



**NOAA FISHERIES**

# Habitat Enterprise Strategic Plan

*2016–2020*

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## Introduction

Habitat provides the foundation for life in oceans, estuaries, lakes, and rivers, and is critical to supporting the NOAA Fisheries mandates of sustaining fisheries and recovering protected resources. NOAA Fisheries supports habitat protection and restoration through its Habitat Enterprise—the NOAA staff who work on habitat management at headquarters and in the regions. The Habitat Enterprise works across NOAA and with external partners to protect, maintain, and restore (i.e., conserve; see definition below) habitats that provide important ecological and societal benefits.

The NOAA Habitat Enterprise defines **conservation** as encompassing a continuum of activities from protection to restoration.

This strategic plan for the NOAA Fisheries Habitat Enterprise identifies our habitat management priorities for the next 5 years (fiscal years 2016 to 2020). This tool will be used to prioritize habitat conservation activities around the country, align those activities with department and agency goals and mandates (see Appendix 1), and measure our progress. This plan is not intended to encompass everything we do. Rather, it outlines our near-term priorities and identifies key programmatic and operational strategies that will help the Habitat Enterprise accomplish its goals more effectively and efficiently. By coordinating agency programs, people, and budgets into a stronger effort grounded in shared interests, NOAA will leverage internal assets while also guiding opportunities to engage with external partners on areas of mutual interest.

The Habitat Enterprise is composed of NOAA Fisheries' Office of Habitat Conservation, the Habitat Conservation Divisions located in the Regional Offices, and the habitat management-related components of the West Coast Region Area Offices. Our work focuses on sustaining and rebuilding fisheries, recovering protected resources, and improving the resiliency of coastal communities (see Appendix 2 for more detailed information on the Habitat Enterprise and its programs).

## Background

NOAA Fisheries is responsible for the stewardship of the nation's ocean, coastal, and Great Lakes resources and the habitat on which they depend; habitat protection and restoration also provides socioeconomic and community benefits. Habitat is the foundation for resilient fishing-based communities and industries. In 2012, the U.S. commercial and recreational saltwater fishing industries generated more than \$199 billion in sales and supported 1.7 million jobs<sup>1</sup>. Healthy habitat is also key to supporting and recovering NOAA's protected resources. In addition, coastal communities rely on habitat for recreation, tourism, and as natural infrastructure that protects life and property by reducing effects of storm damage, erosion, and coastal flooding. Habitat restoration projects also result in additional benefits for communities, such as improved infrastructure (e.g., bridges, culverts, agricultural levees) and enhanced public safety (e.g., removal of obsolete dams that have become safety hazards).

However, with continued widespread loss and deterioration of coastal and marine habitats, it is becoming increasingly difficult to foster and sustain healthy and resilient coastal ecosystems and communities. Recent trends reflect the challenge: increased coastal wetlands loss; increased risks to communities in the face of

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<sup>1</sup> National Marine Fisheries Service. 2014. Fisheries Economics of the United States, 2012. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-F/SPO-137, 175p. Available at: <https://www.st.nmfs.noaa.gov/st5/publication/index.html>.

coastal storms and sea level rise; habitat damage caused by toxic spills; degraded water quality; and continued loss of natural shorelines and vital habitats for managed fisheries as well as threatened and endangered species.

For example, we are losing coastal wetlands—prime nurseries for many species—at the rate of about 80,000 acres per year. This rate of loss is 20,000 more acres per year than was lost during the 6-year period of 1998–2004<sup>2</sup>. Other habitat types have also experienced significant losses. More than 60 percent of coastal rivers and bays are moderately to severely degraded by nutrient runoff<sup>3</sup>, and there are over 6 million barriers to fish passage within the rivers of the United States<sup>4</sup>. In addition, each year as many as 150 oil spills and hazardous substance releases occur across the nation.

This plan outlines NOAA Fisheries’ role in addressing these, and other, habitat challenges.

## NOAA Habitat Blueprint

In 2011, NOAA developed the [Habitat Blueprint](#) principles to increase the effectiveness of our habitat conservation efforts for the benefit of fisheries, protected resources, coastal and marine life, and the coastal communities and economies they support. These principles emphasized strengthening internal and external partnerships, implementing habitat conservation activities for multiple benefits, and focusing work where it can have the greatest impact. In 2015, the Habitat Blueprint principles were formalized as an agency-wide approach for habitat conservation in the [NOAA National Habitat Policy](#).

NOAA uses the Habitat Blueprint principles to direct habitat conservation planning and decision-making. The following principles inform the decisions necessary to achieve the goals and objectives of this plan:

- Prioritize resources and activities across NOAA to monitor, understand, and improve habitat conditions.
- Implement innovative place-based habitat solutions to address coastal and marine resource challenges.
- Make natural resource decisions and recommendations in an ecosystem context that considers competing priorities.
- Foster and leverage partnerships.
- Integrate and improve the delivery of habitat science across disciplines to facilitate conservation actions.
- Anticipate and address changes to coastal and ocean habitats due to environmental change, including development, climate, and other pressures.

The NOAA Habitat Focus Area (HFA) effort is a prime example of how we apply the Habitat Blueprint principles. Working with partners both internally and externally, we have established 10 HFAs across the country. These serve as demonstration areas to enhance targeted, collaborative habitat conservation and science. The HFAs bring together a wide variety of partners to leverage resources and make measurable progress toward discrete habitat-related objectives. Our work in the HFAs, along with other priority areas, is reflected in several goals and objectives of this strategic plan.

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<sup>2</sup> T.E. Dahl and S.M. Stedman. 2013. Status and trends of wetlands in the coastal watersheds of the Conterminous United States 2004 to 2009. U.S. Department of the Interior, Fish and Wildlife Service and National Oceanic and Atmospheric Administration, National Marine Fisheries Service. (46 p.) [http://www.habitat.noaa.gov/pdf/Coastal\\_Watershed.pdf](http://www.habitat.noaa.gov/pdf/Coastal_Watershed.pdf).

<sup>3</sup> Boesch, D.F., R.H. Burroughs, J.E. Baker, R.P. Mason, C.L. Rowe, and R.L. Siefert. 2001. Marine Pollution in the United States. Prepared for the Pew Oceans Commission. Arlington, VA.

<sup>4</sup> U.S. Fish and Wildlife Service. 2011. National Fish Passage Program Annual Report and Future Outlook.

## Overview of the Strategic Plan

This strategic plan identifies four goals and six cross-cutting strategies to conserve habitat in support of NOAA's trust resources and coastal community resilience, as well as to enhance organizational excellence.

The four goals of the plan are:

1. Conserve habitat for managed fisheries and protected resources.
2. Restore NOAA trust resources impacted by oil and other hazardous substance releases.
3. Increase resilience of coastal ecosystems, communities, and economies through habitat conservation.
4. Invest in staff development and improve the impact of people, programs, and services.

### Goal 1: Conserve Habitat for Managed Fisheries and Protected Resources

Goal 1 is focused on strengthening how the Habitat Enterprise addresses its core mandates of supporting managed fisheries and protected resources. We target six key habitat types depended on by NOAA trust resources and their prey: coastal wetlands, rivers, coral reefs (deep and shallow), natural hard bottom (e.g., oyster reefs), and submerged aquatic vegetation. Our strategies to advance conservation for each of these habitat types share the themes of refining priority conservation areas, implementing targeted protection and restoration measures, and developing best practices and conservation policies. Our work under this goal supports the continued development of ecosystem-based fishery management measures, and the recovery of protected resources whose populations are limited by habitat loss and degradation, such as many of the "Species in the Spotlight." The Habitat Enterprise will work with the NOAA Fisheries Offices of Sustainable Fisheries, Protected Resources, Aquaculture, Science and Technology, and regional Science Centers, the National Ocean Service, other NOAA offices, regional fishery management councils, interstate marine fisheries commissions, and many other partners to plan for and implement these strategies.

### Goal 2: Restore NOAA Trust Resources Impacted by Oil and Other Hazardous Substance Releases

Goal 2 is centered on enhancing our work to restore injured NOAA trust resources in the wake of an oil spill or other hazardous substance releases through the Natural Resources Damage Assessment (NRDA) process. Our strategies focus on activities such as preparedness for spills, especially in high risk areas, and developing innovative, streamlined, and coordinated restoration options to incentivize settlements and expedite on-the-ground restoration. We will also enhance oversight, public involvement, and publicly transparent decision-making. Our significant and unique restoration expertise and tools will advance both NRDA and non-NRDA conservation priorities.

Our work will also focus on maintaining NRDA-specific scientific and policy skills to effectively and efficiently implement the program and our mandates through time, as frequencies and locations of spills vary. This will enable NOAA to maximize responsiveness to spills, and target and leverage restoration activities for the greatest benefit to NOAA trust resources and the public. The Habitat Enterprise will work closely with our partner offices in the National Ocean Service and Office of General Counsel to coordinate and implement these actions through the Damage Assessment Remediation and Restoration Program, as well as with other NOAA offices; federal, state, and tribal agencies; industry; and many others.

## Goal 3: Increase Resilience of Coastal Ecosystems, Communities, and Economies through Habitat Conservation

Goal 3 advances innovative habitat conservation approaches to achieve the NOAA-wide priority of increasing resilience of ecosystems, communities, and economies. The work under this goal also supports Goals 1 and 2. This goal is designed to increase our ability to aid recovery from natural disasters and evolve in the face of a changing climate by ensuring climate science is considered in habitat conservation work.

This goal also promotes collaborative, place-based conservation in a landscape-scale context through regional ecosystem-based partnerships and HFAs to showcase the benefits of targeted and coordinated conservation. The Habitat Enterprise will work closely with NOAA Fisheries partners, the National Ocean Service, other NOAA line offices, federal and state partners, coastal communities, non-governmental organizations, and academic institutions to promote the role of habitat in coastal resilience.

## Goal 4: Invest in Staff Development and Improve the Impact of People, Programs, and Services

Goal 4 demonstrates the Habitat Enterprise's commitment to our workforce and to improving the way in which they carry out their work. It is focused on enhancing training and career development, clarifying roles and responsibilities, highlighting connections between day-to-day work and long-term strategic goals, and measuring progress along the way. This goal is designed to create a culture of empowerment and success throughout the organization.

## Cross-Cutting Strategies

In developing this plan, we recognized that several strategies are essential for achieving virtually all of our goals and objectives. Rather than listing them under each objective, they are called out as cross-cutting strategies to highlight their importance. They include:

1. Prioritize conservation actions
2. Develop conservation targets
3. Advance habitat science needed for management
4. Strengthen partnerships
5. Improve communications and stakeholder engagement
6. Develop national policy and guidance

All of these strategies are forward-looking, and will need further planning and discussion with internal and external partners to guide their implementation. For example, further prioritizing our actions is essential given the significant need and demand for habitat conservation in the context of limited resources, so there are references throughout this plan to identifying priorities. While the Habitat Enterprise identifies and coordinates priorities in a number of ways (such as HFAs, ecosystem-based conservation partnerships, and alignment with recovery plans and fishery management plans), we will work with partners over the coming months and years to find intersections among current prioritization efforts and potentially identify new priorities. Complementing these prioritization efforts is our strategy to develop conservation targets to better plan for, measure, and message the impact of our work. We will work with partners to define consistent habitat protection and restoration endpoints for key habitat types and specific areas. This strategy, along with the others listed above, will be an ongoing process, strengthening conservation work nationwide.

## Partnerships

The goals and cross-cutting strategies in this plan rely on partnerships to be successful. Ecosystems frequently cross geographic as well as jurisdictional boundaries, so effective habitat conservation efforts must also cross these boundaries and engage relevant partners at every level. We foster partnerships to develop and advance priorities and solutions, leverage and coordinate resources, and maximize the impact of our habitat protection and restoration actions. Our partnering also focuses on adding to the scientific understanding of habitats and ecosystem services valuation, increasing public understanding of habitat value, communicating habitat conservation challenges and best practices, and enhancing stakeholder engagement.

To carry out this type of ecosystem-based management, the Habitat Enterprise works with a broad array of partners including regional fishery management councils and interstate marine fisheries commissions; federal, state, and local agencies; tribal nations; private and business sectors; academia; and non-governmental organizations. In addition, the Habitat Enterprise works across NOAA and supports the agency in using its full array of habitat-related missions, mandates, and resources.

## Table of Goals, Objectives, and Strategies

Trust Resources	<b>O1: By 2020, contribute to reducing the rate of wetland loss in priority coastal watersheds.</b>
	S1 Prioritize areas for conservation
	S2 Restore 10,000 acres of tidal wetlands in priority areas
	S3 Strengthen wetland protection measures
	S4 Increase partnerships
	S5 Develop national coastal wetlands policy
	<b>O2: By 2020, increase access to historic riverine rearing and spawning habitat for targeted diadromous fish species in at least five high-priority watersheds.</b>
	S1 Prioritize fish passage actions
	S2 Address fish passage barriers and other riverine conservation needs
	S3 Align conservation efforts
	<b>O3: By 2020, protect and restore priority shallow coral areas, including preventing 80,000 metric tons of sediment from reaching shallow coral reefs downstream of five priority watersheds.</b>
	S1 Identify and support implementation of priority conservation actions
	S2 Develop improved techniques for coral propagation
	S3 Enhance mitigation approaches
	<b>O4: Conserve deep-sea habitats by implementing conservation measures to reduce deep-sea coral and sponge bycatch in fisheries in Alaska and the West Coast Region, and cumulatively protecting 50,000 square miles of deep-sea habitat containing coral and sponge ecosystems nationally by 2020.</b>
	S1 Locate and characterize deep-sea coral and sponge ecosystems
	S2 Work with partners to protect the ecological function of deep-sea coral and sponge ecosystems
	<b>O5: By 2020, protect and/or restore hard bottom habitat (e.g., rocky reef, oyster reef, cobble/boulder) at five priority sites.</b>
S1 Identify priority hard bottom sites for conservation	
S2 Implement targeted conservation	
S3 Improve conservation techniques	
S4 Implement the National Shellfish Initiative	
<b>O6: By 2020, through NOAA Fisheries authorities manage for no net loss of submerged aquatic vegetation (SAV).</b>	
S1 Investigate SAV populations.	
S2 Develop conservation best practices	
S3 Implement targeted restoration	
S4 Strengthen SAV protection and mitigation	
NRDA	<b><i>O1: Settle 25 Natural Resource Damage Assessment (NRDA) cases by 2020 resolving responsible party liability to fully restore injured NOAA trust resources at priority sites</i></b>
	S1 Be prepared for spills in high risk areas
	S2 Incentivize responsible parties to settle
	S3 Ensure settlements account for full restoration
	S4 Focus on settlements in priority areas
	<b><i>O2: Advance the restoration of NOAA trust resources by finalizing 25 NRDA restoration plans and completing implementation of 10 plans by 2020.</i></b>
	S1 Streamline restoration planning
	S2 Enhance public involvement in restoration planning
	S3 Innovate to expedite on-the-ground restoration
	S4 Ensure coordinated oversight of the full restoration cycle
	<b><i>O3: Capitalize on NRDA-related expertise and tools to benefit NOAA trust resources for five local/regional habitat priorities (e.g., geographies, topic areas) by 2020.</i></b>
	S1 Support trust resource regulatory processes
	S2 Align NRDA restoration with trust resource priorities
	S3 Support significant non-NRDA incidents
	S4 Benefit trust resource restoration in state-led cases
S5 Collaborate in local and regional restoration prioritization	

## Resilience

**O1: By 2020, identify and implement targeted conservation approaches to build resiliency of coastal ecosystems and communities threatened by climate change and extreme weather events in each region.**

- S1 Conduct risk assessments and prioritizations
- S2 Develop climate adaptation best practices
- S3 Implement climate adaptation measures

**O2: By 2020, demonstrate measurable progress towards achieving the objectives for each Habitat Focus Area (HFA), and use the HFAs as models to promote collaborative habitat conservation for multiple benefits.**

- S1 Implement priority actions in HFA implementation plans
- S2 Develop a results-based accountability evaluation process to measure HFA progress and guide future funding decisions
- S3 Maximize community engagement to ensure long-term sustainability
- S4 Share lessons learned

**O3: Leverage our participation and leadership in regional (landscape-scale) ecosystem-based conservation partnerships to achieve the Habitat Enterprise's strategic goals and objectives.**

- S1 Gulf of Mexico
- S2 Chesapeake Bay
- S3 Puget Sound
- S4 Great Lakes
- S5 San Francisco Bay/Delta

## Organizational Excellence

**O1: By 2020, become the best place to work in NOAA.**

- S1 Create a Habitat employee viewpoint survey
- S2 Improve professional development and training
- S3 Recognize employees
- S4 Improve communication

**O2: Use the Habitat Enterprise Strategic Plan to direct staff and budget resource allocation on an annual basis.**

- S1 Develop annual implementation plans
- S2 Align staff resources with strategic priorities
- S3 Develop budget initiatives

## Cross-Cutting Strategies

**These Strategies below apply to multiple goals and objectives**

- S1 Prioritize conservation actions
- S2 Develop conservation targets
- S3 Advance habitat science needed for management
- S4 Strengthen partnerships
- S5 Improve communications and stakeholder engagement
- S6 Develop national policy and guidance

# Habitat Enterprise Goals, Objectives, and Strategies

## Goal 1: Conserve Habitat for Managed Fisheries and Protected Resources

### Objective 1: By 2020, contribute to reducing the rate of wetland loss in priority coastal watersheds.

- **Strategy 1: Prioritize areas for conservation.** Identify priority areas for wetland protection and restoration in regions where priority sites have not yet been identified.
- **Strategy 2: Restore 10,000 acres of tidal wetlands in priority areas.** Restore wetlands in areas identified under Strategy 1 and in known priority sites such as the Gulf of Mexico, Whidbey Basin (Puget Sound), Outer Oregon Coast, San Francisco Bay Delta, and the Southern California Bight. Conservation actions could include levee removal or setbacks, tide gate removal or modification, fill removal, sediment replenishment, invasive species control, and revegetation.
- **Strategy 3: Strengthen wetland protection measures.** Strengthen wetland protection by enhancing coordination between essential fish habitat (EFH) consultations and other regulatory actions, and through measures to address topics such as: requesting compensatory mitigation that replaces lost acreage as well as ecological function in a timely fashion; creating upland buffer areas for anticipated wetland migration; and the beneficial reuse of sediment sources for protecting and creating estuarine wetlands.
- **Strategy 4: Develop national coastal wetlands policy.** Develop a NOAA Fisheries national policy on coastal wetland conservation (in conjunction with a planned national NOAA Fisheries mitigation policy, see Cross-Cutting Strategies) to establish a priority for conservation of wetlands in coastal watersheds. The policy will direct NOAA Fisheries programs to work with partners to target conservation efforts where they will achieve gains in coastal wetlands. The policy would address topics such as focusing wetland conservation programs to locate at least 33 percent of all wetland protection and restoration acres in coastal watersheds, prioritizing wetland restoration as the preferred use for appropriate dredged material, and replacing wetland acres as well as function in wetland mitigation or compensation plans.

### Objective 2: By 2020, increase access to historic riverine rearing and spawning habitat for targeted diadromous fish species in at least five priority watersheds.

- **Strategy 1: Prioritize fish passage actions.** Identify fish passage priorities and other riverine restoration and protection needs (e.g., off-channel habitat) in regions where priorities have not yet been identified.
- **Strategy 2: Address fish passage barriers and other riverine conservation needs.** Improve fish passage in priority areas and implement projects to address other priority riverine habitat conservation needs. Conservation actions may include removing or modifying dams and culverts, constructing fish ladders, capturing and hauling fish around barriers, repairing stream bank and upland erosion sites, reestablishing off-channel habitat, and modifying project operations (e.g., flows).
- **Strategy 3: Align conservation efforts.** Identify opportunities to improve alignment of targeted restoration with Federal Power Act (FPA) and Endangered Species Act (ESA) related conservation efforts.

## Improving Fish Passage in the Penobscot River

The Penobscot River is home to 11 migratory fish species, three of which are listed under the Endangered Species Act, including Atlantic salmon (a NOAA Species in the Spotlight). Since 2003, we have provided significant funding and technical assistance to the Penobscot River Restoration Trust and other partners for an ecosystem-level effort with the goal of improving fish access to more than 1,000 miles of habitat. These efforts will rebuild migratory fish runs that will benefit the larger Gulf of Maine and improve water quality, recreation, and tribal cultural resources.

The two lowermost dams on the river, Great Works and Veazie, have been removed with significant NOAA support. We continue to work with partners to identify and implement dam and barrier removal and fish passage projects, and explore opportunities for restoration aligned with four hydropower dams in the watershed that will be undergoing FERC relicensing over the next 10 years. As a part of these efforts with partners developing an online, map-based tool that draws on existing data to guide prioritization of fish passage projects, based on factors such as proximity of valuable fish spawning and rearing habitat, type of barrier, and project feasibility.



**Objective 3: By 2020, conserve priority shallow coral areas, including preventing 80,000 metric tons of sediment from reaching shallow coral reefs downstream of at least five priority watersheds.**

- **Strategy 1: Identify and support implementation of priority conservation actions.** Identify priority watersheds, as needed, and conduct high-priority habitat restoration and protection activities identified in the elkhorn/staghorn coral (*Acropora*) recovery plan, sanctuary, monument, and watershed management plans, and HFA implementation plans to address key stressors (e.g., land-based sources of pollution, fishing, climate, invasive species, and physical impacts).

- **Strategy 2: Develop improved techniques for coral propagation.** Investigate and implement new techniques for propagation of ESA-listed and other coral species to restore coral habitat.

- **Strategy 3: Enhance mitigation approaches.** Continue to develop innovative mitigation approaches (e.g., mitigation banks, in-lieu fee programs, tool for defining a unit of credit for coral, programmatic approach for corals on man-made structures) to protect and restore shallow corals from impacts resulting from permitted activities and unplanned events.

**Objective 4: Conserve deep-sea habitats by implementing conservation measures to reduce deep-sea coral and sponge bycatch in fisheries, and cumulatively protecting 50,000 square miles of deep-sea habitat containing coral and sponge ecosystems nationally by 2020.**

- **Strategy 1: Locate and characterize deep-sea coral and sponge ecosystems.** Identify priority areas for conservation by conducting surveys of areas suspected or known to contain deep-sea corals and sponges, monitoring bycatch, and developing scientific modeling and other methods to improve our ability to predict the location of deep-sea coral and sponge communities.

- **Strategy 2: Work with partners to protect the ecological function of deep-sea coral and sponge ecosystems.** Work with regional fishery management councils as well as marine national monument and national marine sanctuary managers to protect areas known and predicted to contain deep-sea coral and sponge communities in the Pacific Ocean, Arctic Ocean, Atlantic Ocean, and the Gulf of Mexico.

**Objective 5: By 2020, protect and/or restore hard bottom habitat (e.g., rocky reef, oyster reef, cobble/boulder) at five priority sites.**

- **Strategy 1: Identify priority hard bottom sites for conservation.** Identify priority sites for targeted conservation, such as sites within the southern California Bight for white abalone recovery, the Atlantic cod Habitat Areas of Particular Concern (HAPC) for groundfish, and the Gulf of Mexico and the Chesapeake Bay for oysters.
- **Strategy 2: Implement targeted conservation.** Protect and restore priority hard bottom habitats through techniques such as abalone outplanting and sea urchin control for the recovery of rocky reef and kelp forests; oyster reef restoration and construction; fishing gear restrictions; and EFH consultations.
- **Strategy 3: Improve conservation techniques.** Develop improved conservation measures and restoration techniques for hard bottom habitats based on the most recent scientific research (e.g., assessments of HAPC efficacy and restoration success, development of abalone spawning methodologies, development of larger-scale oyster restoration techniques).
- **Strategy 4: Implement the National Shellfish Initiative.** Work with the Office of Aquaculture and other internal and external partners to advance shellfish conservation, and improve coordination with aquaculture and science efforts (e.g., ecosystem service research).

## Restoring Rocky Reefs and Abalone in California

Once iconic in southern California, abalone fisheries have been closed for decades due to massive population declines caused by overfishing and disease. Two abalone species are federally endangered (including white abalone, a NOAA Species in the Spotlight) and five species are protected from fishing. The State of California and NOAA abalone recovery plans indicate that increasing abalone densities in key areas, coupled with rocky reef restoration projects, will help accelerate abalone recovery.

NOAA is working with partners along the West Coast to recover abalone. The first step is to restore kelp forest and rocky reef habitat, which involves transforming areas known as “urchin barrens” back to functioning kelp forests. Urchins devour any kelp or algae in their path, creating barrens devoid of kelp. More than 28 acres of kelp forest and rocky reefs off the Palos Verdes coast in southern California have been restored by removing approximately 2 million urchins. Captive breeding and outplanting of abalone to these restored sites ensures the long-term stability of the restored kelp forest. Recent successes in spawning and rearing white abalone in the lab and outplanting green abalone suggest that larger-scale projects are feasible in the future.



**Objective 6: By 2020, through NOAA Fisheries authorities manage for no net loss of submerged aquatic vegetation (SAV).**

- **Strategy 1: Assess SAV population status and health.** Expand current knowledge of SAV habitat population status, trends, and supporting habitat, and reasons for loss or growth in targeted areas. Develop and maintain historical, current, and future data documenting changes in the areal extent and health of SAV habitat.
- **Strategy 2: Develop conservation best practices.** Develop and recommend improved SAV conservation techniques with science partners. Complete national restoration and protection guidelines to increase SAV habitat conservation success.
- **Strategy 3: Implement targeted restoration.** Restore SAV in targeted areas using conservation best practices, such as seeding, transplanting, prop scar restoration, water quality improvements, and reducing turbidity and wave energy to improve conditions necessary for successful SAV establishment and expansion.
- **Strategy 4: Strengthen SAV protection and mitigation.** Protect SAV from negative impacts, including both physical disturbance and degraded water quality from local and watershed-based sources, through regulatory authorities such as Magnuson-Stevens Fishery Conservation and Management Act (MSA) EFH provisions, ESA, and Fish and Wildlife Coordination Act (FWCA). Improve integration and coordination of regulatory authorities and partners, including cumulative impacts analyses of federal actions and enforcement capacity.

**Goal 2: Restore NOAA Trust Resources Impacted by Oil and Other Hazardous Substance Releases**

**Objective 1: Settle 25 Natural Resource Damage Assessment (NRDA) cases by 2020 resolving responsible party liability to fully restore injured NOAA trust resources at priority sites.**

- **Strategy 1: Be prepared for spills in high-risk areas.** Increase the efficiency of spill response, damage assessment, settlement, and restoration planning by supporting activities such as risk assessments to identify key areas at high risk for oil spill, improved baseline resource information in those areas (e.g., Arctic), and a national database of sampling protocols and techniques.
- **Strategy 2: Incentivize responsible parties to settle.** Enhance collaboration with industry on cost-effective restoration that maximizes NOAA trust resource benefits by developing innovative approaches, including early/up-front restoration (e.g., restoration before full case resolution), restoration banking (e.g., conservation land banks, fee-credit purchase policies), and combined settlements with multiple small responsible parties.
- **Strategy 3: Ensure settlements account for full restoration.** Ensure all aspects of NOAA trust responsibilities, such as resource monitoring and long-term stewardship, are fully reflected in settlements.
- **Strategy 4: Focus on settlements in priority areas.** As part of the annual prioritization of all NRDA cases, focus settlement in priority areas (e.g., Hudson/Raritan Estuary, Puget Sound, northern Gulf of Mexico).

**Objective 2: Advance the restoration of NOAA trust resources by finalizing 25 NRDA restoration plans and completing implementation of 10 plans by 2020.**

- **Strategy 1: Streamline restoration planning.** Streamline NRDA restoration plan development and implementation through actions, including conducting programmatic consultations (e.g., ESA and EFH), increasing participation in regional planning, and exploring restoration actions that address multiple cases and leverage non-NRDA funding sources.
- **Strategy 2: Enhance public involvement in restoration planning.** Facilitate restoration planning, including public review of restoration plans, by improving use of tools such as social media, GIS-based mapping, and program websites.
- **Strategy 3: Innovate to expedite on-the-ground restoration.** Identify and expand the use of innovative and creative approaches to expedite restoration of NOAA trust resources, such as expanding the targeted use of early/up-front restoration and restoration banking and leveraging non-NRDA funding.
- **Strategy 4: Ensure coordinated oversight throughout all restoration stages.** Enhance restoration management, fiscal oversight, and publicly transparent decision-making by developing and expanding use of tools that facilitate collaboration across federal and state cotrustees (e.g., interagency agreements, project tracking and reporting, and administrative record repositories).

## Advancing Coordinated Gulf of Mexico Ecosystem Recovery and Resilience

NOAA remains heavily involved in the restoration of the Gulf of Mexico following the Deepwater Horizon oil spill. We provide expertise in science, natural resource management, and policy to restore, protect, and sustain a resilient Gulf of Mexico ecosystem through three unique restoration programs.

- **Natural Resource Damage Assessment (NRDA):** As a trustee agency for the NRDA, we are working with the Gulf states and other federal trustee agencies to help restore fisheries, wetlands, and wildlife impacted by the spill—and bring lasting benefits to the Gulf region for generations to come.
- **Gulf Environmental Benefit Fund (GEBF):** We serve in an advisory role to the National Fish and Wildlife Foundation (NFWF). We are helping to shape priorities and project selection, and to provide a holistic perspective on comprehensive restoration.
- **Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act of 2012 (RESTORE Act):** We provide technical and scientific support to the RESTORE Council in both program and project development.



### Objective 3: Capitalize on NRDA-related expertise and tools to benefit NOAA trust resources for five local/regional habitat priorities (e.g., geographies, topic areas) by 2020.

- **Strategy 1: Support trust resource regulatory processes.** Support and provide staff training on the use of tools, such as the Habitat Equivalency Analysis, to aid in determining appropriate mitigation requirements (e.g., for wetlands, SAV, and coral).
- **Strategy 2: Align NRDA restoration with trust resource priorities.** Where appropriate under NRDA procedures, implement NRDA restoration that addresses ESA recovery and MSA planning, or similar regional/ecosystem priorities.
- **Strategy 3: Support significant non-NRDA incidents.** Capitalize on rapid response and restoration capacity for incidents of high national or regional significance (e.g., non-NRDA vessel groundings on coral).
- **Strategy 4: Benefit trust resource restoration in state-led cases.** Explore opportunities to further support state-led NRDA cases where important benefits to impacted NOAA trust resources can be realized.
- **Strategy 5: Collaborate in local and regional restoration prioritization.** Coordinate with key programs that can have synergistic benefits to NOAA trust resources in areas of oil spills and other hazardous releases and impacts (e.g., RESTORE, Gulf Environmental Benefit Fund, Department of Justice community service programs, and state and local enforcement actions).

## Goal 3: Increase Resilience of Coastal Ecosystems, Communities, and Economies through Habitat Conservation

### Objective 1: By 2020, identify and implement targeted conservation approaches to build resiliency of coastal ecosystems and communities threatened by climate change and extreme weather events in each region.

- **Strategy 1: Conduct risk assessments and prioritizations.** Work across NOAA line offices, regional fishery management councils, and external partners to evaluate risks and prioritize habitat conservation actions to address key climate threats to both NOAA trust resources and communities, such as flooding, drought, storm surge, sea level rise, and sedimentation.
- **Strategy 2: Develop climate adaptation best practices.** Develop best practices and guidance for incorporating climate and extreme weather adaptation considerations into habitat conservation actions, such as restoration, EFH consultations, Federal Energy Regulatory Commission (FERC) licensing/relicensing agreements, and fishery management actions.
- **Strategy 3: Implement climate adaptation measures.** Implement conservation techniques in each region directly or through consultation, including natural and nature-based infrastructure projects, floodplain restoration, levee setbacks, upland buffers, removing or modifying stream and tidal barriers, and freshwater management (e.g., modified reservoir operations, off-channel storage, and groundwater injection/retention).

**Objective 2: By 2020, demonstrate measurable progress toward achieving the objectives for each Habitat Focus Area (HFA), and use the HFAs as models to promote collaborative habitat conservation for multiple benefits.**

- **Strategy 1: Implement priority actions in HFA implementation plans.** Implement priority actions that support achieving the objectives of each HFA.
- **Strategy 2: Develop an evaluation process to measure HFA progress and guide future funding decisions.** Design and implement an evaluation process to support the evaluation of progress within HFAs and their effectiveness at improving habitat conservation outcomes.
- **Strategy 3: Maximize community engagement to ensure long-term sustainability.** Establish collective objectives and strengthen local capacity and commitment within the community to ensure long-term sustainability of conservation actions in HFAs.
- **Strategy 4: Share lessons learned.** Develop a strategy to share successes and lessons learned from the HFAs within NOAA and externally to promote habitat conservation for multiple benefits and to inform other conservation efforts.

**Objective 3: Leverage our participation and leadership in regional (landscape-scale) ecosystem-based conservation partnerships to achieve the Habitat Enterprise’s strategic goals and objectives.**

- **Strategy 1: Gulf of Mexico.** Influence and implement restoration and conservation actions through the Gulf ecosystem restoration initiatives to conserve coastal wetland, oyster, and SAV habitat; replenish and protect living coastal and marine resources; and enhance community resilience.
- **Strategy 2: Chesapeake Bay.** Use leadership roles in the Chesapeake Bay Program to restore native oyster habitat, support well-managed fisheries and improve fish passage, enhance environmental literacy, and use coastal observations to evaluate the health and status of the ecosystem.

### Promoting Collaborative Conservation in the West Hawai’i Habitat Focus Area

This 25-mile stretch on the northwestern coast of the Island of Hawai’i contains one of the state’s longest contiguous coral reefs. It is also home to federally listed endangered and threatened species (including the Hawaiian monk seal, a Species in the Spotlight), and supports an abundance of corals and fish of which nearly a quarter are found nowhere else in the world. NOAA is collaborating with many state, non-profit, and community-based partnerships in the area to conserve the healthy reef system and address threats and impacts to this economically and culturally important place. The cumulative impact of multiple threats—including development, sedimentation, drought, fires, aquarium fisheries, and invasive species—threatens the reefs and forests, and the animals that depend upon them. A delicate balance is required between the needs of humans and those of the natural resources. NOAA is working with partners to:

- Reduce sediment and measurably improve the condition of priority ecological targets.
- Reduce vulnerability of communities (human and natural) to localized effects of climate change.
- Engage communities in managing regional coastal resources.



## Collaborating in a Formal Partnership to Protect and Restore the Chesapeake Bay

The Chesapeake Bay watershed, which spans six states and the District of Columbia, is the nation's largest and most productive estuary. The Bay's vast network of more than 180,000 miles of streams, creeks, and rivers holds tremendous ecological, cultural, economic, historic, and recreational value for the nearly 18 million people who live in the region. NOAA has been a partner in the Chesapeake Bay Program since 1984. In June 2014, NOAA joined the states and other partners in committing to a new Chesapeake Bay Watershed Agreement, which established 10 goals to advance the restoration and protection of the Bay watershed. NOAA identified four of these goals on which to focus its activities: Sustainable Fisheries, Vital Habitats, Environmental Literacy, and Climate Resiliency. NOAA will also support monitoring and research to inform decision-making, track progress, and evaluate effectiveness of management actions.



Identify the key elements of an ideal work environment and ensure they are evaluated and acted upon.

- **Strategy 2: Improve professional development and training.** Assess staff training needs and implement individual development plans to align staff training with Habitat Enterprise priorities. Establish a rotational exchange program for Habitat Enterprise staff to gain experience and meet programmatic needs.
- **Strategy 3: Recognize employee performance.** Recognize performance differences meaningfully.
- **Strategy 4: Improve communication.** Improve two-way information flow with leadership regarding decision-making, Habitat Enterprise vision, and progress toward goals and priority actions.

- **Strategy 3: Puget Sound.** Coordinate resources and efforts with agency, tribal, and non-governmental partners through the Puget Sound Coordinated Investment Initiative to accelerate salmon recovery and implement large-scale projects that provide additional benefits such as flood risk reduction, agricultural viability, and community resilience.

- **Strategy 4: Great Lakes.** Work with the Great Lakes Restoration Initiative to implement habitat conservation projects that will remove habitat-related Beneficial Use Impairments leading to the delisting of Areas of Concern.

- **Strategy 5: San Francisco Bay/Delta.** Participate in the California Eco-Restore initiative to advance habitat protection, enhancement, and restoration for migratory salmonids and green sturgeon.

## Goal 4: Invest in Staff Development and Improve Impact of People, Programs, and Services

Objective 1: By 2020, become the best place to work in NOAA.

- **Strategy 1: Create a Habitat Enterprise employee viewpoint survey.** Develop and implement an employee survey instrument based on the Federal Employee Viewpoint Survey for the Habitat Enterprise.

## Objective 2: Use the Habitat Enterprise Strategic Plan to direct staff and budget resource allocation on an annual basis.

- **Strategy 1: Develop annual implementation plans and budgeting/spend plans.** Develop annual implementation plans to measure progress by quarter toward the goals and objectives of this Habitat Enterprise Strategic Plan. Use the Strategic Plan to inform annual budgeting and spend plans.
- **Strategy 2: Align staff resources with strategic priorities.** Incorporate actions from the annual implementation plans into staff performance plans, where appropriate.
- **Strategy 3: Develop budget initiatives.** Develop FY 2018–2022 budget initiatives based on Habitat Enterprise Strategic Plan goals.

## Cross-Cutting Strategies

As noted in the Introduction, we recognize that the strategies below are essential for achieving virtually all of our goals and objectives. More focused application of these strategies to particular objectives appears in Goals 1-4.

- **Strategy 1: Prioritize conservation actions.** Work with our partners to further identify priority habitats, geographies, and habitat-limited species, and target conservation efforts on these priorities. Prioritization efforts will be integrated and coordinated across strategic plan goals (e.g., NOAA trust resources, NRDA, and resilience). Includes activities such as:
  - Implement priority recovery plan habitat-related actions, including a focus on Office of Protected Resources’ “Species in the Spotlight.”
  - Identify priority habitat-limited fishery species.
  - Implement priority actions identified in HFAs, within our regional ecosystem-based conservation partnerships, and other priority areas.
- **Strategy 2: Develop conservation targets.** Continue to work with our partners to further define near- and long-term restoration and protection targets within habitat types and priority areas (e.g., how much habitat needs to be protected and restored, where, for what ultimate ecosystem service goals) and the incremental steps needed to achieve the targets. This strategy will include working with regional fishery management councils to develop habitat conservation objectives for habitat-limited species and incorporating them into Fishery Ecosystem/Management Plans.

### Developing Habitat Conservation Objectives with Regional Fishery Management Councils

The Habitat Enterprise is working with the regional fishery management councils to implement ecosystem-based fisheries management and to focus habitat conservation actions where they will have the greatest benefit to fish stocks. NOAA is working with the Pacific Fishery Management Council to evaluate the relative risk of anthropogenic stressors, such as nutrient input and offshore oil development, on habitats used by bocaccio, lingcod, black rockfish, and English sole at different life stages.

The results of the risk assessments will allow NOAA to develop specific management objectives and actions to decrease the species’ exposure to priority habitat stressors. NOAA is also working with partners in the Mid-Atlantic Fishery Management Council to develop policies and measurable objectives for habitat areas that are ecologically important to multiple fish species (e.g., key nursery habitats in specific geographic areas), and to integrate habitat considerations into the Council’s ecosystem approach to fisheries management. These efforts will help NOAA, the regional fishery management councils, and other federal agencies ensure that the most important habitat areas support resilient fisheries and productive ecosystems.

- **Strategy 3: Advance habitat science needed for management.** Continue efforts to build on and implement the Habitat Assessment Improvement Plan (HAIP) and other science plans, working with NOAA Fisheries Office of Science and Technology, Science Centers, and other partners to identify and address key science needs for habitat management decisions, such as:
  - Measuring the effectiveness and ecosystem service benefits and values of habitat conservation actions.
  - Increasing understanding of the relationship between habitat and managed/protected species (ecosystem linkages).
  - Determining climate and extreme weather effects on habitat and species.
  
- **Strategy 4: Strengthen partnerships.** Promote internal and external partnerships to advance shared habitat priorities and solutions, leverage and coordinate resources, maximize our impact, and enhance stakeholder and community engagement. As noted in the Partnerships section of the Introduction, we rely on partners to be successful in all our endeavors. In addition to continuing our existing partnerships we see the following as key opportunities for strengthening and expanding partnerships in the next 5 years:
  - *Strengthen linkages with the commercial and recreational fishing and aquaculture industries:* Enhance collaboration with regional fishery management councils, interstate marine fisheries commissions, fishermen, seafood farmers, and the broader fishing industries to conserve habitat.
  - *Improve water quality:* Strengthen partnerships with the Environmental Protection Agency (EPA), U.S. Department of Agriculture (USDA), and others to improve water quality in the Chesapeake Bay, Caribbean, Gulf of Mexico, Hawaii, and other areas where addressing land-based sources of pollution is a priority action.
  - *Improve flows and freshwater management:* Strengthen partnerships with the U.S. Army Corps of Engineers (USACE), Bureau of Reclamation, states, and other partners to address water quantity and quality issues in coastal systems.
  - *Ensure energy development considers potential habitat impacts:* Enhance relationships with alternative and fossil fuel energy industries in Hawaii, the Greater Atlantic, Gulf of Mexico, and other priority areas to ensure habitat is conserved alongside energy development and production.
  - *Enhance fish passage and coastal fisheries:* Work with the National Fish Habitat Partnership to open additional river miles to diadromous fish and to improve additional river and nearshore

## Using Science to Assess Habitat Important for Fisheries

The intensity and distribution of Norton Sound seabed mining operations off Nome, Alaska have increased rapidly since 1996, due to high gold prices and the success of a reality television series. Because of a lack of site-specific information, it was unknown whether the mining boom was harming seafloor habitat for the commercially important red king crab.

In response to concerns raised by the North Pacific Fishery Management Council and Crab Plan Team, the Alaska Habitat Conservation Division (HCD) funded research and established collaborative partnerships to investigate the issue. Methods typically used to assess marine habitat would not work in Nome due to extreme environmental factors. HCD worked closely with the researchers from Florida International University, Alaska Department of Fish & Game, Norton Sound Economic Development Commission, and local residents—including members of the crab and mining industries—to test an Unmanned Surface Vessel equipped with multibeam sonars and imaging sonar. More than 70 kilometers of transects were surveyed near Nome and benthic structures were readily apparent.

The results from this study will be used to identify important crab habitat and inform subsequent permit reviews to ensure adequate protection is in place in Norton Sound.

- habitat conditions for trust resources and their prey.
  - o *Align NOAA Fisheries' regulatory and non-regulatory habitat conservation mechanisms:* Enhance targeted coordination between EFH and ESA consultations, FERC licensing/relicensing agreements, restoration projects, and other conservation actions.
  - o *Enhance cross-NOAA coordination on habitat issues:* Use the NOAA Habitat Conservation Team, NOAA's Regional Collaboration Teams, and matrix programs such as the Coral Reef Conservation Program to increase coordination for habitat conservation and science.
- **Strategy 5: Improve communications and stakeholder engagement.** Develop improved techniques with NOAA partners (e.g., Coastal Coalition) to:
  - o Increase stakeholder engagement.
  - o Communicate the value of habitat conservation.
  - o Communicate habitat conservation issues, challenges, solutions, and best practices.
  - o Improve understanding of why habitat is important to key stakeholders and potential partners.
- **Strategy 6: Develop national policy and guidance.** Develop and/or influence national policy, regulations, or guidelines to encourage consideration of habitat issues and increase the effectiveness of habitat conservation activities.
  - o Implement the [NOAA National Habitat Policy](#) by supporting NOAA's sharpened focus on habitat utilizing the full array of habitat-related missions, mandates, and resources.
  - o Work across NOAA offices to develop a NOAA Fisheries compensatory mitigation policy to provide recommendations and set guidelines for compensation of habitat loss subject to NOAA programs and authorities such as MSA EFH provisions, ESA, and NRDA (e.g., provide guidelines for establishing listed species habitat banks, in-lieu fee programs).
  - o Assist the agency in revising the NOAA National Artificial Reef Plan, as needed, to clarify the agency's position on the purpose, siting, and design of artificial reefs based on the most recent bathymetric and benthic data available.
  - o Complete the Guidance for Considering the Use of Living Shorelines to help increase understanding of different living shorelines approaches, the permitting and consultation processes, and the different NOAA programs involved.
  - o Implement the Coastal and Marine Ecological Classification Standard (CMECS) for benthic habitat data collected by the Habitat Enterprise.

## Implementation Strategy and Evaluation

The Habitat Enterprise will develop an annual implementation plan specifying the activities that will take place to achieve the objectives of this strategic plan. Each year, the Enterprise will also evaluate progress toward accomplishing the objectives and adjust planned activities for the subsequent year accordingly.

Commitments identified in the annual implementation plan will be reflected in the performance plans of Habitat Enterprise staff where appropriate to ensure a close alignment between daily work, annual plans, and 5-year goals.

## Appendix 1: Alignment with Department of Commerce and NOAA Priorities

NOAA Fisheries is a line office of NOAA, which is located within the Department of Commerce (DOC). The Habitat Enterprise's strategic plan was informed by the strategic plans and planning documents of DOC, NOAA, and NOAA Fisheries, as well as strategic plans developed by Regional Offices, Science Centers, and other NOAA Fisheries headquarters offices.

Strategic plans and planning documents that currently guide NOAA Fisheries:

- Department of Commerce Strategic Plan for fiscal years 2014–2018 (2014)
- NOAA's Next Generation Strategic Plan (2010)
- NOAA Annual Guidance Memorandum (2015)
- NOAA Fisheries Priorities and Annual Guidance for FY 2016 (2015)

The priorities relevant to the Habitat Enterprise are identified below.

### Department of Commerce Strategic Plan

The DOC is comprised of 12 bureaus that work in five key areas: trade and investment, innovation, environment, data, and operational excellence. NOAA furthers the Department's mission with stewardship of the ocean's resources, which contribute more than \$250 billion annually to the nation's economy. Specifically tied to the NOAA mission in the Department of Commerce Strategic Plan (2014) are the following goal, objective, and key strategies:

#### The DOC Strategic Goal, Objective, and Strategies Most Relevant to NOAA Fisheries

##### *Environmental Goal*

Ensure communities and businesses have the necessary information, products, and services to prepare for and prosper in a changing environment.

##### *DOC Objective 3.4*

Foster healthy and sustainable marine resources, habitats, and ecosystems through improved management and partnerships.

##### *DOC Strategies for Objective 3.4*

- **Strengthen capabilities to assess and monitor fish and protected resources:** Ensuring sustainable populations of living marine resources is a key Departmental mandate. NOAA will increase the precision of stock assessments, and perform more robust monitoring. NOAA will use ecosystem management to ensure sustainable living marine resources. Integrated biological, physical, and chemical data and ecosystem modeling will be incorporated into fish stock and protected species assessments. More advanced technologies for monitoring living marine resources and ecosystems will be developed.
- **Improve recovery of listed species through innovative partnerships:** International, federal, state, local, tribal, and non-governmental organizations play a role in conservation. NOAA will strengthen partnerships with these stakeholder groups to ensure greater collaboration toward the recovery and conservation of protected species in marine and coastal ecosystems. Greater collaboration will improve the quality and execution of conservation plans.

- **Enhance place-based conservation:** Through its coastal management and place-based conservation programs, NOAA will expand protections at current sites and add protections at new sites. This approach preserves the economic and environmental benefits of these special places.
- NOAA initiatives such as the Habitat Blueprint framework will employ partnerships to improve habitat conditions for fisheries and for coastal and marine life.

## NOAA's Next Generation Strategic Plan (NGSP)

The NGSP (2010) conveys NOAA's mission and future vision, as well as the road map for achieving the vision as laid out through the long-term goals and objectives. With the release in 2010 of NOAA's Strategic Plan and Executive Summary, and in the 2013 Addendum, Dr. Kathryn Sullivan, then Acting Under Secretary of Commerce for Oceans and Atmosphere, called on NOAA to focus on the following areas:

- **Climate:** Through collaborative strategies, continue to advance the observations, modeling, and research necessary to understand climate change and its impacts; and transition mature climate science into regular, reliable, and relevant information services.
- **Weather:** NOAA will build a "Weather-ready" nation by preserving and improving its ability to provide timely and accurate forecasts and warnings for the protection of life and property through science, technology, infrastructure improvements, and collaborative efforts with partners.
- **Oceans:** NOAA will advance our efforts to ensure the long-term sustainability of marine fisheries and recovery of protected species and their habitats.
- **Coasts:** NOAA will deliver integrated data, information, products, and services needed to support resilient coastal communities and economies.
- **Science and Technology:** NOAA will focus on developing systems-level understanding of ecosystems and phenomena—across missions and disciplines—with the goal of increasing the resilience of ecosystems, economies, and communities.
- **Engagement:** NOAA will expand efforts to listen and respond to our customers' and stakeholders' concerns and better relate NOAA mission responsibilities and activities to those concerns.
- **Organization and Administration:** NOAA will further capitalize on recent initiatives to cut costs and improve effectiveness.

As one of five NOAA line offices, NOAA Fisheries' mission is most closely tied to the goal for Healthy Oceans identified in the Draft Goal Implementation Plan, 2012:

*Healthy Oceans Goal: Marine fisheries, habitats, and biodiversity sustained within healthy and productive ecosystems.*

The Healthy Oceans goal is to ensure that ocean, estuarine, and related ecosystems—and the NOAA trust resources that inhabit them—are resilient and sustainable in the face of increasing threats and changing conditions. A sound understanding of these ecosystems, communication of this knowledge to decision-makers and stakeholders, and the capacity and resources to support key NOAA programs are critical to achieving this goal. Strategic objectives for this goal:

- Improved understanding of ecosystems to inform resource management decisions.
- Recovered and healthy marine and coastal species.
- Healthy habitats that sustain resilient and thriving marine resources and communities.

- Sustainable fisheries and safe seafood for healthy populations and vibrant communities.

## NOAA's FY 2016 Annual Guidance Memorandum (AGM)

The purpose of the AGM is to focus the agency's corporate attention on near-term execution challenges and a balanced implementation of NOAA's strategy across mission areas, given our mandates, stakeholder priorities, and the fiscal outlook. The AGM is released on an annual basis, so the annual implementation plans for this strategic plan will reflect the most current guidance.

From the FY 2016 AGM Priorities:

*NOAA Priority: Provide information and services to make communities more resilient.*

- Implement Next Gen stock assessments for species within NOAA's jurisdiction through advancements in monitoring and data collection.
- Make measurable progress on recovery protected species.
- Increase operational services that promote coastal resiliency.

*NOAA Priority: Achieve organizational excellence*

- Under the direction of the Chief Scientist, strengthen alignment of research and development activities to effectively and efficiently support NOAA's operational missions, including accelerating research advances to application.

## NOAA Fisheries Priorities and Annual Guidance for FY 2016 (2015)

NOAA Fisheries' annual guidance memo provides guidance to all NOAA Fisheries employees in executing our mission responsibilities by establishing a framework for development of annual priority milestones. These priorities consider the core mission functions in context of current fiscal conditions.

For FY 2016, NOAA Fisheries will focus on the following core priorities:

- Ensure the productivity and sustainability of fisheries and fishing communities through science-based decision-making and compliance with regulations.
- Recover and conserve protected resources through the use of sound natural and social sciences.
- Improve organizational excellence.

All other NOAA Fisheries programs, projects, and investments should be designed and conducted in a manner that supports these two core mission functions. NOAA Fisheries' approach to these priorities and supporting functions will be guided by the following overarching principles:

- **Advance innovative solutions to emerging challenges (science and stewardship):** NOAA Fisheries will lead innovation and serve as a catalyst to spur innovation.
- **Cultivate our partnerships:** NOAA Fisheries will engage the expertise and capabilities of our partners from the international, federal, tribal, and state communities; academia; and non-governmental sectors.
- **Improve internal and external communications and raise awareness of the NOAA Fisheries mission:** We will strive toward a "no surprises" approach to communicating with our stakeholders and, where practicable, build consensus on expectations and the identification of

critical factors to measure success.

- **Improve our decisions and knowledge by transforming data capabilities and access in order to support our mission.** NOAA Fisheries will provide robust data and science utilizing the best available infrastructure and by anticipating customer's needs.

## Appendix 2: Habitat Enterprise Organizational Structure, Core Mandates, and Programs

NOAA Fisheries supports habitat protection and restoration through its Habitat Enterprise. The Enterprise works across NOAA and with external partners to protect, maintain, and restore habitats that provide important ecological and societal benefits. Our work focuses on sustaining managed fisheries, recovering protected resources, and improving the resiliency of coastal communities.

### Organizational Structure

The Habitat Enterprise is composed of the NOAA Fisheries Office of Habitat Conservation (three divisions: Habitat Protection, Restoration Center, and the Chesapeake Bay Office); the Habitat Conservation Divisions located in the Regional Fisheries Offices; and the habitat management-related components of the four West Coast Region Area Offices. In 2014, the leadership of these offices and divisions came together to establish the National Habitat Leadership Team (NHLT). The NHLT works collaboratively to build support, articulate priorities, and drive implementation of habitat management initiatives designed to meet national and regional habitat needs. The NHLT uses the Habitat Blueprint principles to direct its conservation planning and decision-making. This Strategic Plan was spearheaded by the NHLT.

### Mission

The NOAA Fisheries Habitat Enterprise protects and restores habitat to sustain fisheries, recover protected species, and maintain resilient coastal ecosystems and communities.

### Vision

Healthy ecosystems, sustainable living marine resources, and resilient coastal communities thrive through innovative solutions, management flexibility, adaptability, and science excellence.

### Core Mandates

The core mandates and authorities for the Habitat Enterprise include:

- Magnuson-Stevens Fishery Conservation and Management Act (MSA)
- Federal Power Act (FPA)
- Endangered Species Act (ESA)
- Fish and Wildlife Coordination Act (FWCA)
- Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA)
- Chesapeake Bay Protection and Restoration Executive Order (CBEO)
- Coral Reef Conservation Act (CRCA)
- Estuary Restoration Act (ERA)
- Oil Pollution Act (OPA)
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
- NOAA Authorization Act of 1992 (Public Law 102-567), reauthorized in 2002 (Public Law 107-372).

## Programs

The major programs and activities of the Habitat Enterprise include:

- ***Protecting essential fish habitat (EFH):*** In coordination with the regional fishery management councils, the EFH program describes and identifies EFH for all federally managed fish during each stage of their lives from eggs to adults, and evaluates the effects of proposed federal fishery management actions on such habitats. The program also provides NOAA with thousands of opportunities each year to guide coastal development in a manner that protects vital fish habitat while supporting economic opportunity. Through required consultations NOAA provides recommendations to avoid, minimize, mitigate, or otherwise offset adverse effects of federal activities on marine, coastal, and riverine EFH for federally managed species. A federal activity is classified as a federally authorized, funded, permitted, or proposed action. Actions requiring EFH consultations may include proposed coastal construction projects, applications for dredging and filling wetlands, waste discharge permits, military activity, renewable and traditional energy proposals, and other federal funding and permit activities that may adversely affect EFH.
- ***Providing fish passage at hydroelectric dams:*** This program promotes passage for migratory fish past hydroelectric dams that block valuable upstream river habitats or downstream passage to the ocean. NOAA can require fish passage through the development of mandatory conditions under the Federal Power Act for the safe, timely, and effective passage of migrating fish at hydropower dams licensed by the Federal Energy Regulatory Commission (FERC). NOAA can also recommend broader measures for the protection, mitigation, or enhancement of migratory fish and their habitat (e.g., instream flows). These unique roles and responsibilities granted to NOAA also present a limited window of opportunity for NOAA action, because license renewals are generally approved for 30 to 50 years.
- ***Protecting deep-sea corals:*** NOAA implements the MSA Deep Sea Coral Research and Technology Program to identify and map locations of deep-sea corals and to analyze and provide regional fishery management councils with scientific information needed to manage and protect these habitats. The MSA also provides the councils with discretionary authority to designate zones to protect deep-sea corals identified by the program from physical damage from fishing gear. NOAA implements this work in coordination with other federal agencies and research institutions.
- ***Conserving shallow-water coral reefs:*** The NOAA Coral Reef Conservation Program's (CRCP) mission as authorized by P.L. 106-562 is to preserve, sustain, and restore the condition of coral reef ecosystems; to promote the wise management and sustainable use of coral reef ecosystems to benefit local communities and the nation; and to develop sound scientific information on the condition of coral reef ecosystems and the threats to these ecosystems. Over the past 5 years, CRCP has emphasized its efforts on understanding and addressing the top three recognized threats to coral reef ecosystems: climate change impacts, fishing impacts, and impacts from land-based sources of pollution. The CRCP also maintains national level responsibilities that include mapping, monitoring, and education/outreach in support of these three threats. The CRCP is implemented through internal NOAA partners across the Line Offices and external partners via grants and cooperative agreements.

- ***Targeting restoration of priority habitats:*** We work closely with partners to implement restoration of priority coastal, marine, and riverine habitats for rebuilding fisheries, recovering protected species, and improving the resiliency of coastal communities. We provide financial assistance and a full range of restoration expertise and services for habitat restoration projects nationwide. Our services support regional and local strategic planning, project design, engineering, environmental compliance and permitting, implementation, oversight, and project evaluation. Our staff leads and supports coordination efforts across NOAA, and a large variety of other federal and non-federal partners, to identify shared habitat priorities and focus resource investments. We implement this work through several programs coordinated across NOAA, including the Community-based Restoration Program; Coastal Wetlands Planning, Protection, and Restoration Act; Great Lakes Restoration Initiative; and Coral Reef Conservation Program.
- ***Restoring habitat injured by oil and other hazardous substance releases:*** Every year, NOAA responds to as many as 150 oil spills and other hazardous substance releases across the nation through our Damage Assessment Remediation and Restoration Program (DARRP). Following the model of providing broad expertise and services noted above, we plan and implement restoration for coastal and marine resources threatened or injured by oil spills, other hazardous substance releases, or vessel groundings. This work involves restoration activities for Natural Resource Damage Assessment (NRDA) and natural resource trustee responsibilities for all active cases. The DARRP includes our partner program offices, the Office of General Counsel for Natural Resources, and the Office and Response and Restoration (within the National Ocean Service).
- ***Protecting and restoring the Chesapeake Bay:*** The NOAA Chesapeake Bay Office (NCBO) applies expertise in oyster restoration, fisheries, environmental literacy, and environmental observations to protect and restore the Chesapeake Bay. NCBO programs are integrated to provide an ecosystem-based approach to management. NCBO implements NOAA's mandate, authorized by P.L. 107-372, to coordinate programs and activities of the agency to support the Chesapeake Bay Program, including the Chesapeake Bay Watershed Agreement and Executive Order 13508. NCBO carries out programs in: 1) habitat assessment and characterization supporting oyster restoration, 2) fisheries research and ecosystem modeling, 3) environmental literacy and community engagement, and 4) ecosystem observations.

## Appendix 3: List of Acronyms and Abbreviations

AKRO	Alaska Regional Office
CRCP	NOAA's Coral Reef Conservation Program
CWPPRA	Coastal Wetlands Planning, Protection and Restoration Act
DOC	Department of Commerce
EFH	Essential fish habitat
ESA	Endangered Species Act
FERC	Federal Energy Regulatory Commission
FPA	Federal Power Act
FWCA	Fish and Wildlife Coordination Act
FY	Fiscal year, October 1 through September 30
GARFO	Greater Atlantic Regional Fisheries Office
HAIP	Habitat Assessment Improvement Plan
HAPC	Habitat Areas of Particular Concern
HCD	NOAA Fisheries Regional Habitat Conservation Division
HFA	Habitat Focus Area
HP	Habitat Protection Division
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NCBO	NOAA Chesapeake Bay Office
NEPA	National Environmental Policy Act
NGO	Non-governmental organization

NHLT	National Habitat Leadership Team
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	NOAA National Marine Fisheries Service
NOS	NOAA National Ocean Service
NRDA	Natural Resources Damage Assessment
NWS	NOAA National Weather Service
OAR	NOAA Office of Oceanic and Atmospheric Research
OHC	NOAA Fisheries Office of Habitat Conservation
PIRO	Pacific Islands Regional Office
PR	NOAA Fisheries Office of Protected Resources
RC	NOAA Restoration Center
RESTORE Act	Resources and Ecosystems Sustainability, Tourist Opportunities and Revived Economies of the Gulf Coast States Act
SAV	Submerged aquatic vegetation
SERO	Southeast Regional Office
SF	NOAA Fisheries Office of Sustainable Fisheries
WCRO	West Coast Regional Office