations of the CVP or SWP, or protect any “public trust value” pursuant to the “Public Trust Doctrine.”
- Preempts state law regarding catch limits for nonnative fish that prey on native fish species (e.g., striped bass) in the Bay-Delta.
- Mandates that hatchery fish be included in making determinations regarding anadromous fish covered by H.R. 1837 under the ESA.
- Expands the CVP service area to cover a portion of Kettleman City.
- Allows compliance under the California Environmental Quality Act to suffice for compliance with NEPA.

Many of these changes have tradeoffs embedded in them. For example, provisions limiting the scope and definition of fish stocks receiving protection by the act benefit some stakeholders, but are opposed by others.¹⁵ Similarly, expanding the use of dedicated fish flows and funding for fish and wildlife restoration may provide more water to irrigators or other water users, but may contribute to the decline of salmon and other fish populations. This is also true of some of the most controversial sections of the bill, such as directing perpetual contract renewals,¹⁶ which may be viewed on one hand as an attempt to circumvent future NEPA review, but on the other hand as a way to guarantee supplies of water and streamline the regulatory process. Section of 108 of H.R. 1837, which directs the Secretary to operate the CVP and SWP according to principles outlined in the Bay-Delta Accord also would benefit some water users, but may harm other stakeholders.

Title II—San Joaquin River Restoration

Background¹⁷

Historically, Central California’s San Joaquin River supported large Chinook salmon populations. Since the Bureau of Reclamation’s Friant Dam on the San Joaquin River became fully operational in the late 1940s, much of the river’s water has been diverted for agricultural uses. As a result, approximately 60 miles of the river became dry in most years, making it impossible to support Chinook salmon populations upstream of the Merced River confluence.

In 1988, a coalition of environmental, conservation, and fishing groups advocating for river restoration to support Chinook salmon recovery sued the Bureau of Reclamation.¹⁸ A U.S. District

¹⁵ For a full discussion of views on the bill, see U.S. Congress, House Natural Resources Committee, *Sacramento-San Joaquin Valley Water Reliability Act*, report to accompany H.R. 1837, 112th Cong., 2nd sess., February 2012, F:\R12\2D\RPT\H1837 RPT.XML (Washington: GPO, 2012). Accessed via the House Rules Committee website on February 28, 2012: http://www.rules.house.gov/Media/file/PDF_112_2/JurisdictionCommRpts/HRPT-112-HR1837.pdf.

¹⁶ This provision is proposed to be altered in a manager’s amendment for floor consideration.

¹⁷ For information on San Joaquin River Restoration legislation, see CRS Report RL34237, *San Joaquin River Restoration Settlement*, coordinated by Betsy A. Cody and Pervaze A. Sheikh, and CRS Report R40125, *Title X of H.R. 146: San Joaquin River Restoration*, by Betsy A. Cody and Pervaze A. Sheikh.

¹⁸ *NRDC v. Patterson*, 333 F. Supp. 2d 906, 925 (E.D. Cal. 2004).

Court judge subsequently ruled that operation of Friant Dam was violating state law because of its destruction of downstream fisheries. Faced with mounting legal fees, considerable uncertainty, and the possibility of dramatic cuts to water diversions, parties agreed to negotiate a settlement instead of proceeding to trial on a remedy regarding the court’s ruling.

A settlement agreement was reached in the fall of 2006. Implementing legislation was debated in the 110th and 111th Congresses (H.R. 4074, H.R. 24 and S. 27) and became law in the spring of 2010 (Title X of P.L. 111-11). The Settlement Agreement and its implementing legislation call for new releases of water from Friant Dam to restore fisheries (including salmon) in the San Joaquin River and for efforts to mitigate water supply losses due to the new releases, among other things.

Because increased water flows for restoring fisheries (known as restoration flows) would reduce diversions of water for off-stream purposes, such as irrigation, hydropower, and municipal and industrial uses, the settlement and its implementation have been controversial. The quantity of water used for restoration flows and the quantity by which water deliveries would be reduced are related, but the relationship would not necessarily be one-for-one, due to flood flows in some years and other factors.¹⁹ Under the Settlement Agreement, no water would be released for restoration purposes in the driest of years; thus, the Settlement Agreement would not reduce deliveries to Friant contractors in those years. Additionally, in some years, the restoration flows released in late winter and early spring may free up space for additional runoff in Millerton Lake, potentially minimizing reductions in deliveries later in the year—assuming Millerton Lake storage is replenished. Consequently, how deliveries to Friant water contractors might be reduced in any given year depends on many factors.

Regardless of the specifics of how much water might be released for fisheries restoration versus water diverted for off-stream purposes (such as irrigation), there will be impacts to existing surface and groundwater supplies in and around the Friant Division Service Area. Although some opposition to the Settlement Agreement and its implementing legislation remains, the largest and most directly affected stakeholders (i.e., the majority of Friant water contractors, their organizations, and environmental, fisheries, and community groups) supported the Settlement Agreement and publicly supported the implementing legislation. On the other hand, others opposed the Settlement Agreement and have continued to oppose its implementation.

Title II Proposals

Title II of H.R. 1837 would address the ongoing controversy associated with the SJRRS by declaring that the Title “satisfies and discharges” all obligations of the Secretary and others to keep in good condition any fish below Friant Dam, including obligations under Section 5937 of the California Fish and Game Code, the state public trust doctrine, and the federal ESA. It is not clear how such action would affect the stipulated Settlement Agreement or how parties to the Settlement Agreement might react to changes in the implementing legislation (P.L. 111-11, which would no longer be implementing terms of the Settlement Agreement if H.R. 1837 became law). For example, Section 201 of H.R. 1837 directs the Secretary of the Interior to “cease any action”

¹⁹ Available estimates for total annual Friant water supplies (including both contract and temporary water) are, *on average*, 15% to 16% less under the Settlement than under current operations; but such estimates do not account for improvements in water management that might reduce the impact on water users. For 75% of water contractors, the reduction would represent a reduction in one of their available sources of water. The impacts of such reductions vary by contractor depending on the firmness of existing surface water supplies and the reliability of groundwater supplies.

to implement the stipulated Settlement Agreement on San Joaquin River Restoration. The bill would also amend the San Joaquin River Restoration Settlement Act's (SJRRS) purpose to be restoration of the San Joaquin River, instead of implementation of the Settlement Agreement. Unlike the original Settlement Agreement and the implementing legislation (Title X of P.L. 111-11), however, restoration authorized in this bill is not for salmon, but would be presumably for a warm water fishery upstream of Mendota Pool.

Key provisions of Title II would:

- Provide protections to third parties and allow CVP contactors to bring action against the Secretary for injunctive relief or damages, or both (§208 of H.R. 1837).
- Replace references to the settlement throughout the SJRRS with “this part” (i.e., Title II of H.R. 1837).
- Direct the Secretary to develop and implement within one year a “reasonable plan” to fully recirculate, recapture, reuse, exchange, or transfer all restoration flows (defined as a target of 50 cubic feet per second entering Mendota Pool, 62 miles below Friant Dam) and provide such flows to contractors within the units of the CVP that relinquished such restoration flows.
- Direct the Secretary to identify, before October 1, 2013, impacts associated with implementation of modified restoration flows and mitigation actions to address those impacts, and to implement such mitigation actions before restoration flows begin.
- Include a qualified preemption of Section 8 of the Reclamation Act of 1902 (deference to state law). Also “preempts and supersedes any State law, regulation, or requirement that imposes more restrictive requirements or regulations on the activities authorized under this part”, while making an exception for certain state water quality rules.
- Amend the environmental compliance provisions of the San Joaquin SJRRS by adding, “unless otherwise provided by this part” (i.e., unless otherwise provided by title II of H.R. 1837).
- Alter funding for the activities covered by the act.
- Declare that H.R. 1837 satisfies and discharges certain provisions of CVPIA and state fish and game code Section 5937, the latter of which was the basis of the Settlement Agreement.
- Repeal Section 10011 of the SJRRS, which addresses implementation issues associated with the re-introduction of Central Valley spring run Chinook salmon.

Title III—Repayment Contracts and Acceleration of Repayment of Construction Costs

Since the passage of the Reclamation Act of 1902, reclamation law has been based on the concept of project repayment—reimbursement of construction costs—by project water and power users

(also known as project beneficiaries). Typical “repayment contracts”²⁰ were made for terms of 40 or 50 years, with capital costs amortized over the long-term period and repaid in annual installments (without interest for irrigation investments and with interest for M&I investments). According to one account, because the CVP is a “financially integrated” system, a different type of contract was used, known as a “water service contract.”²¹ Under water service contracts, contractors pay a combined capital repayment and operations and maintenance (O&M) charge for each acre-foot of water actually delivered.²² This water service payment is different from repayment contracts, in that under repayment contracts the annual repayment bill is due regardless of how much water is used in a given year. Repayment contracts tend to be the norm outside of California; however, some other projects do have some water service contracts. Water service contracts in the CVP were also typically written for 40-year terms. However, in 1992 with the passage of the Central Valley Project Improvement Act (CVPIA, Title 34 of P.L. 102-575), contract terms were reduced to a maximum of 25 years.

Another early tenet of reclamation law still in existence is a limit on how much land one can irrigate with water provided from federal reclamation projects. The idea behind the limitation was to prevent speculation and monopolies in western land holdings and to promote development and expansion of the American West through establishment of family farms. Over the ensuing decades, several attempts were made to increase the acreage limitation, and in 1982, pursuant to the Reclamation Reform Act (RRA, P.L. 97-293), the original acreage limitation of 160 acres was raised to 960 acres. Scholars and others have written extensively on enforcement issues resulting from the 960-acre limit. It has remained on one hand, a thorn in the side of irrigators, particularly in the Central Valley where large industrial farms are more common than other areas of the West, and on the other hand, a key rallying point for taxpayer groups, environmentalists, and others who have opposed using federally subsidized water²³ to irrigate large swaths of land. Under current law, once a repayment contract is paid out, the contractor no longer is subject to the 960-acre limit or other provisions of RRA (e.g., full-cost pricing for water).

Key provisions of Title III would:

- Authorize and direct the Secretary, upon request, to convert agricultural water service contracts (known as 9(e) contracts) to repayment contracts (known as 9(d) contracts), as well as M&I water service contracts to repayment contracts. (It is possible that such direction might also preclude NEPA review.)
- Direct that under such conversions, the Secretary shall require repayment either in lump sum or accelerated prepayment of a contractor’s remaining construction costs.
- Reiterate current law regarding the elimination of an obligation to pay full-cost pricing rates or abide by the acreage (ownership) limitations of Reclamation law once the repayment obligation is met.

²⁰ Repayment contracts are also known as 9(d) contracts, so named for the provision of the 1939 Reclamation Projects Act provision under which they are authorized.

²¹ Richard W. Wahl, *Markets for Federal Water, Subsidies, Property Rights, and the Bureau of Reclamation*, ed. Nancy Winchester (Washington D.C.: Resources for the Future, 1989), p. 52.

²² *Ibid.*

²³ Irrigation contractors do not pay interest on the federal investment in reclamation water works. Additionally, some repayment levels are reduced further by farmers’ “ability-to-pay.” In these cases, power revenues are typically used to make up the allocated irrigation repayment.

It is not clear how many contractors within the CVP might take advantage of these provisions and opt to prepay or accelerate their payments. Current CVP contract rates are based on a target repayment date of 2030; however, because the project is technically not complete, adjustments are made annually to capital cost obligations. Current CVP ratebooks (2012) show outstanding repayment obligations of approximately \$1.15 billion for irrigation contracts and \$147 million for M&I contracts. Presumably, districts interested in prepaying or accelerating repayment would have to get a loan or issue a bond to raise the capital to make the payment, unless they have cash or other relatively liquid assets on hand. Because the federal repayment amount is akin to a no-interest loan for irrigation contracts, a district would have to weigh the financial costs of new financing with the operating and opportunity costs of continuing to remain under reclamation ownership and full-cost pricing rules. The added permanency of the water contract under Title I (i.e., successive renewals, upon request, and potentially without NEPA review), might make such prepayment more attractive. On the other hand, if under Title I a water service contractor could also enjoy such benefits anyway (due to the successive renewal language), it is not clear that the added benefits of being able to use Bureau of Reclamation water on more land and elimination of other requirements would outweigh the financial and administrative costs of new financing.

Title IV—Bay-Delta Watershed Water Rights Preservation and Protection

Title IV of H.R. 1837 aims to protect senior water rights and what are known as “area-of-origin” priorities that are currently embedded in state law. The Title also includes specific language protecting Sacramento River Settlement contracts (both base supply and project supply) from potential reductions due to ESA implementation, thereby aiming to protect such contractors from adverse consequences of H.R. 1837’s Section 108 preemption of state and federal law on CVP and SWP Delta operations.²⁴ While Title IV would protect northern and other senior water rights holders (senior to those rights or permits belonging to the CVP), it does not appear to protect water users in the Delta or others whose water rights may be more junior to the CVP, but perhaps senior to others.²⁵ Additionally, to the extent the bill would not provide new water to junior contractors beyond what might be garnered from prohibition on environmental restrictions beyond those contained in the Bay-Delta Accord, it is not clear the bill would end water supply shortages until new water supplies or other increases in yield anticipated by the bill were developed or accomplished.

Following is a summary of a few key provisions of Title IV.

- Section 401 would direct the Secretary to strictly adhere to state water rights by honoring senior water rights, “regardless of the source of priority.”
- Section 402 would place new limits on water supply reductions for Sacramento Valley agricultural water service contractors in times of water shortages, similar to those enjoyed by senior water contractors and wildlife refuges (e.g., the

²⁴ As introduced, some northern contractors feared that the preemption language in §108 of H.R. 1837 might place the burden of meeting ESA and CVPIA obligations onto project contractors and others who do not rely on water pumped from the Delta (e.g., non-CVP in-Delta water diverters and northern Sacramento Valley and area-of-origin water users).

²⁵ As noted earlier, much of the California urban and agricultural economy depends on water rights that may be junior to the CVP or other senior water rights. Thus, it has been in the interest of the state to find ways to improve water reliability to all water users.

Secretary of the Interior in operation of the CVP would have to deliver not less than 75% of water service contractors' contracted water supply in a "dry" year). Currently, water service contractors have no minimum guarantee of water deliveries in dry years. (For example, north-of-Delta agricultural water service contractors are projected to receive just 30% of their contracted supplies in 2012.) The section also provides protections for M&I water contractors.

- Section 404 would direct the Secretary to ensure "that there are no redirected adverse water supply or fiscal impacts to those within the Sacramento River watershed or to the State Water Project arising from the Secretary's operation of the [CVP]" to meet legal obligations imposed by or through a state or federal agency, including but not limited to the ESA or H.R. 1837, or actions or activities implemented to meet "the twin goals of improving water supply or addressing environmental needs of the Bay Delta." (The latter clause appears to be a reference to ongoing state and federal efforts to develop a Bay-Delta Conservation Plan [BDCP] and the state's implementation of a Delta action plan.)

It is not clear how some sections of Title IV square with the broad preemption language of Section 108 and Title V, or how such legislation would be implemented in practice. Some of the sections in Title IV appear to conflict with the goals of Title I and make unclear how much new water would be available to junior contractors, beyond water used for environmental purposes that would no longer be allowed under H.R. 1837.

Title V

Title V of H.R. 1837 states that "Congress finds and declares" that

- Coordinated operations of the CVP and SWP (previously requested and consented to by the state of California and the federal government) require assertion of federal supremacy (presumably in water allocation) to protect existing water rights throughout the [CVP and SWP] system.
- Such circumstances are unique to California.
- "Therefore, nothing in this Act [H.R. 1837] shall serve as precedent in any other State."

Concluding Remarks

H.R. 1837 is primarily aimed at addressing decreased water deliveries to California's CVP contractors, particularly those south of the Delta, since passage of the CVPIA in 1992. The means would be delivering water to contractors that would become available due to the bill's prohibition on restrictions in environmental and other laws. The bill would primarily accomplish greater water deliveries by preempting federal and state law, including fish-and-wildlife protections and other CVP operational mandates, which are all tied to the coordinated operations of the CVP and SWP. It is unclear what impacts such changes would have on other water users in the state. Title IV of the bill attempts to provide protections for California's senior water right holders, particularly those in the Sacramento Valley watershed and in "area-of-origin" areas. A key remaining unknown is the significance of the bill's use of the fixed 1994 Bay Delta Accord as a

basis rather than current (and evolving) in-Delta water quality standards; the current standards impose water flow restrictions and appear to be a contributing factor to annual pumping restrictions in the Delta.

H.R. 1837 would make extensive changes to implementation of federal reclamation law under the Central Valley Project Improvement Act, the contracting provisions under the 1939 Reclamation Project Act, restoration efforts under the San Joaquin River Restoration Settlement Act, and state and federal relationships under Section 8 of the Reclamation Act of 1902. The bill would also potentially significantly alter the way the state of California implements its own state laws with regard to operation of the CVP and SWP.

While much attention has been paid to the effects of federal and state environmental laws on reductions in water supplies south of the Delta, the extent to which the bill would relieve water supply shortages, particularly in drought years, is uncertain. Without new water to contractors beyond what might be garnered from prohibition on state and federal environmental restrictions (and none from changes in water rights priorities or certain Delta water quality requirements), it is unclear the extent to which the bill would relieve shortages in water deliveries. An analysis of drought years and other years reveals that another significant factor in pumping restrictions is a state water quality control plan, which includes salinity and flow requirements in the Delta, as well as the fundamental tenet of state water rights allocations during times of hydrological and regulatory shortages.²⁶ For example, in 2009 (a drought year) the Department of the Interior estimated that approximately 25% of the water supply reductions south of the Delta (which were approximately 40% of average annual exports) were due to federal endangered species protections. The rest of the restrictions were due to lack of water and other factors (including CVPIA). For 2011 (a wet year), the Department estimates that pumping restrictions for endangered species and CVPIA purposes totaled 90,000 acre feet (62,000 and 28,000 respectively) – approximately 1.4% of the total 6.9 million acre feet exported from the Delta that year. It is not clear how much of any given year’s pumping restrictions are due to state water quality control requirements and to what degree the Bay-Delta Accord matches those requirements, and thus to what degree a similar level of restrictions would remain under H.R. 1837 for water quality purposes. Further, any reduction can be important in the long run, due to the state and federal system’s reliance on storage carryover capacity and its ability to store water in wet years for use in dry years.

H.R. 1837 goes to the heart of the water supply issue by proposing to prohibit “any” state or federal law (including the public trust doctrine and possibly California water rights laws) from reducing water supplies beyond those allowed in the Bay-Delta Accord and declaring a federal supremacy over water management to “protect existing water rights throughout the system.” However, some argue that the bill would undermine efforts to achieve the “co-equal” goals of “providing for a more reliable water supply for California and protecting, restoring, and enhancing the Bay-Delta ecosystem,” which is the foundation of state and federal efforts in development of the BDCP. While Section 401 of Title IV would direct the Secretary to strictly adhere to state water rights and honor senior water rights, it is unclear how other sections of Title IV square with the broad preemption language of Section 108 and the federal supremacy language in Title V, and how such legislation would be implemented.

²⁶ Another factor affecting deliveries to south-of-Delta CVP contractors may be the difference in SWP and CVP pumping and canal capacities. For an analysis and discussion of the many hydrologic and regulatory factors involved in CVP water allocations, see CRS Report R40979, *California Drought: Hydrological and Regulatory Water Supply Issues*, by Betsy A. Cody, Peter Folger, and Cynthia Brougher.)

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Redline and Review of CVPIA and Title I of H.R. 1837, as amended

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>SEC. 3401. SHORT TITLE.</p> <p>This title may be cited as the "Central Valley Project Improvement Act".</p>		
<p>SEC. 3402. PURPOSES.</p> <p>The purposes of this title shall be—</p> <p>(a) to protect, restore, and enhance fish, wildlife, and associated habitats in the Central Valley and Trinity River basins of California;</p> <p>(b) to address impacts of the Central Valley Project on fish, wildlife and associated habitats;</p> <p>(c) to improve the operational flexibility of the Central Valley Project;</p> <p>(d) to increase water-related benefits provided by the Central Valley Project to the State of California through expanded use of voluntary water transfers and improved water conservation;</p> <p>(e) to contribute to the State of California's interim and long-term efforts to protect the San Francisco Bay/Sacramento-San Joaquin Delta Estuary;</p> <p>(f) to achieve a reasonable balance among competing demands for use of Central Valley Project water, including the requirements of fish and wildlife, agricultural, municipal and industrial and power contractors</p>	<p>SEC. 101. AMENDMENT TO PURPOSES.</p> <p>Section 3402 of the Central Valley Project Improvement Act (106 Stat. 4706) is amended—</p> <p>(1) in subsection (f), by striking the period at the end; and</p> <p>(2) by adding at the end the following:</p> <p><i>“(g) to ensure that water dedicated to fish and wildlife purposes by this title is replaced and provided to Central Valley Project water contractors by December 31, 2016, at the lowest cost reasonably achievable; and</i></p> <p><i>“(h) to facilitate and expedite water transfers in accordance with this Act.”.</i></p>	<p>Section 101 adds two new purposes, to ensure replacement of water dedicated to fish and wildlife purposes, and to expedite water transfers.</p> <p>Section (g) addresses the water users concerns whose supplies remain uncertain under CVPIA. Does not address the environmental implications.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>SEC. 3403. DEFINITIONS. As used in this title—</p> <p>(a) the term "anadromous fish" means those stocks of salmon (including steelhead) striped bass, sturgeon and American shad that were present in the Sacramento and San Joaquin Rivers and their tributaries and the Sacramento-San Joaquin Delta to reproduce after maturing in San Francisco Bay or the Pacific Ocean;</p>	<p>SEC. 102. AMENDMENT TO DEFINITION.</p> <p>Section 3403(a) of the Central Valley Project Improvement Act (106 Stat. 4707) is amended to read as follows:</p> <p>(a) the term "anadromous fish" means those <i>native</i> stocks of salmon (including steelhead) striped bass, sturgeon and American shad that, as of October 30, 1992, were present in the Sacramento and San Joaquin Rivers and their tributaries and ascend those rivers and their tributaries to reproduce after maturing in San Francisco Bay or the Pacific Ocean</p> <p><i>(section 3403 b-k unchanged)</i></p> <p><i>Added: (n) the term "reasonable flows" means water flows capable of being maintained taking into account competing consumptive uses of water and economic, environmental, and social factors.</i></p>	<p>Changes the definition of anadromous fish to remove American Shad and Striped Bass. Attack on the recreational fishing industry.</p> <p>Limits stocks of salmon and steelhead to only those that were in the Sacramento and San Joaquin as of Nov. 1992. This is an attack on the San Joaquin Restoration efforts-spring chinook have been absent from the San Joaquin River since the late 1940's.</p> <p>Adds definition for reasonable flows. May give more weight to consumptive uses instead of environmental uses.</p>
<p>SEC. 3404. LIMITATION ON CONTRACTING AND CONTRACT REFORM.</p> <p>(a) New Contracts.--Except as provided in subsection (b) of this section, the Secretary shall not enter into any new short-term, temporary, or long-term contracts or agreements for water supply from the Central Valley Project for any purpose other than fish and wildlife before:</p> <p>(1) The provisions of subsections 3406(b) -(d) of this title are met;</p> <p>(2) The California State Water</p>	<p>SEC. 103. CONTRACTS</p> <p>Section 3404 of the Central Valley Project Improvement Act (106 Stat. 4710) is amended by striking the language of the section and by adding:</p> <p>SEC. 3404. LIMITATION ON CONTRACTING AND CONTRACT REFORM. CONTRACTS</p> <p>(a) New Contracts.--Except as provided in subsection (b) of this section, the Secretary shall not enter into any new short-term, temporary, or long-term contracts or agreements for water supply from the Central Valley Project for any purpose other than fish and wildlife before:</p> <p>(1) The provisions of subsections 3406(b) -(d) of this title are met;</p> <p>(2) The California State Water Resources Control Board concludes the</p>	<p>H.R. 1837 strikes the entire section and removes the provisions that prohibited the signing of new contracts until certain criteria were met, which included a completion of an EIS. The EIS was completed in 1999.</p> <p>Section 3404 of CVPIA reduced the maximum duration of water deliveries from the 1939 Reclamation Projects Act from 40 years to no more than 25 years. H.R. 1837 amends this section by changing the renewal duration back to 40 years, and directs the Secretary to renew existing long term contracts for successive periods of up to 40 years. This likely removes the Secretary's discretion and thereby removes any NEPA consultation and ESA.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>Resources Control Board concludes the review ordered by the California Court of Appeals in U.S. v. State Water Resources Control Board, 182 Cal. App. 3rd 82 (1986) and determines the means of implementing its decision, including the obligations of the Central Valley Project, if any, and the Administrator of the Environmental Protection Agency shall have approved such decision pursuant to existing authorities; and,</p> <p>(3) At least one hundred and twenty days shall have passed after the Secretary provides a report to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries of the House of Representatives explaining the obligations, if any, of the Central Valley Project system, including its component facilities and contracts, with regard to achieving its responsibilities for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary as finally established and approved by relevant State and Federal authorities, and the impact of such obligations on Central Valley Project operations, supplies, and commitments.</p> <p>(b) Exceptions to Limit on New Contracts.--The prohibition on execution of new contracts under subsection (a) of this section shall not apply to contracts executed pursuant to section 305 of Pub. L. 102-250 or section 206 of Pub. L. 101-514 or to one-year contracts for delivery of surplus flood flows or contracts not to exceed two years in length for delivery of class II water in the</p>	<p>review ordered by the California Court of Appeals in U.S. v. State Water Resources Control Board, 182 Cal. App. 3rd 82 (1986) and determines the means of implementing its decision, including the obligations of the Central Valley Project, if any, and the Administrator of the Environmental Protection Agency shall have approved such decision pursuant to existing authorities; and,</p> <p>(3) At least one hundred and twenty days shall have passed after the Secretary provides a report to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries of the House of Representatives explaining the obligations, if any, of the Central Valley Project system, including its component facilities and contracts, with regard to achieving its responsibilities for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary as finally established and approved by relevant State and Federal authorities, and the impact of such obligations on Central Valley Project operations, supplies, and commitments.</p> <p>(b) Exceptions to Limit on New Contracts.--The prohibition on execution of new contracts under subsection (a) of this section shall not apply to contracts executed pursuant to section 305 of Pub. L. 102-250 or section 206 of Pub. L. 101-514 or to one-year contracts for delivery of surplus flood flows or contracts not to exceed two years in length for delivery of class II water in the Friant Unit. Notwithstanding the prohibition in the Energy and Water Development Appropriations Act of 1990, the Secretary is authorized, pursuant to section 203 of the Flood Control Act of 1962, to enter into a long-term contract in accordance with the Reclamation laws with the Tuolumne Regional Water District, California, for</p>	<p>Section 103(2) stipulates that once contracts have been converted to repayment contracts, they only have to pay for water that they have received.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>Friant Unit. Notwithstanding the prohibition in the Energy and Water Development Appropriations Act of 1990, the Secretary is authorized, pursuant to section 203 of the Flood Control Act of 1962, to enter into a long-term contract in accordance with the Reclamation laws with the Tuolumne Regional Water District, California, for the delivery of water from the New Melones project to the county's water distribution system and a contract with the Secretary of Veteran Affairs to provide for the delivery in perpetuity of water from the project in quantities sufficient, but not to exceed 850 acre-feet per year, to meet the needs of the San Joaquin Valley National Cemetery, California.</p> <p>(c) Renewal of Existing Long-Term Contracts.--Notwithstanding the provisions of the Act of July 2, 1956 (70 Stat. 483), the Secretary shall, upon request, renew any existing long-term repayment or water service contract for the delivery of water from the Central Valley Project for a period of 25 years and may renew such contracts for successive periods of up to 25 years each.</p> <p>(1) No such renewals shall be authorized until appropriate environmental review, including the preparation of the environmental impact statement required in section 3409 of this title, has been completed. Contracts which expire prior to the completion of the environmental impact statement required by section 3409 may be renewed for an interim period not to exceed three years in length, and for successive interim periods of not more than two</p>	<p>the delivery of water from the New Melones project to the county's water distribution system and a contract with the Secretary of Veteran Affairs to provide for the delivery in perpetuity of water from the project in quantities sufficient, but not to exceed 850 acre-feet per year, to meet the needs of the San Joaquin Valley National Cemetery, California.</p> <p>(c) Renewal of Existing Long-Term Contracts.--Notwithstanding the provisions of the Act of July 2, 1956 (70 Stat. 483), the Secretary shall, upon request, renew any existing long-term repayment or water service contract for the delivery of water from the Central Valley Project for a period of 25 years and may renew such contracts for successive periods of up to 25 years each.</p> <p>(1) No such renewals shall be authorized until appropriate environmental review, including the preparation of the environmental impact statement required in section 3409 of this title, has been completed. Contracts which expire prior to the completion of the environmental impact statement required by section 3409 may be renewed for an interim period not to exceed three years in length, and for successive interim periods of not more than two years in length, until the environmental impact statement required by section 3409 has been finally completed, at which time such interim renewal contracts shall be eligible for long-term renewal as provided above. Such interim renewal contracts shall be modified to comply with existing law, including provisions of this title. With respect to all contracts renewed by the Secretary since January 1, 1988, the Secretary shall incorporate in said contracts a provision requiring payment of the charge mandated in subsection 3406(c) and subsection 3407(b) of this title and all other modifications needed to comply</p>	

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>years in length, until the environmental impact statement required by section 3409 has been finally completed, at which time such interim renewal contracts shall be eligible for long-term renewal as provided above. Such interim renewal contracts shall be modified to comply with existing law, including provisions of this title. With respect to all contracts renewed by the Secretary since January 1, 1988, the Secretary shall incorporate in said contracts a provision requiring payment of the charge mandated in subsection 3406(c) and subsection 3407(b) of this title and all other modifications needed to comply with existing law, including provisions of this title. This title shall be deemed "applicable law" as that term is used in Article 14(c) of contracts renewed by the Secretary since January 1, 1988.</p> <p>(2) Upon renewal of any long-term repayment or water service contract providing for the delivery of water from the Central Valley Project, the Secretary shall incorporate all requirements imposed by existing law, including provisions of this title, within such renewed contracts. The Secretary shall also administer all existing, new, and renewed contracts in conformance with the requirements and goals of this title.</p> <p>(3) In order to encourage early renewal of project water contracts and facilitate timely implementation of this title, the Secretary shall impose on existing contractors an additional mitigation and restoration payment of one and one-half</p>	<p>with existing law, including provisions of this title. This title shall be deemed "applicable law" as that term is used in Article 14(c) of contracts renewed by the Secretary since January 1, 1988.</p> <p>(2) Upon renewal of any long-term repayment or water service contract providing for the delivery of water from the Central Valley Project, the Secretary shall incorporate all requirements imposed by existing law, including provisions of this title, within such renewed contracts. The Secretary shall also administer all existing, new, and renewed contracts in conformance with the requirements and goals of this title.</p> <p>(3) In order to encourage early renewal of project water contracts and facilitate timely implementation of this title, the Secretary shall impose on existing contractors an additional mitigation and restoration payment of one and one-half times the annual mitigation and restoration payment calculated under subsection 3407(d) of this title for every year starting October 1, 1997 or January 1 of the year following the year in which the environmental impact statement required under section 3409 is completed, whichever is sooner, and ending on the effective date of the renewed contract payable prior to the renewal of such contract, to be covered to the Restoration Fund; Provided, however, That this paragraph shall not apply to contracts renewed after January 1, 1988, and prior to the date of enactment of this title or, in the event the environmental impact statement required by section 3409 is not completed by October 1, 1997, to any holder of a contract in existence on the date of enactment of this title who enters into a binding agreement with the Secretary prior to October 1, 1997, to renew its contract immediately upon completion of that environmental impact statement, if such contract has not</p>	

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>times the annual mitigation and restoration payment calculated under subsection 3407(d) of this title for every year starting October 1, 1997 or January 1 of the year following the year in which the environmental impact statement required under section 3409 is completed, whichever is sooner, and ending on the effective date of the renewed contract payable prior to the renewal of such contract, to be covered to the Restoration Fund; Provided, however, That this paragraph shall not apply to contracts renewed after January 1, 1988, and prior to the date of enactment of this title or, in the event the environmental impact statement required by section 3409 is not completed by October 1, 1997, to any holder of a contract in existence on the date of enactment of this title who enters into a binding agreement with the Secretary prior to October 1, 1997, to renew its contract immediately upon completion of that environmental impact statement, if such contract has not expired prior to such date.</p>	<p>expired prior to such date.</p> <p><i>(a) RENEWAL OF EXISTING LONG-TERM CONTRACTS.—Upon request of the contractor, the Secretary shall renew any existing long-term repayment or water service contract that provides for the delivery of water from the Central Valley Project for a period of 40 years, and renew such contracts for successive periods of 40 years each.</i></p> <p><i>(b) DELIVERY CHARGE.—Beginning on the date of the enactment of this Act, a contract entered into or renewed pursuant to this section shall include a provision that requires the Secretary to charge the other party to such contract only for water actually delivered by the Secretary.”</i></p>	
<p>SECTION 3405. WATER TRANSFERS, IMPROVED WATER MANAGEMENT & CONSERVATION</p> <p>(a) Water Transfers.--In order to assist California urban areas, agricultural water users, and others in meeting their future water needs, subject to the conditions and requirements of this subsection, all individuals or districts who receive Central</p>	<p>SEC. 104. WATER TRANSFERS, IMPROVED WATER MANAGEMENT, AND CONSERVATION.</p> <p>Section 3405 of the Central Valley Project Improvement Act (106 Stat. 4710) is amended as follows:</p> <p>(a) Water Transfers.--In order to assist California urban areas, agricultural water users, and others in meeting their future water needs, subject to the conditions and requirements of this subsection, all individuals or districts who receive Central Valley Project water under water service or repayment contracts, water rights settlement</p>	

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>Valley Project water under water service or repayment contracts, water rights settlement contracts or exchange contracts entered into prior to or after the date of enactment of this title are authorized to transfer all or a portion of the water subject to such contract to any other California water user or water agency, State or Federal agency, Indian Tribe, or private non-profit organization for project purposes or any purpose recognized as beneficial under applicable State law. Except as provided herein, the terms of such transfers shall be set by mutual agreement between the transferee and the transferor.</p>	<p>contracts or exchange contracts entered into prior to or after the date of enactment of this title are authorized to transfer all or a portion of the water subject to such contract to any other California water user or water agency, State or Federal agency, Indian Tribe, or private non-profit organization for project purposes or any purpose recognized as beneficial under applicable State law. <i>The Secretary shall take all necessary actions to facilitate and expedite transfers of Central Valley Project water in accordance with such this Act or any other provision of federal reclamation law and the National Environmental Policy Act of 1969.</i> Except as provided herein, the terms of such transfers shall be set by mutual agreement between the transferee and the transferor.</p>	<p>Language is added directing the Secretary to “take all necessary actions to facilitate and expedite transfers” of CVP water.</p>
	<p>Section 3405(a)(1) unchanged</p>	
<p>(A) No transfer to combination of transfers authorized by this subsection shall exceed, in any year, the average annual quantity of water under contract actually delivered to the contracting district or agency during the last three years of normal water delivery prior to the date of enactment of this title.</p>	<p>(A) No transfer to <i>or</i> combination of transfers authorized by this subsection shall exceed, in any year, the average annual quantity of water under contract actually delivered to the contracting district or agency during the last three years of normal water delivery prior to the date of enactment of this title.</p>	<p>Technical amendment.</p>
	<p>Section 3405(a)(1)(B-M) unchanged</p>	
<p>(2) Review and Approval of Transfers.--All transfers subject to review and approval under this subsection shall be reviewed and approved in a manner consistent with the following:</p> <p>(A) Decisions on water transfers subject to review by a contracting district or agency or by the Secretary shall be rendered within ninety days of receiving a written transfer proposal from the transferee or transferor. Such written proposal should provide all information reasonably necessary to determine whether</p>	<p>(Section 3405(a)(2)(A-D) unchanged)</p> <p>(C) in paragraph (2), by adding at the end the following:</p> <p><i>“(E) The contracting district from which the water is coming, the agency, or the Secretary shall determine if a written transfer proposal is complete within 45 days after the date of submission of such proposal. If such district or agency or the Secretary determines that such proposal is incomplete, such district or agency or the Secretary shall state with specificity what must be added to or revised in order for such proposal to be complete.</i></p>	<p>Section 104(1)(C) adds Section 3405(a)(2)(E-F). (2)(E) expands current law to expedite water transfer requests. Specifically, it requires the Secretary to determine if a proposal is complete within 45 days and if not, to specify what is needed for completion.</p> <p>The addition of Section 3405(a)(2)(F) prohibits the Secretary from “mitigation or</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>the transfer complies with the terms and conditions of this subsection.</p> <p>(B) All transfers subject to review by a contracting district or agency shall be reviewed in a public process similar to that provided for in section 226 of Pub. L. 97-293.</p> <p>(C) The contracting district or agency or the Secretary shall approve all transfers subject to review and approval by such entity if such transfers are consistent with the terms and conditions of this subsection. To disapprove a transfer, the contracting district or agency or the Secretary shall inform the transferee and transferor, in writing, why the transfer does not comply with the terms and conditions of this subsection and what alternatives, if any, could be included so that the transfer would reasonably comply with the requirements of this subsection.</p> <p>(D) If the contracting district or agency or the Secretary fails to approve or disapprove a proposed transfer within ninety days of receiving a complete written proposal from the transferee or transferor, then the transfer shall be deemed approved.</p>	<p><i>“(F) Except as provided in this section, the Secretary shall not impose mitigation or other requirements on a proposed transfer, but the contracting district from which the water is coming or the agency shall retain all authority under State law to approve or condition a proposed transfer.”</i></p>	<p>other requirements” on a proposed transfer. Language directs the contractors to retain all authority under state law to approve or condition a proposed transfer.</p> <p>Mitigation requirements are often used to protect parties not party to the water transfer (third parties).</p>
	Section 3405(a)(3) unchanged	
	<p>Added after Section 3405(a)(3)</p> <p><i>(4) Notwithstanding any other provision of reclamation law—</i></p> <p><i>(A) the authority to make transfers or exchanges of, or banking or recharge arrangements using, Central Valley Project water that could have been conducted before October 30, 1992, is valid, and such transfers, exchanges, or arrangements shall not be subject to,</i></p>	<p>H.R. 1837 adds a new subsection (4) to Section 3405 (a) which exempts transfers that could have been made before enactment of CVPIA. Water users have argued that short term, district-to-district or within-district water transfers were “easier” prior to CVPIA. This section attempts to solve the issue.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p><i>limited, or conditioned by this title; and</i></p> <p><i>(B) this title shall not supersede or revoke the authority to transfer, exchange, bank, or recharge Central Valley Project water that existed prior to October 30, 1992.</i></p>	
<p>(b) Metering of Water Use Required.--All Central Valley Project water service or repayment contracts for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation law after the date of enactment of this title, shall provide that the contracting district or agency shall ensure that all surface water delivery systems within its boundaries are equipped with water measuring devices or water measuring methods of comparable effectiveness acceptable to the Secretary within five years of the date of contract execution, amendment, or renewal, and that any new surface water delivery systems installed within its boundaries on or after the date of contract renewal are so equipped. The contracting district or agency shall inform the Secretary and the State of California annually as to the monthly volume of surface water delivered within its boundaries.</p>	<p>(b) Metering <i>Measurement</i> of Water Use Required.--All Central Valley Project water service or repayment contracts for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation law after the date of enactment of this title, shall provide that the contracting district or agency shall ensure that all surface water delivery systems within its boundaries are equipped with water measuring devices or water measuring methods of comparable effectiveness acceptable to the Secretary within five years of the date of contract execution, amendment, or renewal, and that any new surface water delivery systems installed within its boundaries on or after the date of contract renewal are so equipped. <i>The contracting district or agency, not including contracting districts serving multiple agencies with separate governing boards, shall ensure that all contractor-owned water delivery systems within its boundaries measure surface water at the district or agency's facilities up to the point the surface water is commingled with other water supplies.</i> The contracting district or agency shall inform the Secretary and the State of California annually as to the monthly volume of surface water delivered within its boundaries.</p>	<p>Replaces term "Metering" with "Measurement." Makes section broader, since "metering" is considered as one option for "measuring" water.</p> <p>Waives the measurement requirement for large contracting districts (e.g. the City of Fresno, and the Friant and Delta-Mendota contracting districts) after the point where their CVP supplies are commingled with other water supplies.</p>
	Section 3405(c) unchanged	
<p>(d) Water Pricing Reform.--All Central Valley Project water service or repayment contracts for a term longer than three years for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation law after the date of enactment of this title</p>	<p>(d) Water Pricing Reform.--All Central Valley Project water service or repayment contracts for a term longer than three years for agricultural, municipal, or industrial purposes that are entered into, renewed, or amended under any provision of Federal Reclamation law after the date of enactment of this title shall provide that all project water subject to contract shall</p>	<p>Section 104(3) of H.R. 1837 strikes the system of tiered pricing for the use of CVP water. Eliminates another priority of CVPIA water conservation. Striking this section also reduces revenues from tiered pricing that go into the Restoration Fund.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>shall provide that all project water subject to contract shall be made available to districts, agencies, and other contracting entities pursuant to a system of tiered water pricing. Such a system shall specify rates for each district, agency or entity based on an inverted block rate structure with the following provisions:</p> <p>(1) the first rate tier shall apply to a quantity of water up to 80 percent of the contract total and shall not be less than the applicable contract rate;</p> <p>(2) the second rate tier shall apply to that quantity of water over 80 percent and under 90 percent of the contract total and shall be at a level halfway between the rates established under paragraphs (1) and (3) of this subsection;</p> <p>(3) the third rate tier shall apply to that quantity of water over 90 percent of the contract total and shall not be less than the full cost rate; and</p> <p>(4) the Secretary shall charge contractors only for water actually delivered. The Secretary shall waive application of this subsection as it relates to any project water delivered to produce a crop which the Secretary determines will provide significant and quantifiable habitat values for water fowl in fields where the water is used and the crops are produced; Provided, That such waiver shall apply only if such habitat values can be assured consistent with the goals and objectives of this title through binding agreements executed with or approved by the Secretary.</p>	<p>be made available to districts, agencies, and other contracting entities pursuant to a system of tiered water pricing. Such a system shall specify rates for each district, agency or entity based on an inverted block rate structure with the following provisions:</p> <p>(1) the first rate tier shall apply to a quantity of water up to 80 percent of the contract total and shall not be less than the applicable contract rate;</p> <p>(2) the second rate tier shall apply to that quantity of water over 80 percent and under 90 percent of the contract total and shall be at a level halfway between the rates established under paragraphs (1) and (3) of this subsection;</p> <p>(3) the third rate tier shall apply to that quantity of water over 90 percent of the contract total and shall not be less than the full cost rate; and</p> <p>(4) the Secretary shall charge contractors only for water actually delivered. The Secretary shall waive application of this subsection as it relates to any project water delivered to produce a crop which the Secretary determines will provide significant and quantifiable habitat values for water fowl in fields where the water is used and the crops are produced; Provided, That such waiver shall apply only if such habitat values can be assured consistent with the goals and objectives of this title through binding agreements executed with or approved by the Secretary.</p>	

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>(f) Increased Revenues.--All revenues received by the Secretary as a result of the increased repayment rates applicable to water transferred from irrigation use to municipal and industrial use under subsection 3405(a) of this section, and all increased revenues received by the Secretary as a result of the increased water prices established under subsection 3405(d) of this section, shall be covered to the Restoration Fund.</p>	<p>(f) Increased Revenues. <i>RESTORATION FUND</i>--All revenues received by the Secretary as a result of the increased repayment that exceed the cost-of-service rate rates applicable to <i>the delivery of</i> water transferred from irrigation use to municipal and industrial use under subsection 3405(a) of this section, and all increased revenues received by the Secretary as a result of the increased water prices established under subsection 3405(d) of this section, shall be covered to the Restoration Fund shall be deposited into the Restoration Fund, as established under section 3407.</p>	<p>The new subsection states that revenues in excess of cost-of-service rates are required to be deposited to the Restoration Fund.</p> <p>It is unclear what happens to revenues less than the cost-of-service rates- assumption would be that this would be returned to the treasury and be credited toward payment obligations.</p>
<p>SECTION 3406. FISH, WILDLIFE, IMPROVED WATER MANAGEMENT & CONSERVATION</p>	<p>SEC. 105. FISH, WILDLIFE, AND HABITAT RESTORATION.</p> <p>Section 3406 of the Central Valley Project Improvement Act (106 Stat. 4714) is amended as follows:</p>	
	<p>Section 3406 (a) unchanged</p>	
	<p>Section 3406(b)(1)(A) unchanged</p>	
<p>(B) As needed to achieve the goals of this program, the Secretary is authorized and directed to modify Central Valley Project operations to provide flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish, except that such flows shall be provided from the quantity of water dedicated to fish, wildlife, and habitat restoration purposes under paragraph (2) of this subsection; from the water supplies acquired pursuant to paragraph (3) of this subsection; and from other sources which do not conflict with fulfillment of the Secretary's remaining contractual obligations to provide Central Valley Project water for other authorized purposes. Instream flow needs for all Central Valley Project controlled streams and rivers shall be determined by the Secretary based on</p>	<p>Section 3406(b)(1)(B) <i>MODIFICATION OF PROGRAM</i></p> <p><i>(i) In General.</i>-- As needed to achieve the goals of this program <i>established under this paragraph</i>, the Secretary is authorized and directed to <i>may</i> modify Central Valley Project operations to provide <i>reasonable water</i> flows of suitable quality, quantity, and timing to protect all life stages of anadromous fish except that. Such flows shall be provided from the quantity of water dedicated to fish, wildlife, and habitat restoration purposes under paragraph (2); of this subsection; from the water supplies acquired pursuant to paragraph (3) of this subsection; and from other sources which that do not conflict with fulfillment of the Secretary's remaining contractual obligations to provide Central Valley Project water for other authorized purposes. <i>Reasonable</i> instream flow needs for all Central Valley Project controlled streams and rivers shall be determined by the Secretary based on recommendations of the U.S. Fish and Wildlife <i>Service</i></p>	<p>Section 105 allows, instead of directs, the Secretary to modify CVP operations to provide flows to protect fish. Adds the term "Reasonable" flows which is defined in section 102 (new subsection in CVPIA)</p> <p>Also directs that such flows shall be provided from b(2) water. Attempts to create a ceiling of environmental water limited to 800,000 af.</p> <p>Language removes consultation on instream flows with the State California Department Fish and Game. Includes two federal</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
recommendations of the U.S. Fish and Wildlife Service after consultation with the California Department of Fish and Game.	<i>and the National Marine Fisheries Service</i> after consultation with the California Department of Fish and Game <i>United States Geological Survey.</i>	agencies: NMFS and USGS. No deference to the state.
	Section 3406(b)(1)(C-D) unchanged	
<p>Section 3406(b)(2)</p> <p>Upon enactment of this title dedicate and manage annually 800,000 acre-feet of Central Valley Project yield for the primary purpose of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title; to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help meet such obligations as may be legally imposed upon the Central Valley Project under state or federal law following the date of enactment of this title, including but not limited to additional obligations under the federal Endangered Species Act. For the purpose of this section, the term "Central Valley Project yield" means the delivery capability of the Central Valley Project during the 1928-1934 drought period after fishery, water quality, and other flow and operational requirements imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing at the time of enactment of this title have been met.</p>	<p>Section 3406(b)(2)</p> <p>Upon enactment of this title dedicate and manage annually 800,000 acre-feet of Central Valley Project yield for the primary purposes of implementing the fish, wildlife, and habitat restoration purposes and measures authorized by this title; to assist the State of California in its efforts to protect the waters of the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; and to help meet such obligations as may be legally imposed upon the Central Valley Project under state or federal law following the date of enactment of this title, including, but not limited to additional obligations under the federal Endangered Species Act. For the purpose of this section, the term "Central Valley Project yield" means the delivery capability of the Central Valley Project during the 1928-1934 drought period after fishery, water quality, and other flow and operational requirements imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing at the time of enactment of this title have been met. <i>All Central Valley Project water used for the purposes specified in this paragraph shall be credited to the quantity of Central Valley Project yield dedicated and managed under this paragraph by determining how the dedication and management of such water would affect the delivery capability of the Central Valley Project during the 1928 to 1934 drought period after fishery, water quality, and other flow and operational requirements imposed by terms and conditions existing in licenses, permits, and other agreements pertaining to the Central Valley Project under applicable State or Federal law existing on October 30, 1992, have been met. To</i></p>	<p>Section 105(B)</p> <p>Deletes the word "primary," thus putting the fish, wildlife and habitat restoration purposes on par with other requirements (e.g. in-Delta ESA and CWA needs) for which water may be needed.</p> <p>Eliminates the primary purpose of b(2), eliminates the open ended use of b(2) (so does not apply to new obligations). Use b(2) to meet the Accord. b(2) water shall be reused (where now it is not mandatory) and puts on additional obligations.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<i>the fullest extent possible and in accordance with section 3411, Central Valley Project water dedicated and managed pursuant to this paragraph shall be reused to fulfill the Secretary's remaining contractual obligations to provide Central Valley Project water for agricultural or municipal and industrial purposes.</i>	
	Section 3406(b)(2)(A-B) unchanged	
(C) The Secretary may temporarily reduce deliveries of the quantity of water dedicated under this paragraph up to 25 percent of such total whenever reductions due to hydrologic circumstances are imposed upon agricultural deliveries of Central Valley Project water; Provided, That such reductions shall not exceed in percentage terms the reductions imposed on agricultural service contractors; provided further, That nothing in this subsection or subsection 3406(e) shall require the Secretary to operate the project in a way that jeopardizes human health or safety.	(C) The Secretary may temporarily reduce deliveries of the quantity of water dedicated under this paragraph up to 25 percent of such total whenever reductions due to hydrologic circumstances are imposed upon agricultural deliveries of Central Valley Project water; Provided, That such reductions shall not exceed in percentage terms the reductions imposed on agricultural service contractors; provided further, That nothing in this subsection or subsection 3406(e) shall require the Secretary to operate the project in a way that jeopardizes human health or safety. <i>If by March 15th of any year the quantity of Central Valley Project water forecasted to be made available to water service or repayment contractors in the Delta Division of the Central Valley Project is below 75 percent of the total quantity of water to be made available under said contracts, the quantity of Central Valley Project yield dedicated and managed for that year under this paragraph shall be reduced by 25 percent.</i>	Under existing law, you reduce b2 allocations when you reduce deliveries to settlement and exchange contractors. Language says that you reduce b2 by 25 percent if the agriculture service contractors get less than 75 percent at the March 15 allocation. Also limits allocation to b2 water to March 15- which is a conservative forecast.
	Section 3406(b)(2)(D) unchanged Section 3406(b)(3-23) unchanged Section 3406(c-h) unchanged	
	<i>Section 3406 (i) included:</i> <i>(i) SATISFACTION OF PURPOSES.— By pursuing the programs and activities authorized by this section, the Secretary shall be deemed to have met the mitigation, protection, restoration, and enhancement purposes of section 2 of the Act of August 26, 1937 (Chapter 832; 50 Stat.850).</i>	Section 3406(i) deems <i>pursuing</i> authorized activities counts as <i>meeting</i> the fish and wildlife purposes of the CVP authorization act as amended. This would appear to set a lower threshold for meeting the standard; agencies would merely have to show they were pursuing activities in order to

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
		meet the requirement of this Act.
<p>SECTION 3407. RESTORATION FUND</p> <p>(a) Restoration Fund Established.--There is hereby established in the Treasury of the United States the "Central Valley Project Restoration Fund" (hereafter "Restoration Fund") which shall be available for deposit of donations from any source and revenues provided under sections 3404(c) (3), 3405(f), 3406(c) (1), and 3407(d) of this title. Amounts deposited shall be credited as offsetting collections. Not less than 67 percent of all funds made available to the Restoration Fund under this title are authorized to be appropriated to the Secretary to carry out the habitat restoration, improvement and acquisition (from willing sellers) provisions of this title. Not more than 33 percent of all funds made available to the Restoration Fund under this title are authorized to be appropriated to the Secretary to carry out the provisions of paragraphs 3406(b) (4)-(6), (10)-(18), and (20)-(22) of this title. Monies donated to the Restoration Fund by non-Federal entities for specific purposes shall be expended for those purposes only and shall not be subject to appropriation.</p>	<p>SEC. 106. RESTORATION FUND.</p> <p>Section 3407 of the Central Valley Project Improvement Act (106 Stat. 4714) is amended as follows:</p> <p><i>“(1) IN GENERAL.—”</i> There is hereby established in the Treasury of the United States the "Central Valley Project Restoration Fund" (hereafter "Restoration Fund") which shall be available for deposit of donations from any source and revenues provided under sections 3404(c) (3), 3405(f), 3406(c) (1), and 3407(d) of this title. Amounts deposited shall be credited as offsetting collections. Not less than 67 percent of all funds made available to the Restoration Fund under this title are authorized to be appropriated to the Secretary to carry out the habitat restoration, improvement and acquisition (from willing sellers) provisions of this title. Not more than 33 percent of all funds made available to the Restoration Fund under this title are authorized to be appropriated to the Secretary to carry out the provisions of paragraphs 3406(b) (4)-(6), (10)-(18), and (20)-(22) of this title. Monies <i>Monies</i> donated to the Restoration Fund by non-Federal entities for specific purposes shall be expended for those purposes only and shall not be subject to appropriation.</p> <p><i>“(2) PROHIBITIONS.—The Secretary may not directly or indirectly require a donation or other payment to the Restoration Fund—</i></p> <p><i>“(A) or environmental restoration or mitigation fees not otherwise provided by law, as a condition to—</i></p> <p><i>“(i) providing for the storage or conveyance of non-Central Valley Project water pursuant to Federal reclamation laws; or</i></p> <p><i>“(ii) the delivery of water pursuant to</i></p>	<p>Strikes the CVPIA requirement that not less than 67% of Central Valley Project Restoration Fund monies are authorized to carry out habitat restoration, improvement and acquisitions. Instead, the money can be used to meet any action specified by this Act.</p> <p>Prohibits mandatory direct or indirect payment to the Restoration Fund not otherwise provided by law. Essentially no funds will be deposited into the account for environmental restoration or mitigation.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p><i>section 215 of the Reclamation Reform Act of 1982 (Public Law 97-293; 96 Stat. 1270); or</i></p> <p><i>“(B) for any water that is delivered with the sole intent of groundwater recharge.”</i></p>	(ii) Doesn't require the payment of Section 215 (Surplus) water for the sole intent of groundwater storage (Kern).
	Section 3407(b) unchanged	
<p>(c) Mitigation and Restoration Payments by Water and Power Beneficiaries.--</p> <p>(1) To the extent required in appropriation Acts, the Secretary shall assess and collect additional annual mitigation and restoration payments, in addition to the charges provided for or collected under sections 3404(c) (3), 3405(a) (1) (C), 3405(f), and 3406(c) (1) of this title, consisting of charges to direct beneficiaries of the Central Valley Project under subsection (d) of this section in order to recover a portion or all of the costs of fish, wild fish, and habitat restoration programs and projects under this title.</p>	<p>(c) Mitigation and Restoration Payments by Water and Power Beneficiaries.--</p> <p>(1) To the extent required in appropriation Acts, the Secretary shall assess and collect additional annual mitigation and restoration payments, in addition to the charges provided for or collected under sections 3404(c) (3), 3405(a) (1) (C), 3405(f), and 3406(c) (1) of this title, consisting of charges to direct beneficiaries of the Central Valley Project under subsection (d) of this section in order to recover a portion or all of the costs of fish, wild fish, and habitat restoration programs and projects under this title <i>of carrying out all activities described in this title.</i></p>	<p>Payments are no longer strictly for mitigation. Removes the RF limitation and allows for the use of funds for all activities described in Title I.</p> <p>Adds “carrying out” in references to recovering the costs of the program, but drops fish, wild fish, and habitat restoration from the costs listed. Could include non-fish activities, such as water supply and storage projects.</p>
	No Change to Section d(1)	
<p>Section d(2)(A)</p> <p>The Secretary shall require Central Valley Project water and power contractors to make such additional annual payments as are necessary to yield, together with all other receipts, the amount required under paragraph (c) (2) of this subsection; Provided, That such additional payments shall</p>	<p>Section d(2)(A)</p> <p>The Secretary shall require Central Valley Project water and power contractors to make such additional annual payments as are necessary to yield, together with all other receipts, the amount required under paragraph (c) (2) of this subsection; Provided, That such additional payments shall not exceed \$30,000,000 (October 1992</p>	

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>not exceed \$30,000,000 (October 1992 price levels) on a three-year rolling average basis; Provided further, That such additional annual payments shall be allocated so as not to exceed \$6.00 per acre-foot (October 1992 price levels) for agricultural water sold and delivered by the Central Valley Project, and \$12.00 per acre-foot (October 1992 price levels) for municipal and industrial water sold and delivered by the Central Valley Project, Provided further, that the charge imposed on agricultural water shall be reduced, if necessary, to an amount within the probable ability of the water users to pay as determined and adjusted by the Secretary no less than every five years, taking into account the benefits resulting from implementation of this title; Provided further, That the Secretary shall impose an additional annual charge of \$25.00 per acre-foot (October 1992 price levels) for Central Valley Project water sold or transferred to any State or local agency or other entity which has not previously been a Central Valley Project customer and which contracts with the Secretary or any other individual or district receiving Central Valley Project water to purchase or otherwise transfer any such water for its own use for municipal and industrial purposes, to be deposited in the Restoration Fund; And Provided further, That upon the completion of the fish, wildlife, and habitat mitigation and restoration actions mandated under section 3406 of this title, the Secretary shall reduce the sums described in paragraph (c) (2) of this section to \$35,000,000 per year (October 1992 price levels) and shall reduce the</p>	<p>price levels) on a three-year rolling average basis; Provided further, That such additional annual payments shall be allocated so as not to exceed \$6.00 per acre-foot (October 1992 price levels) for agricultural water sold and delivered by the Central Valley Project, and \$12.00 per acre-foot (October 1992 price levels) for municipal and industrial water sold and delivered by the Central Valley Project, <i>or after October 1, 2013, \$4 per megawatthour for Central Valley Project power sold to power contractors (October 2013 price levels)</i>; Provided further, that the charge imposed on agricultural water shall be reduced, if necessary, to an amount within the probable ability of the water users to pay as determined and adjusted by the Secretary no less than every five years, taking into account the benefits resulting from implementation of this title; Provided further, That the Secretary shall impose an additional annual charge of \$25.00 per acre-foot (October 1992 price levels) for Central Valley Project water sold or transferred to any State or local agency or other entity which has not previously been a Central Valley Project customer and which contracts with the Secretary or any other individual or district receiving Central Valley Project water to purchase or otherwise transfer any such water for its own use for municipal and industrial purposes, to be deposited in the Restoration Fund; And Provided further, That upon the completion of the fish, wildlife, and habitat mitigation and restoration actions mandated under section 3406 of this title, <i>no later than December 31, 2020</i>, the Secretary shall reduce the sums described in paragraph (c) (2) of this section to \$35,000,000 per year (October 1992 price levels) and shall reduce the annual mitigation and restoration payment ceiling established under this subsection to \$15,000,000 (October 1992 price levels) on a three-year rolling average basis. The amount of the mitigation and restoration payment</p>	<p>Sets a limit of \$4 per megawatt-hour on payments to the Restoration Fund for CVP power sold to contractors. Requires that total payments into the Restoration Fund from water and power users be reduced from 30 million to \$15 million by December 31, 2020.</p> <p>Deems that fish, wildlife and habitat mitigations are complete by December 31, 2020. (therefore no more deposits into the reclamation fund).</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>annual mitigation and restoration payment ceiling established under this subsection to \$15,000,000 (October 1992 price levels) on a three-year rolling average basis. The amount of the mitigation and restoration payment made by Central Valley Project water and power users, taking into account all funds collected under this title, shall, to the greatest degree practicable, be assessed in the same proportion, measured over a ten-year rolling average, as water and power users' respective allocations for repayment of the Central Valley Project.</p>	<p>made by Central Valley Project water and power users, taking into account all funds collected under this title, shall, to the greatest degree practicable, be assessed in the same proportion, measured over a ten-year rolling average, as water and power users' respective allocations for repayment of the Central Valley Project.</p>	
	<p>Section 3407 (e-f) unchanged</p>	
	<p>Added to the end of Section 3407:</p> <p><i>(g) REPORT ON EXPENDITURE OF FUNDS.—At the end of each fiscal year, the Secretary, in consultation with the Restoration Fund Advisory Board, shall submit to Congress a plan for the expenditure of all of the funds deposited into the Restoration Fund during the preceding fiscal year. Such plan shall contain a cost effectiveness analysis of each expenditure.</i></p> <p><i>(h) ADVISORY BOARD.—</i></p> <p><i>“(1) ESTABLISHMENT.—There is hereby established the Restoration Fund Advisory Board (hereinafter in this section referred to as the ‘Advisory Board’) composed of 12 members selected by the Secretary, each for four-year terms, one of whom shall be designated by the Secretary as Chairman. The members shall be selected so as to represent the various Central Valley Project stakeholders, four of whom shall be from CVP agricultural users, three from CVP municipal and industrial users, three from CVP power contractors, and two at the discretion of the Secretary. The Secretary and the Secretary of Commerce may each designate a</i></p>	<p>Establishes an Advisory Board for the management and expenditure of the restoration fund. Requires and annual report to Congress.</p> <p>There are no environmental, tribal, or business-related members that are specified to be a part of this board.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p><i>representative to act as an observer of the Advisory Board.</i></p> <p><i>“(2) DUTIES.—The duties of the Advisory Board are as follows:</i></p> <p><i>“(A) To meet at least semiannually to develop and make recommendations to the Secretary regarding priorities and spending levels on projects and programs carried out pursuant to the Central Valley Project Improvement Act.</i></p> <p><i>“(B) To ensure that any advice or recommendation made by the Advisory Board to the Secretary reflect the independent judgment of the Advisory Board.</i></p> <p><i>“(C) Not later than December 31, 2013, and annually thereafter, to transmit to the Secretary and Congress recommendations required under subparagraph (A).</i></p> <p><i>“(D) Not later than December 31, 2013, and biennially thereafter, to transmit to Congress a report that details the progress made in achieving the actions mandated under section 3406 of this title.</i></p> <p><i>“(3) ADMINISTRATION.—With the consent of the appropriate agency head, the Advisory Board may use the facilities and services of any Federal agency.”.</i></p>	<p>Allows for the use ANY federal facility for the advisory board.</p>
SEC. 3408. ADDITIONAL AUTHORITIES.	SEC. 107. ADDITIONAL AUTHORITIES.	
	Section 3408(a-b) unchanged	
(c) Contracts for Additional Storage and Delivery of Water.-- The Secretary is authorized to enter into contracts pursuant to Reclamation law and this title with any Federal agency, California water user or water agency, State agency, or private non-profit organization for the exchange, impoundment, storage, carriage, and delivery of Central Valley	(c) Contracts for Additional Storage and Delivery of Water.== (1) IN GENERAL.-- The Secretary is authorized to enter into contracts pursuant to <u>Federal</u> Reclamation law and this title with any Federal agency, California water user or water agency, State agency, or private non-profit organization for the exchange, impoundment, storage, carriage, and	Strikes non-profit

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>Project and non-project water for domestic, municipal, industrial, fish and wildlife, and any other beneficial purpose, except that nothing in this subsection shall be deemed to supersede the provisions of section 103 of Pub. L. 99-546 (100 Stat. 3051).</p>	<p>delivery of Central Valley Project and non-project water for domestic, municipal, industrial, fish and wildlife, and any other beneficial purpose. Except that nothing in this subsection shall be deemed to supersede the provisions of section 103 of Pub. L. 99-546 (100 Stat. 3051).</p> <p><i>(2) LIMITATION.--, except that n</i> Nothing in this subsection shall be deemed to supersede the provisions of section 103 of Pub. L. 99-546 (100 Stat. 3051).</p> <p><i>(3) AUTHORITY FOR CERTAIN ACTIVITIES.-- The Secretary shall use the authority granted by this subsection in connection with requests to exchange, impound, store, carry, or deliver nonproject water using Central Valley Project facilities for any beneficial purpose.</i></p> <p><i>(4) RATES.—The Secretary shall develop rates not to exceed the amount required to recover the reasonable costs incurred by the Secretary in connection with a beneficial purpose under this subsection. Such rates shall be charged to a party using Central Valley Project facilities for such purpose. Such costs shall not include any donation or other payment to the Restoration Fund.</i></p> <p><i>(5) CONSTRUCTION.—This subsection shall be construed and implemented to facilitate and encourage the use of Central Valley Project facilities to exchange, impound, store, carry, or deliver nonproject water for any beneficial purpose.</i></p>	<p>This language will facilitate the transfer of non-project and project water from new sources, including those storage studies authorized under CALFED (eg.Sites Reservoir)</p> <p>Nothing in this subsection supersedes the Coordinated operations agreement.</p> <p>Currently payments for transferred water go into the Reclamation Fund. This prohibits transferred water from going into the Reclamation Fund.</p> <p><i>Warren Act?</i></p>
	Section 3408 (d-e) unchanged	
<p>(f) Annual Reports to Congress.-- Not later than September 30 of each calendar year after the date of enactment of this title, the Secretary shall submit a detailed report to the Committee on Energy and Natural Resources of</p>	<p>(f) Annual Reports to Congress.--Not later than September 30 of each calendar year after the date of enactment of this title, the Secretary shall submit a detailed report to the Committee on Energy and Natural Resources of the Senate and the</p>	<p>Technical amendment-reflecting name change of Authorization Committee.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>the Senate and the committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries of the House of Representatives. Such report shall describe all significant actions taken by the Secretary pursuant to this title and progress toward achievement of the intent, purposes and provisions of this title. Such report shall include recommendations for authorizing legislation or other measures, if any, needed to implement the intent, purposes and provisions of this title.</p>	<p>committee on Interior and Insular Affairs and the Committee on Merchant Marine and Fisheries <i>Natural Resources</i> of the House of Representatives. Such report shall describe all significant actions taken by the Secretary pursuant to this title and progress toward achievement of the intent, purposes and provisions of this title, <i>including progress on the plan required by subsection (j).</i> Such report shall include recommendations for authorizing legislation or other measures, if any, needed to implement the intent, purposes and provisions of this title. <i>The filing and adequacy of such report shall be personally certified to the Committees referenced above by the Regional Director of the Mid-Pacific Region of the Bureau of Reclamation.</i></p>	<p>Bypasses the Secretary and goes directly to Congress from the MP Regional Director.</p>
	<p>Section 3408(g) unchanged</p>	
<p>Section 3408(h) Land Retirement. -</p> <p>(1) The Secretary is authorized to purchase from willing sellers land and associated water rights and other property interests identified in paragraph (h) (2) which receives Central Valley Project water under a contract executed with the United States, and to target such purchases to areas deemed most beneficial to the overall purchase program, including the purposes of this title.</p> <p>(2) The Secretary is authorized to purchase, under the authority of paragraph (h) (i), and pursuant to such rules and regulations as may be adopted or promulgated to implement the provisions of this subsection, agricultural land which, in the opinion of the Secretary -</p> <p>(A) would, if permanently retired from irrigation, improve water conservation by a district, or improve the quality of an irrigation</p>	<p>Section 3408(h) Land Retirement.--</p> <p>(1) The Secretary is authorized to purchase from willing sellers land and associated water rights and other property interests identified in paragraph (h) (2) which receives Central Valley Project water under a contract executed with the United States, and to target such purchases to areas deemed most beneficial to the overall purchase program, including the purposes of this title.</p> <p>(2) The Secretary is authorized to purchase, under the authority of paragraph (h) (i), and pursuant to such rules and regulations as may be adopted or promulgated to implement the provisions of this subsection, agricultural land which, in the opinion of the Secretary -</p> <p>(A) would, if permanently retired from irrigation, improve water conservation by a district, or improve the quality of an irrigation district's agricultural wastewater and assist the district in implementing the provisions of a water conservation plan approved under section 210 of the Reclamation Reform</p>	<p>Technical corrections.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>district's agricultural wastewater and assist the district in implementing the provisions of a water conservation plan approved under section 210 of the Reclamation Reform Act of 1982 and agricultural wastewater management activities developed pursuant to recommendations specific to water conservation, drainage source reduction, and land retirement contained in the final report of the San Joaquin Valley Drainage Program (September, 1990) ; or</p> <p>(B) are no longer suitable for sustained agricultural production because of permanent damage resulting from severe drainage or agricultural wastewater management problems, groundwater withdrawals, or other causes.</p>	<p>Act of 1982 and agricultural wastewater management activities developed pursuant to recommendations specific to water conservation, drainage source reduction, and land retirement contained in the final report of the San Joaquin Valley Drainage Program (September, 1990) ; or</p> <p>(B) are no longer suitable for sustained agricultural production because of permanent damage resulting from severe drainage or agricultural wastewater management problems, groundwater withdrawals, or other causes.</p>	
	Section 3408 (i) unchanged	
<p>(j) Project Yield Increase.--In order to minimize adverse effects, if any, upon existing Central Valley Project water contractors resulting from the water dedicated to fish and wildlife under this title, and to assist the State of California in meeting its future water needs, the Secretary shall, not later than three years after the date of enactment of this title, develop and submit to the Congress, a least-cost plan to increase, within fifteen years after the date of enactment of this title, the yield of the Central Valley Project by the amount dedicated to fish and wildlife purposes under this title. The plan authorized by this subsection shall include, but shall not be limited to a description of how the Secretary intends to use the following options:</p> <p>(1) Improvements in, modification of, or additions to the facilities</p>	<p>(1) Project Yield Increase In General- In order to minimize adverse effects, if any, upon existing Central Valley Project water contractors resulting from the water dedicated to fish and wildlife under this title, and to assist the State of California in meeting its future water needs, the Secretary shall, not later than three years after the date of enactment of this title, develop and submit to the Congress, a the Secretary, on a priority basis and not later than September 30, 2013, shall submit to Congress a least-cost plan to increase as soon as possible but not later than September 30, 2016 (except for the construction of new facilities which shall not be limited by that deadline), the water of the Central Valley Project by the amount dedicated and managed for fish and wildlife purposes under this title and otherwise required to meet the purpose of the Central Valley Project including <u>contractual obligations</u>. The plan required by this subsection shall include <u>recommendations on appropriate cost-</u></p>	<p>Deletes "if any" from sentence qualifying whether CVP contractors may experience adverse effects from implementation of CVPIA.</p> <p>Adds "on a priority basis"</p> <p>Requires the Secretary to submit a report to Congress no later than September 30, 2016.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
<p>and operations of the project;</p> <p>(2) Conservation;</p> <p>(3) Transfers;</p> <p>(4) Conjunctive use;</p> <p>(5) Purchase of water;</p> <p>(6) Purchase and idling of agricultural land; and</p> <p>(7) Direct purchase of water rights.</p> <p>Such plan shall include recommendations on appropriate cost-sharing arrangements and shall be developed in a manner consistent with all applicable State and Federal law.</p>	<p>sharing arrangements and authorizing legislation or other measures needed to implement, intent, purposes and provisions of this subsection and a description of how the Secretary intends to use the following options- within fifteen years after the date of enactment of this title, the yield of the Central Valley Project by the amount dedicated to fish and wildlife purposes under this title. The plan authorized by this subsection shall include, but shall not be limited to a description of how the Secretary intends to use the following options:</p> <p>(4 A) Improvements in, modification of, or additions to the facilities and operations of the project and construction of new water storage facilities;</p> <p>(2 B) Conservation;</p> <p>(3 C) Transfers;</p> <p>(4 D) Conjunctive use;</p> <p>(5 E) Purchase of water;</p> <p>(6 F) Purchase and idling of agricultural land;</p> <p>(7 G) Direct purchase of water rights.</p> <p>(H) Water banking and recharge.</p> <p>(2) IMPLEMENTATION OF PLAN.— The Secretary shall implement the plan required by paragraph (1) commencing on October 1, 2013. In order to carry out this subsection, the Secretary shall coordinate with the State of California in implementing measures for the long-term resolution of problems in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary.</p> <p>(3) FAILURE OF THE PLAN.— Notwithstanding any other provision of Federal reclamation law, if by</p>	<p>Requires that the Secretary write a plan that would replace any water dedicated to fish and wildlife as well as meet CVP contractual obligations (like Westlands Water District). This plan could include the Secretary determining that new facilities are necessary to meet contractual obligations.</p> <p>Upon appropriation of required funds, this section appears to implement or pre-authorize projects or programs included in the plan.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	September 30, 2016, the plan required by paragraph (1) fails to increase the annual delivery capability of the Central Valley Project by 800,000 acre-feet, implementation of any non-mandatory action under section 3406(b)(2) shall be suspended until the plan achieves an increase in the annual delivery capability of the Central Valley Project by 800,000 acre-feet.”.	If the plan fails to increase annual delivery by 800,000 af, the dedicated water to the environment must also be suspended.
	Added Section 3408(l) (e) Water storage project construction.—The Secretary, acting through the Commissioner of the Bureau of Reclamation, may partner on the water storage projects identified in section 103(d)(1) of the Water Supply Reliability, and Environmental Improvement Act (Public Law 108–361)(and Acts supplemental and amendatory to the Act) with local joint powers authorities formed pursuant to State law by irrigation districts and other local water districts and local governments within the applicable hydrologic region, to advance these projects. No Federal funds are authorized for this purpose and each water storage project is authorized for construction if non-Federal funds are used for financing and constructing the project.	Denham Storage Amendment from 2/16 FC Markup. Would authorize the construction of Sites Reservoir, but without federal funding. Prohibiting federal funding would deter the project from being constructed, since Reclamation cannot work with the JPA for free.
	Section 3409-Section 3412 unchanged	
	<p>SEC. 108. BAY DELTA ACCORD</p> <p>(a) Congressional direction regarding central valley project and California state water project operations.—The Central Valley Project and the State Water Project shall be operated pursuant to the water quality standards and operational constraints described in the “Principles for Agreement on the Bay-Delta Standards Between the State of California and the Federal Government” dated December 15, 1994, and such operations shall proceed without regard to the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or any other law pertaining to the operation of the</p>	<p>*(NEW Section)*</p> <p>Directs that CVP and SWP be operated according to the 1994 Bay Delta Accord, and “such operations shall proceed without regard to the Endangered Species Act OR any other law.” Conflicts with Section 402.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p>Central Valley Project and the California State Water Project. Implementation of this section shall be in strict conformance with the “Principles for Agreement on the Bay-Delta Standards Between the State of California and the Federal Government” dated December 15, 1994.</p> <p>(b) Application of laws to others.— Neither a Federal department nor the State of California, including any agency or board of the State of California, shall impose on any valid water right obtained pursuant to State law, including a pre-1914 appropriative right, any condition that restricts the exercise of that water right in order to conserve, enhance, recover or otherwise protect any species that is affected by operations of the Central Valley Project or California State Water Project. Nor shall the State of California, including any agency or board of the State of California, restrict the exercise of any valid water right obtained pursuant to State law, including a pre-1914 appropriative right, in order to protect, enhance, or restore under the Public Trust Doctrine any public trust value. Implementation of the “Principles for Agreement on the Bay-Delta Standards Between the State of California and the Federal Government” dated December 15, 1994, shall be in strict compliance with the water rights priority system and statutory protections for areas of origin.</p> <p>(c) Costs.—No cost associated with the implementation of this section shall be imposed directly or indirectly on any Central Valley Project contractor, or any other person or entity, unless such costs are incurred on a voluntary basis.</p> <p>(d) Native species protection.— California law is preempted with respect to any restriction on the quantity or size of nonnative fish taken or harvested that</p>	<p>Language put in place to protect non CVP water deliveries, preempts State Constitution.</p> <p>Taxpayer pays cost of mitigation</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	preys upon one or more native fish species that occupy the Sacramento and San Joaquin Rivers and their tributaries or the Sacramento-San Joaquin Rivers Delta.	Removes State size limit on bass catch
	SEC. 109. NATURAL AND ARTIFICIALLY SPAWNED SPECIES After the date of the enactment of this title, and regardless of the date of listing, the Secretaries of the Interior and Commerce shall not distinguish between natural-spawned and hatchery-spawned or otherwise artificially propagated strains of a species in making any determination under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) that relates to any anadromous fish species present in the Sacramento and San Joaquin Rivers or their tributaries and ascend those rivers and their tributaries to reproduce after maturing in San Francisco Bay or the Pacific Ocean.	Mandates that hatchery fish be counted as part of the stock.
	SEC. 110. AUTHORIZED SERVICE AREA The authorized service area of the Central Valley Project shall include the area within the boundaries of the Kettleman City Community Services District, California, as those boundaries exist on the date of the enactment of this title. Notwithstanding the provisions of the Act of October 30, 1992 (Public Law 102–575, 106 Stat. 4600 et seq.), upon enactment of this title, the Secretary is authorized and directed to enter into a long-term contract in accordance with the reclamation laws with the Kettleman City Community Services District, California, for the delivery of up to 900 acre-feet of Central Valley Project water for municipal and industrial use. The Secretary may temporarily reduce	Expands CVP service area when there are already problems in meeting CVP contractual obligations. Affects in-Delta diverters.

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p>deliveries of the quantity of water made available pursuant to up to 25 percent of such total whenever reductions due to hydrologic circumstances are imposed upon agricultural deliveries of Central Valley Project water. If any additional infrastructure or related-costs are needed to implement this section, such costs shall be the responsibility of the non-Federal entity.</p>	
	<p>SEC. 111. REGULATORY STREAMLINING</p> <p>(a) Applicability of certain laws.—Filing of a Notice of Determination or a Notice of Exemption for any project, including the issuance of a permit under State law, related to any project of the CVP or the delivery of water there from in accordance with the California Environmental Quality Act shall be deemed to meet the requirements of section 102(2)(C) of the National Environmental Protection Act of 1969 (42 U.S.C. 4332(2)(C)) for that project or permit.</p> <p>(b) Continuation of project.—The Bureau of Reclamation shall not be required to cease or modify any major Federal action or other activity related to any project of the CVP or the delivery of water there from pending completion of judicial review of any determination made under the National Environmental Protection Act of 1969 (42 U.S.C. 4332(2)(C)).</p> <p>(c) Project defined.—For the purposes of this section:</p> <p>(1) CVP.—The term “CVP” means the Central Valley Project.</p> <p>(2) PROJECT.—The term “project”—</p> <p>(A) means an activity that—</p> <p>(i) is undertaken by a public agency, funded by a public agency, or that requires an issuance of a permit by a</p>	<p>Simply filing a notice of exemption shall satisfy any requirement to comply with NEPA.</p> <p>Allows a project to bypass NEPA if it adheres to requirements of CEQA.</p>

Central Valley Project Improvement Act	H.R. 1837 San Joaquin Valley Reliability Act ANS	Comments
	<p>public agency;</p> <p>(ii) has a potential to result in physical change to the environment; and</p> <p>(iii) may be subject to several discretionary approvals by governmental agencies;</p> <p>(B) may include construction activities, clearing or grading of land, improvements to existing structures, and activities or equipment involving the issuance of a permit; or</p> <p>(C) as defined under the California Environmental Quality Act in section 21065 of the California Public Resource Code.</p>	

GROUPS OPPOSED TO H.R. 1837

36 letters representing 277 groups - click on any group to read letter

Statement of Administration Policy
U.S. Department of the Interior
State of Colorado
State of Montana
State of New Mexico
State of Oregon
State of Wyoming
Western States Water Council¹

Elected Officials

California Secretary
for Natural Resources
Congresswoman Anna Eshoo
Congressman John Garamendi
Congressman Mike Honda
Congresswoman Zoe Lofgren
Congresswoman Doris Matsui
Congressman Jerry McNerney
Congressman George Miller
Congresswoman Grace Napolitano
Congresswoman Jackie Speier
Congressman Mike Thompson
Congresswoman Lynn Woolsey
Senator Barbara Boxer
Senator Dianne Feinstein

Newspapers

The Sacramento Bee
The San Francisco Chronicle
The San Jose Mercury News

Water Districts and Local Governments

Central Delta Water Agency
City of Sacramento
City of Stockton
Contra Costa County
Board of Supervisors
Contra Costa County
Grassland Water District
Reclamation District 999
Sacramento County
Board of Supervisors
Sacramento County
San Joaquin
Council of Governments
San Joaquin County
San Joaquin County
Board of Supervisors
San Mateo County Harbor District
Solano County
South Delta Water Agency
South San Joaquin
Irrigation District
Water Replenishment
District of Southern California
Yolo County

Business and Civic Groups

BIA of the Delta
Business Council
of San Joaquin County
California Delta
Chambers & Visitor's Bureau
California Rural
Legal Assistance Foundation
Concerned Citizens
Coalition of Stockton
The Contra Costa Council
Environmental Entrepreneurs

Hawkeye Marketing
Silicon Valley Leadership Group
Stockton Chamber of Commerce

Environmental Groups

Alameda Creek Alliance
American Rivers
AquAlliance
Audubon
Battle Creek Alliance
The Bay Institute
Berkeley Conservation Institute
Biodiversity Conservation Alliance
Butte Environmental Council
California League
of Conservation Voters
California Public Employees
for Environmental Responsibility
California
Save our Streams Council
California Water Impact Network
Cascade Action Now
Center for Biological Diversity
Center for
Sierra Nevada Conservation
Clean Water Action
Conservation Congress
Coast Action Group
Defenders of Wildlife
Desal Response Group
Desal Response Group
Earth Law Center
Earthjustice
Ebetts Pass Forest Watch
Endangered Habitats League
Endangered Species Coalition
Environmental Defense Fund

¹ 18 member body, composed of
governor-appointed representatives from
the 18 Western states

Environmental Groups

Continued

Environmental Protection
Information Center

Food and Water Watch

Foothills Conservancy

Forests Forever

Forest Unlimited

Friends of Butte Creek

Friends of the Calaveres

Friends of Del Norte

Friends of the Eel River

Friends of the Gualala River

Friends of the Lower Calavera River

Friends of the
North Fork American River

Friends of the River

Humboldt Baykeeper

Institute for Fisheries Resources

KS Wild

Living Rivers/
Colorado Riverkeeper

Madrone Audubon

Merced River

Conservation Committee

Mid-Klamath Watershed Council

Mono Lake Committee

Monterey Coastkeeper

National Parks

Conservation Association

Natural Resources Defense Council

Nature Abounds

The Nature Conservancy

Northcoast Environmental Center

North Coast Rivers Alliance

Northern California River Watch

Oceana

Oregon Waterwatch

Oregon Wild

The Otter Project

Palos Verdes Audubon Chapter

Planning and Conservation League

Protect our Water

The Public Trust Alliance

Redwood Regional
Audubon Society

Restore Hetch Hetchy

Resource Renewal Institute

Restore the Delta

The River Project

Rocky Mountain Wild

Rose Foundation

Russian Riverkeeper

Russian River

Watershed Protection Committee

Sacramento Audubon Society

Sacramento River
Preservation Trust

Safe Alternatives
for our Forest Environment

San Francisco Bay Keeper

San Joaquin Audubon

Santa Clara

County Creeks Coalition

Santa Clarita
for Planning and the Environment

Santa Cruz Women's International
League for Peace and Freedom

Save the Bay

Save the Frogs!

Sierra Club California

Sierra Foothills Audubon

Sierra Nevada Alliance

Siskiyou Land Conservancy

South Fort

Mountain Defense Committee

South Yuba River Citizens League

Southern California
Watershed Alliance

Trinity Lake Revitalization Alliance

Trust for Public Land

Tuolumne Conservancy

Tuolumne River Trust

Unitarian Universalist
Ministry for Earth

United Outdoorsmen

Upper Mokelumne River
Watershed Council

Waldo Holt Conservancy

Western Nebraska
Resources Council

Whidbey

Environmental Action Network

The Wilderness Society

Commercial and Recreational Fishing and Hunting Organizations and Businesses

Ankeny Street Sportfishing

American Sportfishing Association

Auburn Flycasters

Back to Class Guide Service

Bob Sands Fishing

Bob Sparre's Guide Service

Bodega Bay Fishermen's
Marketing Association

Bodega Bay Sportfishing

Boyce Image

California Inland
Fisheries Foundation

California Sportfishing
Protection Alliance

California Striped Bass Association

California Striped Bass Association
- Sacramento Chapter

California Striped Bass Association
- West Delta Chapter

Checkmate Charters

Chris' Fishing Charters

Chubasco Charters

Coastside Fishing Club

Delta Fly Fishers

**Commercial and Recreational
Fishing and Hunting
Organizations and Businesses**

Diablo Valley Fly Fishermen
El Dorado III Charters
Emeryville Sportfishing
Fishery Foundation
Fish Sniffer
Flash Sportfishing Charters
Flying Fish Charters
Foothills Angler Coalition
Fred Hall Shows
Golden Gate
Fishermen's Association
Golden Gate Salmon Association
Golden West Women Flyfishers
G. Pucci and Sons Manufacturing
Granite Bay Flycasters
Hi's Tackle Box
Hog Heaven Charters
Huck Finn Charters
Humboldt Area Saltwater Anglers
Humboldt Fishermen's
Marketing Association
Jim Cox Sport Fishing Charters
Johnson Hicks Marine
Kokanee Power
Leisure Sales
Lower Sherman Island
Duck Hunters Association
Lovely Linda Sportfishing
Lovely Martha Charters
Lower Sherman Island Duck Club
Mission Peak Fly Anglers
Monterey Fish Market
New Captain Pete Charters
New Easy Rider Charters
New Ray Ann Charters
New Salmon Queen Charters

Northern California Council
Federation of Fly Fishers
Northern California
Guides Association
Northwest Guides
and Anglers Association
Northwest Sportfishing
Industry Association
Outdoor Pro Shop
Outer Limits Charters
Outwest Marketing
P Line
Pacific Catch Fish Grill
Pacific Coast Federation
of Fishermen's Associations
Pacific Fishery
Management Council
Pasadena Casting Club
Pro-Troll Fishing Products
Queen of Hearts Charters
Que Sera Sera Charters
Rapala USA
Randy's Fishing Trips
Recreational Fishing Alliance
Reel Steel Sportfishing
Riptide Charters
Roy Gray & Associates
SalmonAid Foundation
Salmon King Lodge West
Salmon Water Now
Sandy Ann Charters
San Francisco
Crab Boat Owners Association
Santa Clarita Casting Club
Santa Cruz Fly Fishermen
Save our Wild Salmon Coalition
Sep's Outdoors Inc.
Sierra Pacific Flyfishers
Sir Randy Charters
Soleman Sportfishing Charters

Small Boat Commercial
Salmon Fishermen's Association
Sonoma County Abalone Network
Southwest Council
Federation of Fly Fishers
Sportfishing Association
of California
Spring Creek Guide Service
Stagnaro's Charters
Star of Monterey Charters
StriperFest
Sunny's Electric Marine
Ted's Sports Center
Telstar Charters
Trek II
Tri-Valley Fly Fishers
Trout Underground
Trout Unlimited
USA Fishing
Vance's Tackle
Wacky Jacky Charters
Water for Fish
West Marine

Tribal Groups

Karuk Tribe
Mocdoc Nation
Winnemen Wintu Tribe
Wishtooyo Foundation

Agricultural Groups

Friant Water Authority²
Organic Sacramento

Recreation Groups

Adventure Connection, Inc
American Whitewater
California Outdoors
Camp Lotus

² Opposition limited to San Joaquin River Restoration provisions

Recreation Groups Continued

Mokelumne River Outfitters

The O.A.R.S. Family of Companies

River and Rock Adventures

River Runners, Inc.

Rubicon Whitewater Adventures

Sport Sales

Whitewater Connection

Whitewater Voyages

April 2012

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U.S. House of Representatives
Committee on Natural Resources
Washington, DC 20515

July 5, 2011

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CHIEF OF STAFF

Dr. Donald McIsaac
 Executive Director
 Pacific Fishery Management Council
 7700 NE Ambassador Place #101
 Portland, OR 97220

Dear Dr. McIsaac:

On June 2nd and 13th, 2011, the Subcommittee on Water and Power in the Committee on Natural Resources in the U.S. House of Representatives held hearings on H.R. 1837, the San Joaquin Valley Water Reliability Act.

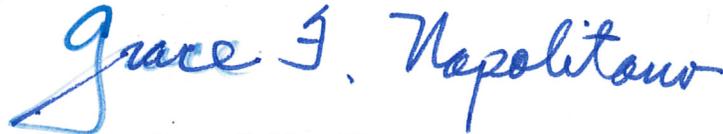
Over the course of these two hearings, we heard very specific concerns about the impacts of this bill: during the first hearing, we heard from the Bureau of Reclamation and the State of California regarding the effect of this legislation on State water law and water supply reliability; and during the second hearing, we heard from the National Oceanic and Atmospheric Administration and fishermen on the impacts of this bill on the commercial and recreational salmon fishing industries on the West Coast. After the second hearing, it remained clear that not enough information had been requested from the fishing industry, nor had there been much discussion revealing the real impact of this bill, not only on fisheries, but also on the fishing industry, tourism, and coastal economies.

The Pacific Fishery Management Council has jurisdiction over managing fisheries in the Exclusive Economic Zone off of Washington, Oregon, and California, and in 2008 and 2009 made difficult recommendations to close the Sacramento River fall run Chinook fishery, causing the loss of hundreds of millions of dollars and thousands of jobs.

Clearly, the Pacific Fishery Management Council is in a unique position to review and provide in detail how H.R. 1837, if enacted, will impact salmon populations, habitat, fisheries management, and fishermen, who are dependent on this iconic resource.

Given the Council's expertise on these issues, your analysis and comments on H.R. 1837 would be greatly appreciated. If you have any additional questions, please contact Karen Hyun or Camille Calimlim with the Natural Resources Committee at (202) 225-6065.

Sincerely,

A handwritten signature in blue ink that reads "Grace F. Napolitano". The signature is written in a cursive style with a large, stylized initial "G".

Grace F. Napolitano
Ranking Member
Subcommittee on Water and Power
Committee on Natural Resources

**A GENERAL REVIEW OF POTENTIAL EFFECTS OF H.R. 1837, THE
SACRAMENTO - SAN JOAQUIN VALLEY WATER RELIABILITY
ACT, ON CENTRAL VALLEY SALMON PRODUCTIVITY AND
SALMON FISHERIES IN OCEAN AND INLAND WATERS**

Review Draft for the April 2012 Meeting of the Pacific Fishery Management Council

March 2012

Prepared by staff of the Pacific Fishery Management Council

CONTENTS

Introduction.....	1
Potential Negative Effects on Fish Production	2
Water Flow Management	2
San Joaquin River Flow and Habitat	2
Central Valley Water Management Operations	3
Endangered Species Act Implementation Changes.....	3
Effects on Offshore and Inland Salmon Fisheries	4
Sacramento River Fall Chinook Salmon Escapement Benchmarks.....	4
Forecasts.....	4
Commercial and Recreational Catch.....	5
Fishery Economics	6
Conclusions.....	7
References.....	8

INTRODUCTION

The San Joaquin Valley Water Reliability Act, H.R. 1837 amends the Central Valley Project Improvement Act (CVPIA) and includes provisions that would alter water use policy and salmon management in the Sacramento and San Joaquin River basins. H.R. 1837 was introduced in the U.S. House of Representatives on May 11, 2011 by Congressman Devin Nunes (CA) and two cosponsors, and was referred to the Water and Power Subcommittee of the House Natural Resources Committee where it received two hearings in June of 2011.

On February 16, 2012 the U.S. House of Representatives Committee on Natural Resources considered the bill and held a markup session on H.R. 1837 and reported the bill favorably (27-17) to the U.S. House floor. After considerable floor debate on February 29, 2012, H.R. 1837 (as amended) passed the U.S. House of Representative on a vote of 246-175. In early March 2012, the bill was reported in the U.S. Senate where, as of this writing, it has been placed on the U.S. Senate Legislative calendar for consideration.

Specific to fishery matters, the bill changes the CVPIA definition of “anadromous fish” to include only native salmon and sturgeon stocks present in the Sacramento and San Joaquin Rivers as of October 30, 1992, prohibits the Secretary of Commerce from distinguishing between naturally-spawned and hatchery-spawned or otherwise artificially propagated strains of a species in making Endangered Species Act (ESA) determinations, and considers all requirements for the protection and conservation of the species listed under the ESA to be fully met if water projects are operated in a manner consistent with the Bay-Delta Accord of December 15, 1994 (Bay-Delta Accord). Additionally, H.R. 1837 would change the way funds dedicated to river and wildlife restoration would be collected and administered.

The Pacific Fishery Management Council (Pacific Council) and its Legislative Committee addressed this matter at their June 2011 and September 2011 meetings and is scheduled to take up the matter at the upcoming April 2012 meeting. In a July 5, 2011 letter to Pacific Council Executive Director Dr. Donald McIsaac (attached), Congresswoman Grace Napolitano expressed concerns regarding the economic impacts of the 2008 and 2009 fishery closures enacted by the Pacific Council in response to the collapse of Sacramento River fall Chinook (SRFC) stocks and stated that the June hearings highlighted the need for more information on the impacts of H.R. 1837 on fisheries, the fishing industry, tourism and coastal economies and requested Pacific Council comments and analysis on H.R. 1837’s impacts to salmon populations, habitat, fisheries management, and fishermen.

In an October 5, 2011 letter to Congresswoman Napolitano on behalf of the Pacific Council, Dr. McIsaac conveyed an initial response on H.R. 1837. The Pacific Council generally shared Congresswoman Napolitano’s concerns regarding the potential negative effects of H.R.1837. Noting the complexity of Central Valley water issues and its relationship to salmon populations throughout the basin, as well as the thorough scientific and public review process employed by

the Pacific Council process, both the Pacific Council and Dr. McIsaac advised the Congresswoman that a complete, detailed analysis of H.R. 1837 is an enormous endeavor that would require considerable time to complete. This document is a general, qualitative review containing relevant findings.

This document is presented in two major sections. The first focuses on the potential negative effects of H.R. 1837 on fish production. The second focuses on the potential effects of H.R. 1837 on offshore and inland salmon fisheries and Central Valley salmon management.

POTENTIAL NEGATIVE EFFECTS ON FISH PRODUCTION

Central Valley Chinook stocks include fall, late-fall, winter, and spring stocks of the Sacramento and San Joaquin rivers and their tributaries. Two of these stocks are listed under the ESA: (1) Sacramento River winter Chinook, listed as endangered in January 1994; and (2) Central Valley spring Chinook, listed as threatened in September 1999. The aggregate fall and late-fall Chinook stocks (SRFC) are the dominant stock group in the Central Valley and, particularly in abundant years, contribute the majority of the Chinook salmon caught in ocean commercial and recreational fisheries off Oregon and California and also support significant inland fisheries that include private anglers and guided fishing businesses.

WATER FLOW MANAGEMENT

It is generally recognized that there is a critical link between water flow conditions and salmon survival, particularly in drought years. Water management in important migratory times and areas can have substantial effects on salmon survival from the egg stage through the juvenile stage to the point of initial ocean residence. The Congressional Research Service noted in its February 29, 2012 report that “the extent to which [H.R. 1837] would relieve water supply shortages, particularly in drought years is uncertain.” The report notes that it is uncertain how H.R. 1837 will change factors affecting water pumping and allocation that are outside the scope of the bill such as state water quality regulations and state water rights (Cody, 2012).

The complex suite of variables of water management, natural variation in the water cycles, and confounding impacts on salmon survival combine to make it difficult to predict the future effects of water management decisions. Many important measures have been made in the interest of balancing the water needs of municipalities, agriculture, industry, and salmon since the Bay-Delta Accord. H.R. 1837 would undo many of these measures, likely tipping the balance away from improved salmon productivity.

SAN JOAQUIN RIVER FLOW AND HABITAT

Less water and less flow in the San Joaquin River will almost certainly perturb salmon runs in the basin over a broad time frame, particularly those runs facing additional habitat challenges beyond the loss of San Joaquin River habitat. H.R. 1837 would undermine habitat restoration efforts in the San Joaquin further reducing the resilience of the basin’s salmon runs. Decreased

salmon production in the San Joaquin would result in decreased fishery catches and an even greater reliance on the fall Chinook runs in the Sacramento River.

CENTRAL VALLEY WATER MANAGEMENT OPERATIONS

H.R. 1837 would change the CVPIA to “allow” rather than direct agencies to modify Central Valley Project operations to provide flows for fish and removes the California Fish and Game Commission from the list of agencies to be consulted on instream flows. The bill would disrupt existing water policies and would potentially reallocate 800,000 acre-feet of water currently earmarked for improved river flows for salmon migration. Beyond the direct impacts to the San Joaquin River, H.R. 1837 would alter CVPIA operations in the greater Central Valley, including the Sacramento River and tributaries and the delta-bay estuary. The importance of adequate flows during critical salmon migration periods has been evidenced in salmon return patterns in several West Coast basins, including the Klamath River and the Columbia River. The recent collapse of the SRFC demonstrated the vulnerability of Central Valley salmon runs, a vulnerability that would likely increase if the efforts made since 1994 to improve river conditions for salmon were removed.

ENDANGERED SPECIES ACT IMPLEMENTATION CHANGES

H.R. 1837 considers all requirements for the protection and conservation of the species listed under the ESA to be fully met if water projects are operated in a manner consistent with the Bay-Delta Accord signed December 15, 1994. Reverting to water operation standards of 1994 would predate many of the conservation actions that have been developed for the protection of Chinook salmon stocks listed under the ESA, and disallow future alterations that can enhance abundance from current levels. Such conservation measures increase the production of the listed stocks and the unlisted stocks that receive co-incident benefits, in comparison to a status quo without these measures in place. For example, there are ESA-related changes in delta water pumping operations that benefit the juvenile to adult survival of not only listed salmon stocks, but also unlisted natural spawning salmon stocks and hatchery stocks. Thus, the ESA-related provisions of H.R. 1837 are likely to adversely affect the total salmon production from Central Valley stocks.

H.R. 1837 also prohibits the Secretary of Commerce from distinguishing between naturally-spawned and hatchery-spawned or otherwise artificially propagated strains of a species in making ESA determinations. The Council is concerned that there may be situations where this could lessen focus on goals to optimize the production of naturally spawned fish and protect salmon spawning, incubation, and juvenile rearing/outmigration habitat. Both hatchery and naturally-spawned salmon play important roles in Central Valley salmon management. The majority of the SRFC escapement spawns naturally with a long-term average of over 75 percent of the total escapement since 1970. There are differences in the genetic constitution of the various natural and hatchery stocks and it is important to protect all genetic variations if Central Valley salmon production is to be optimized. To balance human benefits such as water needs,

vibrant fishing industries and communities, and resilient and productive salmon stocks, it is essential to understand the various contributions and needs of hatchery and naturally-spawned salmon in the Central Valley, something that could be diminished by this language in H.R. 1837.

EFFECTS ON OFFSHORE AND INLAND SALMON FISHERIES

Salmon stocks from the San Joaquin play a secondary role in marine fisheries and fishery management relative to the larger production from the Sacramento River portion of the basin. Adult salmon production in the San Joaquin River is determined largely by spring outflows three years earlier. Since 1986, spawner returns to the San Joaquin River have constituted less than 10 percent of the total Central Valley escapement for fall-run Chinook (PFMC, 2012). However, it is important to note that H.R. 1837 can negatively affect the production of Sacramento River salmon in addition to San Joaquin stocks.

SACRAMENTO RIVER FALL CHINOOK SALMON ESCAPEMENT BENCHMARKS

A key benchmark for Central Valley salmon management in the Pacific Council's Salmon Fishery Management Plan (FMP) is an escapement goal for fall Chinook salmon runs. The adopted escapement goal is set at a range of 122,000 to 180,000 hatchery and natural spawners in the Sacramento Basin. Hatchery and natural spawners in the San Joaquin Basin are not included in this escapement goal, but escapement benchmarks and fishery management provisions for SRFC are expected to provide for San Joaquin stocks in fisheries where both stocks are co-managed. Since 2000, Sacramento fall Chinook escapement has ranged from a high of over 700,000 in 2002 to an historic low of 40,800 in 2009 (PFMC, 2012).

FORECASTS

A critical element of the Pacific Council's preseason management process is the forecasting of future abundance. Each spring, the Council applies peer reviewed forecasting methods to estimate the total abundance of SRFC for the coming year. Fishing opportunity generally only occurs when total SRFC abundance is estimated to be over the minimum escapement level of 122,000. The greater the total SRFC abundance exceeds the escapement goal, the more surplus production is estimated for potential harvest. In years when the SRFC abundance is near or below the escapement goal minimum, ocean fisheries off California and Oregon are considerably constrained and/or closed. If the SRFC abundance sufficiently exceeds the spawning escapement goal, the Pacific Council and its advisory groups proceed to analyze a range of potential fishing seasons to assess their ability to meet escapement goals as well as the needs of fisherman and fishing communities. Salmon production in the San Joaquin basin contributes to fisheries, although fishery management in the Central Valley is largely based on SRFC. It is generally assumed that the active management and protective measures for SRFC benefit San Joaquin runs, but because San Joaquin salmon runs do not factor into the management benchmarks, they are less likely to be a limiting stock when determining fishing opportunity.

COMMERCIAL AND RECREATIONAL CATCH

California and Oregon ocean Chinook fisheries land a mix of Chinook stocks, but rely heavily on SRFC. In recent years (2008 and 2009), SRFC were the singular limiting factor in ocean salmon management, resulting in extensive closures off Oregon and California. Detailed historic salmon data can be found on the Pacific Council’s web page as published in the annual Stock Assessment and Fishery Evaluation document, the *Review of Ocean Salmon Fisheries* (PFMC, 2012).

Commercial troll fisheries off Oregon and California were closed entirely in 2008 and 2009 due to the collapse of the SRFC run and its failure to meet management objectives. Oregon and California salmon landings represent a substantial portion of West Coast Chinook landings which suffered a precipitous decline in response to the SRFC collapse (Figure 1).

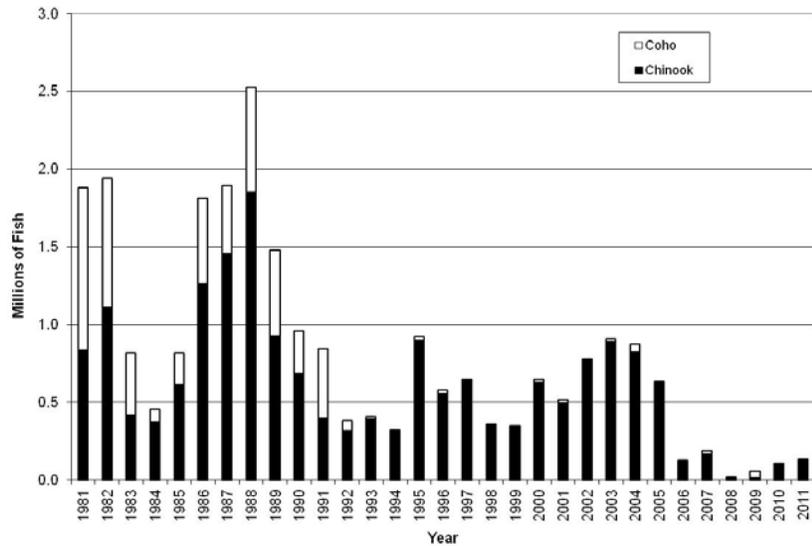


Figure 1. West Coast ocean non-Indian commercial Chinook and coho harvest.

Between 1979 and 2005, California commercial troll landings frequently exceeded 300,000 Chinook, and in 2004 over 500,000 Chinook were landed. During this same time frame, Oregon commercial troll fisheries frequently landed over 150,000 Chinook, and landed over 300,000 Chinook in 2002 and 2003.

Recreational fisheries off Oregon and California are also highly dependent on SRFC. Recreational fisheries experienced significant reductions in opportunities for Chinook fishing

Between 1976 and 2005, combined recreational fisheries in California and Oregon (south of Cape Falcon, Oregon) frequently

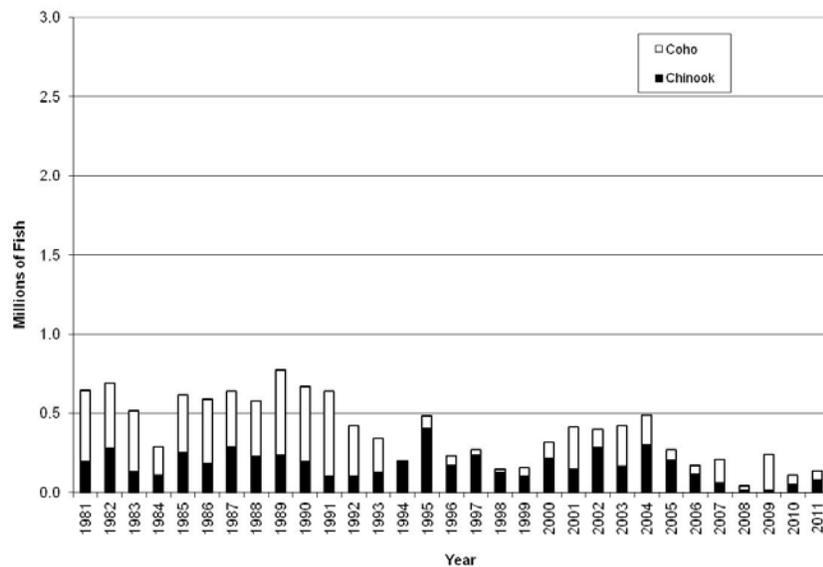


Figure 2. West Coast ocean recreational Chinook and coho harvest.

had years with over 300,000 angler trips resulting in Chinook landings of over 100,000 fish, with a landings of over 275,000 Chinook in 2004. The drastic fishery restrictions of 2008 and 2009 resulted in recreational landings in Oregon and California of approximately 700 and 1,200 Chinook respectively.

In addition to ocean fisheries, inland salmon fisheries are popular, locally important, and can be substantial in years of strong abundance. The fishery is comprised of both private sport boats as well as professional fishing guides. Inland fisheries in the Sacramento River provide recreation, harvest opportunity, and local revenue through guide services, bait and tackle sales, accommodations, and the same kind of other peripheral economic impacts as ocean salmon fisheries. The effect of H.R. 1837 on inland recreational fisheries goes beyond recreational salmon fisheries. The bill would also preempt California law with respect to limitations on the size or quantity of take of non-native species that prey upon one or more native fish species, some of which are targeted by inland recreational fisheries.

FISHERY ECONOMICS

Communities on the West Coast exhibit varying degrees of dependence on fishery revenues, and within those coastal communities with a relatively high dependence on the fishing industry there are varying degrees of dependence on salmon revenues. For several coastal communities between Monterey Bay, California and the Columbia River, revenues from recreational and commercial salmon fisheries are extremely important. Figure 3 devastating effect the 2008 collapse had on exvessel revenue (the direct value of commercially-landed salmon paid to

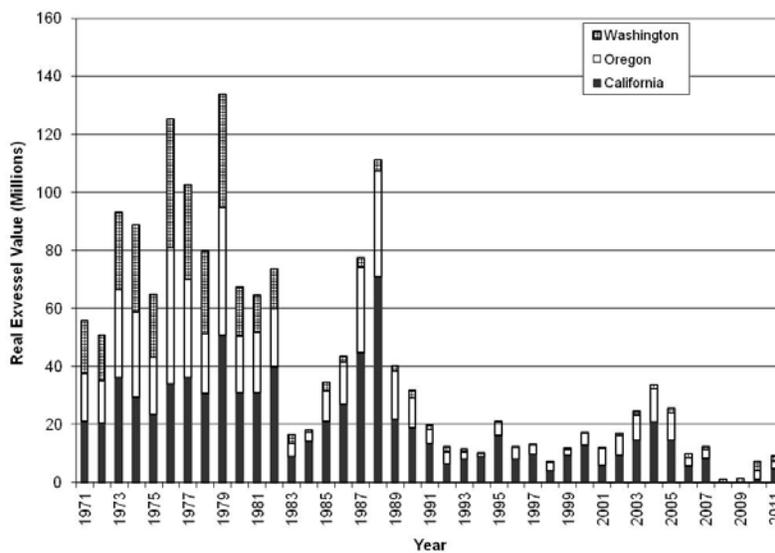


Figure 3. Exvessel value of West Coast ocean non-Indian commercial Chinook and coho landings by state of landing (inflation adjusted, 2011 dollars).

fisherman) in California and Oregon. It is important to note that exvessel revenue is only the beginning of the economic benefits provided to West Coast communities from salmon fisheries.

Revenues are not limited to exvessel values, but also include port facilities revenue, boat and tackle sales, fuel purchases, ice and cold storage services, hotel and restaurant

expenditures, etc. The Pacific Council annually estimates the state and local community income impacts of commercial and recreational ocean salmon fisheries (PFMC, 2012). Income impacts

(in inflation-adjusted 2011 dollars) represent estimates of total personal income associated with harvesting, processing and first level distribution activities in the commercial and recreational salmon fisheries at the local community (county) and state levels. Between 2000 and 2007, California commercial fishery personal income estimates averaged \$28.4 million per year. Fishery closures in 2008 and 2009 wiped out this estimated economic benefit to California. Estimated personal income impacts from California's recreational ocean fishery averaged \$15.6 million between 2000 and 2007 and fell to \$30 thousand in 2008 and \$317 thousand in 2009.

The magnitude of importance of salmon fishery income impacts on coastal communities is clearly evidenced in the 2008 collapse of SRFC and the consequent fishery closures' economic losses sufficient to warrant a \$158 million Federal disaster relief effort.

CONCLUSIONS

In the long-term, H.R. 1837's provisions regarding Central Valley water issues, implementation of the ESA, and restoration efforts will likely alter salmon production conditions in the Central Valley. As a general, qualitative conclusion, it appears H.R.1837's provisions would have an adverse effect on Central Valley salmon habitat, total salmon production, fishery participants, and fishery economic benefits.

A detailed assessment of potential salmon production loss and the loss of fishing revenues resulting from H.R. 1837 is an enormous endeavor of considerable complexity. The foundational matter of a complete analysis of effects on salmon productivity would be complicated and prodigious. Quantifying specific changes in salmon habitat in the San Joaquin basin, the Sacramento River basin, and the Central Valley delta, and San Francisco Bay would involve extensive modeling of water withdrawal and reprogramming alternatives, varied by drought, normal, and wet climate conditions; water management alternatives would need to reflect various possible changes since 1994, and speculate on possible future changes that may be required by existing ESA implementation authority.

Beyond modeling various freshwater flow and habitat parameters, different population dynamic alternatives would need to be delineated even when habitat is stable, total salmon productivity varies substantially between conditions where the parent spawner population is far short of habitat capacity, where the parent spawner population is in the range of optimum spawner abundance, and situations where the number of parent spawners exceeds the number to fully seed habitat capacity. As a further variable, a thorough analysis would need to entail a quantitative genetics module to reflect altering the genetic makeup of the various stocks through time due to the bill's requirement to not distinguish between hatchery and natural stocks. Additionally, estimates of total freshwater salmon production yielded from the preceding variables would need to be advanced to the adult ocean residence stage with consideration of different marine conditions in the ocean migratory path for Central Valley stocks, including highly unfavorable

ocean conditions for salmon, such as during the severe 1983 El Niño conditions, through normal conditions, and exceptionally good conditions for salmon survival, such as 2001-2002 and 2011.

Subsequent to analysis of total salmon production effects, it is no less complicated or substantial to achieve a complete analysis of H.R. 1837's effect on catches in marine and freshwater salmon fisheries and the consequent economic effect on the various fishing industry sectors, attendant support sectors such as marinas, boat and fishing gear wholesalers and retailers, tourism, and coastal communities. Modeling various alternative catches in ocean commercial and sport fisheries depends on the status of co-mingled stocks from other rivers such as the Klamath River and the Oregon coast. It is necessary to model catches in different time and area strata along the California and Oregon coasts, which would need to vary to reflect potentially realistic scenarios, to obtain port-specific economic revenue estimates. It is also necessary for modeling to accommodate a substantial range in freshwater fishery catches, as they typically vary collaterally with the size of the ocean fishery. Thus, assessing H.R. 1837's potential impacts to salmon productivity and the consequent fishery-related economic effects represents a considerable analytical challenge.

In general terms, West Coast fisheries and coastal communities rely on a healthy level of salmon production from the Central Valley, of which water and salmon from the San Joaquin basin plays an important role. Freshwater habitat and migratory conditions are critical for salmon populations, and careful water management throughout the Central Valley is essential in optimizing the size of salmon runs and the economic benefits to fisheries and fishing communities that depend on them. Particularly in drought years, the Pacific Council is concerned that H.R. 1837, will have negative effects on salmon productivity and the fishing industry compared to the status quo and improvements that might be forthcoming in the future.

REFERENCES

Pacific Fishery Management Council. 2012 (PFMC, 2012). *Review of 2011 Ocean Salmon Fisheries*. (Document prepared for the Council and its advisory entities.) Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, Oregon 97220-1384 (<http://www.pcouncil.org/salmon/stock-assessment-and-fishery-evaluation-safe-documents/>).

Cody, B., 2012, Congressional Research Service Report for Congress, *H.R. 1837 – The Sacramento- San Joaquin Valley Water Reliability Act*. Congressional Research Service, 7-5700, R42375

LEGISLATIVE COMMITTEE REPORT ON LEGISLATIVE MATTERS

The Legislative Committee (Committee) convened at 3:00 p.m. on Saturday, March 31, 2012. In attendance were Committee members Mr. Dan Wolford, Ms. Dorothy Lowman, Mr. Gordy Williams, Mr. David Crabbe, and Mr. Dale Myer. Also present were Council Executive Director, Dr. Don McIsaac, Council member Mr. Mark Helvey and Groundfish Advisory Subpanel member Mr. Mark Cedergreen.

The Committee briefly reviewed a variety of fishery related bills in the 112th Congress and focused the majority of the meeting on H.R. 1837 the Sacramento-San Joaquin Valley Water Reliability Act (Agenda Item H.2.a, Attachment 2). The Committee highlights information on the following two pieces of legislation for Council consideration and makes four recommendations as detailed at the end of this report.

H.R. 1837, San Joaquin Valley Water Reliability Act

The Sacramento-San Joaquin Valley Water Reliability Act (H.R. 1837, Agenda Item H.2.a, Attachment 2) amends the Central Valley Project Improvement Act (CVPIA) and includes provisions that would alter water use policy and salmon management in the Sacramento and San Joaquin River basins. In mid-February, the bill was passed out of committee and forwarded to the full U.S. House of Representatives for consideration. On February 29, 2012, after considerable floor debate, H.R. 1837 (as amended) passed the U.S. House and in early March 2012, the bill was reported in the U.S. Senate where, as of this writing, it has been placed on the U.S. Senate Legislative calendar, but has not been assigned to a Committee or scheduled for hearings..

At the September 2011 Council meeting, the Committee and the Council reviewed and expressed general opposition to H.R. 1837 in a response letter to Congresswoman Grace Napolitano who asked for Council review of the bill and its potential socioeconomic impacts. At this meeting, the Committee reviewed H.R.1837 and notes that, from the perspective of potential impacts to salmon stocks and fisheries, the recent amendments to the bill have not alleviated the Committee's previous concerns.

The Committee also reviewed a draft Council staff report on the potential effects of H.R.1837 on Central Valley salmon stocks and the fisheries that depend on them (Agenda Item H.2.a, Attachment 7), as well as a letter in opposition to the bill from the Golden Gate Salmon Association (Agenda Item H.2.d, Supplemental Public Comment). The Committee found the draft Council report to be an ample general review of the bill's potential effects and recommends the Council Executive Director forward the report to Congresswoman Napolitano with the following two additions:

- Although it is difficult to predict specific changes to the operation of the Central Valley Project from H.R.1837, it appears evident that the bill's potential alternations to the overall project could affect water flows in both the Sacramento and San Joaquin River basins. The Committee recommends that this linkage to Sacramento River flows be more fully described in the report's section entitled "Central Valley Water Management

Operation” due to the importance of Sacramento River salmon stocks to commercial and recreational salmon fisheries.

- The Council staff report presents the economic benefits of commercial and recreational salmon fisheries as personal income impacts as described in the Council’s Review of 2011 Ocean Salmon Fisheries. The Committee recommends that the description of the personal income impacts be expanded in the Council staff report to clarify which economic benefits are included in the Council figures. Additionally, the Committee notes that the letter from the Golden Gate Salmon Association references substantially higher economic benefits from a fully restored Central Valley salmon fishery as reported by Southwick Associates. The Committee discussed some preliminary reasons for the discrepancies and recommends that the Council look into the Southwick Associated reports for future Committee review, but not for the Council staff report on H.R.1837.

S.2184 (H.R.4208) Fisheries Investment and Regulatory Relief Act of 2012

S.2184 amends the Saltonstall-Kennedy Act to create a fund dedicated to supporting sustainable fishery management, scientific research, monitoring, and data collection programs. The bill was introduced March 12, 2012, by Senator Kerry and was referred the U.S. Senate Committee on Commerce, Science, and Transportation. A companion bill was introduced in the U.S. House by Representative Frank on March 26, 2012.

S.2184 would require each region’s fishery management Council to establish a fishery investment committee charged with developing a fishery investment plan to establish a grant process for distribution of funds to eligible projects in support of fishery management.

The Committee feels that these bills have the potential of moving through Congress with relative speed and could provide important financial support to fishery management during this time of budget uncertainty and proposed reductions. The Committee recommends that Council staff continue to track this matter for further Committee review in June.

Future Meeting Plans

The Committee anticipates a need to meet at the June Council meeting as indicated on the draft June Council agenda (Agenda Item H.5.a, Attachment 2) to discuss the status of existing or newly introduced Federal legislation, particularly H.R.1837 and S.2184.

The Committee adjourned at 4:30 p.m.

Legislative Committee Recommendations

It is recommended the Council:

- 1. Direct the Council Executive Director to forward the Council staff report, “A General Review of Potential Effects of H.R. 1837 the Sacramento-San Joaquin Valley Water Reliability Act, on Central Valley Salmon Productivity and Salmon Fisheries In Ocean and Inland Waters” (Agenda Item H.2.a, Attachment 7) to Congresswoman Napolitano as amended in response to the Committee’s comments above.**

- 2. Direct Council staff to follow up on the economic reports by Southwick Associates referenced in the letter from the Golden Gate Salmon Association (Agenda Item H.2.d, Supplemental Public Comment.**
- 3. Direct Council staff to track H.R.1837 and S.2184 for future Committee consideration.**
- 4. Tentatively schedule a June Committee meeting.**

PFMC
04/02/12

HABITAT COMMITTEE REPORT ON LEGISLATIVE MATTERS (H.R. 1837)

The Habitat Committee appreciates the extensive staff effort to review the potential impacts of HR 1837 (Agenda Item H.2.a., Attachment 7). Unfortunately we did not have time to review this issue in detail. Clearly, the negative impacts of this legislation to essential fish habitat and Council-managed resources would be substantial. We urge the Council to take every opportunity to voice its concerns about such impacts.

PFMC
04/01/12

SALMON ADVISORY SUBPANEL REPORT ON LEGISLATIVE ISSUES

The SAS supports the draft report prepared by the Legislative Committee (LC) and the Council's interests regarding H.R. 1837 the Sacramento-San Joaquin Valley Water Reliability Act because the bill would unravel decades of work to forge consensus, solutions, and settlements that equitably address some of California's most complex water challenges and the future benefits to dependent fisheries.

We note that section 106 of the bill proposes to add a new subsection (i) to section 3406 of the CVPIA. The amendment states:

'(i) SATISFACTION OF PURPOSES- By pursuing the activities described in this section, the Secretary shall be deemed to have met the mitigation, protection, restoration, and enhancement purposes of this title.'

The SAS believes a comment opposing this amendment be included in the LC's draft report. This is the third or fourth time since enactment of the CVPIA PL (102-575) that its opponents have tried to pass legislation with nearly identical language. To date, Congress has repeatedly refused to enact such language.

The purpose of that amendment is to equate the attempt at restoration, however half-hearted or negligently carried out, with actual restoration. The SAS believes PFMC should embrace the idea that the restoration standard should be achievement based, not merely the output of activities associated with restoration. This amendment is particularly problematic for the PFMC; to equate pursuit of restoration activities with having met restoration responsibilities is scientifically indefensible and delivers nothing to dependent salmon fisheries.

While LC's report notes the collapse of Sacramento Chinook fisheries in 2008-2009, the significant conclusion from NMFS analysis of that calamity was that hatchery practices strongly contributed to the loss in diversity of Sacramento Chinook. H.R. 1837 would effectively promote hatchery production over the needs to address natural productivity and genetic diversity of the Basin.

Federal agencies are bound by the Executive policy statement (28 February 2012) to oppose this Bill and we understand that there is strong opposition to the Bill by many California legislators. There is a strong likelihood that the bill in its present form will not pass, but PFMC should remain vigilant in coming years of efforts to "fix" California's water woes.



“The New Voice of Salmon”

Pacific Fisheries Management Council
Legislative Committee
March 30, 2012

Subject: Golden Gate Salmon Association Opposition to HR 1837

Dear Council Members

The Golden Gate Salmon Association (GGSA) would like to express our strong opposition to the ill-conceived and regressive legislation contained in HR 1837, the misleadingly entitled “Sacramento-San Joaquin Valley Water Reliability Act.” Although it passed the US House of Representatives, we do not believe that this bill merits a vote by the U.S. Senate. Nor do we think the Senate should attempt to pass any part of this bill amended as a rider to other legislation. We think the Council should use its considerable voice and weight to speak out against this bill which would cause irreparable harm to California’s Central Valley salmon fishery. Billions of dollars in economic activity and tens of thousands of jobs associated with the salmon fishery could be wiped out if this bill became law. This bill threatens at least 23,000 salmon fishing jobs, numerous communities in California and Oregon, water quality in the Bay-Delta, and the reliability of California’s water supplies.

According to a report by Southwick Associates, one of the country’s leading economic research firms for outdoor activities, a fully restored Central Valley salmon fishery would bestow an estimated \$5.6 billion in economic benefits to California and half that much to Oregon. An estimated 94,000 of jobs would be added to the 23,000 jobs currently tied to the salmon industry in California alone. Southwick based these estimates on data gleaned from the National Marine Fisheries Service’s (NMFS) annual report *Fisheries of the United States* and from the California Department of Fish and Game and the Pacific States Marine Fisheries Council jointly-owned *California Recreational Fisheries Survey*

HR 1837 would devastate these jobs and the economic sector tied to the salmon industry. In addition to commercial fishermen, seafood processors, sport fishing tackle businesses, and many other businesses would suffer. These include harbors and marinas, boat dealership and repair shops, coastal and Sacramento Valley restaurants and hotels that serve salmon fishermen, outdoor gear shops and others.

HR 1837 is radical legislation that preempts state water law, eliminates environmental protections for salmon and other commercially valuable species, guts the 1992 Central Valley Project Improvement Act, and overturns the broadly supported, court approved settlement to restore the San Joaquin River.

HR 1837 would overturn the fundamental Congressional principle which requires the federal government to follow state water law whenever possible. This principle has been a bulwark of rights reserved to the individual states and should not be violated by this kind of legislation. Even more specifically, this radical legislation would preempt the public trust doctrine as defined in the California Constitution and eliminate the implementation of a bipartisan package of water policy reform legislation adopted by the State of California in 2009.

HR 1837 would defeat efforts to restore fish populations in the Delta. Science-based protections for salmon and other endangered species are required under both California state law and the Endangered Species Act. HR 1837 would strip those protections.

Of particular interest to the Council, improvements in the fresh water salmon habitat necessitated by the ESA on behalf of listed salmonids have also benefited non-listed, commercially valuable salmon runs including the fall and late fall run. In short, ESA salmon restoration measures, which would be negated by HR 1837 have proved critical to providing freshwater flows, habitat and temperature controls needed by the commercially valuable non-listed runs.

HR 1837 would gut the Central Valley Project Improvement Act of 1992, which corrected numerous deficiencies built into the federal Central Valley Project. The Act requires compliance with *state* law, encourages water conservation, makes modest reforms to reduce water subsidies, and contributes water for the recovery of endangered fish species.

HR 1837 would overturn the 2009 court approved San Joaquin River Restoration Settlement Act which ended twenty years of litigation on the San Joaquin River. The Settlement and the Act were supported by all parties to the litigation and numerous water districts in the San Joaquin Valley and across the State, along with Members of Congress from both sides of the aisle.

HR1837 attempts to preempt state law that requires river restoration, and eliminates flood protection and water supply projects for farmers that were approved as part of the Settlement and Act. H.R. 1837 would reduce water quality and water reliability for Delta communities and Delta farmers. It seeks to ensure water flows to agribusiness in the western and southern San Joaquin Valley at the expense of smaller Delta family farmers. The recently released Economic Sustainability Report authored by the Delta Protection Commission shows that

Delta agriculture is worth \$4.2 billion annually and provides tens of thousands of jobs. Delta agriculture and jobs should not be sacrificed to benefit water users in other parts of the state, some of whom do not even use that water for agriculture. This legislation would further aggravate the water supply divide within the state and would help perpetuate the destructive “water wars” which characterize water rules in California.

HR 1837 is an unprecedented assault on a state’s ability to enact and support its own water laws, and it is an undisguised water grab in favor of one district to the detriment of other parts of the state, all engineered by the federal government.

For all of the above reasons, we oppose HR 1837 and request that you add your voice to those opposed to this damaging bill.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Victor Gonella", with a long horizontal flourish extending to the right.

Victor Gonella
President
Golden Gate Salmon Association

DRAFT MEMORANDUM OF UNDERSTANDING (MOU) FOR THE CONSERVATION OF MIGRATORY BIRDS

The National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) recently completed a draft MOU to promote the conservation of migratory birds. This draft encompasses all relevant seabird-related NMFS activities and identifies specific areas of collaboration and cooperation with the USFWS which include seabird bycatch reduction, information sharing and coordination, international policy and diplomacy, and habitat conservation.

Attachment 1 provides a brief summary of the history, intent, and need for the MOU and importance of Regional Fishery Management Council (RFMC) review. Attachment 2 (electronic only) is Executive Order 13186 which calls on Federal agencies that take actions that have, or are likely to have, a measurable effect on migratory bird populations to develop and implement an MOU with USFWS that shall promote the conservation of migratory bird populations.

Section VI.A of the MOU, which focuses on seabird bycatch reduction, is of particular importance to the RFMCs (Attachment 3, page 7). This section relates to Section 316 of the Magnuson-Stevens Act (MSA) which established the Bycatch Reduction Engineering Program. A major portion of the program is dedicated to addressing seabird bycatch issues through fishery management plans. Section 316(b) of the MSA authorizes the Secretary of Commerce and the RFMCs to establish through the fishery management plans a series of incentives to reduce total bycatch and seabird interactions. In addition, Section 316(c) authorizes NMFS and USFWS to undertake projects in cooperation with industry to improve information and technology to reduce seabird bycatch.

The Council and its advisory bodies have been requested to review the draft MOU and provide any comments to NMFS by April 13, 2012.

Council Action:

- 1. Review the Draft MOU (Attachment 3) and Approve Comments for Submission by April 13, 2012.**

Reference Materials:

1. Agenda Item H.3.a, Attachment 1: Memo from Samuel Rauch to the Pacific Fishery Management Council.
2. Agenda Item H.3.a, Attachment 2 (**electronic only**): Executive Order 13186.
3. Agenda Item H.3.a, Attachment 3: Draft MOU between the National Marine Fisheries Service and the U.S. Fish and Wildlife Service.

Agenda Order:

- a. Agenda Item Overview
- b. Reports and Comments of Advisory Bodies and Management Entities
- c. Public Comment
- d. Provide Comments on the MOU

John Coon



Draft MOU for the Conservation of Migratory Bird Populations -- Comments Due 4/13/12

1 message

Samuel Rauch <samuel.rauch@noaa.gov>

Tue, Jan 31, 2012 at 7:09 AM

To: danwolford@earthlink.net, dmlowman01@comcast.net, Donald McIsaac <donald.mcisaac@noaa.gov>, John Coon <john.coon@noaa.gov>

Messrs. Wolford, McIsaac, Coon and Ms. Lowman:

Executive Order 13186 (EO) (attached) calls on Federal agencies that take actions that have, or are likely to have, a measureable negative effect on migratory bird populations to develop and implement a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service (FWS) that shall promote the conservation of migratory bird populations. While the National Marine Fisheries Service (NMFS) initiated development of an MOU in 2001, NMFS was not able to complete a draft MOU at this time given limited NMFS staff resources and the implementation of seabird-related activities that had a higher priority than the finalization of the MOU.

In 2010, NMFS and FWS revitalized efforts to develop a MOU to conserve migratory bird populations as prescribed by E.O. 13186. After several months of drafting, NMFS and FWS have developed a draft that is ready for review by the Regional Fishery Management Councils. Programmatic and regional staff in both agencies have already had the opportunity to review and provide comments on this MOU. The draft that we have attached incorporates comments from staff and principals of both agencies. Please review this draft MOU and share it with your council members and staff for their review as well. Please submit your comments to Kim Rivera, NMFS National Seabird Coordinator, Kim.Rivera@noaa.gov, by no later than **April 13, 2012.**

The MOU includes provisions as specified in Section 3 (c-e) of the EO and follows a basic structure similar to other MOUs completed with other Federal agencies as per the EO. This draft MOU encompasses all relevant seabird-related NMFS activities and identifies specific areas of collaboration and cooperation with FWS: (A) seabird bycatch reduction, (B) information sharing and coordination, (C) international policy and diplomacy, and (D) habitat conservation.

Of particular importance to the Councils, is Section VI.A. of the MOU, which focuses on Seabird Bycatch Reduction. This section highlights the seabird-related provisions of the Bycatch Reduction Engineering Program, as authorized by Section 316 of the MSA, and

emphasizes the need for NMFS and FWS to work with the Councils to incorporate seabird bycatch reduction measures in FMPs, as appropriate. This MOU will also facilitate better data sharing and collaboration between NMFS and FWS in assessing and addressing seabird bycatch.

It is important to note that this MOU does not waive legal requirements under existing statutes and regulations. In addition, this MOU does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

We appreciate your input on this MOU and welcome any comments you have on this document. If you have any questions, please call Kim Rivera at [\(907\)586-7424](tel:9075867424).

Sincerely,

Samuel D. Rauch III

Acting Assistant Administrator for Fisheries

Presidential Documents

Title 3—

Executive Order 13186 of January 10, 2001

The President

Responsibilities of Federal Agencies To Protect Migratory Birds

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in furtherance of the purposes of the migratory bird conventions, the Migratory Bird Treaty Act (16 U.S.C. 703–711), the Bald and Golden Eagle Protection Acts (16 U.S.C. 668–668d), the Fish and Wildlife Coordination Act (16 U.S.C. 661–666c), the Endangered Species Act of 1973 (16 U.S.C. 1531–1544), the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4347), and other pertinent statutes, it is hereby ordered as follows:

Section 1. Policy. Migratory birds are of great ecological and economic value to this country and to other countries. They contribute to biological diversity and bring tremendous enjoyment to millions of Americans who study, watch, feed, or hunt these birds throughout the United States and other countries. The United States has recognized the critical importance of this shared resource by ratifying international, bilateral conventions for the conservation of migratory birds. Such conventions include the Convention for the Protection of Migratory Birds with Great Britain on behalf of Canada 1916, the Convention for the Protection of Migratory Birds and Game Mammals-Mexico 1936, the Convention for the Protection of Birds and Their Environment-Japan 1972, and the Convention for the Conservation of Migratory Birds and Their Environment-Union of Soviet Socialist Republics 1978.

These migratory bird conventions impose substantive obligations on the United States for the conservation of migratory birds and their habitats, and through the Migratory Bird Treaty Act (Act), the United States has implemented these migratory bird conventions with respect to the United States. This Executive Order directs executive departments and agencies to take certain actions to further implement the Act.

Sec. 2. Definitions. For purposes of this order:

(a) “Take” means take as defined in 50 C.F.R. 10.12, and includes both “intentional” and “unintentional” take.

(b) “Intentional take” means take that is the purpose of the activity in question.

(c) “Unintentional take” means take that results from, but is not the purpose of, the activity in question.

(d) “Migratory bird” means any bird listed in 50 C.F.R. 10.13.

(e) “Migratory bird resources” means migratory birds and the habitats upon which they depend.

(f) “Migratory bird convention” means, collectively, the bilateral conventions (with Great Britain/Canada, Mexico, Japan, and Russia) for the conservation of migratory bird resources.

(g) “Federal agency” means an executive department or agency, but does not include independent establishments as defined by 5 U.S.C. 104.

(h) “Action” means a program, activity, project, official policy (such as a rule or regulation), or formal plan directly carried out by a Federal agency. Each Federal agency will further define what the term “action” means with respect to its own authorities and what programs should be included

in the agency-specific Memoranda of Understanding required by this order. Actions delegated to or assumed by nonfederal entities, or carried out by nonfederal entities with Federal assistance, are not subject to this order. Such actions, however, continue to be subject to the Migratory Bird Treaty Act.

(i) "Species of concern" refers to those species listed in the periodic report "Migratory Nongame Birds of Management Concern in the United States," priority migratory bird species as documented by established plans (such as Bird Conservation Regions in the North American Bird Conservation Initiative or Partners in Flight physiographic areas), and those species listed in 50 C.F.R. 17.11.

Sec. 3. Federal Agency Responsibilities. (a) Each Federal agency taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations is directed to develop and implement, within 2 years, a Memorandum of Understanding (MOU) with the Fish and Wildlife Service (Service) that shall promote the conservation of migratory bird populations.

(b) In coordination with affected Federal agencies, the Service shall develop a schedule for completion of the MOUs within 180 days of the date of this order. The schedule shall give priority to completing the MOUs with agencies having the most substantive impacts on migratory birds.

(c) Each MOU shall establish protocols for implementation of the MOU and for reporting accomplishments. These protocols may be incorporated into existing actions; however, the MOU shall recognize that the agency may not be able to implement some elements of the MOU until such time as the agency has successfully included them in each agency's formal planning processes (such as revision of agency land management plans, land use compatibility guidelines, integrated resource management plans, and fishery management plans), including public participation and NEPA analysis, as appropriate. This order and the MOUs to be developed by the agencies are intended to be implemented when new actions or renewal of contracts, permits, delegations, or other third party agreements are initiated as well as during the initiation of new, or revisions to, land management plans.

(d) Each MOU shall include an elevation process to resolve any dispute between the signatory agencies regarding a particular practice or activity.

(e) Pursuant to its MOU, each agency shall, to the extent permitted by law and subject to the availability of appropriations and within Administration budgetary limits, and in harmony with agency missions:

(1) support the conservation intent of the migratory bird conventions by integrating bird conservation principles, measures, and practices into agency activities and by avoiding or minimizing, to the extent practicable, adverse impacts on migratory bird resources when conducting agency actions;

(2) restore and enhance the habitat of migratory birds, as practicable;

(3) prevent or abate the pollution or detrimental alteration of the environment for the benefit of migratory birds, as practicable;

(4) design migratory bird habitat and population conservation principles, measures, and practices, into agency plans and planning processes (natural resource, land management, and environmental quality planning, including, but not limited to, forest and rangeland planning, coastal management planning, watershed planning, etc.) as practicable, and coordinate with other agencies and nonfederal partners in planning efforts;

(5) within established authorities and in conjunction with the adoption, amendment, or revision of agency management plans and guidance, ensure that agency plans and actions promote programs and recommendations of comprehensive migratory bird planning efforts such as Partners-in-Flight, U.S. National Shorebird Plan, North American Waterfowl Management Plan, North American Colonial Waterbird Plan, and other planning efforts, as well as guidance from other sources, including the Food and Agricultural

Organization's International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries;

(6) ensure that environmental analyses of Federal actions required by the NEPA or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with emphasis on species of concern;

(7) provide notice to the Service in advance of conducting an action that is intended to take migratory birds, or annually report to the Service on the number of individuals of each species of migratory birds intentionally taken during the conduct of any agency action, including but not limited to banding or marking, scientific collecting, taxidermy, and depredation control;

(8) minimize the intentional take of species of concern by: (i) delineating standards and procedures for such take; and (ii) developing procedures for the review and evaluation of take actions. With respect to intentional take, the MOU shall be consistent with the appropriate sections of 50 C.F.R. parts 10, 21, and 22;

(9) identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations, focusing first on species of concern, priority habitats, and key risk factors. With respect to those actions so identified, the agency shall develop and use principles, standards, and practices that will lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the Service. These principles, standards, and practices shall be regularly evaluated and revised to ensure that they are effective in lessening the detrimental effect of agency actions on migratory bird populations. The agency also shall inventory and monitor bird habitat and populations within the agency's capabilities and authorities to the extent feasible to facilitate decisions about the need for, and effectiveness of, conservation efforts;

(10) within the scope of its statutorily-designated authorities, control the import, export, and establishment in the wild of live exotic animals and plants that may be harmful to migratory bird resources;

(11) promote research and information exchange related to the conservation of migratory bird resources, including coordinated inventorying and monitoring and the collection and assessment of information on environmental contaminants and other physical or biological stressors having potential relevance to migratory bird conservation. Where such information is collected in the course of agency actions or supported through Federal financial assistance, reasonable efforts shall be made to share such information with the Service, the Biological Resources Division of the U.S. Geological Survey, and other appropriate repositories of such data (e.g. the Cornell Laboratory of Ornithology);

(12) provide training and information to appropriate employees on methods and means of avoiding or minimizing the take of migratory birds and conserving and restoring migratory bird habitat;

(13) promote migratory bird conservation in international activities and with other countries and international partners, in consultation with the Department of State, as appropriate or relevant to the agency's authorities;

(14) recognize and promote economic and recreational values of birds, as appropriate; and

(15) develop partnerships with non-Federal entities to further bird conservation.

(f) Notwithstanding the requirement to finalize an MOU within 2 years, each agency is encouraged to immediately begin implementing the conservation measures set forth above in subparagraphs (1) through (15) of this section, as appropriate and practicable.

(g) Each agency shall advise the public of the availability of its MOU through a notice published in the **Federal Register**.

Sec. 4. Council for the Conservation of Migratory Birds. (a) The Secretary of Interior shall establish an interagency Council for the Conservation of Migratory Birds (Council) to oversee the implementation of this order. The Council's duties shall include the following: (1) sharing the latest resource information to assist in the conservation and management of migratory birds; (2) developing an annual report of accomplishments and recommendations related to this order; (3) fostering partnerships to further the goals of this order; and (4) selecting an annual recipient of a Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.

(b) The Council shall include representation, at the bureau director/administrator level, from the Departments of the Interior, State, Commerce, Agriculture, Transportation, Energy, Defense, and the Environmental Protection Agency and from such other agencies as appropriate.

Sec. 5. Application and Judicial Review. (a) This order and the MOU to be developed by the agencies do not require changes to current contracts, permits, or other third party agreements.

(b) This order is intended only to improve the internal management of the executive branch and does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.



THE WHITE HOUSE,
January 10, 2001.

DRAFT – January 27, 2012 – Council Review Draft – January 26, 2012 – DRAFT

Memorandum of Understanding

Between the

**U.S. Department of Commerce
National Marine Fisheries Service**

and

**U.S. Department of the Interior
Fish and Wildlife Service**



This Memorandum of Understanding (MOU) is entered into between the U.S. Department of Commerce National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) (hereinafter “the Parties”).

I. Purpose and Scope

The purpose of this MOU, as required by Executive Order 13186 (66 FR 3853, January 17, 2001) (Executive Order), is to promote the conservation of migratory bird populations. This MOU focuses on avoiding, or where impacts cannot be avoided, minimizing to the extent practicable adverse impacts on migratory birds and strengthening migratory bird conservation through enhanced collaboration between NMFS and FWS by identifying general responsibilities of both agencies and specific areas of cooperation. Given NMFS’ focus on marine resources and ecosystems, this MOU places an emphasis on seabirds, but does not exclude other taxonomic groups of migratory birds.

II. Authorities

This MOU is entered under the provisions of the following statutes and other authorities available to the Parties:

- Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d) (BGEPA);
- Endangered Species Act of 1973, as amended (16 U.S.C. §§ 1531-1544) (ESA);
- Executive Order 13112, Invasive Species, 1999 (64 FR 6183);
- Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds, 2001 (66 FR 3853);

- Fish and Wildlife Act of 1956, amended (16 U.S.C. §§ 791a *et seq.*);
- Fish and Wildlife Conservation Act of 1980, as amended (16 U.S.C. §§ 2901 *et seq.*);
- Fish and Wildlife Coordination Act of 1980, as amended (16 U.S.C. §§ 661 *et seq.*);
- Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. §§ 1801 *et seq.*) (MSA);
- Marine Mammal Protection Act (16 U.S.C. §§ 1361 *et seq.*)
- Migratory Bird Conservation Act of 1929, as amended (16 U.S.C. §§ 715 *et seq.*);
- Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712) (MBTA);
- National Aquaculture Act of 1980 (16 U.S.C. 2801 *et seq.*); and
- National Environmental Policy Act of 1969, as amended (42 U.S.C. §§ 4321-4347).

This MOU does not waive legal requirements under the MBTA, MSA, BGEPA, ESA, or any other statute and does not authorize the take of migratory birds. In addition, this MOU does not create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.

III. Mission of Both Parties

NMFS

The mission of NMFS is the stewardship of living marine resources through science-based conservation and management and the promotion of healthy ecosystems.

NMFS is responsible for the management, conservation, and protection of many living marine resources within Federal waters. NMFS also plays a supportive and advisory role in the management of living marine resources in coastal areas under state jurisdiction, provides scientific and policy leadership in the international arena, and implements international conservation and management measures as appropriate.

Under this mission, the goal is to optimize the benefits of living marine resources to the Nation through sound science and management. This requires a balancing of multiple public needs and interests in the sustainable benefits and use of living marine resources, without compromising the long-term biological integrity of coastal and marine ecosystems.

Many factors, both natural and human-related, affect the status of fish stocks, protected species, and ecosystems. Although these factors cannot all be controlled, available scientific and management tools enable the agency to have a strong influence on many of them. Maintaining and improving the health and productivity of these species and ecosystems is the heart of NMFS' stewardship mission. These activities will maintain and enhance current and future opportunities for the sustainable use of living marine resources as well as the health and biodiversity of their ecosystems.

Seabirds are of interest to and are studied by NMFS. NMFS has a responsibility through various statutory authorities and agency policies to monitor, understand, and minimize the negative impacts of agency actions, including the agency's regulatory actions, on seabird populations, including seabird bycatch, as well as to manage the coastal and marine habitats that seabirds depend on.

In 2001, the United States finalized its National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (NPOA-Seabirds) resulting in the establishment of NMFS' National Seabird Program (NSP). Focus areas for the NPOA-Seabirds and NSP include:

- *Seabird Bycatch:* Work to minimize the direct take of seabirds by fisheries (e.g., incidental catch or bycatch, gear entanglement) and understand the effects of seabird bycatch on marine ecosystems, including seabird populations, addressing both domestic and international fishery issues.
- *Seabirds as Valuable Ecosystem Indicators:* Seabird distribution and abundance can reflect physical and biological oceanographic changes, abundance and distribution of mid-trophic-level organisms, and the effects of climate change on apex predators. Further, contaminant levels in seabirds can provide insight into possible pollution events in particular ecosystems. And, unlike so many marine organisms, seabirds are relatively easy to sample. Because the state of the ecosystem directly affects the resources for which NMFS has management responsibility, ecosystem integrators and indicators such as seabirds are critical components of Integrated Ecosystem Assessments, which are developed by NMFS Office of Science Technology in coordination with Science Centers. These Integrated Ecosystem Assessments can advance the science of ecosystem management for NMFS.

The MOU will be implemented at national and regional levels, through existing agency infrastructure. The Parties will call upon the Interagency Seabird Working Group (ISWG) to lead the coordination and implementation of such efforts.

FWS

As a Federal agency within the U.S. Department of the Interior, the mission of the FWS is to work with others to conserve, protect, manage, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. The FWS Migratory Bird Program serves as a focal point in the United States for policy development and strategic planning, program implementation, and evaluation of actions designed to conserve migratory birds and their habitats.

The FWS is legally mandated to implement the conservation provisions of the MBTA, which includes responsibilities for managing migratory bird populations, domestic and international coordination, and the development and enforcement of regulations that govern the take of migratory birds. The Migratory Bird Conservation Act and the Fish and Wildlife Coordination

Act mandate migratory bird habitat conservation, protection through acquisition, enhancement, and/or management to avoid and minimize adverse impacts.

FWS programs that involve bird conservation activities include:

1. The Division of Migratory Bird Management and the Migratory Bird Programs in the FWS Regional Offices serve as focal points for policy development and strategic planning. These offices develop and implement monitoring and management initiatives that help maintain healthy populations of migratory birds and their habitats and provide continued opportunities for citizens to enjoy bird-related recreation.
2. The Division of Bird Habitat Conservation is instrumental in supporting habitat conservation partnerships through the administration of bird conservation grant programs and development of Joint Ventures that serve as major vehicles for implementing the various bird conservation plans across the country.
3. Ecological Services Field Offices across the country serve as the primary contacts for technical assistance and environmental reviews involving migratory bird issues. Field Offices work with the Regional Migratory Bird Offices, as necessary, regarding BGEPA or MBTA permits and overall migratory bird conservation.
4. The Office of Law Enforcement is the principal FWS program that enforces the legal provisions of the MBTA, BGEPA, ESA, and other laws pertaining to migratory bird conservation.
5. The Division of Refuges and Wildlife manages National Wildlife Refuges and Waterfowl Production Areas across the country, many of which were established to protect and conserve migratory birds. Refuges not only protect important bird habitat, but also focus on monitoring migratory bird populations and restoring and maintaining native habitats.

IV. Statement of Mutual Benefits

NMFS and FWS have a well-established history of working collaboratively on seabird conservation activities and believe that the existence of an MOU can further strengthen this work. Although the FWS has primary responsibility for migratory birds in the United States, NMFS manages some human activities that affect migratory birds- primarily fishing activities in U.S. waters and in U.S. fisheries on the high seas. NMFS' activities and policies relate to ensuring the long-term sustainability of fisheries by taking into account habitat conservation issues and by making decisions based upon the best scientific information available. NMFS' policies and activities may therefore affect migratory birds—such as, seabirds and their prey.

FWS and NMFS agree that migratory birds are important components of biological diversity and that their conservation and management will help sustain ecological integrity. Furthermore, both Parties agree that migratory birds are important economically, and recreational activities associated with migratory birds contribute to the economic base of many communities. Both Parties will take this into consideration, to the extent practicable, when taking actions to avoid take or, to the extent take cannot be avoided, to minimize take of seabirds. Two important issues surrounding the conservation of migratory birds are: (1) the interaction between fishery operations and birds, especially seabirds; and (2) the maintenance of healthy habitats and prey populations for foraging and breeding seabirds.

This MOU provides a broad outline of collaborative and proactive ways to promote the conservation of migratory birds and avoid, or where take cannot be avoided, minimize to the extent practicable the potential measurable negative effects that NMFS actions may have on seabird populations.

The FWS and NMFS mutually agree that it is important to: (1) conserve migratory bird populations and their habitats; (2) recognize that actions taken to benefit some migratory bird populations may adversely affect other migratory bird populations; (3) recognize that actions that may provide long-term benefits to migratory bird populations may have short-term negative impacts on individual birds; and (4) recognize that restoration of migratory bird populations and habitats can be a long-term endeavor.

Furthermore, the Parties mutually agree that it is important to contribute to migratory bird conservation through a variety of means, including but not limited to: (1) seabird bycatch reduction; (2) information sharing; (3) international policy and diplomacy; and (4) marine and terrestrial habitat conservation. This MOU highlights examples of general and specific responsibilities related to the areas listed above in which NMFS and FWS may collaboratively engage to further the objectives outlined in Section 3(e) of the Executive Order. It is in the interest of both parties to assess potential direct and indirect impacts, and appropriately minimize those impacts that may have measurable negative effects on migratory bird populations.

V. General Responsibilities

The Parties agree that this MOU shall be implemented to the extent permitted by law and consistent with agency missions, subject to the availability of appropriations.

A. Responsibilities of Both Parties

1. Support the conservation intent of Executive Order 13186.
2. Identify where take reasonably attributable to NMFS actions may negatively affect migratory bird populations, focusing first on Species of Concern, and other regional priority habitats and key risk factors.
3. Identify best practices for: (i) avoiding, or where take cannot be avoided, minimizing to the extent practicable take of migratory birds; (ii) conserving and restoring

- migratory bird habitats; (iii) monitoring demographic parameters of migratory birds; (iv) standardizing data, where appropriate, collection to allow comparison of migratory bird data across studies; and (v) promoting bird conservation.
4. Promote training opportunities (e.g., workshops, outreach materials) for appropriate employees in the methods and techniques to: (i) inventory and monitor migratory birds; (ii) assess population status of migratory birds; (iii) assess temporal and spatial bird use of specific areas; (iv) evaluate impacts of projects on migratory birds; and (v) develop management and operational practices that avoid, or where impacts cannot be avoided, minimize to the extent practicable adverse impacts and promote beneficial proactive approaches to migratory bird conservation.
 5. Develop partnerships to further migratory bird conservation, including prey resources, as practicable. This includes cooperation, coordination, and data sharing with other Federal or State agencies, the fishing industry, universities, and non-governmental organizations involved in monitoring and research studies to provide reliable and comparable information on the distribution and abundance or status and trends of migratory bird populations.
 6. Participate in the interagency Council. The duties of the Council include the following:
 - a. Sharing the latest resource information to assist in the conservation and management of migratory birds.
 - b. Reporting annually on accomplishments and recommendations related to the Executive Order.
 - c. Fostering partnerships to further the goals of the Executive Order.
 - d. Selecting an annual recipient of the Presidential Migratory Bird Federal Stewardship Award for contributions to the protection of migratory birds.
 7. Work cooperatively with other partners to incorporate and implement migratory bird action plans or conservation strategies in management plans for Marine National Monuments that harbor migratory birds.

B. Responsibilities of NMFS

1. Integrate migratory bird conservation principles, measures, and practices into NMFS activities and science and resource-management plans to outline measures and practices to avoid, or where take cannot be avoided, minimize to the extent practicable the take of migratory birds and adverse impacts on their habitats, where practicable. NMFS will evaluate and revise these principles, measures, and practices to ensure that they are effective in minimizing, to the extent practicable, the negative effect of NMFS actions on migratory bird populations.
2. ensure to the extent practicable, that environmental analyses required by NEPA or other established environmental-review processes evaluate the effects of actions and agency plans on migratory birds (with an emphasis on seabirds) and their habitats, including estimating the level or extent of take of Species of Concern likely to result from the action.

3. Support efforts by FWS to promote the ecological, economic, and recreational values of migratory birds by encouraging outreach and educational activities and materials when appropriate.
4. Minimize or prevent the pollution or detrimental alteration of habitat used by migratory birds.
5. Address as appropriate the potential introduction, establishment, and spread of non-native species that could result from agency actions.
6. Consult with FWS Regional Migratory Bird Offices to determine whether permits for intentional take of migratory birds pursuant to 50 CFR parts 10, 13, 21, and 22 are needed and report numbers taken under any such permits.

C. Responsibilities of FWS

1. Inform NMFS of any bird conservation updates or changes in policy that affect agency actions. These include:
 - a. Revisions to the lists of Birds of Conservation Concern, threatened or endangered species, or the birds covered under the MBTA.
 - b. Changes to the MBTA and other acts and associated regulations and procedures affecting management of migratory birds.
 - c. Changes in, updates to, or additions to national and regional bird conservation plans.
2. Provide NMFS with information needed for NEPA or other environmental analyses to assess the effects of NMFS actions on populations of migratory birds.
3. Provide NMFS information regarding migratory bird population status and trends, at-sea-distribution data and observations, colonies, over-wintering areas, migration stopovers, significant changes in condition or availability of key food resources, and any other applicable information as it becomes available and upon request.
4. As information is available, identify important migratory bird areas and habitats (e.g., foraging, wintering, molting areas at sea) that NMFS should evaluate in its environmental reviews.

VI. Specific Areas of Collaboration and Cooperation

A. Seabird Bycatch Reduction

Section 316 of the MSA established the Bycatch Reduction Engineering Program. A major portion of this program is dedicated to addressing seabird bycatch issues through fishery management plans. Section 316(b) of the MSA authorizes the Secretary of Commerce and the Regional FMCs to establish through the fishery management plans a series of incentives to reduce total bycatch and seabirds interactions. In addition, Section 316(c) authorizes NMFS and FWS to undertake projects in cooperation with industry to improve information and technology to reduce seabird bycatch.

NMFS and FWS will continue to promote and implement the NPOA-Seabirds to obtain these objectives, and to assess the implementation of the NPOA-Seabirds and the seabird-bycatch-mitigation plans for individual fisheries to determine their effectiveness. This should be accomplished at the regional level through the Fishery Management Council (FMC) process, or the Atlantic Highly Migratory Species management process as appropriate, and by the FWS through research needed to assess and monitor seabird populations and to improve population-assessment methodologies. The ISWG should continue to collaborate on seabird-bycatch issues at both the national and international levels.

NMFS and FWS will:

1. As appropriate, use the NPOA-Seabirds and the FAO Best Practice Technical Guidelines for IPOA/NPOA-Seabirds and peer-reviewed results of current research to provide examples of methods that are effective at minimizing the unintentional take of seabirds in longline gear as well as other fishing gear (e.g. trawl and gillnet fisheries)
2. Identify priority areas/fisheries that may require further investigation regarding extent of interaction of fisheries with seabirds.
3. Develop a process to identify and assess seabird interactions with longline and other fishing gear that constitute a bycatch problem. This process will consider those fisheries that negatively affect migratory bird populations, focusing first on Species of Concern or other regional priority habitats and key risk factors.
4. Collaborate with each other and with the fishing industry on research to identify key geographical areas and fisheries with seabird interactions, to determine whether existing seabird bycatch mitigation measures are effective at avoiding or minimizing to the extent practicable seabird interactions, and to assess the need to further refine and improve those mitigation measures.
5. Participate in the FMC process to help develop and encourage incorporation of measures to avoid, or where bycatch cannot be avoided, minimize to the extent practicable seabird bycatch into fishery management plans.
6. Work together to incorporate, as appropriate, measures to avoid, or where bycatch cannot be avoided, minimize to the extent practicable seabird bycatch in Secretarial fishery management plans.
7. Provide training for and information exchange among fishers and observers regarding seabird bycatch and avoidance measures. This includes working together to:
 - a. Develop outreach and education materials to be provided to fishers and gear specialists to increase awareness of seabird take and effective solutions to avoid, or where take cannot be avoided, minimize to the extent practicable such take, including the use of new technologies and methods.
 - b. Design and deliver observer and fisher training and outreach materials to enhance the collection and quality of data regarding at-sea survey and identification of seabirds associated with fishing activities and to improve seabird handling and release techniques for entangled or damaged birds to

maximize the likelihood of survival of seabirds caught incidental to fishing operations and released alive.

- c. Identify ways to improve the public availability of information on seabird-bycatch in fisheries, as well as seabird distribution (e.g., foraging, breeding). Provide recognition to fishermen and organizations that promote seabird-bycatch reduction.
8. Continue timely consultations under ESA Section 7.
9. Continue working through the ISWG to promote and coordinate implementation of the NPOA-Seabirds and the International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds) in all relevant international and regional fisheries organizations, and participate in relevant national and international meetings and workshops.

NMFS will:

1. Improve the collection of at-sea information and the sharing of biological information to assess the vulnerability of seabird species to fishing operations. This could include enhancement of fishery observer coverage, particularly in areas where coverage is currently low.
2. Conduct seabird bycatch analyses and coordinate with FWS to assess the population level effects of the bycatch.
3. Incorporate information on seabird bycatch occurring in fisheries under NMFS jurisdiction into the NMFS National Bycatch Report. Provide this report to FWS upon availability.
4. Distribute information to NMFS and the FMC offices regarding the need to consider seabird conservation during the development of relevant fishery-management actions. This distribution may include migratory bird population status and trends reports, colony-monitoring reports, or any other applicable information to assist in policy development and decision-making.
5. Avoid, or where take cannot be avoided, minimize to the extent practicable the unintentional take of seabirds in NMFS research operations, such as fishery stock assessment surveys and cruises.
6. Implement habitat restoration programs that restore living marine and coastal resources supporting fisheries and migratory birds. These living marine and coastal resources may include habitats or organisms that provide shelter, food or other ecosystem services characteristic of healthy marine and coastal waters and substrates, intertidal zones, living shorelines, and adjacent coastal habitats.

FWS will:

1. As early as practicable and as appropriate, during the development of NMFS and/or regional FMC actions, review and provide comments on the potential effects the action may have on migratory birds and how to avoid, or where impacts cannot be avoided, minimize to the extent practicable adverse impacts resulting from activities

associated with NMFS actions to better ensure appropriate protection for migratory birds.

2. Participate in meetings of the regional FMCs (FWS-designated seat as per 16 U.S.C. 1852(c)), including membership on associated committees, panels or teams, as appropriate, and consult with NMFS regarding the actions of the regional FMC that may affect migratory bird populations. (e.g., meetings when seabird issues are on the agenda).
3. Provide recommendations to NMFS identifying conservation and management objectives for relevant migratory bird populations and for migratory bird habitats, particularly as they relate to the development of fishery management plan actions.

B. Information Sharing and Coordination

NMFS and FWS agree that the collection and sharing of biological information regarding migratory bird species can assist in a greater understanding of the health of their populations and of marine ecosystems.

NMFS and FWS will:

1. Promote research and information exchange related to migratory bird conservation including inventorying, monitoring, and conducting studies related to agency decisions and management practices that may affect migratory birds and their habitats.
 - a. Collaborate on studies: (i) of migratory bird species that may be affected by agency actions (e.g., expand migratory bird population surveys and data collection for species commonly subject to bycatch across all fisheries); (ii) of the effects of management activities; (iii) of avoiding degradation of migratory bird habitat (e.g., research focused on evaluating impacts of agency actions on seabird prey populations and foraging habitats,); and (iv) to develop appropriate mitigation measures;
2. Engage in long-term planning to facilitate cooperative efforts in conducting migratory bird surveys, monitoring, and research (e.g., population counts and research cruises) and, to the extent practicable, share resources. Some examples include:
 - a. Collaborate to use existing research cruises to access remote breeding colonies or conduct at-sea surveys.
 - b. Collaborate to design research projects to yield better information about the trophic relationship between seabirds and their marine prey.
 - c. Collaborate to standardize, where appropriate, the type of information collected by each agency, identify parties responsible for data collection, and better correlate and incorporate fishery data with seabird-distribution and ecological data.
3. Share inventory, monitoring, research, data in a timely fashion with other Federal and State agencies as appropriate and practicable. Data should be archived with national or regional repositories, when appropriate.
4. Work together to continue to streamline and improve the permit process for the salvage of birds or bird parts by NMFS employees, contractors, and observers.

C. International Policy and Diplomacy

NMFS and FWS agree it is important to build and maintain positive working relationships with foreign entities to further U.S. objectives of migratory bird conservation.

NMFS and FWS will:

1. Promote migratory bird conservation internationally, through the implementation of the IPOA-Seabirds and NPOA-Seabirds via participation in Regional Fisheries Management Organizations (RFMOs), meetings of the Agreement on the Conservation of Albatrosses and Petrels (ACAP), other multilateral meetings, and within other international fora, as appropriate.
2. Coordinate the development of priority actions and activities related to ACAP and other multilateral agreements specific to the conservation of seabirds.
3. Coordinate, as appropriate, prospective capacity-building projects to enhance the ability of other nations to conserve seabird populations, including reducing seabird bycatch in fisheries.
4. Coordinate with the U.S. Department of State to explore and implement, as appropriate, international arrangements that advance U.S. policies and practices related to conservation of migratory birds at sea, through technical cooperation, conservation planning, project support, cooperative studies, education, and training.

NMFS will:

1. Promote the use of the FAO Best Practices Technical Guidelines for IPOA/NPOA – Seabirds with other nations and with relevant multilateral organizations, such as RFMOs.
2. Coordinate with FWS, as appropriate, in preparation for relevant RFMO and other international meetings to further the goal of reducing seabird interactions in fisheries.

FWS will:

1. Coordinate with NMFS, as appropriate, when working with international partners on issues or activities that may affect international fisheries.

D. Habitat Conservation

NMFS (Office of Habitat Conservation), in coordination with appropriate NOAA line offices and NMFS Region offices and Science Centers, will work with FWS to minimize impacts to and restore and enhance marine and coastal habitats of migratory birds. This work may include the prevention or abatement of pollution for the benefit of migratory birds, as well as the development and implementation of restoration projects to address the introduction of non-native nest predators to islands with seabird breeding colonies; and public outreach to provide information about these habitat program activities.

NMFS and FWS, as appropriate, will collaborate with NOAA’s Restoration Center to:

1. Consider impacts to migratory bird habitat when selecting habitat restoration sites and avoid, or where impacts cannot be avoided, minimize to the extent practicable negative impacts to migratory bird habitat, when possible.
2. Identify habitats needed for successful reproduction, migration, over-wintering, and foraging in conjunction with other comprehensive planning efforts for migratory birds.
3. Identify and avoid activities that may have measurable negative effects on migratory birds, including their nesting, foraging, migration, or over-wintering habitats, and seek to avoid, or where impacts cannot be avoided, minimize to the extent practicable such impacts or the activities causing them.

FWS will:

1. Assist NMFS in identifying agency activities that may have measurable negative effects on migratory bird habitat, including their nesting, migration, foraging, or over-wintering habitats, and developing management objectives to avoid, or where impacts cannot be avoided, minimize to the extent practicable such impacts.
2. Provide guidance to NMFS in identifying habitat initiatives and specific projects that can promote protection and restoration of habitats important to migratory birds (e.g., control and eradication of invasive species on islands, construction of ungulate- and predator-proof fences, enhancement of colonies or populations through social attraction or translocation).

VII. Definitions

Action – a program, activity, project, official policy, rule, regulation or formal plan directly carried out by the agency.

Birds of Conservation Concern – a list published and periodically updated by the FWS Division of Migratory Bird Management. The overall goal of this list is to identify the migratory and non-migratory bird species that, in addition to species already listed under the ESA, represent the FWS’s highest conservation priorities. The most current version of the list, Birds of Conservation Concern 2008, is available at <http://www.fws.gov/migratorybirds>.

Council for the Conservation of Migratory Birds (Council) – an interagency council established by the Secretary of the Interior to oversee the implementation of Executive Order 13186.

Effects (adverse or beneficial) – “effects” and “impacts,” as used in this MOU are synonymous. Effects may be direct, indirect, or cumulative, and refer to effects from management actions on migratory bird populations, habitats, ecological conditions or significant bird-conservation sites.

FAO – Food and Agriculture Organization of the United Nations.

Fishery Management Plan (FMP) (see MSA Section 302(h)(1) (16 U.S.C. § 1852(h)(1)) - provides authority for regional Fishery Management Council FMPs; Section 304(g)(1) (16 U.S.C. § 1854(g)(1)) provides authority for Atlantic Highly Migratory Species FMPs done by the Secretary of Commerce. Sections 303(a) and 303(b) (16 U.S.C. § 1853(a) and (b)) articulate what the FMP must and can, respectively, contain.

Incidental take – see Take.

Intentional take – see Take.

Interagency Seabird Working Group (ISWG) – Working Group composed of agency staff from NMFS, FWS, and DOS. The ISWG was originally formed to develop the NPOA-Seabirds. The Group's work has continued in some capacities as the NPOA-Seabirds is implemented and when need arises for an interagency approach to seabird conservation. NMFS continues to identify a seabird contact in each of its Region offices, Science Centers, and Headquarter offices.

IPOA – International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries; a plan developed by the Food and Agriculture Organization of the United Nations (FAO) in 1999 (<http://www.fao.org/fishery/ipoa-seabirds/en>).

Migratory Bird – an individual of any species protected by the Migratory Bird Treaty Act; a list of protected migratory birds can be found in 50 CFR § 10.13, Code of Federal Regulations or at <http://www.fws.gov/migratorybirds>.

NMFS's National Seabird Program (NSP) – NMFS's headquarters-based program that addresses NMFS's responsibilities to protect seabirds under the NPOA-Seabirds and the Executive Order. The NSP is led by a national coordinator and implemented regionally through seabird points of contact at each Regional Office, Science Center, and Headquarters office (http://www.fakr.noaa.gov/protectedresources/seabirds/seabird_factsheet.pdf).

NPOA – National Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries developed by NMFS, FWS, Department of State, and the Interagency Seabird Working Group in 2001.

Regional Fishery Management Council (as established by the MSA under Section 302 (16 U.S.C. § 1852) – Eight committees created for the purpose of managing Federal fisheries off the coast of the United States. Each council is composed of members of the fishing industry, non-governmental organizations, and various Federal and State employees and is responsible for providing recommendations to the Secretary of Commerce on fisheries in the Federal waters of their region. Councils develop fishery management plans and management measures for the fisheries within their region. FMPs are approved and implemented by the Secretary of Commerce through NMFS (http://www.nmfs.noaa.gov/sfa/reg_svcs/councils.htm).

RFMO – Regional Fishery Management Organization – an international organization established by any bilateral or multilateral treaty, convention, or agreement for the conservation and management of fish

Species of Concern – refers to several categories of birds including: (1) species listed in the periodic report, Birds of Conservation Concern, published by the FWS Division of Migratory Bird Management (<http://www.fws.gov/migratorybirds>); (2) priority migratory bird species documented in the comprehensive bird-conservation plans (North American Waterbird Conservation Plan, United States Shorebird Conservation Plan, Partners in Flight Bird Conservation Plans); (3) species or populations of waterfowl identified as high, or moderately high, continental priority in the North American Waterfowl Management Plan; (4) ESA-listed threatened and endangered bird species in 50 CFR § 17.11; and (5) MBTA-listed gamebirds of management concern (as listed in the Birds of Management Concern list, <http://www.fws.gov/migratorybirds>).

Take – to pursue, hunt, shoot, wound, kill, trap, capture or collect or attempt to pursue, hunt, wound, kill, trap, capture or collect (50 CFR § 10.12). Executive Order 13186 further defines “take” to include intentional take, meaning take that is the purpose of the activity in question, and unintentional (incidental) take, meaning take that results from, but is not the purpose of, the otherwise legal activity in question. Take prohibited by the MBTA includes both intentional and unintentional take. The regulations implementing the BGEPA define “take” to mean pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb bald and golden eagles (50 CFR § 22.3).

Unintentional take – See Take.

VIII. Dispute Resolution

The Parties will attempt to prevent potential conflicts or resolve actual disagreements between the Parties first at the lowest levels, elevating through the respective organizational levels if necessary. The Parties will use conflict prevention or traditional Alternative Dispute Resolution (ADR) processes to achieve consensus. The Parties will use collaborative processes, including informal meetings or negotiations, to avoid or minimize a dispute. If the dispute already has developed, more traditional processes may be appropriate, such as mediation or a negotiation assisted by a neutral third-party.

The Parties must notify each other in writing of potential conflict or a dispute, and attempt to resolve the issue at the Field level within 30 days. If the Parties are unable to resolve the issue at this level within 30 days, either party may elevate the issue to the appropriate officials at NMFS or FWS Regional offices. If the Parties are unable to resolve the issue at the Regional level within 30 days, either party may elevate the issue to the appropriate level of each agency.

Representatives of both agencies shall agree to enter into a conflict-prevention process using collaborative methods or to enter into a traditional ADR process, as appropriate.

IX. Agreement

It is Mutually Agreed and Understood That:

This MOU in no way alters or diminishes the Party's obligations or responsibilities under any statute or other legal authority.

- A. NMFS will advise the public of the availability of this MOU, once finalized, through a notice published in the Federal Register. Any other public notification of this MOU or the relationship therein shall have prior approval of both NMFS and FWS.
- B. Either NMFS or FWS may terminate this MOU, in whole or in part, at any time before the date of expiration by providing the other with a written statement at least 30 calendar days prior to the effective date of termination.
- C. Matters that, on the effective date of termination, remain pending shall proceed to final resolution, and such final resolution shall be binding upon the Parties notwithstanding termination of this MOU. Changes within the scope of this instrument shall be made by the issuance of a bilaterally executed modification.
- D. This MOU in no way restricts either NMFS or FWS from participating in similar activities with other public or private agencies, governments, organizations, or individuals.
- E. Any information furnished to NMFS or FWS under this MOU is subject to the Freedom of Information Act (5 U.S.C. § 552) unless proscribed by agency policy or law relating to confidentiality.
- F. This instrument in no way diminishes any requirement, including under NEPA, MSA, or the ESA, that NMFS or FWS conduct an environmental analysis.
- G. Modifications within the scope of the instrument shall be made by mutual consent of NMFS and FWS, by the issuance of a written modification, signed and dated by both agencies, prior to any changes being performed.
- H. This MOU is neither a fiscal nor a funds-obligation document. Any endeavor involving reimbursement, contribution of funds, or transfer of anything of value between NMFS and FWS will be handled in accordance with applicable laws, regulations, and procedures, including those for government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of

NMFS and FWS and shall be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Specifically, this MOU does not establish authority for noncompetitive award of any contract or other agreement. Any contract or agreement for training or other service must fully comply with all applicable requirements for competition.

- I. Meetings will be scheduled at the headquarters level periodically to review implementation, summarize accomplishments, and identify opportunities for advancing the purpose of this MOU. Each party will designate a point of contact to carry out the terms of this MOU.
- J. This MOU does not require changes to current contracts, permits, or other third-party agreements, nor does it create any right or benefit, substantive or procedural, separately enforceable at law or equity by a party against the United States, its agencies or instrumentalities, its officers or employees, or any other person.
- K. The principal contacts for this instrument are as follows:

National Seabird Coordinator
National Marine Fisheries Service
Alaska Region
P.O. Box 21668
Juneau, Alaska

Chief, Division of Migratory Bird Management
U.S. Fish and Wildlife Service
4401 N. Fairfax Drive, Ste.634
Arlington, VA 22203

This instrument is executed as of the last date signed below and expires no later than five years from the effective date, at which time it is subject to review and renewal, or expiration.

The Parties hereto have executed this agreement as of the date shown below.

Samuel D. Rauch III
Acting Assistant Administrator for
National Marine Fisheries Service

Dan Ashe
Director
U.S. Fish and Wildlife Service

Date

Date

HABITAT COMMITTEE REPORT ON
DRAFT MEMORANDUM OF UNDERSTANDING FOR THE CONSERVATION OF
MIGRATORY BIRD POPULATIONS

The Habitat Committee (HC) received a member briefing on the draft Memorandum of Understanding (MOU) for the Conservation of Migratory Bird Populations (Agenda Item H.3.a, Attachment 3). The draft MOU is a response to Executive Order (EO) 13186 in 2001 which requires Federal agencies that take actions that are likely to have measureable negative effects on migratory bird populations to develop and implement a Memorandum of Understanding with the U.S. Fish and Wildlife Service (USFWS) to promote the conservation of migratory bird populations. After a period of delay in completing this obligation, the National Marine Fisheries Service (NMFS), working closely with the USFWS, recently completed a draft MOU for public review and comment, as prescribed by EO 13186. The draft MOU addresses relevant seabird-related NMFS activities and specifies areas of collaboration and cooperation with the USFWS, including seabird bycatch reduction, information sharing and coordination, international policy and diplomacy, and habitat conservation. The HC notes that section VI.A of the MOU focuses on seabird bycatch reduction and emphasizes the need for NMFS and the USFWS to work with the regional councils to incorporate seabird bycatch reduction measures in Fishery Management Plans (FMPs), as appropriate. The MOU also emphasizes better data sharing and increased collaboration between NMFS and the USFWS in assessing and addressing seabird bycatch.

The HC recognizes that seabirds can serve as valuable ecosystem indicators and are generally easier to sample than many other types of marine fauna. Trends in seabird distribution and abundance can reflect physical and biological oceanographic changes, abundance and distribution of mid-trophic level organisms, and the effects of ocean regime shifts (e.g., Pacific Decadal Oscillations) and climate change on apex predators. Seabird data are now included as an important component of Integrated Ecosystem Assessments (IEAs). For example, the HC learned that Oregon's marine spatial planning process for wave energy development utilized models of seabird survey data to determine the geographic distribution of several indices: seabird density, abundance, diversity, and foraging abundance, importance, and persistence off Oregon. A similar modeling effort could be applied coast-wide to aid in identifying likely areas of seabird-fisheries interactions, to augment at-sea observer programs.

The HC also recognizes that seabirds are important components of the biological diversity of the marine environment and that their conservation and management help to sustain ecological integrity. As important ecosystem indicator species, the HC supports the added emphasis that the draft MOU provides for seabird population monitoring and conservation and their predator/prey relationships with key marine forage species. The HC believes that the draft MOU provides a positive template for increased collaboration between NMFS and the USFWS towards the goal of reducing impacts on and promoting the conservation of migratory bird populations, especially seabirds. Therefore, the HC supports finalizing the MOU and implementing its provisions as soon as practicable.

However, the HC notes that the draft MOU does not explicitly address situations where unnatural aggregations of migratory birds may be having detrimental impacts on Council-managed species, both listed and non-listed. Examples for the Pacific Fishery Management Council include the large populations of Caspian Terns and Double Crested Cormorants nesting on East Sand Island in the lower Columbia River estuary that consume millions of salmon and steelhead smolts each year, many of which are listed natural stocks critical to Council fishery management decisions and listed species recovery planning. The HC recognizes that these and other migratory bird populations within the Columbia River basin that affect listed salmon and steelhead species recovery are being addressed as part of the Federal Columbia River Power System (FCRPS) biological opinion process, but believes that migratory bird depredation issues, especially where other listed species are affected and subjected to higher risk, should be considered in future collaboration and coordination under the MOU. The HC does believe the MOU will be a useful vehicle to expand this coordination and collaboration between NMFS, USFWS and the Council, and will facilitate progress towards a greater awareness for and implementation of ecosystem management approaches.

PFMC
04/01/12

SALMON ADVISORY SUBPANEL REPORT ON DRAFT MEMORANDUM OF
UNDERSTANDING FOR THE CONSERVATION OF MIGRATORY BIRDS

The Salmon Advisory Subpanel (SAS) would like to provide comments regarding the Draft Memorandum of Understanding (MOU) for the Conservation of Migratory Birds. The SAS believes that bird interaction with the gear of the different user groups we represent is already at a minimum and that these user groups have committed to maintain minimum interactions with seabirds. While supportive of the draft MOU in general, the SAS would like to point out that there are times when bird populations may pose a conservation issue on Endangered Species Act (ESA) listed salmonids, a situation that currently exists on the Columbia River. In 2009, the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS) and U.S. Army Corps of Engineers made a presentation to the SAS regarding predation by Caspian terns and Double-crested Cormorants on out-migrating salmon smolts. The most recent data at that time indicated predation of 23 million smolts per year, including substantial numbers of listed salmonids. More recent data indicates that predation has increased to approximately 27 million smolts per year. Caspian Terns are not native to the Columbia River, and the population of Double-crested cormorants has increased significantly beyond historical levels in recent years.

The SAS is aware of studies being done on this issue and is supportive of these studies. However, SAS members want to ensure that their concerns of the gravity of this situation be made part of the record. The potential conflicts in managing bird and fish populations under circumstances such as exist currently on the Columbia River need to be addressed, and it would be timely to ensure that conservation issues with listed fish, as well as with birds, be noted in the MOU to ensure that these issues be recognized and addressed.

PFMC
04/03/12



April 5, 2012

Re: H.H.3 Memorandum of Understanding for the conservation of migratory birds

To: Don Mclsaac. PFMC,

Samuel Rauch, NOAA,

Tim Roth, USFWS

Dear Samuel Rauch, Tim Roth and Donald Mclsaac,

On behalf of our combined membership of over 70,000, we are writing to support the Draft Memorandum of Understanding between the National Marine Service and the U.S. Fish and Wildlife Service. We are impressed with the seriousness, scope and breadth of the prescriptions in, and spirit of, the MOU and urge its implementation in a timely and complete manner.

Seabirds are sensitive indicators of the health of marine ecosystems. They are the fastest declining group of birds in the world, due to their vulnerability to food depletion, bycatch mortality, and habitat destruction at colonies. In the U.S., USFWS and NMFS are the lead U.S. federal stewards for seabirds through the jurisdictions of the Migratory Bird Treaty Act, Endangered Species Act, Executive Order 13186 (Responsibilities of federal agencies to protect migratory birds) and at least other statutes. This MOU may be viewed as a positive step toward implementation of these statutes.

We support the broad goal of the MOU to “outline collaborative and proactive ways to promote the conservation of migratory birds and avoid, or where take cannot be avoided, minimize to the extent practicable the potential measureable negative effects that NMFS actions may have on seabird populations.” We endorse all of the recommendations in sections VI A (Seabird Bycatch Reduction); B (Information Sharing and Coordination); C (International Policy and Diplomacy); and D. Habitat Conservation.

Additionally, we would like point out that separate from the activities to implement the jurisdictional responsibilities of NMFS and FWS for seabirds that will be aided by the MOU, each regional Fishery Management Council play a unique and critical role in the stewardship of seabirds through its responsibilities for managing forage species. We concur with the recent (2010-2012) comments of the Pew Environment Group and Oceana to the Pacific Fisheries Management Council on the Coastal Pelagics Fisheries Management Plan and the Ecosystem

Fishery Management Plan. We are similarly disappointed with the outcomes of recent Council decisions on these initiatives. The Council has thus far failed to meet its obligations to protect forage fish as directed by the Magnuson-Stevens Fishery Management Act.

Through published papers and prepared testimony, NMFS fisheries scientists have highlighted alarming trends in the status of key forage species managed by PFMC, especially sardine and anchovy, as well as a need to “freeze the menu” – not allow fisheries on new species – until the energetic requirements of marine predators are better accounted for. ¹

Council actions to manage forage fish in a precautionary manner fulfills the intent of VI(D) in the MOU: “NMFS and FWS, as appropriate, will collaborate with NOAA’s Restoration Center to identify and avoid activities that may have a measurable negative effect on migratory birds, including their nesting, foraging, migration, or over-wintering habitats, and develop management objectives to avoid, or where impacts cannot be avoided, minimize to the extent practicable such impacts or the activities causing them.”

We would like to see more specific language in the MOU emphasizing this critical role of the Council in managing forage species and how it intends to improve management based on assessments of the energetic requirements of dependent predators including seabirds. We urge Council to develop actionable item(s) pursuant to our recommendation above on forage species to include in the MOU, include this additional material in its comment to FWS, and help support the adoption and implementation of the MOU into the future.

When one acknowledges that worldwide, at least 64 seabird species are known to have been killed in longline fisheries and that 23 of those have a threatened species status it becomes critical we develop solutions and partnerships. The urgent need for action is real and so are the solutions – we applaud the efforts of University of Washington’s seabird avoidance study which has given us one piece of larger seabird conservation strategy. Simple and inexpensive changes in fishing practices will protect the world’s albatrosses and petrels from severe population declines.

Finally, we support the identification of the Interagency Seabird Working Group an appropriate lead entity for the implementation of the MOU, provided this body is staffed and funded adequately. For some time, the Group has languished due to lack of staff and funds, unable to

1
Zwolinski, J. and D. Demer. 2012. A cold oceanographic regime with high exploitation rates in the Northeast Pacific forecasts a collapse of the sardine stock. Proceedings of the National Academy of Sciences. February 2012.

fulfill its existing mandates and goals let alone have the capacity to implement this ambitious suite of new, critically needed plans. As the nation moves forward with the National Ocean Policy and the range of issues that are clearly on the horizon such as marine spatial planning and ocean energy development it becomes essential that the Service and NMFS to develop a budget and actionable timeline associated with each provision in the MOU, and the Department of the Interior to fully fund the activities per this analysis.

Thank you for the opportunity to comment,

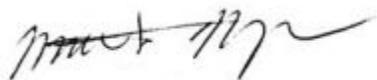
Sincerely,



Meryl Redisch
Audubon Society of Portland



Anna Weinstein
Audubon California



Matthew Mega
Seattle Audubon Society

MEMBERSHIP APPOINTMENTS AND COUNCIL OPERATING PROCEDURES

During this Closed Session agenda item, the Council has the opportunity to consider changes in the Council Membership Roster, including Council Members, advisory body membership, and also any relevant changes in Council Operating Procedures (COP) or the Council's Statement of Organization, Practices, and Procedures (SOPP).

Council Members and Designees

In late February, the Washington Department of Fish and Wildlife (WDFW) added Ms. Sara LaBorde as its third Council member designee (Attachment 1).

Standing Council Member Committee Appointments

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Council Advisory Body Appointments

Scientific and Statistical Committee (SSC)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Management and Technical Teams

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Advisory Subpanels

Coastal Pelagic Species Advisory Subpanel (CPSAS)

In response to our request for nominations to fill one of the three California commercial positions left vacant by the passing of John Royal, the Council received the following nominations:

- Mr. Joe Cappuccio, President, Del Mar Seafoods, Watsonville, CA; self-nominated with a letter of support from Dr. Doyle A. Hanan (Attachment 2).
- Mr. Nick Jurlin, Long Beach, CA; nominated by California Wetfish Producers Association and Fishermen's Union of America, AFL-CIO (Attachment 3).

Groundfish Advisory Subpanel (GAP)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline. The tribal fisher position on the GAP remains vacant.

Enforcement Consultants (EC)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Groundfish Allocation Committee (GAC)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Habitat Committee (HC)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline. The tribal government seat is still vacant.

Groundfish Essential Fish Habitat Review Committee (EFHRC)

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Ad Hoc Council Committees

Ad hoc committees are created and terminated by a vote of the Council. Committee members are appointed by the Council chairman based on advice from Council members.

At its March, 2012 meeting, the Council created an ad hoc Workgroup to aid in the development of Groundfish Amendment 24 (improvements to the groundfish management process). Agenda Item H.4.a, Attachment 1 shows the objectives, duties, and membership of this ad hoc workgroup, but membership identification was postponed until the April Council meeting. Membership appointment is expected to occur under this agenda item.

The Council also indicated at the March, 2012 Council meeting the intention to establish a South of Humbug Pacific Halibut Workgroup to deal with the integration of new information into the catch sharing plan and the stock assessment process. The Council postponed making a motion on the purpose and membership of this workgroup until the April Council meeting, so as to more fully consider the matter and provide additional opportunity for public input. The Council should approve the objectives, duties, and membership for a South of Humbug Pacific Halibut Workgroup under this agenda item.

Appointments to Other Forums

No new resignations, nominations, or other changes were identified by the Briefing Book deadline.

Changes to Council Operations and Procedures

No changes were identified by the Briefing Book deadline.

Council Action:

Consider the following appointment and membership issues:

1. **The two nominations for the vacant California commercial position on the CPSAS.**
2. **The tribal fisher vacancy on the GAP and tribal governmental position on the Habitat Committee.**
3. **Council Chair appointment announcement for the Groundfish Amendment 24 Workgroup.**
4. **Approval of the objectives, duties, and membership for the South of Humbug Pacific Halibut Workgroup.**

Reference Materials:

1. Closed Session A.1.a, Attachment 1: Designation of Ms. Sara LaBorde as the third WDFW Council member designee.
2. Closed Session A.1.a, Attachment 2: Nomination of Mr. Joe Cappuccio to the vacant California commercial position on the CSPAS.
3. Closed Session A.1.a, Attachment 3: Nominations of Mr. Nick Jurlin to the vacant California commercial position on the CPSAS.
4. Agenda Item H.4.a, Attachment 1: March 2012 Council Meeting Motion Establishing an Amendment 24 Ad Hoc Workgroup.

Agenda Order:

- a. Agenda Item Overview John Coon
- b. Reports and Comments of Advisory Bodies and Management Entities
- c. Public Comment
- d. **Council Action:** Consider Changes to Council Operations and Procedures and Appointments to Advisory Bodies, including the South of Humbug Mountain Pacific Halibut Workgroup

PFMC
03/16/12

MARCH 2012 COUNCIL MEETING MOTION ESTABLISHING AN AMENDMENT 24
AD HOC WORKGROUP

Motion 18 at the March, 2012 Council Meeting

I move the Council establish an Ad hoc Workgroup as described below, tasked with developing and providing analysis of preliminary alternatives at the November, 2012 Council Meeting, as Amendment 24 to the Groundfish FMP for further Council consideration. The Workgroup should use the staff White Paper (F.4.a, Attachment 1) to develop alternatives that address the problems and objectives contained in section 3 of the staff White Paper. The workgroup should also utilize the experiences of other Councils as suggested by Agenda Item F.4, Supplemental SSC Report. The Workgroup should also consider the comments in Agenda Item F.4,b Supplemental GMT and GAP Reports especially about the idea of delaying the season date until March 1. In addition each of the alternatives, including the status quo, should specifically include the ideas of standardization and simplification of documents and streamlining internal review and process requirements. The report provided at the November Council Meeting should include a draft purpose and need statement with objectives for Amendment 24.

The Ad hoc Workgroup should be composed of representations from the entities described in Agenda Item F.4.a, Attachment 2 as “potential seats” (for the GAP that might be someone recommended by the GAP). Individuals filling the seats would be appointed by the Council Chair possibly at the April Council Meeting.

Moved by: Marija Vojkovich

Seconded by: Buzz Brizendine

Motion 18 carried unanimously

Membership seats listed in March, 2012 Council meeting Agenda Item F.4.a, Attachment 2

- Council staff
- NOAA GC seat
- SSC seat
- State GMT seats
- GAP seat
- NMFS NWR, NWFSC, and NEPA coordinator seats

AD HOC SOUTH OF HUMBUG PACIFIC HALIBUT WORKGROUP
DRAFT OBJECTIVES AND DUTIES

Establishment of an Ad Hoc South of Humbug Pacific Halibut Workgroup (SHPHW) is being considered, charged with developing appropriate options for modifying the Area 2A Catch Sharing Plan (CSP) allocation provisions to ensure that recreational halibut catch south of Humbug Mt., Oregon is managed to comply with Area 2A catch limit and achieve overall CSP objectives. Issues relevant to this charge include:

- Management approaches to ensure compliance with allocation of Pacific halibut in recreational fisheries south of Humbug Mountain.
- Estimating Pacific halibut catch in California waters.
- Accounting for Pacific Halibut habitat and/or abundance in California waters to augment the International Pacific Halibut Commission (IPHC) stock assessment process.

The PH-HB-WG would develop options for Council consideration of management approaches, including allocation provisions, for recreational fishery south of Humbug Mountain. These options may include proposed changes to the current CSP, ranging from (1) altering the existing management approach of assigning a static seasonal expectation for the catch south of Humbug mountain, with allowable catch taken from the Area 2A non-Indian catch allocation, to (2) maintaining the current catch expectation and altering the season to match the catch expectation, to (3) other approaches and allocations.. Options should be presented to the Council at the September 2012 meeting and included for public review prior to final action on proposed changes to the CSP at the November 2012 meeting.

The PH-HB-WG will also consider methods for accounting for recreational Pacific halibut catch in California waters established by the California Department of Fish and Game. This will help ensure that the development of management options comport with monitoring and evaluation capabilities.

The IPHC stock assessment process requires estimates of available habitat and halibut density within that habitat; however, the IPHC survey does not extend south of the Oregon/California border. The SHPHW should consider recommendations for methods to incorporate estimates of available habitat and/or halibut abundance into the IPHC stock assessment process, with the goal of methods applicable to the 2013 stock assessment process.

COMPOSITION

The SHHW could have representatives from the following agencies:

California Department of Fish and Game
Oregon Department of Fish and Wildlife
Washington Department of Fish and Wildlife
National Marine Fisheries Service Northwest Region
National Marine Fisheries Service Northwest Fishery Science Center
International Pacific Halibut Commission

Council Staff will be assigned to assist the SHPHW with coordination, organization, and meeting logistics (e.g., Federal Register and meeting notices), and to provide other expertise needed by the SHPHW on a case-by-case basis.

PFMC

03/21/2012

CALIFORNIA DEPARTMENT OF FISH AND GAME REPORT ON THE FOCUS
AND SCOPE OF A PACIFIC HALIBUT SOUTH OF HUMBUG MOUNTAIN
WORKGROUP

At its March 2012 meeting, the Pacific Fishery Management Council (Council) discussed the mechanism for creating a workgroup or committee to give individual attention to issues related to the Pacific Halibut fishery and resource South of Humbug Mountain. Further discussion is required by the Council at the April 2012 meeting to develop objectives for and identify the composition of the intended workgroup. The California Department of Fish and Game (CDFG) supports the Council's intent to create a workgroup and develop objectives with the following recommendations.

Workgroup objectives

CDFG believes that the primary objective of the workgroup should be addressing the process of estimating biomass in the Northern California portion of area 2A through various data and/or statistical sources. Specifically, one objective is to determine the portion of Northern California to include in an extension of the existing assessment and the most appropriate means available to attribute abundance indices for that area. Because these data are lacking in the current assessment, there is no biomass from this area contributing to the total biomass for Area 2A. This issue was raised by the International Pacific Halibut Commission (IPHC), along with the suggestion for a workgroup at the Council's March 2012 meeting. CDFG believes that developing the methods to allow assessment of biomass in Northern California is the most important of the issues for an ad hoc workgroup to address.

An additional objective of the workgroup should be to ensure consistency of methodologies for calculating estimates of recreational catch. While California has yet to provide formal estimates of catch (see below), it is critical that all management agencies are using the same or comparable methods for all Area 2A fisheries to estimate the volume of catch or bycatch. CDFG recommends that the workgroup would be an appropriate place for this review to ensure that methods used in northern California are comparable to other 2A fisheries and subareas. In addition, the committee would be a useful forum to discuss the age-growth relationship, differences between sexes, movement, distribution and migratory patterns, presence and contributions of spawning fish, and other life history parameters in South of Humbug fish as they may relate to assessments. Additionally it would be beneficial to compare methodologies and existing effort calculations to develop discard mortality estimates for released halibut that would be applicable for all of Area 2A.

CDFG recommends that a final objective of the workgroup should be to compile and analyze the various management strategies employed in commercial and

recreational fisheries in other portions of Area 2A and beyond, in order to evaluate their possible use in waters South of Humbug, such as recreational size limits, closures of days of the week, area closures, depth constraints and others.

Workgroup composition and longevity

CDFG recognizes that any new working groups will add monetary and staff costs to Council and state resources which must factor into decision-making. Therefore, CDFG recommends a short term ad-hoc committee established to address the objectives described above, comprised of state, federal (NMFS), IPHC and Council staff representatives that can provide constructive technical expertise relevant to the specified objectives. CDFG is committed to the success of this workgroup and will have staff available to participate.

However, should the work of the South of Humbug ad-hoc committee span beyond these more technical issues related to underlying data and science, or should the committee discussions lead to issues involving significant modifications to the Catch Sharing Plan, CDFG requests the Council reconsider the value of a committee that limits its focus to only objectives similar to those listed above and only the geographic area south of Humbug. CDFG would then further request consideration for establishing a Council-sponsored Pacific Halibut Management and Allocation Committee and a Pacific Halibut Advisory Committee. CDFG notes that Pacific Halibut items are present on a significant number of Council meeting agendas. Furthermore, the Council makes recommendations to NOAA Fisheries and IPHC regarding area 2A regulations that govern Pacific Halibut fisheries and other non-target fisheries where halibut is taken incidentally throughout the west coast states, and the Council also engages in Pacific Halibut management and policy with representation at IPHC. Given management of this federal fishery has been and is likely to continue to be a long term Council priority, CDFG finds adequate justification to consider establishing permanent standing committees in order to address Area 2A needs surrounding allocation, management and science.

In the recent past most issues surrounding year-to-year adjustments or minor changes to the CSP have been developed by the states of Oregon and Washington to address fisheries in their states outside of Council meetings, and later the proposals are brought forward to the Council for concurrence. California participation in this process was not necessary outside of Council meetings, as the allocation schemes generally did not involve fisheries off California. The inclusion of new information from California means involving California more fully in catch sharing discussions, which are likely to become more lengthy and complex. Additional discussions with state representatives and stakeholders will be necessary in advance of and outside of Council meetings, and should there be a need to significantly modify the CSP, instead the Council might be best served with recommendations by both an allocation/management and stakeholder advisory committee.

California Recreational Catch Estimates

CDFG recognizes accurate recreational catch estimates of Pacific Halibut off California are a necessary component of not only the future outcome of an expanded stock assessment, but also future discussions of the CSP, and recreational management in California. CDFG staff continues to look into the refinement of its estimation and expansion process, and exploring other data-related issues affecting the production of accurate final estimates presented to the IPHC and Council. CDFG expects estimates to be available to the Council and workgroup prior to September 2012.

CDFG evaluated the input components that will be used to develop recreational catch estimates for the private boat (PR)¹ and party/charter (PC or CPFV) modes, which together comprise the majority of the Pacific Halibut catch off California. These components included adequacy of sampling effort, sample sizes for examined catch, effort estimation, and weight derivations. Based on the review to date, CDFG believes that the level of sampling effort is sufficient to provide enough samples to produce robust estimates for the PC mode and the majority of the PR1 fishery. However, there are concerns with the estimation of one of the sub-components of the PR mode (PR-PAN) which has yet to be resolved. In addition, CDFG is in the process of examining methodologies used for CPFV effort estimation, as changes were implemented in 2011 which have an impact on estimates for this mode. The remaining issue surrounds the most appropriate length-weight conversion factor to apply to sample data in order to produce catch estimates that are comparable to those provided by the other states.

Other CDFG Pacific Halibut Activities

The Department has scheduled a public meeting regarding Pacific Halibut on the afternoon of May 16, in Eureka at the Humboldt Bay Harbor Recreation and Conservation District located at 601 Startare Drive, Eureka, CA. The purpose of the meeting will be to provide an overview of Pacific Halibut management on the west coast including California, how it relates to California's current fishery, and plans and proposals for informing the assessment process for northern California. In addition, CDFG will outline and discuss the need for possible changes to recreational management measures for 2013 and receive stakeholder input on proposed solutions. Lastly, CDFG will look to the public to provide input on the commercial and recreational Pacific Halibut fisheries in California, and comment on possible management measures and the potential for economic and community impacts resulting from any proposed changes.

¹ The PR mode includes two components: primary private boat launch sites (PR1) as well as private access marinas or night effort (PR-PAN) sites.

GROUND FISH ADVISORY SUBPANEL REPORT ON
MEMBERSHIP APPOINTMENTS AND COUNCIL OPERATING PROCEDURES

At the March 2012 meeting, the Groundfish Advisory Subpanel (GAP) supported establishment of a work group to aid in the development of Groundfish Amendment 24. The Council agreed to establish a work group but deferred naming members until this meeting.

The GAP would like to reiterate its request that a representative for the GAP be included as a member of the work group. Other similar work groups the Council has established in the past have included a GAP representative (for example, the committee that developed biennial management). We believe having a GAP perspective will be helpful to the work group. We are prepared to recommend a representative for the GAP if requested.

PFMC
04/04/12

FUTURE COUNCIL MEETING AGENDA AND WORKLOAD PLANNING

This agenda item is intended to refine general planning for future Council meetings, especially in regard to the details of the proposed agenda for the June 2012 Council Meeting. The following primary attachments are intended to help the Council in this process:

1. An abbreviated display of potential agenda items for the next full year (Attachment 1).
2. A proposed June 2012 Council meeting Agenda (Attachment 2).

Of special interest for this agenda item at this meeting is some consideration of the need for further deliberation of how best to protect forage fish species. This could result in work assignments to either the Ecosystem Plan Development Team or Coastal Pelagic Species Management Team.

The Executive Director will assist the Council in reviewing the proposed agenda materials and discuss any other matters relevant to Council meeting agendas and workload. After considering supplemental material provided at the Council meeting, and any reports and comments from advisory bodies and public, the Council will provide guidance for future agenda development, a final proposed June Council meeting agenda, and workload priorities for Council staff and advisory bodies.

Council Tasks:

- 1. Review pertinent information and provide guidance on potential agenda topics for future Council meetings.**
- 2. Provide final guidance on a proposed agenda for the June Council meeting.**
- 3. Identify priorities for advisory body considerations at the next Council meeting, including further consideration of forage fish protection issues.**

Reference Materials:

1. Agenda Item H.5.a, Attachment 1: Pacific Council Workload Planning: Preliminary Year-at-a-Glance Summary.
2. Agenda Item H.5.a, Attachment 2: Preliminary Proposed Council Meeting Agenda, June 21-26, 2012 in San Mateo, California.

Agenda Order:

- a. Agenda Item Overview Don McIsaac
- b. Reports and Comments of Advisory Bodies and Management Entities
- c. Public Comment
- d. Council Discussion and Guidance on Future Meeting Agenda and Workload Planning

PFMC
03/16/12

Pacific Council Workload Planning: Preliminary Year-at-a-Glance Summary

(Parenthetical numbers mean multiple items per topic; shaded Items may be rescheduled re workload priorities; deletions= struck-out; border=new)

	<u>June 21-26, 2012</u> (San Mateo)	<u>September 13-18, 2012</u> (Boise)	<u>November 2-7, 2012</u> (Costa Mesa)	<u>March 6-11, 2013</u> (Tacoma)	<u>April 6-11, 2013</u> (Burlingame)
CPS	NMFS Rpt Mackerel HG & Mgmt Meas.		NMFS Rpt Sardine Mgmt Par. WS Report Sardine Assmnt & Mgmt Meas. Including Tribal Allocation	EFPs: for Pub Rev	NMFS Report EFPs: Final Recom.
Groundfish	NMFS Report Inseason Mgmt 2013-14 Bien Mgmt: Adopt Final (3) Refine Stk Assmnt Pln & TORs Adopt PPA IFQ for Whiting QS A20 trailing Actions Check In Final EFPs for 2013-14	NMFS Report Inseason Mgmt Data Poor Workshop Report Adopt Final Stk Assmnt Plan Adopt FPA IFQ for Whiting Base Pd Quota Sharing WorkPln Priorities for PIE 3 et al Phase 1 EFH Report	NMFS Report Inseason Mgmt (2) Report on Results of Science Workshops Adopt PPA for A-24: New Spx & Mgmt Measure Process Status of Rationalized Fishery PIE 3 et al PPA Widow Allocation Amendment	NMFS Report Inseason Mgmt Adopt FPA for A-24: New Spx & Mgmt Measure Process PIE 3 et al, PPA & FPA	NMFS Report Inseason Mgmt Pacific Whiting Update Adopt Process for 2015-16 Final Action on EFH Review
HMS	NMFS Report Scope Routine Mgmt Measure Changes, SDC, & Ref. Pts. Internat'l RFMO Matters Including Albacore	NMFS Report Routine Mgmt Meas. Changes, SDC, & Ref. Pts. to Public Rev	NMFS Report Routine Mgmt Meas. Changes, SDC & Ref. Pts: Adopt Final Input to Intern'l RFMO	NMFS Report NMFS Rpt on Alternative Gear Impacts for Swordfish Fishery	
Salmon		NMFS Rpt Method Rev: Adopt Priorities CA Hatchery Review Adopt PPA for A17-EFH	NMFS Rpt 2012 Method Rev.--Final 2013 Preseas'n Mgmt Schd	NMFS Rpt Approve Review & SDC Approve Rebuilding Plans 2012 Season Setting (5)	NMFS Rpt 2013 Method Rev.--Identify Topics 2013 Season Setting (3)
Other	Habitat Issues Forage Fish Mgmt Issues Ecosystem FMP Dev. NS 10 (Safety) Proposed Rule Routine Admin (8)	Pac. Halibut Bycatch & Regs(2) Pac. Halibut S of H WG Rpt and Prop. CSP Changes NMFS Enforcement Rpt Habitat Issues Routine Admin (8)	Pac Halibut: Adopt Final CSP Fed. Enforcement Priorities Habitat Issues IEA Impl. Wrkshp Report Ecosystem FMP Dev. Ocean Obsrv. Init. Rpt Routine Admin (8)	Pac Halibut: IPHC Mtg & Regs (2) Annual CG Enforcement Rpt Habitat Issues Routine Admin (6)	Pac Halibut-Incidntl Regs Habitat Issues CMSP Update Routine Admin (6)
Apx. Floor Time	5.2 days	4.7 days	5.6 days	5 days	4 days

Agenda Item H:5.a
Attachment 1
April 2012

PRELIMINARY PROPOSED COUNCIL MEETING AGENDA, JUNE 21-26, 2012 IN SAN MATEO, CALIFORNIA
(SHADED ITEMS ARE TENTATIVE)

	Thu, June 21	Fri, June 22	Sat, June 23	Sun, Jun 24	Mon, Jun 25	Tue, Jun 26
	<p align="center">A. OPEN SESSION 9:30 AM</p> <p>1-4. Opening & Approve Agenda (30 min)</p> <hr/> <p>OPEN COMMENT</p> <p>1. Comments on Non-Agenda Items (45 min)</p> <hr/> <p>HABITAT</p> <p>1. Current Issues (45 min)</p> <hr/> <p>GROUNDFISH</p> <p>1. NMFS Report (1 hr)</p> <hr/> <p>COUNCIL INFO SESSION Staff Briefing on 2013-2014 Groundfish Harvest Specifications and Mgmt Measures (2 hr)</p> <hr/> <p>CLOSED SESSION (1 hr)</p>	<p align="center">GROUNDFISH</p> <p>2. Final Adoption of EFPs for the 2013-2014 Fisheries (2 hr)</p> <p>3. Refine Stock Assessment Plan and TOR (1 hr 30 min)</p> <hr/> <p align="center">HIGHLY MIGRATORY SPECIES</p> <p>1. NMFS Report (1 hr)</p> <p>2. Scope Routine Mgmt Measure Changes, SDC, & Reference Points (1 hr 30 min)</p> <p>3. International Mgmt Activities, Including Albacore Tuna (1 hr 30 min)</p> <hr/> <p align="center">ADMINISTRATIVE</p> <p>2. Legislative Matters (30 min)</p>	<p align="center">GROUNDFISH</p> <p>4. Tentative Adoption of 2013-14 Biennial Harvest Specifications and Management Measures (5 hr)</p> <p>5. Adopt a PPA for Reconsideration of Initial Catch Shares in the Mothership and Shoreside Whiting Fisheries (2 hr 30 min) [Continue Sunday]</p> <hr/>	<p align="center">GROUNDFISH</p> <p>5. Continue--Adopt a PPA for Reconsideration of Initial Catch Shares in the Mothership and Shoreside Whiting Fisheries (2 hr)</p> <hr/> <p align="center">ECOSYSTEM BASED MANAGEMENT</p> <p>1. Consideration of Forage Fish Management Issues (2 hr 30 min)</p> <p>2. Development of a Council Fishery Ecosystem Plan (2 hr)</p> <hr/> <p align="center">GROUNDFISH</p> <p>6. Trawl Rationalization Trailing Actions (2 hr)</p>	<p align="center">COASTAL PELAGIC SPECIES</p> <p>1. NMFS Report (30 min)</p> <p>2. Pacific Mackerel Mgmt for 2012-2013 (1 hr 30 min)</p> <hr/> <p align="center">GROUNDFISH</p> <p>6. Trawl Rationalization Trailing Actions (2 hr)</p> <p>7. Inseason Adjustments Part I (2 hr)</p> <p>8. Adopt Final Preferred 2013-14 Biennial Harvest Specifications and Mgmt Measures (4 hr) [Continue Tuesday]</p> <hr/>	<p align="center">GROUNDFISH</p> <p>8. Continue --Adopt Final Preferred 2013-14 Biennial Harvest Specifications & Mgmt Measures (1 hr)</p> <p>9. Inseason Adjustments Part II, if Necessary (1 hr)</p> <hr/> <p align="center">ADMINISTRATIVE</p> <p>1. Comments on National Standard 10 (Safety) Proposed Rule (1 hr)</p> <p>2. Approve Council Minutes (15 min)</p> <p>3. Fiscal Matters (15 min)</p> <p>4. Membership Appointments & COPs (15 min)</p> <p>5. Future Meeting Agenda & Workload Planning (30 min)</p>
Wed, June 20	6 hr	8 hr	7 hr 30 min	8 hr	8 hr	4 hr 15 min
8 am GMT	7 am WA/OR/CA	7 am WA/OR/CA	7 am WA/OR/CA	7 am WA/OR/CA	7 am WA/OR/CA	7 am WA/OR/CA
8 am HC	7 am Secretariat	7 am Secretariat	7 am Secretariat	7 am Secretariat	7 am Secretariat	7 am Secretariat
8 am Regulation Workshop	8 am Chr Brfg	8 am EAS	8 am CPSAS & MT	8 am CPSAS & MT	8 am GAP & GMT	
8 am HMSAS & MT	8 am GAP & GMT	8 am GAP & GMT	8 am EAS	8 am GAP & GMT	As Necessary EC	
8 am SSC	8 am HMSAS & MT	8:30 am GMT, SSC GF	8 am GAP & GMT	As Necessary EC		
11 am Secretariat	8 am SSC	SubC Mtg-	As Necessary EC			
3 pm Leg Cmte	4:30 pm EC	As Necessary EC				
	6 pm Chair's Reception					

FINAL MOTION ON AN ECOSYSTEM FISHERY MANAGEMENT PLAN FROM THE
JUNE 2011 COUNCIL MEETING

Motion 20: Adopt the following:

1. Move forward in developing an Ecosystem Plan using the Purpose and Need statement as provided by the Ecosystem Plan Development Team as the basis for the plan.
2. Develop an Ecosystem Plan that is primarily advisory in nature, as described by Option 2, the “Advisory Fishery Ecosystem Plan (FEP),” in the Ecosystem Plan Development Team report, with the potential for expanding the plan to include regulatory authority in the future.
3. Continue to manage stocks and fisheries through existing Council-adopted fishery management plans (FMP); additional management measures for forage fish species, if any, would be considered through the Coastal Pelagic Species FMP, as the Council deems appropriate.
4. In developing the Ecosystem Plan, address the recommendations provided by the Coastal Treaty Tribes; Scientific and Statistical Committee (SSC); SSC Ecosystem Subcommittee; Ecosystem Advisory Subpanel; Groundfish Management Team and Advisory Subpanel, Highly Migratory Species Management Team and Advisory Subpanel; Salmon Technical Team and Advisory Subpanel; Coastal Pelagic Species Management Team and Advisory Subpanel; and Habitat Committee, as appropriate.
5. Given this guidance, request the Ecosystem Plan Development Team and Ecosystem Advisory Subpanel provide a preliminary draft process and schedule at the September Council meeting for development of the Ecosystem Plan..
6. Develop a list of species that are not currently included in any FMP, that are not under State management, are not listed under the ESA, or are species that could be the target of future fishery exploitation.

Pacific Council Workload Planning: Year-at-a-Glance Summary

(Parenthetical numbers mean multiple items per topic; shaded Items may be rescheduled re workload priorities; deletions= struck-out; border=new)

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Groundfish	NMFS Report Inseason Mgmt 2013-14 Bien Mgmt: Adopt Final (3) Refine List of Stocks to Assess Barotrauma Workshop Rpt/Rev Adopt PPA for Base Whiting IFQ A20 trailing Actions (Whiting Dates & EM Study Design Final EFPs for 2013-14	NMFS Report Inseason Mgmt Data Poor Species Wrkshp Rpt Adopt Final Stk Assmnt Plan Process for Seabird Prot. Regs Adopt FPA for Base Whiting IFQ WorkPln Priorities for PIE 3 et al Phase 1 EFH Rpt; RFP release	NMFS Report Inseason Mgmt (2) Report on Results of Science Workshops Adopt PPA for A-24: New Spx & Mgmt Measure Process Status of Rationalized Fishery PIE 3 et al PPA Electronic Monitoring Rpt Widow Allocation Amendment	NMFS Report Inseason Mgmt Adopt FPA for A-24: New Spx & Mgmt Measure Process PIE 3 et al, PPA & FPA Electronic Monitoring Rpt	NMFS Report Inseason Mgmt Pacific Whiting Update Adopt Process for 2015-16 Final Action on EFH Review
HMS	NMFS Report Scope Routine Mgmt Measure Changes, SDC, & Ref. Pts. Internat'l RFMO Matters Including Albacore	NMFS Report Routine Mgmt Meas. Changes, SDC, & Ref. Pts. to Public Rev	NMFS Report Routine Mgmt Meas. Changes, SDC & Ref. Pts: Adopt Final Input to Intern'l RFMO	NMFS Report NMFS Rpt on Alternative Gear Impacts for Swordfish Fishery	
Salmon		NMFS Rpt Method Rev: Adopt Priorities CA Hatchery Review Adopt PPA for A18-May 15 Season Opening Adopt PPA for A17-EFH	NMFS Rpt 2012 Method Rev.--Final Adopt FPA for A18 2013 Preseas'n Mgmt Schd	NMFS Rpt Approve Rev, Forecasts & ACLs Approve Rebuilding Plan Alts. 2012 Season Setting (5)	NMFS Rpt 2013 Method Rev.--Identify Topics Adopt FPA for A18 2013 Season Setting (3) Adopt FPA for A17-EFH
Other	Routine Admin (8) Habitat Issues WDFW Enforcement Rpt Forage Fish Mgmt Issues Fishery Ecosystem Pln Dev NS 10 (Safety) Proposed Rule	Routine Admin (8) Habitat Issues Annual NMFS Enf. Report Pac Halibut: PPA CSP Changes Pac. Halibut Bycatch Estimate Pac. Halibut S of H WG Rpt NS 10 (Safety) Proposed Rule	Routine Admin (8) Habitat Issues Federal Enforcement Priorities Pac Halibut: Adopt Final CSP IEA Impl. Wrkshp Report Fishery Ecosystem Pln Dev Ocean Obsrv. Init. Rpt	Routine Admin (6) Habitat Issues Annual CG Enforcement Rpt Pac Halibut: Prelim Incidntl Regs Pac Halibut: IPHC MTG	Routine Admin (6) Habitat Issues Pac Halibut: Final Incidntl Regs CMSP Update
Apx. Floor Time	5.5 days	5 days	6 days	5 days	4 days

PRELIMINARY PROPOSED COUNCIL MEETING AGENDA, JUNE 21-26, 2012 IN SAN MATEO, CALIFORNIA
(SHADED ITEMS ARE TENTATIVE; NEW ITEMS WITHIN DASHED LINES)

	Thu, June 21	Fri, June 22	Sat, June 23	Sun, Jun 24	Mon, Jun 25	Tue, Jun 26
	<p>A. OPEN SESSION 8:00 AM</p> <p>1-4. Opening & Approve Agenda (30 min)</p> <hr/> <p>OPEN COMMENT</p> <p>1. Comments on Non-Agenda Items (45 min)</p> <hr/> <p>HABITAT</p> <p>1. Current Issues (45 min)</p> <hr/> <p>COUNCIL INFO SESSION Staff Briefing on 2013-14 Groundfish Harvest Spec. & Mgmt Measures (2 hr)</p> <hr/> <p>ENFORCEMENT</p> <p>1. WDFW Enforcement Report (1 hr)</p> <hr/> <p>GROUND FISH</p> <p>1. NMFS Report (1 hr)</p> <hr/> <p>CLOSED SESSION (1 hr)</p>	<p>HIGHLY MIGRATORY SPECIES</p> <p>1. NMFS Report (1 hr)</p> <p>2. Scope Routine Mgmt Measure Changes, SDC, & Reference Points (1 hr 30 min)</p> <p>3. International Mgmt Activities, Including Albacore Tuna (1 hr 30 min)</p> <hr/> <p>GROUND FISH</p> <p>2. Final Adoption of EFPs for the 2013-2014 Fisheries (2 hr)</p> <p>3. Refine List of Stocks for Assessment (1 hr)</p> <p>4. Barotrauma Workshop Rpt & Review (1 hr)</p>	<p>ADMINISTRATIVE</p> <p>1. Legislative Matters (30 min)</p> <hr/> <p>GROUND FISH</p> <p>5. Tentative Adoption of 2013-14 Biennial Harvest Specifications and Management Measures (5 hr)</p> <p>6. Adopt a PPA for Reconsideration of Initial Catch Shares in the Mothership and Shoreside Whiting Fisheries (2 hr 30 min)</p> <p>[Continue Sunday]</p>	<p>GROUND FISH</p> <p>6. Continue--Adopt a PPA for Reconsideration of Initial Catch Shares in the Mothership and Shoreside Whiting Fisheries (2 hr)</p> <hr/> <p>ADMINISTRATIVE</p> <p>2. Consideration of Forage Fish Management Issues (2 hr)</p> <hr/> <p>ECOSYSTEM BASED MANAGEMENT</p> <p>1. Development of a Council Fishery Ecosystem Plan (2 hr)</p> <hr/> <p>GROUND FISH</p> <p>7. Trawl Rationalization Trailing Actions Including EM Pilot Study Design & Whiting Opening Dates (2 hr)</p>	<p>COASTAL PELAGIC SPECIES</p> <p>1. NMFS Report (30 min)</p> <p>2. Pacific Mackerel Mgmt for 2012-2013 (1 hr 30 min)</p> <hr/> <p>GROUND FISH</p> <p>7. Trawl Rationalization Trailing Actions Including EM Pilot Study Design (2 hr)</p> <p>8. Inseason Adjustments Part I (2 hr)</p> <p>9. Adopt Final Preferred 2013-14 Biennial Harvest Specifications and Mgmt Measures (2 hr)</p> <p>[Continue Tuesday]</p>	<p>GROUND FISH</p> <p>9. Continue --Adopt Final Preferred 2013-14 Biennial Harvest Specifications & Mgmt Measures (4 hr)</p> <p>10. Inseason Adjustments Part II, if Necessary (1 hr)</p> <hr/> <p>ADMINISTRATIVE</p> <p>1. Comments on NS 10 (Safety) Proposed Rule (1 hr)</p> <p>3. Approve Council Minutes (15 min)</p> <p>4. Fiscal Matters (15 min)</p> <p>5. Membership Appointments & COPs (15 min)</p> <p>6. Future Meeting Agenda & Workload Planning (30 min)</p>
Wed, June 20	7 hr	8 hr	8 hr	8 hr	8 hr	5 hr 15 min
<p>8 am GAP & GMT</p> <p>8 am Regulation Workshop</p> <p>8 am HMSAS & MT</p> <p>8 am SSC</p> <p>11 am Secretariat</p> <p>1 pm Budget Cmte</p> <p>2:30 pm Leg Cmte</p> <p>4 pm Chrs Brfg</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p> <p>8 am GAP & GMT</p> <p>8 am HMSAS & MT</p> <p>8 am SSC</p> <p>4:30 pm EC</p> <p>6 pm Chair's Reception</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p> <p>8 am EAS</p> <p>8 am GAP & GMT</p> <p>8:30 am GMT, SSC GF SubC Mtg-</p> <p>As Necessary EC</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p> <p>8 am CPSAS & MT</p> <p>8 am EAS</p> <p>8 am GAP & GMT</p> <p>As Necessary EC</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p> <p>8 am CPSAS & MT</p> <p>8 am GAP & GMT</p> <p>As Necessary EC</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p> <p>8 am GAP & GMT</p> <p>As Necessary EC</p>	<p>7 am WA/OR/CA</p> <p>7 am Secretariat</p>

Agenda Item H.5.a
Sup. Attachment 5
April 2012

SALMON WORKLOAD ASSESSMENT

Amendment 17 to the Pacific Salmon Fishery Management Plan (FMP) was initiated in 2011, based on recommendations generated as part of the periodic review of Pacific salmon essential fish habitat (EFH). At the March 2012 meeting, the Council considered a scoping document for Amendment 17 that included a suite of EFH-related items, and several non-EFH related issues identified by Council Staff and NMFS.

Two other topics have also emerged as candidates to be considered in a plan amendment. One is a request by the Salmon Advisory Subpanel (SAS) to include a placeholder for “developing an abundance-based management approach to California coastal fall Chinook.” Subsequent discussions resulted in this topic being included in the Salmon Methodology Review Process.

Another recently-identified item is changing the May 1 start date to the fishing season, which has emerged as an issue for three reasons. First, information on Pacific Salmon Commission fisheries is often not available enough in advance of the April Council meeting to allow for adequate public review and proper consideration in other management fora such as the North of Falcon process, which needs to precede the April Council meeting process. Second, the current start date necessitates a relatively short window between the March and April Council meetings, which causes numerous difficulties in the Council process (Briefing Book compilation, hotel reservations, etc.) and insufficient time for the North of Falcon process. Third, the timeframe from the end of the April Council Meeting (typically around April 15) and May 1 provides a very limited time to process the final regulation. A May 15 start date would alleviate both these problems.

While some of these items can only be addressed in an FMP amendment, others could be accomplished via a different process, or are of such complexity that including them in the scope of Amendment 17 would significantly delay that amendment process.

Given what is now a very wide range of items being considered, it would be efficient to separate those items that are appropriate for inclusion in the scope of Amendment 17 from those items that clearly need further examination before determining the best approach. The following graphic presents a suggested approach:

Issue/Item	Detail	Workload Approach
EFH-related items	In March Agenda Item G6a Att 1, Am 17 Scoping document	Include in Amendment 17
Non-EFH items	In March Agenda Item G6b, Supp PFMC/NMFS Report <ul style="list-style-type: none"> • Quillayute fall coho MFMT • Rebuilding plan amendment or notice and comment requirement • Public comment after FR for regs. filed • Houskeeping language/descriptions • Updating conservation objectives (substantive workload) <ul style="list-style-type: none"> ○ SRFC, OCN coho, Oregon Chinook, Willapa coho • Adding ESA listed LCR tules and spring Chinook to FMP stocks. 	Include some in Am 17 <i>PFMC/NMFS staff makes recommendation for specific items to include in Amendment 17, Amendment 18, or Amendment 19 at the September 2012 Council Meeting</i>
Abundance-based forecasting	In March Agenda Item G6b, Supp SAS Report	Do not include in Am 17 <i>Has been referred to methodology review process for further development</i>
Season start date	Not yet proposed. Would follow a 2-meeting process (September-November/April 2012)	Do not include in Am 17 <i>Initiate regulatory amendment process to expedite decision</i>

Based on the approach outlined in the table above, the following schedule is proposed:

- Convene a meeting of interested parties to discuss issues and develop a timeline for Council consideration of delaying the season start date until May 15.
- September 2012 Council meeting: 1) Staff presents informational report on items for inclusion in either Amendment 17, 18, or 19 and workload implications; and 2) introduce draft possible Regulatory Amendment 18 language (season start date).
- September 2012 Council meeting: Amendment 17 Draft Environmental Assessment focusing on EFH matters presented to Council.
- March 2012 Council meeting: Final action on Regulatory Amendment 18.*
- April 2013 Council meeting: Final action on Amendment 17.

**numbering may change, if Am 18 is finished before Am 17.*

--Council Staff

CALIFORNIA DEPARTMENT OF FISH AND GAME REPORT ON FUTURE COUNCIL
MEETING AGENDA AND WORKLOAD PLANNING
RE: FORAGE FISH PROTECTIONS

Under this agenda item, the Council is tasked with providing guidance on workload and identifying priorities for advisory body considerations for the June meeting. The need for guidance regarding further consideration of forage fish protection issues is specifically identified (H.5 Situation Summary, Task 3).

CDFG supports Council staff's draft Preliminary Proposed Council Meeting Agenda for June (H.5.a, Attachment 2), which includes an item titled "Consideration of Forage Fish Management Issues (2 hr 30 min)" under Ecosystem-Based Management (EBM). This agenda item would presumably allow for a stand-alone discussion of this topic separate from the development of the Fishery Ecosystem Plan (FEP) and should lead to clarification regarding both what future substantive actions might be considered by the Council, and the possible vehicles and approaches for moving forward.

The Council's final motion on an Ecosystem FMP from June 2011 (Agenda Item.H.5.a Supplemental Attachment 3) reflects the Council's intent at the time both to: 1) move ahead with development of a non-regulatory FEP, potentially to be later converted to include regulatory authority; and 2) consider additional management measures for forage fish species, if any, through the Coastal Pelagic Species FMP as the Council deems appropriate. **However, the Council has yet to task the CPSMT and CPSAS with developing additional management measures for forage species, nor has it directed the EPDT and EAS to prepare a draft FEP that includes regulatory authority for unfished species. It would be appropriate for the Council to agendize this issue and decide whether to provide one or other of these directions in June.**

During the Council's November 2011 discussion on the FEP, CDFG requested that NMFS report back to the Council on the various possible regulatory authorities or mechanisms available to prohibit fishing for, or otherwise protect, unfished species. **To facilitate the Council's June 2012 discussions on the forage fish protection agenda item, CDFG recommends that the EPDT provide the Council its report describing and analyzing these possible regulatory authorities in advance of the June meeting.** We expect that the EPDT report described above will allow the Council to evaluate whether to move forward with protections for unfished forage species, and if so, in an Ecosystem FMP with regulatory authority, in the CPS FMP, or through some other FMP or regulatory venue.

CDFG continues to support exploring protections for unfished forage fish species under a regulatory Ecosystem FMP, and recommends agendizing this issue in June for the following reasons:

1. The Council has already tasked the EPDT with reviewing the Council's four fishery management plans to identify existing ecosystem-based management principles, and to scope common management needs that may benefit from a coordinated overarching ecosystem-based fishery management planning framework. The Council received an initial report on these items from the EPDT in June of 2011 (H.1.a, Attachment 2). CDFG recognizes the general concept of "forage fish protections" as an appropriate topic for consideration under this umbrella.
2. The CPS-FMP is focused on establishing sustainable harvest provisions for actively managed CPS stocks and fisheries. Its scope and number of included species is narrow by design. CDFG supports continuing the current focus of this plan on management of these CPS stocks for their long-term sustainability.
3. The composition of the CPSMT and CPSAS teams is not adequate to cover the vast array of issues, needs and viewpoints associated with developing additional protections for forage fish.
4. CDFG recognizes a need for a clearer and more transparent process for applicants wishing to explore new fisheries in federal waters where fishing activity is not already authorized under one or more of the existing FMPs. Whether use of the federal List of Allowable Fisheries [MSA §305(a)] is adequate to prevent development of new fisheries of concern and/or whether to revise the List of Fisheries or process to provide greater protection against development of new forage fisheries has been a topic of interest for the Council, and is expected to be addressed in the EPDT's report. This topic is outside the scope of the existing CPS plan framework, but would be appropriate to consider in the context of developing a regulatory EFMP.
5. CDFG continues to support development of an EFMP with the regulatory authority needed to provide comprehensive protection to the ecosystem and where necessary, prohibitions on harvest of additional stocks. A single plan which consolidates efforts to prohibit harvest activities will serve the Council well to connect and document the Council's efforts to provide comprehensive protections for the ecosystem, in a manner different from our fishery-based FMPs which focus on providing for sustainable harvests.

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON FUTURE COUNCIL
MEETING AGENDA AND WORKLOAD PLANNING

The Scientific and Statistical Committee (SSC) discussed the remaining workshops and subcommittee meetings scheduled for 2012. Regarding the Harvest Parameters for Pacific Sardine and Groundfish Reference Points (Bzero) workshops, the SSC continues to support these efforts and has written draft proposals that describe the purpose and scope of these workshops. The SSC notes that considerable analyses will need to be conducted to prior to reaching conclusions on these matters, analyses that cannot be concluded in time for a 2012 review. Therefore, these workshops are intended to identify the topics, the associated analyses, and work plans as a first step towards advancing the science behind these important management issues.

The SSC proposes to share these workshop proposals with the Groundfish and Coastal Pelagic Species advisory bodies between now and the June 2012 Council meeting where the proposals can be presented for Council review.

PFMC
04/01/12



Association of Northwest Steelheaders

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office@anws.org • www.nwsteelheaders.org

Established 1960

Feb. 21, 2012

To: Pacific Fishery Management Council
Dan Wolford, Chairman
7700 NE Ambassador Place, Suite 101
Portland, OR 97220-1384
Fr: Ian Fergusson, Resource Director
Re: Forage Fish

RECEIVED

FEB 24 2012

PFMC

Dear Chairman Wolford and Council Members,

The Association of Northwest Steelheaders is one of the oldest and most-cherished conservation organizations in the Pacific Northwest. The Association was founded in 1960 and currently has 1,200 active members, with 13 chapters in Oregon and Washington. The Steelheaders mission is "Anglers dedicated to enhancing and protecting fisheries and their habitats for today and the future." Our vision is "Responsible and enjoyable sport angling with good access to healthy, abundant and sustainable fisheries in Northwest's healthy watersheds." ANWS serves all residents of the Pacific Northwest who value clean water and strong salmon and steelhead runs.

In our 50-year history, ANWS has many accomplishments on behalf of salmonids and their fishery. We have been active in Columbia River issues for many years, starting with the successful effort to make steelhead a game fish, and to remove it from the commercial fishery. We are active in allocation and hydro management, advocating for increased spill. We have participated in recovery plans for the lower Columbia and Willamette basins, and we are currently involved in finding alternatives to mainstem Columbia gillnetting.

Although our efforts have been mostly focused on the freshwater side, we also recognize the importance of a healthy ocean food web. Abundant forage fish are critical to the maintenance and recovery of salmonid populations, and underpin the enormous economic contribution of the sport fishery.

Please take action to conserve the prey base by preventing new fisheries on non-managed stocks of forage fish. Should an effort be launched to commercially fish a species not currently exploited, this would allow a management plan to be developed that would prevent over-exploitation.

Thank you,

Ian Fergusson
Resource Director

Anglers dedicated to enhancing and protecting fisheries and their habitats for today and the future.

March 23, 2012

Mr. Dan Wolford, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

RE: Agenda Item H.5. Future Meeting Agenda & Workload Planning – Forage Species

Dear Chairman Wolford and Council members:

We are writing to request the Council schedule the Ecosystem Based Management agenda item at the June 2012 meeting for formal Council action. Specifically, during this agenda item, we request that the Council consider and adopt the objective of protecting currently unmanaged forage species from directed harvest, and initiate a Fishery Management Plan (FMP) amendment process to accomplish this objective.

Forage species protection is widely recognized as a pillar of ecosystem-based management.^{1 2} There is increasing justification for changing the way we manage forage species in the California Current. For example, a seminal study tracking apex predator movements identified the California Current as a key foraging area for a wide suite of migratory species across the Pacific Ocean.³ A recent study published in *Science* found that fishing on low-trophic level (forage) species can have large impacts on other parts of the ecosystem, and this finding held for the California Current Ecosystem.⁴ Furthermore, as evidenced from recent public comments to the PFMC and west coast media coverage, protecting unmanaged forage species has become a top priority for the conservation community and many commercial and recreational fishermen. Forage species protection has been reflected through federal actions such as the North Pacific Fishery Management Council (NPFMC) action in 1998 to prohibited directed commercial harvest for many forage species through amendments to the Bering Sea/ Aleutian Islands and Gulf of Alaska Groundfish FMPs, the PFMC's prohibition of krill harvest in 2006, and in 2009 when the NPFMC developed its Arctic FMP.

The Council acted proactively and decisively in 2006 to prevent a directed fishery for krill through Amendment 12 to the Coastal Pelagic Species Fishery Management Plan (CPS FMP). Since then, Oceana and others have repeatedly requested the Council take similar action to protect other currently unmanaged forage species. Previously, we requested the Council use Amendment 13 to the CPS FMP as an opportunity to add a list of unmanaged forage species as ecosystem component species and prohibit harvest for those species. However, the Council ultimately decided not to pursue protection of unmanaged forage species through that Amendment package, instead signaling to the public that a more appropriate way to protect these species would be an Ecosystem FMP. We then diligently engaged in the process of developing an Ecosystem FMP, and we proposed the Council use the Ecosystem FMP as an opportunity to protect unmanaged forage species. Yet at the June 2011 meeting, the Council decided not to pursue protection of forage species in the Ecosystem FMP, instead changing the Ecosystem FMP

into a non-regulatory, advisory document. The Council, however, adopted an important motion under the Ecosystem Based Management agenda item, stating that:

[a]dditional management measures for forage fish species if any would be considered through the CPS FMP as the Council deems appropriate.

The Council further directed the Ecosystem Plan Development Team (EPDT) to:

[d]evelop a list of species not included in any FMP, state management, ESA regulations, or species that could be the target of future exploitation with the idea that fisheries could possibly develop.

Subsequently, the draft FEP contained a detailed examination of the potential for new fisheries to develop on currently unmanaged forage species in the California Current.⁵ The FEP analysis in Appendix A pointed out that:

[g]iven limited potential for increased fishmeal production from traditional LTL species, prices for fishmeal and fish oil will continue to rise. This makes the prospect for fisheries developing on the minor LTL species all that more attractive, as higher fishmeal prices are sure to translate into higher exvessel prices for the raw ingredients.⁶

Prior to the November 2011 Council meeting, we again requested the Council take action to protect the unmanaged species on the EPDT's list, by initiating an amendment to the CPS FMP that would add such species and include management measures to prohibit the development of directed fisheries, as laid out in the June 2011 Council motion. At this meeting the Council requested additional analysis from the EPDT, requesting the team examine the "need and mechanisms for expanding protective measures for forage species, including further analysis of a listing of applicable species".⁷

We have analyzed the option of amending the list of allowable fisheries, and concluded it would be insufficient to meet the objective of preventing directed fisheries from developing on unmanaged forage species. Even if the list is amended, the Council and NMFS will be required to take additional action to prevent a fishery from developing within 90 days of being notified of an intent to target an unmanaged forage stock, each time such notification is received. If the Council and NMFS take action within 90 days, a new FMP or FMP amendment is required within one year to maintain the harvest prohibition. Therefore, from a workload perspective, this option actually requires more work to achieve the objective of preventing new fisheries from developing on currently unmanaged forage species.

Since the Council is ultimately required to add any species for which it intends to place a harvest prohibition into an FMP, amendments to the list of allowable fisheries is a repetitive step that does not offer meaningful, long-term protections to forage species. As this is an inappropriate means to accomplish the objective of protecting unmanaged forage species, we urge the Council and the EPDT to focus analysis on protection mechanisms that involve an FMP amendment. The Council has already indicated the CPS FMP is the appropriate FMP for protecting forage species, yet we are open to this path or other options such as an omnibus FMP amendment or Ecosystem FMP. What is

needed in June is a clearly articulated motion stating it is the Council's objective to protect unmanaged forage species, and to decide on and initiate a concrete pathway and process to accomplish this objective.

Therefore, we ask the Council to schedule an "Action Item" for the June meeting and request any additional analysis by the EPDT to accomplish the following:

- Formally adopt an objective statement to protect unmanaged forage species within a Council FMP;
- Select a preliminary list of unmanaged forage species for inclusion in such an action;
- Initiate an FMP amendment process intended to meet the Council's objective.

The Council and NMFS protected krill on the basis of "preserving key trophic relationships between fished and unfished elements of the food web in order to maintain the integrity of the ecosystem and to minimize the risk of irreversible adverse impacts on managed fish stocks and other living marine resources from adverse impacts."⁸ The Council has deliberated and asked for more information on extending this protection to other forage species for over 5 years now, and it is time to move forward with a clear FMP amendment process.

Ultimately, precautionary management of forage species would represent a tangible ecosystem-based management approach that would benefit existing commercial and recreational fisheries and wildlife without harming stakeholders.

Sincerely,



Ben Enticknap
Pacific Project Manager

¹ Foley et al. 2010. Guiding ecological principles for marine spatial planning. *Marine Policy* 34(5): 955-966.

² Pikitch et al 2004. Ecosystem-Based Fishery Management. *Science* 305:346-347

³ Block et al. 2011. Tracking apex marine predator movements in a dynamic ocean. *Nature* doi:10.1038/nature10082.

⁴ Smith et al. 2011. *Science*. Impacts of fishing low-trophic level species on marine ecosystems. 10.1126/science.1209395. 21 July 2011.

⁵ PFMC 2011. November Meeting Agenda Item H.2.a Attachment 1. Draft Pacific Coast Fishery Ecosystem Plan for the U.S. Portion of the California Current Large Marine Ecosystem. Appendix A.

⁶ PFMC 2011. November Meeting Agenda Item H.2.a Attachment 1. Draft Pacific Coast Fishery Ecosystem Plan for the U.S. Portion of the California Current Large Marine Ecosystem. Appendix A.

⁷ PFMC 2011. November 2011 Meeting Decision Document, p. 5.

⁸ PFMC 2008. Management of Krill as an Essential Component of the California Current Ecosystem. Amendment 12 to the Coastal Pelagic Species Fishery Management Plan. Environmental Assessment. February 2008, at page 1.

March 23, 2012

Mr. Dan Wolford, Chairman
Pacific Fishery Management Council
7700 NE Ambassador Place, #101
Portland, OR 97220

RE: Agenda Item H.5 - Workload Planning & Protecting Unmanaged Forage Species

Dear Chairman Wolford and Council Members,

Following the Pacific Fishery Management Council's (Council) scheduling discussion in March, we are writing to request that the Council incorporate the issue of protecting unmanaged forage species into its long-range planning.

In particular, we request that the Council schedule the June 2012 Ecosystem-Based Management agenda item as an "action item" in order to consider formally adopting the goal of protecting unmanaged forage species from directed fishing. At that point, the Council's relevant advisory bodies can begin the scoping process to analyze the various options available to bring this vital component of the food web into the Council's management framework.

The Council's discussion on this issue in March reflected a degree of uncertainty as to where this issue should be housed. To date it has been tasked to the Ecosystem Plan Development Team, as protection of the food web and the conservation of forage species is a broadly recognized goal of ecosystem-based fishery management.¹ However, the Council's motion under the Ecosystem-Based Management agenda item in June 2011 stated:

"Additional management measures for forage fish species, if any, would be considered through the Coastal Pelagic Species (CPS) FMP, as the Council deems appropriate."²

While we agree that the justification and reasoning for protecting forage species is ecosystem-based, the Council's Fishery Ecosystem Plan (FEP) is an inappropriate vehicle because without regulatory authority it lacks the ability to enact conservation and management measures. Furthermore, the timeline for establishing a fully developed FEP remains unclear and is inconsistent with the need to take action now, before capital is invested in developing new fisheries.

¹ For example see: 1) Amendments 36 and 39 to the GOA and BSAI Groundfish FMPs. [Fed Reg 63, No 51, March 17, 1998](#). 2) PFMC 2008. [Amendment 12](#) to the [CPS FMP](#). 3) PFMC 1998. [CPS FMP](#), Goals and Objectives, Page1-4.

² [June PFMC Meeting, Motion 20, #3](#) (Agenda Item H.1.d, Page 48)

The status quo should be unacceptable to any reasonable observer of fisheries management. As you've heard from us before, the Council's List of Allowable Fisheries (List) includes a broad Non-Fishery Management Plan (FMP) Category which currently allows new fisheries on unmanaged species to start up without Council approval. Furthermore, even if the List were updated to exclude specific species or fisheries, new fisheries may still proceed after notification and a 90-day waiting period unless the Council is able to compel the National Marine Fisheries Service to take emergency regulatory action.

Permanent protections for unmanaged forage species must be housed in an FMP with the regulatory authority to enact conservation and management measures. That is the only way to bring these unmanaged forage species into the Council's jurisdiction, thereby ensuring that before any new fisheries begin, the appropriate science is conducted to make certain that any such fishery could be sustainable and not harm the marine ecosystem or other valuable fisheries.

Regardless, before the appropriate management mechanisms can be identified, the Council must take action to adopt the goal of protecting unmanaged forage species from directed fishing for the sake of ensuring a healthy marine ecosystem. Item 1 under the June 24, 2012 Ecosystem-Based Management agenda item titled, "Consideration of Forage Fish Management Issues" is the appropriate time and place to take such action.

Thank you for the opportunity to participate in this public process and share our concerns regarding ecosystem-based management and the protection of the California Current forage base. We look forward to working with the Council and all stakeholders to maintain healthy oceans and sustainable fisheries.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Marx", written in a cursive style.

Steve Marx
Pew Environment Group