**Regional Ecosystem Protection and Restoration**
**Strategic Action Plan**
**Full Content Outline**

**Objective:** 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.

**I. Overview of the Priority Objective**

- Ocean, coastal, and Great Lakes ecosystems continue to suffer significant adverse impacts resulting from urban and agricultural development and other human activities. These ecosystem threats are being exacerbated by other stressors like the impacts of climate change and invasive species. While progress has been made in addressing some of these challenges, fish and wildlife habitat continues to be degraded and destroyed. Because many of these threats cross jurisdictional boundaries, increasing Federal support for regional approaches to ecosystem protection and restoration is necessary.

**II. Context and Continuity**

Ocean, coastal, and Great Lakes ecosystem protection and restoration are being carried out at state and regional scales through implementation of Federal and state resource management and land-use planning initiatives. State plans include, but are not limited to, ocean plans, coastal zone management plans, wildlife action plans, and regional ocean governance plans.

- The Governors in five regions have established state-led regional ocean governance bodies to set coastal and ocean use, management, protection, and restoration priorities: Northeast Regional Ocean Council, Mid-Atlantic Regional Council on the Ocean, South Atlantic Alliance, Gulf of Mexico Alliance, and the West Coast Governors' Agreement on Ocean Health.
- Federal agencies are also engaged in various regions through interagency collaborations focused on ecosystem restoration and management, such as the Gulf Coast Ecosystem Restoration Task Force, Federal Leadership Committee for the Chesapeake Bay (Executive Order 13508), Great Lakes Inter-Agency Task Force (Executive Order 13340), Great Lakes Restoration Initiative, South Florida Ecosystem Restoration Task Force, Puget Sound, and the California Bay-Delta Conservation Plan. Additionally, through groups like the U.S. Coral Reef Task Force (USCRTF) and the Aquatic Nuisance Species Task Force (ANSTF), interagency efforts are coordinated across several regions to preserve and protect coral reef ecosystems and to prevent and control aquatic nuisance species, respectively. Regional initiatives and numerous local efforts are also supported by the 18 joint ventures, established under the *North American Waterfowl Management Act*, the National Fish Habitat Action Plan (NFHAP) network of Fish Habitat Partnerships, Landscape Conservation Cooperatives (LCCs), and the regional planning bodies being established to conduct coastal and marine spatial planning (CMSP). Through these diverse initiatives, Federal agencies are coordinating their activities and authorities, and ensuring that

their ecosystem protection and restoration projects use the best available science and promote resiliency and adaptation to the effects of climate change. These initiatives also provide a mechanism to facilitate coordination among the Federal, state, and local governments, and stakeholders, and to build shared capacity to address the threats to ocean, coastal, and Great Lakes ecosystems.

The National Ocean Policy (NOP) calls for development of a Regional Ecosystem Protection and Restoration Strategic Action Plan (SAP) to address project prioritization, collaboration and coordination, science-based planning, impacts of invasive species, and protection, maintenance, and restoration of populations and essential habitats. Future updates will provide an opportunity to include next steps to advance solutions to the issues in this SAP, identify different issues and priorities, and support actions in different geographic areas.

- This SAP is intended to provide a framework for Federal activities that support existing regional ecosystem protection and restoration efforts, strengthen and expand partnerships with non-Federal entities (i.e., state, tribal, local governments, regional ocean governance organizations, academic institutions, non-governmental organizations (NGOs), private and public entities) and jointly align regional priorities and goals.
- This SAP contains a discrete set of actions to address priority issues where increased coordination and prioritization among Federal agencies and their non-Federal partners, enhancement of program effectiveness, or development and improvement of methodologies and protocols will help achieve conservation success.
- Although this SAP is national in scope, several of the actions address issues specific to a region or a resource. The actions in this SAP will build upon, and be informed by, the processes, priorities, and ongoing programs at the regional, state, and local levels. It is meant to be a bottom-up process. Ongoing collaboration and coordination with the variety of regionally-focused ecosystem restoration efforts will also occur.
- This SAP will be coordinated with several other SAPs that include actions at a regional scale, including Ecosystem-Based Management (EBM) to adopt EBM principles in the regional planning and management of ocean and coastal resources, Coordinate and Support, Changing Conditions in the Arctic, Water Quality and Sustainable Practices on Land, and the Coastal and Marine Spatial Planning (CMSP) SAP work with relevant stakeholders in each of nine regions identified in the NOP.

## III. Body of Plan

### A. Action 1 – Support shared regional ecosystem protection and restoration priorities.

Federal agencies collaborate with state and regional ecosystem protection and restoration initiatives throughout the U.S., but do not always effectively coordinate with each other in these efforts. Agencies will align Federal resources to support the shared priorities among the Federal and regional ocean and Great Lakes plans.

Building on the existing geographic initiatives and regional activities and experience, the SAP will create mechanisms for the sharing of information, data, and ideas between

geographically based initiatives and provide opportunities for addressing areas of overlap, common concern, and mutual benefit. Activities under this action should be aligned with the Water Quality and Sustainable Practices on Land SAP.

This SAP will focus initially on regions where Federal agencies are working collaboratively with states, local governments, tribes, and other stakeholders to support regional ecosystem priorities, and be expanded to include other regions in future SAP updates. "Bottom-up" input from regions will be essential to updating the SAP. The Great Lakes, the Gulf of Mexico, and the Chesapeake Bay watershed are examples of geographic regions where efforts will be focused initially:

- Great Lakes: Building on existing partnerships, support the prioritization, development, and implementation of eight multi-agency aquatic nuisance species plans for early detection, rapid assessment and rapid response. If funds allow, a Federal interagency early detection, rapid assessment, and rapid response team will be established to conduct aquatic nuisance species response activities under Federal responsibility.
- Gulf of Mexico: Collaborate with the Gulf of Mexico Alliance and the Gulf Coast Ecosystem Restoration Task Force to support ongoing regional sediment management planning efforts. Beneficial use of sediment is a key tool for regional restoration projects (e.g., coastal wetlands, shellfish beds and living shorelines, sea grass beds, barrier islands). More detail on this action will be developed as the Gulf Coast Ecosystem Restoration Strategy is developed in the coming months.
- Chesapeake Bay: Support the land conservation goals under the Chesapeake Bay Executive Order 13508, by coordinating Federal programs supporting the conservation of public and private lands that provide important habitat and other ecosystem services, and sustain working landscapes and communities.
- Future SAPs will be coordinated with regional ocean and Great Lakes governance organizations to identify actions in (1) Mid-Atlantic region, (2) Puget Sound and San Francisco Bay and the West Coast region, (3) the Florida Everglades and the South Atlantic region, (4) the Gulf of Maine and the Northeast region, and (5) in regions where regional ocean governance organizations are not established (Alaska/Arctic, Caribbean, and Pacific Islands regions).

1. Why Do This

   Aligning resources will help to:

   - accomplish protection and restoration goals identified in both the Federal and regional ocean governance plans;
   - promote better coordination between Federal agencies and regional entities in identifying protection and restoration priorities, and implementing projects;
   - protect and restore ecosystem integrity and ecosystem services, support recovery of listed species, ensure sustainable populations of commercial

and recreational fish and other wildlife, build resilience to climate change, enhance recreational opportunities, and provide other societal benefits; and
- more effectively utilize sediments to restore wetlands and barrier islands in the Gulf of Mexico and develop information useful to improve sediment management in other areas of the country.

2. Timeframe – Mid-term

3. Outcomes
   - Lessons-learned analysis of successful protection and restoration projects.
   - Mechanism for sharing lessons learned and best practices in coastal and wetlands restoration between regionally and geographically based efforts.
   - Improved understanding of Federal opportunities and barriers to effective regional collaboration.
   - Identification of federal programs and efforts, competing mandates, and overlapping jurisdictions.
   - Support to efforts of the Great Lakes initiatives to reduce and control aquatic nuisance species.
   - Increased beneficial management and use of sediment for restoration projects in priority coastal areas, particularly in the Gulf of Mexico.
   - Strategic allocation of Federal land conservation funds in the Chesapeake Bay watershed.

4. Milestones
   - Complete and implement state and Federal interagency rapid assessment and response plans to prevent and control aquatic nuisance species in the Great Lakes.
   - Carry out a series of mock exercises to practice responses under the State and Federal plans and conduct actual responses throughout the Great Lakes Basin.
   - Assess, compile, and strategically integrate sediment management plans for priority coastal areas in the Gulf of Mexico and develop lessons learned documentation.
   - Conduct regular interagency meetings to align Federal assistance to support regional land conservation goals and identify opportunities for interagency collaboration.
   - Conduct a lessons-learned analysis of successful restoration and mitigation projects.
   - Compile assessment of regional and local initiatives, identifying Federal programs, grants and opportunities that can be brought to bear.

5. Gaps and Needs in Science and Technology
    - Inventory of aquatic nuisance species that could potentially be introduced into the Great Lakes, their biology and life histories, and vectors by which they could be introduced.
    - Benthic data and maps for coastal areas in the Gulf of Mexico, including sediment type, contaminated sediment, and biological communities.

**B. Action 2 – Strengthen conservation partnerships**

Numerous innovative partnering efforts exist that contribute to progress in regional ecosystem protection and restoration. Enhanced mechanisms to increase partnerships are needed to bring together resources from Federal and non-Federal organizations to support restoration projects and facilitate the stewardship of ocean, coastal, and Great Lakes resources. As a first step towards building these the following actions will be taken:

- Encourage increased corporate support for ocean, coastal, and Great Lakes ecosystem protection and restoration by aligning the priorities of the Corporate Wetlands Restoration Partnership (CWRP) with other public-private organizations, including the regional joint ventures and Fish Habitat Partnerships. The Federal agencies will assist the CWRP Board to broaden its mission, expand its membership nationally, and increase its support of ocean, coastal, and Great Lakes ecosystem protection and restoration.
- Support an umbrella structure for a network of Coastal Conservation Corps to build local capacity to provide jobs and workforce training for a new generation of natural resource professionals, and engage citizens in protection, restoration, and stewardship of ocean, coastal, and Great Lakes ecosystems.
- Formalize Federal participation in the National Fish Habitat Action Plan (NFHAP), to protect, restore, and enhance our waterways and fisheries throughout the country.

1. Why Do This
    - Partnerships are critical to achieving the protection and restoration needed for coastal habitats that provide ecosystem services. Entities that make significant contributions towards protection and restoration include corporate, citizen-based, and local, tribal and state-led partnerships.
    - Corporations can provide an important source of investment in the conservation of ocean, coastal, and Great Lakes habitats. The CWRP provides a vehicle for corporations to invest in conservation either by providing direct project support or through the CWRP Foundation. CWRP has successfully engaged the private sector in working with Federal agencies to support coastal habitat protection and restoration. To date, the CWRP has contributed $4.5 million, which has leveraged $112 million of Federal, state, tribal, local, and non-governmental funds.
    - Several states have Conservation Corps programs that promote environmental stewardship, create jobs, and foster a commitment to community service that aligns with the goals of the America's Great Outdoors Initiative. Benefits to

local economies and ecosystem health can be expanded by supporting a coordinated network of local Conservation Corps. This action is linked to Action 4 in the Inform Decisions and Improve Understanding SAP, which addresses development of human capacity and the workforce.

- The NFHAP is an existing nationwide partnership–based investment strategy to increase the return on fish habitat conservation. There are 21 partnerships across all 50 States that benefit jobs, recreational and commercial fishing communities, and address the impacts of climate change.

2. Timeframe – Long-term

3. Outcomes
   - The CWRP provides project support for ocean ecosystem protection and restoration.
   - CWRP membership is expanded by 50 percent with a chapter in all 29 coastal States.
   - Increased corporate partnerships through CWRP to complete Federal ocean, coastal, and Great Lakes ecosystem protection and restoration projects.
   - Coastal Conservation Corps coordinating body is established and aligned with other national and regional initiatives, notably the America's Great Outdoors Initiative, to enlist citizens, including low-income and disadvantaged youth, to conduct coastal ecosystem protection and restoration projects and expand opportunities and funding for youth employment and training.
   - As appropriate and to the extent allowed by law, regional ecosystem conservation projects funded by Federal grant programs are coordinated with the objectives of the Fish Habitat Partnerships.
   - Increased capacity of a non-governmental Coastal Conservation Corps to engage citizens in ecosystem protection and restoration projects.

4. Milestones
   - Amend the CWRP Charter to include support of ocean ecosystem protection and restoration.
   - Coordinate between Coastal America Regional Implementation Teams and CWRP to increase ocean, coastal, and Great Lakes protection and restoration project identification.
   - Increase, by 50 percent, annual CWRP financial and in-kind contributions to Federal ocean, coastal, and Great Lakes protection and restoration projects.
   - Enable one coastal Conservation Corps to participate in the network in each region of the U.S.
   - Clarify and formalize the respective roles of the agencies in supporting the National Fish Habitat Action Plan (NFHAP). Create an expanded NFHAP Federal Caucus that includes active participation by all Federal agencies whose activities affect fish habitat.

5. Gap and Needs in Science and Technology – None

**C. Action 3 –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, the NOC (principally EPA, USACE, USFWS, and NOAA) will work together and in cooperation with states and tribes to identify the underlying factors responsible for the loss of wetlands in coastal watersheds. Pilot watersheds will be selected, in consultation with local, tribal, and state entities affected by their loss, based on where wetland loss is greatest due primarily to human activities and the availability of reliable and historic data. The NOC agencies will compile existing information for the pilot watersheds, including wetlands inventories, coastal change analyses, geospatial data, permits and other types of data on natural processes to assess the status of the coastal wetlands and the causes of observed losses. This assessment will result in recommendations on how all levels of government could collaborate to improve the management of coastal wetlands and reduce losses nationwide.

As an ongoing effort, NOAA and USFWS will produce an assessment of coastal wetland status and trends using data collected for the USFWS *Status and Trends of Wetlands* reports.

1. Why Do This

- Coastal wetlands are among the most productive ecosystems on Earth, providing critical services to communities and wildlife. According to the *Status and Trends of Wetlands in the Coastal Watersheds of the Eastern United States 1998-2004,* coastal wetlands were being lost at a faster rate than non-coastal wetlands. Development (urban, rural, and unclassified) was responsible for about 70 percent of the wetland loss in coastal watersheds. Remaining wetland losses occurred as a result of natural processes such as storms, erosion, subsidence, and sea-level rise.
- Of those wetlands lost as a result of development, some were authorized under Section 404 of the *Federal Water Pollution Control Act of 1972* (Clean Water Act) and offset by compensatory mitigation (programmatic no net loss). Others have resulted from unauthorized activities in violation of a variety of Federal and state environmental statutes. Still other losses may have occurred because the wetlands involved were not subject to any regulatory program. This assessment will more precisely identify causes of coastal wetland losses and potential program improvements to stem these losses.

2. Timeframe – Long-term

3. Outcomes

- A better understanding of the underlying causes of wetland losses in rapidly developing areas and areas that are expected to be impacted by future development.
- A better understanding of the magnitude of unauthorized coastal wetland losses and how Federal, tribal, and state agencies might collaborate to reduce and ultimately reverse these losses.
- A better understanding of the extent of the losses that were beyond the scope of Federal regulatory programs and how such losses might be reduced in the future.
- Recommendations of actions Federal agencies could take to improve the management of coastal wetlands (e.g., education, restoration, protection, regulation) and communication of this understanding to regional programs.

4. Milestones

- Identify coastal watersheds for pilot assessments with updated wetland inventories and high-quality geospatial data, if available.
- 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, the Section 404 program, and geospatial sources.
- A report recommending actions Federal agencies can take, in coordination with state, and tribal agencies, to improve the management of coastal wetlands and reduce losses nationwide.
- An assessment of the status and trends of coastal wetlands. The assessment will be included as a chapter in future *Status and Trends* reports, published by the USFWS every decade.

5. Gap and Needs in Science and Technology

- Reliable and consistent data on the location, size, type, and cause of coastal wetland losses.
- High resolution imagery that can detect changes in land use status from undeveloped to developed.

**D. Action 4 – Create carbon-based incentives for coastal habitat conservation**

Coastal wetlands, mangroves, and sea grasses sequester vast amounts of carbon in their plant material and sediments (up to five times the rate of tropical rainforests per unit area). These carbon sequestration and storage capabilities are important ecosystem services that can be evaluated and considered to increase the restoration and avoided loss of these habitats. Key first steps to take advantage of these benefits are developing carbon sequestration/storage protocols for coastal wetlands and exploring policy options for incorporating the carbon sequestration services of these habitats into Federal decision-making.

1. Why Do This

- A more comprehensive understanding of the services provided by coastal wetlands promotes the conservation and restoration of these important habitats.
- Although carbon sequestration is a valuable ecosystem service, it is not explicitly quantified in Federal policies governing impacts to coastal habitats. Undertaking an analysis of policy options to potentially include carbon storage in the assessment of ecosystem services would be the first step in determining if policy changes could provide additional incentives for conservation (and disincentives for habitat destruction).
- Significant opportunities exist to channel private investment into coastal habitat protection and restoration, by bringing these projects into a voluntary carbon market or promoting the carbon services provided by these habitats; however, a protocol must first be developed that provides a reliable framework for evaluating and potentially quantifying carbon gains.
- This action supports the resilience of ecosystems to climate change, as presented in Action 6 of the Resiliency and Adaptation to Climate Change and Ocean Acidification SAP.

2. Timeframe – Near-term

3. Outcomes
   - Increased private investment is channeled into coastal habitat protection and restoration.
   - Increased protection and restoration of salt marsh, mangrove, and sea grass habitats and increased mitigation requirements for impacts to these systems.
   - Increased capacity for governments to implement voluntary restoration and protection programs.
   - Reliable framework developed for implementing coastal habitat conservation projects to create offset credits.
   - Greater understanding of Federal policy opportunities and barriers for including carbon sequestration in ecosystem service assessment calculations.

4. Milestones
   - Adoption of methodologies to assess carbon sequestration capacity for different coastal wetland types, mangroves, and sea grasses.
   - Identification of demonstration sites appropriate for carbon sequestration and emission research, with emphasis on sites already identified for the purposes of long-term ecological research (e.g., National Wildlife Refuges, National Estuarine Research Reserves, National Estuary Programs, and other sites that are part of the Long-term Ecological Research Network).
   - Development of a greenhouse gas offset protocol for coastal wetland conservation for use in voluntary carbon markets.

- Completion of assessment of Federal policy opportunities and barriers for including carbon sequestration in ecosystem service assessment calculations.

5. Gaps in Science and Technology
    - Research to compare rates of carbon sequestration and carbon emission in different regions and under varying conditions (e.g., degraded vs. restored) is needed to understand the full nature of coastal ecosystem carbon services. This research gap is being addressed by the Resiliency and Adaptation to Climate Change and Ocean Acidification SAP.

**E. Action 5 – Ensure full mitigation for injuries to coral reef ecosystems**

To improve the protection and restoration of coral reef ecosystems, Federal agencies responsible for coral reef protection, restoration, and mitigation will develop standard protocols for coral reef ecosystem mitigation options and execute an agreement to use them as the basis for coral reef mitigation efforts. The USCRTF state and territory members will play key roles in contributing to the actions outlined here.

1. Why Do This
    - Responsibilities for mitigation assessment and policies regarding mitigation of impacts to coral reef ecosystems are distributed among four Federal agencies (EPA, USACE, DOI, and NOAA). Enhanced coordination will increase efficiency and effectiveness and improve scientifically sound mitigation, protection, and restoration of coral reef ecosystems.
    - Establishing a common set of protocols for mitigating impacts of human activities to coral reef ecosystems will result in scientifically sound and consistent coral reef mitigation projects.

2. Timeframe – Long-term

3. Outcomes
    - Identify and recommend assessment metrics specific to coral reef ecosystem functions and services.
    - Adoption of standard coral reef ecosystem mitigation protocols by the four Federal agencies with mitigation responsibilities.
    - Performance criteria, monitoring protocols, and mechanisms to track success or failure of mitigation.
    - Regionally specific guidance of measures necessary to reduce and mitigate coral reef ecosystem degradation and to restore damaged coral reefs.
    - A *Reef Managers Guide to Mitigation and Restoration* that provides guidance for managers on best management practices related to mitigation.

4. Milestones

- Establish a restoration and mitigation working group (including USACE and EPA) to act as a convening body for the USCRTF and other interested parties for coral reef ecosystem restoration and protection issues.
- Conduct a lessons-learned analysis of successful mitigation projects.
- Compile standard protocols for mitigation options to facilitate sound, consistent, and replicable restoration and mitigation of affected coral reef ecosystems.
- Prepare recommendations for improved policies and practices regarding compensatory mitigation related to coral reef ecosystems.
- Develop Draft and Final Functional Assessment for Coral Reef Ecosystem Mitigation.
- Develop a draft and final *Reef Managers Guide to Mitigation and Restoration*.

5. Gaps and Needs in Science and Technology
    - Document successful mitigation/restoration efforts for coral reefs.
    - Develop a standardized, regionally scalable methodology for assessing coral condition and valuing impacted resources. Because coral reef ecosystems are complex and their services vary considerably, even within a local area, assessment of their ecological value and mitigation costs must be conducted on a case-by-case basis.
    - Evaluate declining baseline conditions of coral reefs as a complicating factor in the assessment of restoration and mitigation success.

**F. Action 6 – Reduce the threat of aquatic nuisance species**

Aquatic nuisance species damage ecosystems by reducing biological diversity and adversely affect humans by hindering economic development, interfering with recreational and commercial activities, decreasing aesthetic values, and serving as vectors of disease. Through the Aquatic Nuisance Species Task Force (ANSTF), Federal agencies are working together to control aquatic nuisance species through regulation, management, and education.

- Agencies will work with the ANSTF to identify priority nuisance species needing immediate action.
- As an example, one known priority is the Indo-Pacific lionfish. Federal agencies will collaborate with non-Federal partners and stakeholders to develop an innovative inventory and control plan for the Indo-Pacific lionfish that can be adapted for transfer to other marine invasive species.

1. Why Do This
    - Support of ANSTF efforts emphasizes the need to prevent the introduction and dispersal of aquatic nuisance species, and provides the opportunity to address priority issues on a regional basis.
    - Because each region poses a set of unique challenges and available resources, mechanisms to increase partnerships are needed to bring together the

expertise, strengths, and resources from Federal, state, international agencies, Fishery Management Councils, academic institutions, and other organizations to effectively control invasive populations.

- As an example of the benefits of addressing priority aquatic nuisance species, an initial programmatic response can address Indo-Pacific lionfish. In less than a decade, the Indo-Pacific lionfish has become widely established along the Southeast U.S. and Caribbean, and poses a threat to many native reef fish populations through direct predation and competition for food and space resources. The lionfish is the first marine aquatic invasive finfish to become established within Western Atlantic waters; thereby the species is capable of providing new information on fundamental ecological processes including dispersal, competition, and community structure. This information would benefit ecosystem-based management of native reef fisheries through improved understanding of dispersal and connectivity, prevention of future invasions, control of established invaders, and opportunity to implement a control plan across international boundaries.

2. Timeframe – Near-term

3. Outcomes
   - A list of priority aquatic nuisance species to address in key geographic areas.
   - A lionfish control plan with goals and actions to reduce their threat to native ecosystems is implemented.

4. Milestones
   - Develop an initial set of priority aquatic nuisance species coordinated with affected regional entities.
   - Establish a Lionfish Control Committee in coordination with the ANSTF, and that Committee completes a draft lionfish control plan.

5. Gaps in Science and Technology
   - Better tools for lionfish control and management, including a better understanding of lionfish ecology in its native habitat and understanding of impacts across different reef systems.

**G. Action 7 – Identify nationally significant marine and Great Lakes aquatic areas in need of protection.**

Healthy and productive ocean and Great Lakes ecosystems support a variety of species, promote recreational opportunities, provide resilience to the effects of climate change, and support coastal communities through economic growth and increased employment opportunities. Three actions will be initiated as a first step to strengthening place-based conservation of marine and Great Lakes resources:

- Consult with the states and the CMSP Regional Planning Bodies about the existing and potential uses of areas and appropriate levels of protection.
- Develop a process for identifying ecologically important areas via a pilot map analysis.
- Characterize and prioritize marine areas of national significance, including consideration of ecosystem services, by reactivating the National Marine Sanctuary Site Evaluation List (SEL).

1. Why Do This
   These actions inform planning for future marine protected areas and ocean planning:
   - A marine gap analysis is needed to identify areas that are nationally significant, ecologically important, and provide important ecosystem services. This analysis will integrate resource characterization and human use data at regional scales and inform the CMSP process.
   - The SEL is a decision support tool designed to evaluate areas nominated for designation as marine sanctuaries, and is one of a number of tools that could be used to identify areas that are nationally significant due to their qualities (e.g., conservation, cultural, esthetic).

2. Timeframes – Mid-term

3. Outcomes
   - A protocol for evaluating nationally significant and ecologically important marine areas for protection that is science-based and balances human uses with conservation.
   - Updated and repopulated Sanctuary Evaluation List (SEL).
   - Recommendations of mechanisms to provide the appropriate level of protection to sustain ecosystem services for the listed sites.

4. Milestones
   - Establish an interagency working group to develop the gap analysis protocol.
   - 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 esthetic qualities.
   - Conduct an inventory of other information sources that could be integrated into the gap analysis.
   - Pilot the gap analysis protocol in two U.S. regions as part of the CMSP planning process.

5. Gaps in Science and Technology
   - Identification of potential protected areas requires using the best available scientific information and nominations from participating Federal and state

agencies and contributors. This will be coordinated with the Inform Decisions and Improve Understanding SAP.

**H. Action 8 – Improving the effectiveness of coastal and estuarine habitat restoration projects**

Several Federal agencies fund and implement coastal and estuarine habitat restoration projects. It is important that these efforts are coordinated, evaluated, and tracked to ensure that restoration implementation is effective and efficient. The Estuary Habitat Restoration Council, established under the *Estuary Restoration Act of 2000* (ERA), is an established vehicle to bring Federal agencies together to jointly solve habitat restoration issues. To further these efforts, Federal agencies, beginning with the Estuary Habitat Restoration Council members, will: (1) improve the effectiveness of coastal and estuarine habitat restoration projects by updating and adopting the ERA monitoring protocols; (2) work to identify socio-economic monitoring parameters; and (3) input estuary restoration project tracking information into the National Estuaries Restoration Inventory (NERI).

1. Why Do This
    - Monitoring allows practitioners to track project success, determine which restoration methodologies are the most successful and cost effective, document ecosystem services provided, and identify when adaptive management is required.
    - The ERA establishes a collaborative process among Federal agencies for addressing the threats to the health of our Nation's estuaries. The Act recognizes the importance of project monitoring and tracking to the success of any estuarine conservation program. The ERA established an interagency Estuary Habitat Restoration Council made up of DOI-FWS, NOAA, USACE, EPA, and USDA-NRCS.
    - The ERA required NOAA, in consultation with the Estuary Habitat Restoration Council (ERA Council), to establish minimum monitoring requirements for projects funded under the Act. These monitoring requirements have been established and are applicable to all coastal habitat restoration projects. Project effectiveness would benefit through consistent use of requirements for project monitoring.
    - The ERA also requires NOAA, in consultation with the ERA Council, to develop NERI, which maintains a publically accessible database of information concerning estuarine habitat restoration projects carried out under the Act, as well as for other projects that meet the minimum monitoring requirements. Using this database reduces duplicative and competing databases and helps to streamline restoration activities.

2. Timeframe – Mid-term

3. Outcomes
    - Adoption and implementation of the ERA coastal and estuarine habitat restoration monitoring protocols by Federal agencies involved in coastal habitat restoration.
    - Identification of socio-economic monitoring parameters for coastal and estuarine habitat restoration projects.
    - Incorporation of estuarine restoration data into NERI from all Estuary Habitat Council agencies' project tracking databases.

4. Milestones
    - With input from states and stakeholders, conduct review and subsequent update of ERA monitoring protocols; include suggestions for socio-economic parameters.
    - Evaluate interagency database needs and solutions, and update the existing NERI database accordingly to allow use by all restoration agencies.
    - Fifty percent of new estuarine restoration projects conducted by the Estuary Habitat Restoration Council agencies use ERA monitoring protocols.

5. Gaps in Science and Technology
    - Need to review and update restoration monitoring protocols at least once a decade.
    - Clarify Federal policy regarding geospatial data for projects on private lands.