



**NOAA
FISHERIES**

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**West Coast Geographic
Draft Strategic Plan
2020-2024**

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DRAFT

A Message from our Leadership



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Dear Friends and Colleagues:

We are excited to present the NOAA Fisheries West Coast Geographic Strategic Plan for 2020-2024. This plan highlights our goals for the next five years along with the strategies we will use to achieve them. We recognize that our region faces significant challenges for the resources we manage and support. This is our plan for doing our part to meet those challenges.

The Strategic Goals and Key Strategies outlined within this plan provide a small but important snapshot of our collective efforts to manage and conserve natural resources while also working to improve the regulatory environment. We will continue to focus our efforts on ensuring the productivity and sustainability of fisheries and fishing communities through science-based decision making and compliance with laws and regulations, while performing the critical work necessary to recover and conserve protected resources.

The West Coast Regional Office, Northwest and Southwest Fisheries Science Centers, Office of Law Enforcement, and Restoration Center have a long history of successful collaborative efforts. NOAA Fisheries' offices on the west coast have a well-earned reputation of achieving organizational excellence, conducting cutting-edge scientific research, and providing a diverse and inclusive workplace for our staff and partners. And while this strategic plan presents important information about NOAA Fisheries' vision for the future along the west coast, it will ultimately be through the hard work of our employees and affiliates, working on the ground domestically and internationally, that will get us where we need to be.

It is our privilege to have the opportunity to serve the people of NOAA Fisheries' west coast region – from the individuals who reside in our states, to the stakeholders, industries, and tribes who we interact with every day. Our overarching goal to provide sustainable fisheries and conserve protected species while supporting healthy economies along the west coast is the driving force for the work we do. We are committed to the value of service to our mission and the country. We recognize the important efforts and results of NOAA Fisheries that have positively impacted and affected the communities and the environments where we live and work. We look forward to continuing our efforts to improve the health of our environment and economy.



Mission and Mandates

The NOAA Fisheries enterprise along the west coast is responsible for managing, protecting, and conserving marine and anadromous species and their habitats in inland, coastal, and offshore waters. We are one of several agencies within the Department of Commerce that work to ensure our coastal and ocean resources are sustainable and productive for generations to come. The West Coast Region of NOAA Fisheries works specifically on managing these resources and ecosystems in Washington, Oregon, California, and Idaho by partnering with the Northwest Fisheries Science Center, Southwest Fisheries Science Center, Office of Law Enforcement, Restoration Center, and the Seafood Inspection Program. These collective efforts ensure that our management decisions are based on the best available science and technology. Our research, fisheries management, enforcement, and habitat restoration programs work collaboratively to help preserve, recover, and protect habitat and at-risk species such as salmon, abalone, Southern Resident killer whales (SRKW), sea turtles and Steller sea lions.

Our mandates and authorities are derived from numerous statutes which include the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act or MSA), the Endangered Species Act (ESA), and the Marine Mammal Protection Act (MMPA). Along the west coast, we manage the fisheries for salmon and steelhead, over 90 species of groundfish, coastal pelagics such as anchovy and sardine, and highly migratory species such as billfish, sharks, and tunas. Our goals are to provide oversight and management for an economically healthy and sustainable fishing industry, effectively manage and conserve marine mammals, and promote the conservation and recovery of threatened and endangered species.

Our efforts to identify science-based solutions to challenging environmental issues have been supported through our joint efforts with other federal, state, local, and tribal governments, and various stakeholders. In addition to these groups, our staff works closely with the Pacific Fishery Management Council (PFMC), Pacific States Marine Fisheries Commission (PSMFC), and the fishing industry to ensure healthy fisheries population levels are achieved and maintained now and into the future. It is a true cooperative effort where we seek to grow domestic marine aquaculture production and provide for sustainable natural resources, while also protecting and conserving marine life and their habitats in the Pacific Ocean, the Southern Ocean off Antarctica, and within the freshwater systems of Washington, Oregon, California, and Idaho. As a result of our team-based approach, NOAA Fisheries and its partners have

found success by reducing the number of fish stocks impacted by overfishing and increased the number of rebuilt stocks through the implementation of annual catch limits, stock rebuilding plans, and conservation and restoration activities in important habitats.

A vital part to the success we have experienced has been through the support provided by the West Coast Division of NOAA's Office of Law Enforcement (OLE). OLE's mission is to protect marine wildlife and habitat by enforcing domestic laws and supporting international treaty requirements designed to ensure global resources are available for future generations. Through their partnerships with the states and other federal agencies, their special agents and enforcement officers work along the west coast and inland riverways to ensure compliance with the nation's marine resource laws. Their jurisdiction within the U.S. Exclusive Economic Zone covers more than 300,000 square miles of open-ocean, almost 1,300 miles of coastline, and five of NOAA's National Marine Sanctuaries.

The health of marine species and habitats under our management is important for maintaining a balanced and thriving ocean ecosystem and supporting a prosperous ocean and coastal recreation sector. We work to conserve these resources, protect them from the negative impacts resulting from human activities, and monitor those activities that might potentially cause harm, as mandated by the MSA, ESA, and the MMPA.



Electro-shocking juvenile Chinook salmon in Camas Creek, ID. Photo: Benjamin Sandford, Northwest Fisheries Science Center.

Strategic Goals

Reflecting the vision of the Department of Commerce and NOAA to help the American economy grow, our three Strategic Goals for 2020–2024 are to:

- Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability.
- Conserve and recover protected species while supporting responsible fishing and resource development.
- Improve organizational excellence and regulatory efficiency.

Organization

Our west coast region enterprise includes over 800 employees and affiliates who are working tirelessly toward achieving these three strategic goals. We have:

- A Regional Office providing oversight and coordination between eight divisions working across 16 duty stations in fields such as Sustainable Fisheries, Protected Resources, Aquaculture, Policy, Management and Budget, Communications, and Employee Engagement and Diversity
- Two Science Centers comprised of 9 offices and laboratories along the west coast, conducting leading-edge scientific research and analysis to provide the foundation for management decisions to sustain, protect, recover, and restore ecosystems and living marine resources of the western United States.
- A Law Enforcement Division, within NOAA's Office of Law Enforcement, staffing 15 field offices tasked with enforcing the domestic laws and international treaty requirements designed to protect marine life and their habitats. Their special agents and enforcement officers work with federal, state and tribal partners along the coast and inland riverways to ensure compliance with the nations marine resource laws.
- A Restoration Center encompassing 6 field offices working on recovery of NOAA listed species through habitat restoration. Efforts are made to undo damage to coastal wetlands, estuaries, floodplains, shellfish beds, and salmon-bearing streams by providing technical expertise and the best available science to reconnect marshes and floodplains to tidal or riparian waters, restore spawning and rearing habitats for fish, and improve fish passage by removing dams or replacing undersized culverts.

Strategic Landscape

It is critical that we are strategic about prioritizing activities to achieve optimal performance. We must be prepared to take advantage of new technologies, seize opportunities to modernize our infrastructure, increase efficiencies, and streamline business processes. We must be strategic with a willingness to move in new directions, while choosing what must be phased out. This plan is tightly focused on addressing our highest priorities and is informed by the strategic landscape. These issues, challenges, and risks will be considered in our annual priorities setting process.

Some of the *Issues* we face:

- Changes to the oceanic and coastal conditions (e.g., ocean acidification, ocean heat waves, sea level rise) that affects the population, sustainability, and distribution of marine species.
- Loss and degradation of freshwater, marine, and estuarine habitat region-wide.
- Increased volatility of environmental conditions (e.g., oceanic, coastal, terrestrial and atmospheric) that can affect species, fisheries, and communities.
- Effect of increased demand (e.g., agriculture, hydropower, municipal, and industrial needs) for freshwater on anadromous species and nearshore habitat.
- Effects of toxics (e.g., endocrine disruptors, growth inhibitors, and carcinogens), garbage, and plastic waste on water quality and marine species' health.
- Shifting economics and diversification of the energy sector creating opportunities and the potential for impacts on habitat and fisheries (e.g., offshore energy production, decommissioning of hydropower).
- Advancing recovery efforts for Southern Resident killer whales, Pacific leatherback sea turtles, Sacramento winter-run Chinook salmon, Central California Coast coho salmon, and Abalone.
- Working to address the barriers to U.S. markets for U.S. seafood.

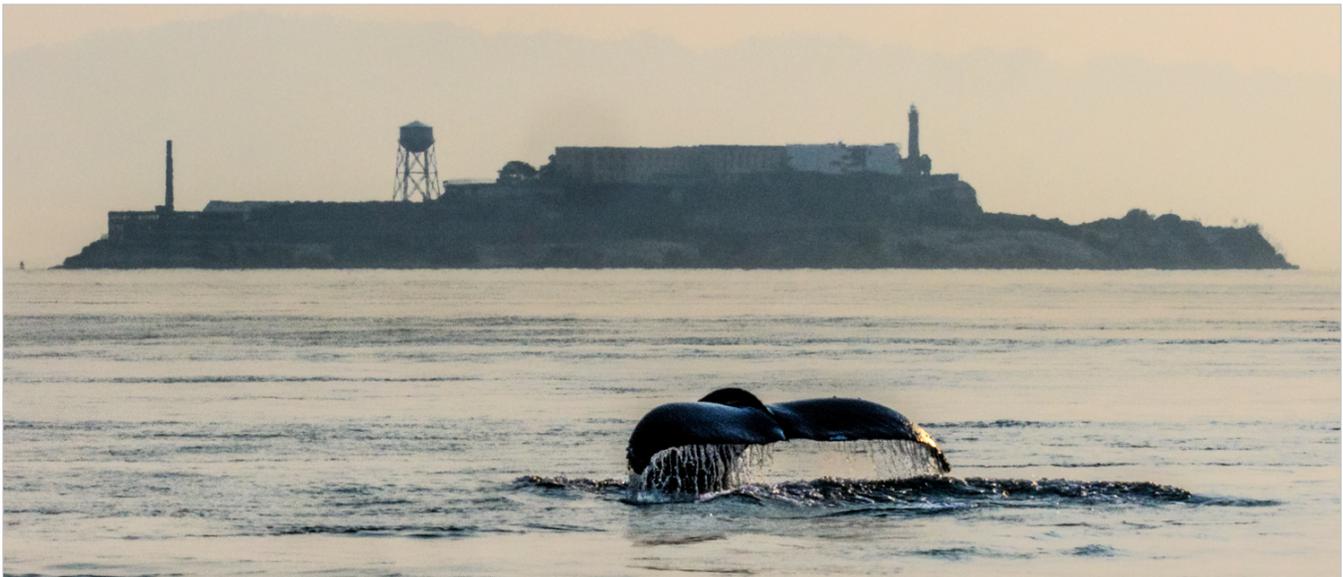
Some of the *Challenges* we must address:

- Maintaining an adequate level of surveys and population assessments for informed marine resource management.
- Meeting the increased needs for assessment data and modeling capabilities to support optimal catch levels and other management needs.
- Processing, storing and disseminating increasingly large quantities of data.

- Integrating disparate fisheries data streams to streamline management processes and optimize decision making.
- Increasing sustainable U.S. seafood production and reducing the seafood trade deficit.
- Improving stability and opportunity in U.S. commercial and recreational fisheries.
- Ensuring that tribes do not bear a disproportionate burden in advancing protected species conservation, in recognition of tribal treaty rights and our tribal trust responsibilities.
- Reducing bycatch of non-target species while supporting commercial and recreational fisheries.
- Implementing Ecosystem Based Fisheries Management.
- Minimizing pinniped predation impacts on at-risk fish populations while ensuring statutory protections for marine mammals.
- Effectively coordinating research and management with other federal agencies (e.g., Army Corps of Engineers, U.S. Geological Survey), governments (e.g., state and county agencies), and management bodies (e.g., PFMC).
- Balancing species recovery with sustainable harvests.
- Streamlining permitting for offshore aquaculture; working region-wide to promote sustainable aquaculture practices.
- Identifying how human activities impact both the landscape and the environment and researching how to limit impacts to the extent possible.
- Working towards achieving species and habitat conservation on private land.
- Achieving regulatory efficiency in conducting ESA and Essential Fish Habitat (EFH) consultations. Effectively prioritize workload to maximize conservation.
- Responding to the demand for timely permitting of large-scale infrastructure projects.
- Effectively optimizing limited resources for habitat restoration activities and related priority actions coast-wide.
- Ensuring the highest level of information security to maintain confidentiality, integrity, and availability of information and data products/platforms.
- Recruiting and retaining a skilled workforce that allows agencies to meet mission requirements.
- Advancing science while keeping up with mandated science.

Some of the *Risks* we foresee:

- Balancing the risk of continued species decline, given the uncertainty of climate change and its impact on habitat.
- NOAA's aging infrastructure and availability/dependability of vessels for data collection; impacts on safety, efficiency, and productivity.
- Increasing mandates and requirements that do not match the level of available staff or resources.
- Static or declining budgets.
- Increasing demands for timely and accurate science despite a static or declining workforce.
- Balancing the challenges and requirements of the workforce, infrastructure, and budget.



Humpback Whale in San Francisco Bay with Alcatraz Island. Photo Dan Cheng, West Coast Regional Office.

Meeting the Challenges

To address the identified challenges, we must invest in the people, programs, and technology platforms that most advance our highest priorities. This requires that we strategically sunset low-priority activities, products, or services. Our high-priority areas of focus highlighted in this plan are:

Maximize the economic yield of U.S. fisheries, enhancing the value of our fisheries to local fishing communities and the U.S. economy.

Reduce bycatch and entanglement through new gear technologies that enable fishing with minimal impacts on marine mammals, sea turtles, seabirds, and other species of marine wildlife.

Foster U.S. marine aquaculture to increase production of seafood, add American jobs, and reduce the seafood trade deficit.

Focus species recovery on the most at-risk ESA-listed species.

Focus science and improve stock assessments on priority stocks/species without reallocating resources away from successfully managed ones.

Evaluate the levels and frequency of stock assessments to ensure investments are determined by need.

Integrate ecosystem considerations into stock assessments, fishery management, and aquaculture.

Partner with industry and academia to increase our data collection capacity through the use of additional platforms of opportunity.

Leverage emerging technologies, such as aerial-, underwater- and sail-drones, video and advanced sensor technologies, and electronic catch reporting to expand the collection and accessibility of data for improved science, management, and law enforcement.

Engage internationally to level the playing field in seafood trade, combat Illegal, Unreported and Unregulated (IUU) fishing to ensure sustainable fisheries for stocks that migrate beyond our Exclusive Economic Zone, and ensure U.S. fishing access to highly migratory species.

Use non-regulatory tools to protect and restore priority habitats supporting long-term sustainability of our fisheries and protected resources.

GOAL 1: Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability

NOAA Fisheries expects to amplify the economic value of U.S. seafood production by optimizing commercial harvest, ensuring recreational opportunities, promoting marine aquaculture, and restoring habitat. Effective science-based management is essential to reaching optimum yield while preventing overfishing. U.S. fisheries are among the largest and most sustainable in the world, yet we maintain a \$14 billion seafood trade deficit. Reducing this deficit requires strong science in fisheries and aquaculture management, close partnership coordination with the regional fishery management councils, interstate marine fisheries commissions, states and tribal co-managers, and local organizations and stakeholders. Realizing the economic value of U.S. fisheries requires international engagement to ensure fair and legal trade practices.

Key strategies for 2020-2024

1. Manage Stocks for Optimum Yield

Rebuild overfished stocks, work to prevent overfishing, and find ways to increase the use of legally caught fish both in the United States and abroad where international agreements govern resource utilization. Explore opportunities for broadening commercial and recreational access to new, undeveloped, or underdeveloped fisheries through the use of innovative gear and technologies. Work collaboratively with the PFMC, international regional fisheries management organizations, and conservation groups to develop management procedures that

conserve protected resources and enhance economic development, while providing sustainable commercial and recreational fishing opportunities. Restore and protect EFH and engage in community-based habitat restoration efforts whenever practicable to advance productive fisheries on the west coast (e.g., Fir Island Farm Tidal Restoration – Puget Sound, WA; Southern Flow Corridor Landowner Preferred Alternative – Tillamook Bay, OR). Identify science-



Pacific Hake collected during FY 2017 Winter Hake Survey. Photo: Jeff Bash, Northwest Fisheries Science Center.

based management strategies that allow for expanded access to recreational and commercial fisheries resources.

2. Increase U.S. marine aquaculture production

Create increased opportunities for sustainable aquaculture development and production on the west coast. Streamline authorization and permitting processes where possible to reduce industry impacts. Advance aquaculture science for shellfish, finfish, and other species on the west coast. Provide leadership on conservation and mitigation aquaculture activities coast-wide, such as: 1) restoration of white abalone; and 2) production of salmon and steelhead throughout the Columbia River Basin under the Mitchell Act. Provide advanced marine aquaculture science and technology in support of west coast hatchery production.

3. Adequately assess all prioritized stocks and maintain information for currently assessed stocks

Establish target stock assessment levels and strive to meet targets for priority stocks without compromising sustainable management of other stocks. Incorporate ecosystem considerations into management advice. Develop incentives for industry-based (commercial and recreational) data collection and reporting, in order to adequately assess all prioritized stocks. Maintain and work to expand cooperative research with industry. Reduce uncertainty in stock assessments so that forecasts are more precise.

4. Modernize fishery information collection, management, and dissemination systems, and enhance cooperative data collection and sharing

Modernize and optimize data collection, storage, infrastructure and dissemination processes for west coast fisheries information, and where international agreements govern, support enhanced analysis and provide scientific input. Develop incentive-based approaches for commercial and recreational data collection and reporting for improving the ability to effectively manage stocks. Continue supporting collaborative efforts between the West Coast Region; Northwest, Southwest, and Pacific Islands Fisheries Science Centers; Pacific States Marine Fisheries Commission; industry and other partners to enhance the collection of fisheries data. Utilize new and emerging technologies – such as unmanned and partially autonomous sampling technology – to improve data collection methods and reduce costs where possible.

5. Combat illegal, unreported, and unregulated (IUU) fishing and seafood fraud, and advance fair trade

Continue U.S. leadership in international engagement on issues relevant to the west coast in support of equal trade, market accessibility, and regional competitiveness related to sustainable seafood production. Participation with international groups – such as the Inter-American Tropical Tuna Commission, the Pacific Salmon Commission, the International Pacific Halibut Commission, the Pacific Whiting Joint Management Committee, and the Commission for the Conservation of Antarctic Marine Living Resources – to promote opportunities for advancing science to support fair trade and sustainable utilization of seafood products. Work to develop efficient and effective international monitoring tools related to the seafood supply chain, detect seafood fraud and mislabeling, and enforce import regulations. Work cooperatively with state and federal agencies to conduct seafood inspections at ports of entry, and ensure compliance with Seafood Import Monitoring Program requirements.

6. Increase consumer confidence in the quality and safety of U.S. seafood

Promote consumer confidence in the quality of domestic seafood production by providing timely information and services on the sustainability, quality, and safety of west coast seafood products. Advance seafood safety and quality management practices as well as improved processing techniques and delivery to market by west coast seafood producers

7. Assess and predict the impacts of environmental changes and human activities on fisheries and ecosystems

Identify how environmental changes and human activities will impact and affect fisheries and ecosystems along the west coast and internationally, including Antarctica. Design and develop new and innovative management systems that are adaptive to change with the goal of maintaining economically viable and sustainable fisheries into the future. Develop life cycle models, forecasts and other decision support tools to inform management decisions. Utilize approaches to ecosystem-based fisheries management techniques, retrospective analysis, and management strategy evaluation (e.g., scenario planning) in furtherance of these efforts.



Pacific Hake juveniles collected during FY 2017 Winter Hake Survey. Photo: Jeff Bash, Northwest Fisheries Science Center.

GOAL 2 – Conserve and recover protected species while supporting responsible fishing and resource development

NOAA Fisheries is responsible for recovering threatened or endangered marine species, and conserving and protecting marine mammals. Many of these species are key components of their ecosystems and have particular social and cultural importance. The focus is on recovery while using our understanding of limiting factors and threats to minimize conflict with infrastructure projects or other forms of economic growth. We will continue to improve the timeliness of our regulatory decisions and conservation outcomes when fishing and resource development projects interact with protected resources. Recovery of protected species would relieve constraints on development or other economically important projects.

Key strategies for 2020-2024

1. Stabilize highest priority protected species

Stabilize the highest priority endangered species on the west coast or internationally that are of relevance to the west coast. Advance recovery efforts and promote conservation for the most at-risk ESA-listed species. Implement management actions specific to priority species based on the best available scientific information to address population and habitat limiting factors. Work to execute high priority actions for species and habitat conservation identified in recovery plans by leveraging partnerships and resources. Continue to support federal tribal treaty and trust obligations, including conducting enforcement patrols, outreach and investigations to detect and deter the illegal take of species and harm to habitats protected under the ESA and MMPA. Support conservation and mitigation techniques to recover ESA-listed species on the west coast. Continue management efforts for highest priority ESA-listed species through the NOAA Fisheries' Species in the Spotlight initiative. Species in the Spotlight include SRKW's, white abalone, Pacific leatherback sea turtles, Central California Coast coho salmon, and Sacramento River winter-run Chinook salmon.

2. Review and streamline permitting and authorization processes for energy development and national defense, while maximizing conservation outcomes

Promote energy independence and economic growth by creating efficiencies in our environmental review processes, including implementing guidance and policies that support conservation on the west coast and internationally while allowing for major infrastructure and energy projects important to our nation's energy independence, economy, and defense.

3. Minimize bycatch and entanglement of protected species while supporting fisheries

Support sustainable fishing opportunities and aquaculture development by utilizing an ecosystems-based fisheries management approach. Work to understand and minimize interactions and mortality of protected species, and partner with external stakeholders such as state, local, and tribal governments, the fishing industry, and academic and environmental organizations to develop entanglement and bycatch prevention measures both domestically and internationally.

4. Address the challenge of balancing water management for protected species with other uses

Collaborate with federal, state, and tribal partners to improve predictive water management for the purpose of accommodating protected species' requirements along with those of competing uses such as agriculture, municipalities and hydropower.

5. Assess and predict how environmental changes, extremes, and human activities affect ecosystems, and design new management paradigms in support of conservation and recovery



Juvenile green sturgeon. Photo: Thomas Dulkan.

Using state-of-the-art science, evaluate the impacts of acute events (e.g., extreme weather, environmental catastrophes) and how they affect protected resources and their ecosystems in both the short and long term. Develop adaptive and dynamic management approaches to efficiently respond to climate-driven ecosystem disturbances. Reintroduce species to historic habitats

where necessary to build resilience to changing conditions and environments. Assess damage to habitat and restore where possible to regain ecological functions for protected species. Build and utilize non-regulatory partnerships to develop innovative ways to promote conservation and recovery while supporting responsible fishing and resource development.

GOAL 3 – Improve organizational excellence and regulatory efficiency

To realize the first two strategic goals, NOAA Fisheries must be an effective and efficient organization with the agility to adapt and evolve to meet emerging challenges. Promoting organizational excellence is a continuous process to improve our ability to fulfill our mission, support our people, and support the organization. The key factors that determine organizational excellence include our people, our business and management processes, and our technology and infrastructure. Improving business processes and implementing best practices conducted in a priority-based environment, along with continuous regulatory reform, will ensure our operations best support our customers and partners.

Key strategies for 2020-2024

1. Match a diverse workforce to mission needs

Recruit and strategically deploy a diverse and inclusive workforce to ensure flexibility in meeting west coast mission needs and constituent engagement. Take necessary steps to ensure the continuity of operations. Prioritize the training and development of employees to help guard against workforce erosion and detrimental impacts on our capacity and capability. Partner with academic institutions to identify, develop, and recruit the next generation of west coast scientists, managers, and team members. Identify new and innovative approaches to promote employee engagement and foster an inclusive and safe workplace for all employees.

2. Recapitalize infrastructure and facilities

Conduct facility condition assessments annually to support the evaluation and maintenance of west coast facilities and properties. Prioritize and address critical maintenance needs in a timely manner. Evaluate the west coast facility and infrastructure needs for workspace to meet the needs of a changing workforce and distributed customer base. Identify and propose strategies for recapitalization to NOAA and the Department of Commerce.

3. Institutionalize prioritization and performance management practices

Use priority-based methodologies to optimize investments for maximum economic return while meeting conservation mandates. Analyze performance, risk, and opportunities to ensure the best value for the American public.

4. Review agency regulations and remove or modify rules that unnecessarily burden businesses and economic growth

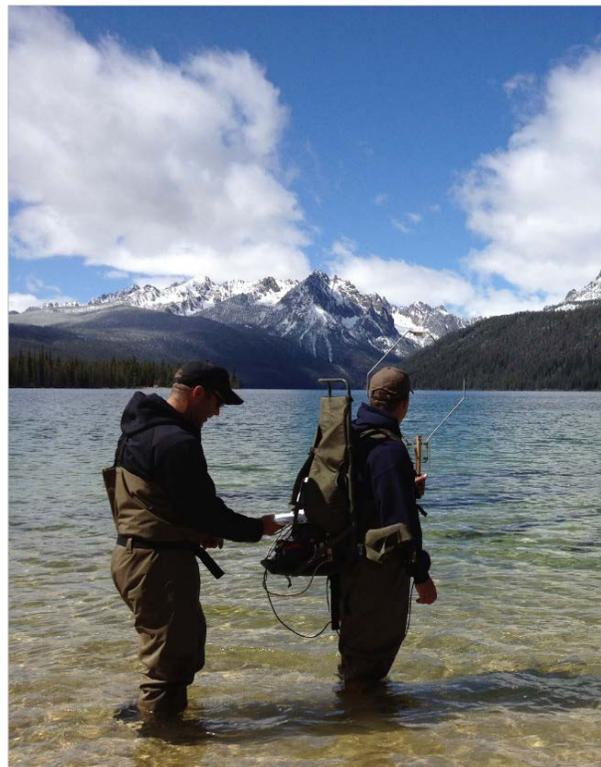
Implement Executive Order 13771 by reviewing regulations to identify and modify or repeal rules that are outdated, unnecessary, or ineffective. Work with the PFMC and other stakeholders to help identify regulations that may unduly or unreasonably limit economic development and growth while providing limited conservation benefits. Assess potential flexibilities available to regulated entities that will maximize fishing opportunities while continuing to meet conservation mandates as they apply to west coast species and the habitat on which they depend.

5. Institutionalize the use of innovative technologies

Continue to develop new and emerging technologies (e.g., Environmental DNA research, automated underwater vehicle platforms, advanced sensors, molecular genetics, digital platforms, electronic reporting/monitoring, mobile applications, and cloud computing) for conducting surveys, enhancing and improving the accuracy of observing systems, and collecting and sharing data in cost-effective, transparent, and real-time approaches. Work with industry, academia, and other partners to test, deploy, and utilize these technologies. Continue Antarctic research work as a testbed for innovative technologies in the United States.



Jennifer Gosselin sampling Chinook salmon juveniles for blood chemistry at Ice Harbor Dam. Photo: Benjamin Sandford, Northwest Fisheries Science Center.



Gordon Axel and Jesse Lamb use a mobile tracking antenna to search from radio-tagged juvenile Sockeye salmon in Redfish Lake, Idaho. Photo: Matthew Nesbit, Northwest Fisheries Science Center.



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