



NOAA
FISHERIES

Alaska Geographic Strategic Plan 2020-2023



TABLE OF CONTENTS

Joint Message from Regional Administrator and Science Center Director	2
Mission and Mandates.....	3
Strategic Goals	4
Organizations.....	5
The Local Landscape	12
Strategic Goal 1: Amplify the economic value of commercial and recreational fisheries while ensuring their sustainability.....	16
Strategic Goal 2: Conserve and recover protected species while supporting responsible fishing and resource development.....	19
Strategic Goal 3: Improve organizational excellence and regulatory efficiency	22

Joint Message from Regional Administrator and Science Center Director

The NOAA Fisheries Alaska Geographic Strategic Plan covers FY 2020–2023. It aligns with NOAA Fisheries' 2019–2022 National Strategic Plan and the Department of Commerce's Strategic Plan. The purpose of this strategic plan is to provide a framework for how the Alaska Fisheries Science Center, the Alaska Regional Office, and the North Pacific Fishery Management Council interact and to describe our respective roles as stewards for the nation's marine resources in Alaska. The plan lays out the collaborative and practical approach taken to sustainably manage and conserve Alaska fisheries and marine resources.

An overview of NOAA Fisheries' mission, mandates, and overarching strategic goals is presented. This is followed by a brief description of the Science Center, the Regional Office, and the Council's organizational structure and facilities. Some context is provided about the local landscape—the unique issues and challenges our agencies face in Alaska. Strategies for meeting these challenges are also presented that will enable NOAA Fisheries to achieve its strategic goals.

Alaska produces more than half the fish caught in U.S. coastal waters, with an average first wholesale value of nearly \$4.5 billion a year. Alaska's fisheries are among the best-managed, most sustainable in the world. Alaska resources provide jobs and a stable food supply for the nation, while supporting a traditional way of life for Alaska Native and local fishing communities.

Work by our agency to monitor, manage, and conserve marine fish, crab, mammals, and ecosystems is critical to ensuring that federal mandates are met under the Magnuson-Stevens Fishery Conservation and Management Act, the U.S. Endangered Species Act, and the Marine Mammal Protection Act.

Alaska faces new challenges—large-scale ecosystem changes due to high ocean temperatures and rapid loss of sea ice with the continued influence of climate change. In these uncertain times, it will be increasingly difficult to balance competing uses of marine resources and different social, cultural, and economic goals for sustainable resource management, including protection of the long-term health of the ecosystem and optimization of fisheries yield. Through our strong partnership, NOAA Fisheries and the Council are well positioned to meet these challenges.



Jim Balsiger
Regional Administrator
Alaska Regional Office



Robert Foy, Ph.D.
Director
Alaska Fisheries Science Center

Mission and Mandates

NOAA Fisheries is responsible for the stewardship of the nation's ocean resources and their habitat. We provide vital services for the nation, which ensure: productive and sustainable fisheries, safe sources of seafood, the recovery and conservation of protected resources, and healthy ecosystems—all backed by sound science and an ecosystem-based approach to management.

Alaska's fisheries are among the best-managed, most sustainable in the world. Alaska produces more than half the fish caught in U.S. coastal waters, with an average first wholesale value of nearly \$4.5 billion a year. The U.S. science-based fishery management process, as mandated by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and other legislation, is designed to provide optimum yield while preventing overfishing and taking into account the protection of habitat and marine ecosystems.

We partner to achieve our mission. Our partners include other NOAA line offices; the North Pacific Fishery Management Council; Alaska Native tribal entities; commercial, recreational, and subsistence fishing stakeholders; academia; the Pacific States Marine Fisheries Commission; other federal agencies; state agencies; national and regional aquaculture associations; non-governmental organizations; and many others.

This strategic plan has been developed in close coordination with the North Pacific Fishery Management Council. The overarching geographic mission of the Alaska Regional Office, the Alaska Fisheries Science Center, and the North Pacific Council is to support and implement science-based stewardship and management of living marine resources and their habitats in the coastal oceans of Alaska and in the communities that rely on those resources. The North Pacific Council develops management plans and takes measures to ensure the sustainable management of marine resources in Alaska through a participatory and transparent public process. The Alaska Regional Office supports the management of marine resources in federal waters off Alaska within the U.S. Exclusive Economic Zone (EEZ: 3–200 miles offshore) through a number of statutory authorities; with the principal statutes being the MSA, the Endangered Species Act (ESA), and the Marine Mammal Protection Act (MMPA). The Alaska Fisheries Science Center conducts essential research to support sustainable resource management required under federal laws, providing critical and ongoing monitoring and data for stock assessments, and other science products.

Strategic Goals

Reflecting the vision of the Department of Commerce and NOAA to *Help the American Economy Grow*, NOAA Fisheries' three Strategic Goals for 2020–2023 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.

We have further refined these goals for the Alaska Geographic Strategic Plan as follows:

- Ensure healthy, sustainable fisheries and mariculture over the long term with ecological, economic, and socio-cultural benefits for the nation.
- Support the socio-economic well-being 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.
- Provide scientific data, analyses, and expert technical advice to marine resource managers, the State of Alaska, the International Pacific Halibut Commission, the Pacific Salmon Commission, Alaska tribal governments, public stakeholders, and U.S. representatives participating in international fishery and marine mammal negotiations.

Regional Fishery Management Councils

The Magnuson-Stevens Fishery Conservation and Management Act created eight regional fishery management councils. These councils are responsible for fisheries requiring conservation and management in their region. Voting and non-voting council members, supported by NOAA Fisheries, represent the commercial and recreational fishing sectors and environmental, academic, and government interests.

Under the MSA, councils are required to:

- Develop fishery management plans and recommend regulations to NMFS.
- Convene committees and advisory panels and conduct public meetings.
- Develop research priorities in conjunction with a Scientific and Statistical Committee.
- Select fishery management options.
- Recommend to NMFS annual catch limits based on best available science.
- Establish rebuilding plans.

The Alaska Regional Office and Science Center work closely with the North Pacific Fishery Management Council. The council develops management measures for U.S. fisheries in the U.S. EEZ off the coast of Alaska. The Council is a decision-making body consisting of 11 voting members and four non-voting members. Advisory bodies of the North Pacific Fishery Management Council include a stakeholder Advisory Panel, a Scientific and Statistical Committee, Plan Teams, and other interest-based committees. The North Pacific Fishery Management Council also receives reviews and recommendations from other scientific experts, and members of the public have an opportunity to provide testimony at any Council or advisory body meeting.

Learn more about the Regional Fishery Management Councils.

<https://www.fisheries.noaa.gov/topic/partners#regional-fishery-management-councils>

Organizations

Alaska Regional Office

The Alaska Region, headquartered in Juneau, works closely with the North Pacific Fishery Management Council to ensure sustainable fishery harvest levels, establish conservation measures, and allocate resources among often competing user groups. The Alaska Region also supports the work of international management bodies focused on a variety of species and ecosystems. Fishery management and conservation of marine mammals and habitat is supported by a robust scientific enterprise led by the Alaska Fisheries Science Center. The Alaska Region has approximately 100 full-time employees organized around three programmatic divisions, two support divisions, and one independent program, and has offices in Anchorage, Kodiak, and Dutch Harbor.

- **Office of the Regional Administrator** The Alaska Regional Administrator's Office provides the leadership, strategic direction, and programmatic oversight for all activities and functions of the Alaska Region. The office includes the Deputy Regional Administrator, Public Affairs, and Marine Aquaculture, as well as the Restricted Access Management Program Office.
- **Operations and Management Division** The Operations and Management Division provides support functions including: budget formulation and execution, oversight of external grant programs, procurement and contract management, human resource management, personal property and facilities management, and cost recovery management.
- **Information Services Division** The Information Services Division support includes information technology resources, applications development, and records management.
- **Sustainable Fisheries Division** The Sustainable Fisheries Division is responsible for establishing policies and implementing regulations under MSA to ensure the long-term sustainability of the fishery resources. The Division partners with the North Pacific Fishery Management Council, the State of Alaska (State), the International Pacific Halibut Commission, and other Federal agencies and international entities to develop policies for fishery resources off Alaska.
- **Protected Resources Division** The Protected Resources Division is responsible for implementing marine mammal conservation and recovery programs under the MMPA and the ESA in close coordination with the State of Alaska and other partners.
- **Habitat Conservation Division** The Habitat Conservation Division of the Alaska Region carries out NOAA Fisheries' statutory responsibilities for habitat conservation in Alaska under the MSA, Fish and Wildlife Coordination Act, National Environmental Policy Act, Federal Power Act, and other laws.

Alaska Fisheries Science Center

The Alaska Fisheries Science Center has 315 employees and 10 research facilities that support scientists responsible for implementing the NOAA Fisheries mission in the Gulf of Alaska, Bering Sea, Aleutian Islands, Chukchi Sea, and Beaufort Sea. The Alaska Fisheries Science Center is organized into five divisions:

- **Auke Bay Laboratories Division** Housed at the Ted Stevens Marine Research Institute, in Juneau, this division consists of four main programs that conduct stock assessment and scientific research throughout Alaska on commercially marketable species and on marine ecosystems.
- **Fisheries Monitoring and Analysis Division** This division monitors ground-fish fishing activities in the U.S. EEZ off Alaska and is responsible for training, briefing, debriefing, and overseeing observers who collect catch data onboard fishing vessels and at onshore processing plants, and for quality control/quality assurance of observer data. Associated research includes development and implementation of electronic monitoring technologies.
- **Marine Mammal Laboratory Division** This division conducts research on whales, seals, sea lions, and porpoises off the coast of Alaska, Washington, Oregon, and California. The division collects data on marine mammal behavior, population dynamics, life history, migration patterns, distribution, and trends in abundance.
- **Resource Ecology and Fisheries Management Division** This division collects and analyzes data for stock assessments to support management of Northeast Pacific and eastern Bering Sea fish and crab resources. Stock assessments are developed annually and used to set catch quotas. Division scientists also evaluate how fish stocks and user groups might be affected by fisheries management actions.
- **Resource Assessment and Conservation Engineering Division** This division conducts fishery surveys and oceanographic research to measure the distribution and abundance of commercially important fish and crab stocks in Alaska. Additional work includes research to help reduce bycatch and collaboration with other divisions to predict recruitment and increase our understanding of ecosystem processes that affect fish populations.



In addition to land-based research facilities, the Alaska Fisheries Science Center utilizes multiple types of observation platforms:

Facilities

- NOAA Western Regional Center; Sand Point, WA
- Ted Stevens Marine Research Institute; Juneau, AK
- Kodiak Laboratory; Kodiak, AK
- Newport Laboratory; Newport, OR
- Anchorage Field Office; Anchorage, AK
- Dutch Harbor Field Office; Dutch Harbor, AK
- Auke Creek Weir; Juneau, AK
- Juneau Subport Dock; Juneau, AK
- Little Port Walter Field Station; Juneau, AK
- Pribilof Islands Research Facility; St. Paul, AK

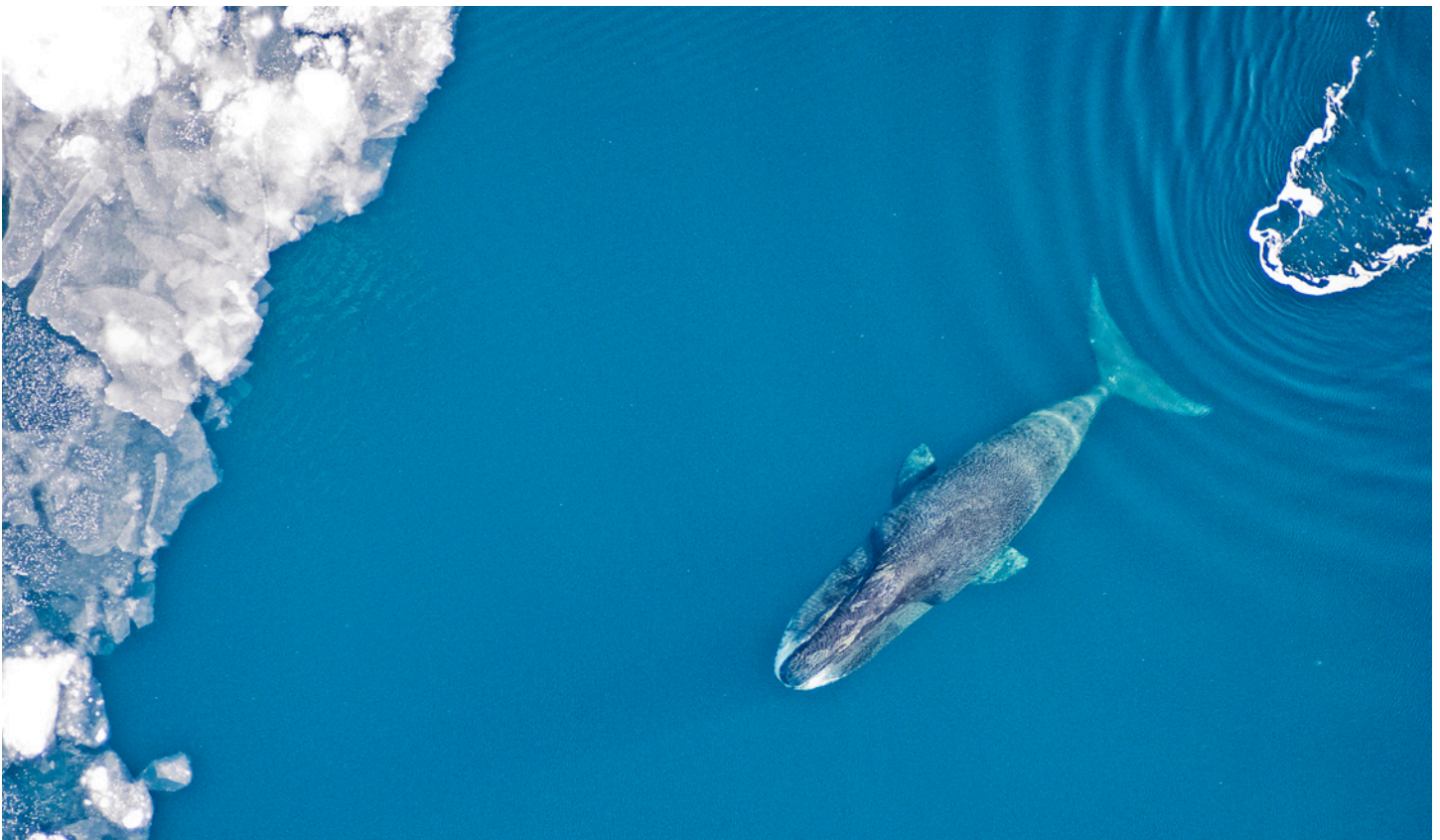
Available Observation Platforms

- NOAA Ship Oscar Dyson - 230 days at sea annually
- Charter vessels - 700 days at sea annually
- NOAA and Charter aircraft - 1,200 hours annually
- Observed (observer) days at sea - 40,512 (does not include electronic monitoring)

The Local Landscape

The U.S. EEZ off Alaska comprises nearly 1.5 million square nautical miles and includes sub-Arctic waters in the Gulf of Alaska and south of the Aleutian Islands and Arctic waters north of the Aleutian Islands, eastern Bering Sea, Chukchi Sea, and Beaufort Sea. The geographic regions of Alaska are commonly divided into five Large Marine Ecosystems (LMEs): Gulf of Alaska; Aleutian Islands; eastern Bering Sea; northern Bering-Chukchi Sea; and Beaufort Sea. Together, these waters support some of the most important commercial fisheries in the world, and they are home to both the largest and some of the most critically endangered marine mammal populations in the nation. There are numerous operational challenges in carrying out the Center's core mission due to the large geographic size and remoteness of Alaska. Not having adequate resources to monitor, assess, and manage marine resources over such an incredibly large area is an important risk factor.

Alaska has 33,904 miles of coastline that stretches through three of the region's LMEs. The Gulf of Alaska is a 1,500-mile semi-enclosed basin in the North Pacific Ocean distinguished by its rugged bathymetry and complex oceanographic features. The eastern Bering Sea supports some of the largest and most valuable commercial fisheries in the world. The eastern Bering Sea is divided into four domains according to depth: the inner, middle, and outer shelf domains and the deeper basin. The Arctic waters surrounding Alaska are typically covered with sea ice during winter and early spring. The Chukchi Sea is relatively shallow with an average depth of less than 200 feet and the Beaufort Sea has a narrow continental shelf extending only 30 to 65 miles offshore.



Abundant marine mammal and fish resources are essential to the nourishment, survival, and way of life of Alaska Natives who have inhabited the region for millennia. The influence of rising ocean temperatures on the health of marine mammals and productivity of commercial fisheries, the balancing of competing uses of marine resources for different social and economic goals, and reducing bycatch are among the most challenging issues facing Alaska.

The ecosystems in the North Pacific and Arctic are changing rapidly due to the effects of climate change on temporal patterns of environmental conditions in the region, making it difficult to assess the associated impact on the vital rates, production, and resilience of marine organisms. Shifts in ecosystem dynamics are resulting from changes in species distributions, ecosystem productivity, and food-web structure. Balancing competing uses of marine resources and different social, cultural, and economic goals for sustainable fishery management—including protection of the long-term health of the ecosystem and the optimization of yield from its fish resources—are a formidable task for this agency.

Ocean temperatures have increased and this warming trend is expected to steadily continue into the future. The largest rise in temperature is expected in Arctic waters. Some commercially important fish stocks are responding by shifting their distribution northward as temperatures in the Gulf of Alaska and Bering Sea warm. A shift in distribution following a change in environmental conditions typically experienced by a species can affect life history patterns, alter behavior, and change vital rates. Routine surveys are needed to track these changes and assess subsequent impacts on regional fisheries. Loss of sea ice due to warming can affect sea ice shelf habitat used by marine mammals for rest between foraging bouts. Coastal communities in the Arctic are vulnerable given their reliance on these animals. There is concern regarding the resilience of these communities in the face of uncertain ecosystem status in the future. In addition, the future corrosive effects of ocean acidification are likely to be more extreme in Alaska waters relative to other regions because of colder ocean temperature, circulation patterns, and large changes in production expected in previously ice-covered regions.

Adequately observing changes in the marine systems, assessing changes in commercially and ecologically important stocks, and delivering scientific advice to the North Pacific Fishery Management Council in a timely manner so it can equitably allocate harvest opportunities over a diverse group of stakeholders pose challenges due to the larger number of LMEs in Alaska. The vast geographical area of Alaska requires a substantial investment in personnel and infrastructure to conduct the science needed for sustainable resource management. A failure to adequately support operations and fully staff the organization would put at risk the most prolific fishing grounds in the world, as well as the communities that rely on living marine resources in Alaska's waters. The geographic isolation of Alaska from the rest of the nation also contributes to high operational costs.

Some of the *Issues we face:*

- Understanding the resiliency and adaptive capacity of marine systems under changing environmental conditions.
- Studying changing ocean conditions and coastal habitat affecting distribution, productivity, and sustainable harvest of fish, crab, and marine mammals.
- Monitoring loss of sea ice and assessing the resulting effects it has on marine ecosystems and Arctic communities with a focus on marine mammals.

- Identifying, describing, and assessing essential fish habitat change and providing this information to the North Pacific Fishery Management Council.
- Modeling changes in the behavior, production, and health of commercially important fish stocks and marine mammals in response to changing environmental conditions, climate, and management actions.
- Understanding the effects of ocean acidification on marine species and ecosystems.
- Providing high-quality data and samples from groundfish and halibut commercial fishery catches.
- Conducting research associated with estimation of catch and bycatch mortality and analysis of fishery-dependent data.
- Reducing or eliminating bycatch through conservation engineering and cooperative research, particularly for species that interfere with harvesters' ability to sustainably maximize yield of targeted fish and crab populations.
- Increasing awareness of aquaculture and the potential for expanded aquaculture opportunities in Alaska. Despite recent momentum in the industry, there is still a general lack of understanding of the existence and potential of Alaska aquaculture.

Some of the Challenges Alaska must address:

- Coordination and communication with coastal communities, tribes, and other stakeholders.
- Maintaining an adequate level of population assessment surveys for marine resource management.
- Meeting the increased needs for assessment data and modeling capabilities to support optimal catch levels with current staffing.
- Expanding upon partnerships with non-governmental organizations, industry, academia, and state agencies.
- Restoring and sustaining ecosystem and process research.
- Reducing bycatch of non-target species while supporting commercial and recreational fisheries.
- Developing management strategies that account for and incorporate climate change impacts and offer alternative scenarios.
- Timely detection and reporting of shifts in ecosystem dynamics and resulting changes in the productivity of commercially important stocks.
- Identifying reference biomass levels under changing baselines control rules and predator-prey relationships.
- Fully utilizing new technology and artificial intelligence to reduce operational costs, improve detection, and improve quality of data streams.
- Streamlining permitting for aquaculture operations and removing industry production constraints and bottlenecks through advancing aquaculture science.



Some of the *Risks* we foresee:

- Inability to provide core stock assessment surveys and research products due to reduced funding and cost inflation.
- Inadequate ship time to assess the rapidly changing state of LMEs and assess the impact on commercial fisheries to successfully complete our mission.
- Inadequate staffing to conduct stock assessment surveys and other mission-critical activities.
- Inadequate number of staff with expertise in the field of genetics to fully utilize increasingly more sophisticated tools to understand complex processes in the marine environment.
- Insufficient opportunities for scientists and resource managers to interact with fishermen, other stakeholders, and coastal community members to share knowledge and better incorporate local and traditional knowledge in management.
- Continuing rapid decline in sea ice driving shifts in commercially fished species northward into areas controlled by other countries (e.g., Russia).



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

The North Pacific Fishery Management Council, Alaska Regional Office, and Alaska Fisheries Science Center work collectively to amplify the value of sustainable commercial and recreational fisheries, which provide jobs, create strong local economies, support coastal resiliency, and ensure food security for the nation. The geographic region of Alaska strives toward a system of participatory management by including representatives and stakeholders from commercial, subsistence, and recreational fishing sectors. In order to accomplish this core goal, the Alaska Regional Office relies on the work of the North Pacific Council to ensure sustainable harvest levels, establish conservation measures, and allocate resources among often competing user groups. Fishery management, along with the conservation of marine mammals and habitat, is supported by a robust scientific enterprise led by the Alaska Fisheries Science Center. It is within this governance and scientific framework that the geographic region of Alaska executes its stewardship mission.

Key Strategies

1.1 Manage stocks for optimum yield

- Conduct assessment surveys and provide stock assessment and fishery evaluation reports to the North Pacific Fishery Management Council and consistently engage with and contribute to the Council process. (Science Center)
- Implement statutory authorities, including the MSA and other federal statutes. (Regional Office)
- Efficiently prepare regulations and submit them in a timely fashion in accordance with current NOAA Fisheries guidance and requirements outlined in the MSA and other applicable law. (Regional Office)
- Investigate and employ options that advance flexibility and reduce rulemaking burdens — build on the recommendations from our 2012 Sustainable Fisheries Regulatory Process Improvement Workshop. (Regional Office)
- Coordinate the issuance of fishery permits, licenses, and quota under catch share programs and other limited access systems. (Regional Office)
- Maintain and enhance our coordinated management of crab, groundfish, scallop, and salmon stocks with the State of Alaska. (Regional Office, Council)
- Undertake fishery management actions necessary to open and close fisheries to maximize harvests while ensuring annual catch limits and overfishing levels are not exceeded. (Regional Office)

1.2 Increase U.S. marine aquaculture production

- Support cutting-edge research to develop and implement aquaculture and mariculture strategies that support the economies of coastal communities while being responsible, safe, and sustainable. (Science Center)
- Develop and operate an Alaska Region Aquaculture Team. (Center and Region)
- Create regulatory efficiencies for marine aquaculture projects to improve both Essential Fish Habitat and Endangered Species Act consultation timelines while ensuring species and habitat conservation. (Regional Office)
- Develop best management practices (BMPs) for marine aquaculture. (Center and Region)
- Contribute to the development of mapping tools for aquaculture siting. (Region)
- Promote Alaska aquaculture through outreach efforts. (Center and Region)

1.3 Adequately assess all prioritized stocks and maintain information for currently assessed stocks

- Prioritize our core fishery-independent stock assessment surveys. (Science Center)
- Ensure coordination with the Alaska Fisheries Science Center, Alaska Region, North Pacific Council, International Pacific Halibut Commission, and Alaska Department of Fish and Game to develop research and data collection that supports and informs upcoming policy decisions and management needs. (Science Center, Regional Office, Council)
- Coordinate with our partners to ensure the timely and effective implementation of fishery monitoring through the North Pacific Groundfish and Halibut Observer Program. (Regional Office)

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

- Coordinate and support the implementation of electronic reporting and electronic monitoring/artificial intelligence technologies to improve accuracy, timeliness, and the cost-effectiveness (where applicable) of data collection for stock assessments and reporting. (Regional Office, Science Center)
- Maintain and enhance the use of shore-based catch monitoring control plans, at-sea scales, video monitoring, and other electronic reporting methods to ensure accurate and complete fishery monitoring. (Regional Office)
- Maintain and enhance methods to account for and estimate catch from a wide range of data sources. (Regional Office, Science Center)
- Maintain the Interagency Electronic Reporting System through the continued partnership with the State of Alaska, International Pacific Halibut Commission, and the Pacific States Marine Fisheries Commission. (Regional Office)
- Collectively engage with partners about our data and methods to more accurately assess the ecological, social, and economic performance of fisheries and fishing communities. (Regional Office, Science Center, Council)
- Coordinate the ranking of research activities to prioritize research and monitoring. (Regional Office, Science Center, Council)

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

- Build next-generation analytical tools using biophysical and oceanographic information to predict when and where IUU fishing is likely to occur. (Science Center)
- Provide information and support to the NOAA Office of Law Enforcement, U.S. Coast Guard, and NOAA General Counsel to ensure the effective enforcement of fishery management regulations. (Regional Office)

1.6 Promote Ecosystem-Based Fishery Management

- Provide ecosystem indicator data to stock assessment scientists and the North Pacific Council to improve population dynamics models, allow for more informed management decisions, and provide mechanistic explanations for observed changes in stock abundance. (Science Center)
- Conduct Integrated Ecosystem Assessments. (Science Center)
- Participate on North Pacific Council Ecosystem Committee in conjunction with external partners. (Science Center, Regional Office)
- Implement the Aleutian Islands Fishery Ecosystem Plan and Bering Sea Fishery Ecosystem Plan and develop plans for other LMEs. (Regional Office, Council, Science Center)
- Lead the Deep Sea Coral Initiative in Alaska during FY 2020–2023. (Science Center)
- Incorporate local and traditional knowledge from fishermen, other stakeholders, and coastal community members into management and science. (Regional Office, Council, Science Center)

Key Indicators

- Fish Stock Sustainability Index (FSSI).
- Number of domestic stocks for which annual catch does not exceed the annual catch limit.
- Number of adequate assessments for fish stocks.
- Trend in U.S. marine aquaculture production (% increase in pounds over previous year).

Strategic Goal 2: Conserve and recover protected species while supporting responsible fishing and resource development

Protected species in Alaska under NOAA Fisheries' jurisdiction include whales, Steller sea lions, northern fur seals, ice seals, and harbor seals. These species may be impacted by fishing activities through competition for prey, direct mortality, and disturbance. Efforts are made to limit these impacts through fishery management measures such as closed areas and limitations on harvest of prey species. NOAA Fisheries conducts consultations under Section 7 of the ESA to ensure that management actions are not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat.

NOAA Fisheries also collects data on the bycatch of marine mammals and certain species of particular cultural and economic importance whose retention is prohibited in groundfish fisheries. These species include: Chinook salmon, chum salmon, crab, and Pacific halibut. These prohibited species cannot be sold or retained onboard the vessel, and their interception must be avoided. Trained observers monitor bycatch onboard groundfish and halibut fishing vessels. Bycatch is also monitored with electronic monitoring devices and reported in fisheries and catch landing reports. The North Pacific Fishery Management Council uses monitoring data to develop prohibited species catch limits and other management constraints in many groundfish fisheries, and the fisheries are closed when bycatch is excessive.

Conservation engineering approaches are used to design fishing gear that lowers the rate of bycatch. Mathematical modeling is used to evaluate alternative approaches to bycatch reduction and provided to the North Pacific Council to facilitate the process for fishery management plan amendments. Coordination across entities minimizes the effects of proposed actions on marine mammals and other protected species, such as ESA-listed salmon.

NOAA Fisheries also studies the ecology, behavior, life history, and population trends of whales, seals, porpoises, and sea lions using innovative technologies to better understand the health and status of these populations and ensure their protection under the MMPA and ESA. NOAA Fisheries' Species in the Spotlight program is a way to bring more resources and attention to a species that is at high risk: Cook Inlet beluga whales. The Alaska Fisheries Science Center's current assessments of marine mammals are using advanced technology to innovate new methods that can more accurately and cost effectively assess marine mammal stocks.

Key Strategies

2.1 Stabilize highest priority protected species

- Improve our understanding of the consequences of climate change, loss of sea ice, and ocean acidification on fishery resources through a combination of process studies, lab experiments, and ecosystem modeling. Provide information to the North Pacific Fishery Management Council to inform the development of fishery management measures that are adaptive to environmental change. (Science Center)
- Increase efforts to understand the threats faced by Cook Inlet beluga whales through NOAA's Species in the Spotlight Program. (Science Center, Regional Office)
- Increase efforts to understand the occurrence and threats faced by North Pacific right whales. (Science Center, Regional Office)
- Work with the Alaska Department of Fish and Game and tribal governments to promote recovery of threatened and endangered species via ESA species recovery grants. (Regional Office)
- Promote monitoring and conservation to assess the status of marine species and address substantial threats before species are likely to need protection under the ESA. (Regional Office, Council)
- Coordinate the Alaska Marine Mammal Stranding Network to respond to marine mammals entangled in fishing gear or marine debris, assist marine mammals that strand alive, and collect biological samples from stranded marine mammal carcasses to monitor for disease, contaminants, and human interactions and assess the cause of death. (Regional Office)
- Work with the tourism industry, private boaters, and others to promote adherence to marine mammal viewing guidelines and regulations and minimize harassment of marine mammals. (Regional Office)
- Assist NOAA Fisheries' Office of Law Enforcement with investigations into potential marine mammal harassment or other violations of the MMPA and ESA. (Regional Office, Science Center)
- Work with industry and academic partners on fish and shellfish rehabilitation and enhancement efforts (e.g., salmon, blue king crab, pinto abalone). (Science Center, Regional Office)



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

- Ensure that ESA section 7 formal and informal consultations are carried out efficiently and effectively and based upon the best available scientific information. (Regional Office)
- Identify data gaps and pursue mechanisms for programmatic consultation to improve consultation efficiencies while conserving species and critical habitat. (Regional Office, Science Center)

2.3 Minimize bycatch and entanglement of protected species while supporting fisheries

- Work with the North Pacific Fishery Management Council, State of Alaska, and other stakeholders to assess and minimize interactions between commercial fisheries and threatened and endangered species. (Regional Office, Council)
- Develop biological assessments and other tools necessary to assess the impacts of fishery management actions on threatened and endangered species. (Regional Office, Science Center)
- Designate critical habitat for threatened and endangered species and update the designations as needed over time to focus conservation efforts on the most important areas. (Regional Office)

2.4 Address the challenge of balancing management for protected species with other uses

- Consult with Alaska Native tribal governments and organizations on fishery management actions. (Regional Office, Council)
- Engage the public through outreach events to inform on current and future monitoring activities and recent scientific findings. (Science Center)
- Work with state and federal agency regulators, industry representatives, and researchers to develop best management practices for aquatic farm siting, construction methods, and operations. Make the permitting process easier and more transparent by providing a list of requirements for compliance with state and federal wildlife conservation regulations. (Regional Office)

Key Indicators

- Number of protected species designated as threatened, endangered, or depleted with stable or increasing population levels.
- Number and percentage of recovery actions ongoing or completed.
- Percentage of protected species with adequate assessments.
- Average number of days to complete consultations, permits, and authorizations.

Strategic Goal 3: Improve organizational excellence and regulatory efficiency

One of the Alaska Fisheries Science Center's primary research themes is to support management by providing core research products used in annual management decisions. We achieve this by striving to 1) maintain the current assessment tier of fish, crab, and marine mammal stocks and 2) support NOAA Fisheries and the North Pacific Fishery Management Council analyses and international obligations. Frequent communication, robust strategic planning, and a mature annual Activity Plan Prioritization process—each of which takes into account the priorities of the North Pacific Council's and the Alaska Regional Office—are the key elements that enable coordinated, unified, and effective marine stewardship in Alaska.

Center and Region leadership meet regularly. The Center Director participates in the weekly Region leadership meeting, and the respective leadership teams have joint planning meetings. The purpose of these meetings is to provide opportunities for communication, understand the challenges facing our organizations, align priorities on short and longer time scales, and partner on common interests. Current discussions include identifying areas where the Center should consider expanding its research portfolio to address Region priorities; developing a regional leadership program; implementing programs and strategies to increase diversity in the NOAA Fisheries Alaska workforce, particularly to include Alaska Natives; identifying process improvements that can further improve Region and Center communication and coordination; and developing an annual joint Center-Region spending plan for marine mammals.



Center staff develop annual activity plans based on the Center's strategic science plan, an annual priorities document, and the North Pacific Council's highest priorities. They represent the body of work the Alaska Fisheries Science Center will strive to complete each year. Science Center leadership rank activity plans using established criteria. For example, a premium is placed on whether the result of a proposed activity will be used directly in management. Leadership also give greater weight to activities that would have the greatest impact on stakeholders if they are not conducted. Alaska Region leadership also ranks the Center activity plans. Both organizations discuss any significant differences in ranking. The goal is to promote mutual understanding and to evaluate what mix of funded activities, based on available resources, best achieves the annual priorities. The final activity plan ranking then drives annual Center funding decisions.

The Region, especially staff and leadership of the Sustainable Fisheries Division, also meets regularly with the North Pacific Council staff to ensure that requisite information is available to the Council for consideration and decision-making, and that the regulations flowing from the Council's recommendations are prepared and implemented in a timely and consistent manner. In 2012, the Council and Regional Office leadership held a joint planning workshop to develop recommendations to improve the fisheries management regulatory process, and Council and Regional Office staff have since met periodically to discuss and improve upon procedures and opportunities for more effective collaboration and coordination.

The development and implementation of this plan provides an opportunity for the Center, Region, and Council to continue to coordinate. It also provides an opportunity to identify where additional investments are warranted to strengthen these relationships, research priorities, and management frameworks while leveraging expertise and complementary capabilities and assets.

In FY 2020 the Alaska Region adopted the national-level strategic resource management process, which is similar to the resource prioritization process used for the past decade to allocate funding to highest valued programmatic activities. The current Activity Plan Prioritization (APP) process begins prior to the start of the federal fiscal year and concludes soon after enactment of congressional appropriations supporting NOAA Fisheries. The Region's APP is developed based on a variety of priority drivers and guided by agency strategic plans and the annual NOAA Fisheries Priorities document. All anticipated annual funding support is aligned with the Region's programmatic priorities through a scoring and ranking process. Scoring criteria include the degree to which the funding request is consistent with national strategic plans, the degree to which the proposed activity is required by statute or judicial orders, and the rate of return on investment. This deliberative process ensures the Region annually evaluates the benefits and risks of individual program investments and supports only the highest valued priorities.

Key Strategies

3.1 Match a diverse workforce to mission needs

- Strategically recruit and retain talented staff in Alaska. (Regional Office, Science Center, Council)
- Develop a STEM program and pursue other avenues to successfully recruit from Alaska Native communities and increase diversity in NOAA Fisheries Alaska in general. (Science Center)
- Foster a workplace culture that values diversity and inclusion, including robust training for supervisors and staff, and pursue development of a Regional leadership development program. (Regional Office, Science Center, Council)
- Implement hiring best practices that minimize unconscious bias and ensure objective evaluation throughout the hiring process. (Regional Office, Science Center)

3.2 Recapitalize infrastructure and facilities

- Engage in facilities planning to evaluate the contribution of these assets to mission priorities; participate in NOAA Fisheries and NOAA-level facilities portfolio reviews. (Science Center)
- Prioritize funding for facilities assets to address facility condition assessments and address deferred maintenance and sustainment needs. (Science Center)
- Assess and seek to address gaps in vessel and aircraft infrastructure needs with OMAO. (Science Center)
- Maintain robust IT security practices and plan strategically for future needs in high-performance computing, data storage, data science, and related IT infrastructure. (Science Center, Regional Office)

3.3 Institutionalize prioritization and performance management practices

- Continue to implement and refine a priority-based resourcing process, including consideration of the Council's and Region's priorities and subsequent discussion of funding priorities. (Science Center)
- Convene regular Center, Region, and Council discussions to align planned priorities and to evaluate whether expectations are being met. (Science Center, Regional Office, Council)
- Expand communication and coordination between the Council, Science Center, and Regional Office. (Science Center, Regional Office, Council)

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

- Continue to review regulations through the participatory Council process, and identify, remove, and modify them as appropriate. (Council, Regional Office)

3.5 Institutionalize the use of innovative technologies and effectively communicate research activities and results

- Use annual prioritization processes, strategic planning, and temporary funding opportunities such as Regional Work Plan projects to develop novel approaches to management challenges (e.g., upward looking sonar to assess transboundary pollock movement). (Science Center)
- Operationalize rapid fish age estimation for key Alaska stocks using Fourier-Transform Near-Infrared Spectroscopy. (Science Center)

- Continue to advance implementation and development of electronic monitoring through the use of machine learning and artificial intelligence. (Science Center)
- Maintain the Science Center's Habitat and Ecosystem Process Research Program to identify and implement collaborative, innovative analytical and technological approaches to delineating essential fish habitat, understanding the impact of loss of sea ice, and improving stock assessment methods. (Science Center)
- Enhance understanding of and build support for the research and management mission through coordinated and strategic communications efforts including targeted education and outreach, and distribution of educational materials through the web, traditional media, and social media platforms. (Science Center, Regional Office, Council)

Key Indicators

- Geographic scores on the Federal Employee Viewpoint Survey Key Indices.
- Geographic contribution to agency performance measures.
- Percentage of priority planned accomplishments completed.
- Percentage of facility condition assessments completed.
- An increase in the diversity of students in internship programs and in the workforce at all band levels.
- Number of stakeholders, Congressional staff, and members of the public reached through outreach and communications.



U.S. Secretary of Commerce

Wilbur Ross

Acting Under Secretary of Commerce
for Oceans and Atmosphere

Neil Jacobs, Ph.D.

Assistant Administrator for Fisheries

Chris Oliver

March 2020

www.fisheries.noaa.gov

OFFICIAL BUSINESS

**National Marine
Fisheries Service**

1315 East West Highway
Silver Spring, Maryland 20910