

Alaska Geographic Strategic Plan 2024–2027



NOAA
FISHERIES



Above: A humpback whale breaches in front of a commercial whale watching tour cruise in Kenai Fjords National Park near Seward, Alaska. Credit: Adobe Stock/Dominic Gentilcore. Cover: Unalaska's Port of Dutch Harbor, Alaska, has been the nation's top fishing port by volume of seafood landed for more than 20 years. Credit: NOAA Fisheries.

Joint Letter from Science Center Director and Regional Administrator

The NOAA Fisheries Alaska Geographic Strategic Plan covers FY 2024–2027. It aligns with the NOAA Fisheries National Strategic Plan and the Department of Commerce Strategic Plan, as well as the [Alaska Regional Office 2022-2027 Strategic Plan](#) and the [Alaska Fisheries Science Center Strategic Plan FY2023-FY2027](#). 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 off Alaska.

The plan depicts a collaborative and practical approach to sustainably manage Alaska fisheries and marine resources. Monitoring, managing, and conserving marine fish, crab, mammals, and ecosystems is critical to meet federal mandates under the Magnuson-Stevens Fishery Conservation and Management Act, the Endangered Species Act, the Marine Mammal Protection Act, and other applicable laws. The plan presents an overview of NOAA Fisheries’ mission, mandates, and overarching strategic goals in Alaska. It provides some context about the local landscape—the unique issues and challenges we face in Alaska—and the strategies that will enable NOAA Fisheries to meet these challenges and achieve its strategic goals.

Alaska produces 60 percent of the seafood caught in U.S. waters, with an average first wholesale value of nearly \$7 billion a year. Alaska’s fisheries are among the best-managed and most sustainable in the world. Alaska marine resources provide jobs and a stable food supply for the nation, while supporting a traditional way of life for Alaska Indigenous and local fishing communities. The State of Alaska has the highest proportion of Indigenous residents in the United States. It is also the only U.S. state in the Arctic, where warming is increasing faster than any other place on the planet.

We face new challenges in Alaska, specifically large-scale ecosystem changes due to a rapidly changing climate with higher ocean temperatures and rapid loss of sea ice. The continued influence of climate change will have significant impacts on marine resources and the communities who depend on ecosystem services. 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. Through the strong partnership of NOAA Fisheries and the North Pacific Fishery Management Council—and together with state, academic, industry, community, and tribal partners—we are well positioned to meet these challenges.



Robert Foy, PhD
Director
Alaska Fisheries Science Center

Jon Kurland
Regional Administrator
Alaska Regional Office

Science, Service, and Stewardship

Vision

The potential of our ocean ecosystems is realized—using innovation and understanding of a changing world—for the benefit of the nation.

Mission

NOAA Fisheries is responsible for the stewardship of the nation’s living marine resources and their habitat. We provide vital services for the nation: sustainable and productive 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.

Organization

The [Alaska Fisheries Science Center](#) studies Alaska’s marine life to ensure the sustainable use of living marine resources in federal waters. Scientists monitor, survey, and model fish and marine mammal populations, which have supported Alaska Indigenous communities for centuries, and provided food, income, and recreational enjoyment for millions of people around the world. Fish and marine mammal science also requires researching their habitats and the relationships between predators and prey.

The Alaska Fisheries Science Center is headquartered in Seattle, Washington and has facilities in Juneau, Kodiak, Anchorage, Dutch Harbor, St. George and St. Paul in the Pribilof Islands, Alaska; and Newport, Oregon.

The [Alaska Regional Office](#) oversees sustainable fisheries, protected species, and habitat management off the coast of Alaska. Together with the North Pacific Fishery Management Council, the International Pacific Halibut Commission, the State of Alaska, and our tribal partners, we work to maximize fishing opportunities while ensuring the sustainability of fisheries and fishing communities in Alaska. We are also responsible for ensuring the conservation, survival, and recovery of marine mammals and other protected species, and conservation of habitat upon which these marine resources depend.

The Alaska Regional Office is headquartered in Juneau, Alaska and has facilities in Anchorage, Kodiak, and Dutch Harbor.



Alaska Regional Office and Alaska Fisheries Science Center locations.

Overview: Alaska Region

Local Landscape, Opportunities, and Challenges

Alaska's fisheries are among the best-managed and most sustainable in the world, producing 60 percent of the seafood caught in U.S. waters. The U.S. science-based fishery management process, as mandated by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), is designed to provide optimum yield while preventing overfishing and taking into account the protection of habitat, protected species, and marine ecosystems. We are mandated to protect and recover marine mammals and other species under the Endangered Species Act and Marine Mammal Protection Act. NOAA Fisheries Alaska has trust responsibility with Indigenous peoples who depend on marine resources for subsistence and cultural value. The State of Alaska makes the United States an Arctic nation, one of eight nations in the international body of the Arctic Council. With the Arctic warming faster than other parts of the planet, Alaska faces unique challenges. The impacts of a rapidly changing climate are acute in Alaska, resulting in species redistribution, affecting livelihoods and impacting food security, resilience of coastal communities, and the subsistence needs of Indigenous peoples throughout the region.

We partner to achieve our mission. Our partners include other NOAA Line Offices; the North Pacific Fishery Management Council; the State of Alaska; Alaska Native tribal entities and Alaska Native Organizations; commercial,

recreational, and subsistence fishing stakeholders; academia; the Pacific States Marine Fisheries Commission; the International Pacific Halibut Commission; other federal agencies; national and regional aquaculture associations; non-governmental organizations; and many others.

This strategic plan has been developed in coordination with the North Pacific Fishery Management Council. The Alaska Regional Office and the Alaska Fisheries Science Center, together with the Council, support and implement science-based stewardship and ecosystem-based management of living marine resources and their habitats in Alaska through a participatory and transparent public process.

The most important factor influencing NOAA Fisheries' success in Alaska is our people. We believe in empowering our staff and investing in human capital management: total worker wellness and ensuring our workforce is diverse, equitable, and inclusive, especially in regard to the Indigenous peoples of Alaska with whom we work closely.

The U.S. Exclusive Economic Zone (EEZ) off Alaska comprises 1.027 million square nautical miles and includes sub-Arctic waters in the Gulf of Alaska and south of the



The Alaska EEZ, shown in light blue, comprises 1.027 million square nautical miles.

Aleutian Islands and Arctic waters north of the Aleutian Islands, into the eastern Bering Sea, Chukchi Sea, and Beaufort Sea. The geographic regions of Alaska are commonly divided into five Large Marine Ecosystems (LMEs): the Gulf of Alaska; Aleutian Islands; eastern Bering Sea; northern Bering-Chukchi Sea; and the Beaufort Sea. Together, these waters support some of the most important commercial fisheries in the world. They are home to both the largest and some of the most critically endangered marine mammal populations in the nation. These waters, coasts, and interior lands are also home to five major groups of Indigenous Alaskans, who comprise 20 percent of the state's population. There are numerous operational challenges in carrying out the region's core missions due to the large geographic size and remoteness of Alaska. Securing adequate resources to monitor, assess, and manage marine resources and to adequately engage with Indigenous communities over such an incredibly large area is a significant challenge.

The Local Landscape

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. Divided into four domains according to depth (the inner, middle, and outer shelf domains and the deeper basin), the eastern Bering Sea supports some of the largest and most valuable commercial fisheries in the world. The Chukchi Sea is relatively shallow with an average depth of less than 200 feet, while the Beaufort Sea has a narrow continental shelf extending only 30 to 65 miles offshore.

The Arctic waters surrounding Alaska are typically covered with sea ice during winter and early spring. As climate change advances, the Arctic is currently warming at more than twice the rate of anywhere else on the planet ([Arctic Report Card 2022](#)). Such significant warming is driving rapid changes in sea ice thickness, and spatial and temporal distribution of ice, generating implications to our mission and affected communities throughout Alaska. Abundant marine mammal and fish resources—essential to the nourishment, survival, and way of life of Alaska Natives who have inhabited the region for millennia—are also impacted by warming oceans. Ecosystem changes present significant challenges to the health of marine mammals, the productivity of commercial fisheries, and the viability of coastal communities

due to the impacts of melting ice, rising ocean temperatures, coastal erosion, increased ocean acidification, harmful algal blooms, and other climate-driven impacts. A rapidly changing climate means we must also focus our research and management efforts in an increasingly challenging environmental and socio-political landscape.

As ocean temperatures increase, some commercially important fish stocks are responding by shifting their distribution northward away from the long-standing fishing grounds in the Gulf of Alaska and the eastern Bering Sea shelf. 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, marine mammal populations, and habitats. Loss of sea ice due to warming can affect sea ice shelf habitat used by marine mammals for rest between foraging bouts and affect ice-influenced prey communities upon which these mammals depend. In turn, coastal communities in the Arctic are vulnerable given their reliance on these subsistence species, challenging 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 Alaskan waters relative to other



Mabel Baldwin-Schaeffer is the Tribal Research Coordinator at NOAA’s Alaska Fisheries Science Center. Credit: Commercial fishermen Adem Boeckmann.

regions because of relatively 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 in a timely manner so it can equitably inform harvest opportunities over a diverse group of stakeholders are challenges due to the multiple and diverse 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. Enhanced engagement with Indigenous communities of Alaska is also a challenge and requires substantial resources. Our geographic extent and variability means that the needs of local and Indigenous communities vary greatly and the influences of the international arena

are felt more acutely. Moreover, the geographic isolation of Alaska from the rest of the nation also contributes to operational challenges and costs. Within this uniquely challenging arena, a failure to adequately support operations and fully staff the organization would put at risk some of the most prolific fishing grounds, marine habitats, and vulnerable species in the world, as well as the tribal and local coastal communities dependent on living marine resources in Alaska's waters.

Our successes depend on our workforce. Building a representative workforce presents both opportunities and challenges. Our workforce is not sufficiently diverse in a number of dimensions, including Indigenous people who call Alaska home. Attracting the next generation of professionals to jobs in Alaska can be both an inducement and a challenge. Enhancing our partnerships with academia will benefit our workforce recruitment and our research and management. This is especially critical as our work increasingly requires complex systems thinking to support ecosystem-based approaches to management. We will also benefit from enhancing our efforts to bring together Indigenous Knowledge with agency science and management.

Some of the *Issues* Alaska faces

- Climate change and ocean warming are already impacting living marine resources in Alaska.
- The recent collapse of the eastern Bering Sea snow crab fishery, the resulting economic impact, and the urgency to understand why the collapse occurred in order to inform stock recovery projections.
- The continued low abundance of Gulf of Alaska Pacific cod since the decline during the 2014-2016 marine heat wave.
- Unexpected large declines in commercial stocks, such as Bering Sea snow crab and Gulf of Alaska Pacific cod, underscore the importance of continuing to advance our stock assessment and ecosystem science.
- Balancing diverse stakeholder interests and understanding, such as with the intersection of salmon bycatch in groundfish fisheries and subsistence fisheries whereby ocean survival of Chinook and chum salmon has been significantly impacted by climate change, resulting in greatly reduced returns.
- Changing ocean conditions and habitats impacting the distribution, productivity, and sustainable harvest of fish, crab, and marine mammals.
- Continuing rapid decline in sea ice that is driving shifts in the distribution and abundance of many commercially fished species and marine mammals, especially of concern for shifts into areas beyond national jurisdiction.
- Northward shifts in commercially important groundfish means surveys need to extend northward to adequately survey stocks in U.S. waters and estimate fish movement into Russian waters, putting greater strain on resources.
- Management strategies will need to adapt in response to changes in the distribution and abundance of marine species as impacted by climate change.
- Changes in fisheries production due to climate-forced non-stationary processes will necessitate development of innovative tools for data collection and assessment.
- Incomplete understanding of the resiliency and adaptive capacity of marine systems under changing environmental conditions.
- Incomplete understanding of impacts to coastal communities and resource-dependent users in the face of changing ocean conditions.



Bering Sea snow crab. Credit: NOAA Fisheries



Arctic sea ice. Credit: NOAA Fisheries.

Some of the *Challenges* Alaska must address

The Alaska region operates across an enormous extent of ocean comprising five LMEs of substantial diversity, from the southern border with Canada to the Bering Straits between the United States and Russia, into the Arctic Ocean, and bordering the Central Arctic Ocean, an area beyond national jurisdiction. Much of Alaska is remote, which presents significant operational challenges, with weather extremes in areas and at times when surveys must be conducted. Alaska's multiple and diverse LMEs have very different oceanography, stakeholders, and accessibility,

presenting challenges in research and in management capacity.

- Meeting the increased needs for assessment data and modeling capabilities to support optimal catch levels.
- Maintaining an adequate level of fish and marine mammal population assessment surveys for marine resource management.
- 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 baseline control rules and predator-prey relationships.
- 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.
- Fully utilizing new technology and artificial intelligence to reduce operational costs, improve detection, and improve quality of data streams.
- Developing and promoting data innovation and IT support services that meet the needs of cutting-edge research and decision support.
- Developing management strategies that account for and incorporate climate change impacts and offer alternative scenarios.
- Conducting research associated with estimation of catch and

bycatch mortality and analysis of fishery-dependent data.

- Reducing bycatch through conservation engineering and cooperative research, particularly for species that limit harvesters' ability to sustainably maximize yield of targeted fish and crab populations.
- Reducing bycatch of non-target species while supporting commercial and recreational fisheries.
- Identifying, describing, and assessing essential fish habitat change and providing this information to the North Pacific Fishery Management Council, minimizing adverse effects on habitat productivity.
- Understanding the effects of ocean acidification on marine species and ecosystems.
- Increasing the awareness of aquaculture opportunities.
- Streamlining permitting for aquaculture operations and addressing industry production constraints through advancing aquaculture science.
- Enhancing coordination and communication with coastal communities, tribes, and other stakeholders.
- Including Indigenous Knowledge together with western science in understanding environmental change and in decision-making documents developing adaptive management strategies.
- Expanding upon partnerships with non-governmental organizations, industry, academia, and state agencies.

Some of the Risks Alaska foresees

- Process requirements that are not sufficiently adaptive to keep pace with ecosystem changes resulting from climate change.
- Inability to provide adequate core stock assessment surveys and research products due to insufficient staffing, reduced funding, and cost inflation.
- Inadequate ship time to assess the rapidly changing state of LMEs and assess the impact on commercial fisheries.
- Inadequate staffing to conduct stock assessment surveys, timely regulatory analyses, and other mission-critical activities.
- Inadequate incorporation of climate assessment and impacts to support resilience in a rapidly changing Arctic environment.
- Inadequate number of staff with expertise in the 'omics, AI, and UxS fields to fully utilize increasingly more sophisticated tools to understand complex processes in the marine environment.
- Increased data computing and IT support services.
- Limited capacity and opportunity for scientists and resource managers to interact with fishermen, other stakeholders, and tribal and coastal community members to share knowledge and better incorporate Indigenous Knowledge.
- Insufficient marine invasive species monitoring, response, and prevention, which could lead to devastating consequences from species such as the recently detected green crabs.



An invasive European green crab. Credit: NOAA Fisheries.

Top Geographic Priorities

NOAA Fisheries has sustained world-class fisheries, productive ecosystems, and resilient seafood communities. Among our highest priorities in the Alaska region are to support growth of the Blue Economy and realize the potential of America’s oceans and coasts. We strive to:

- Continue to produce cutting-edge scientific research and develop advanced technologies, such as UxS and ‘omics, in support of resource management and protected species conservation.
- Investigate, model, and predict ecosystem and climate impacts on living marine resources.
- Ensure high-quality and timely assessment of commercially important fish species and marine mammal stocks.
- Ensure adequate survey coverage while improving efficiency of fishery-dependent and fishery-independent data collection.
- Continue to reduce bycatch of salmon, halibut, and crabs.
- Support climate adaptation needs and resilience of coastal communities.
- Commit regional Inflation Reduction Act funds to support the Climate and Ecosystem Fisheries Initiative (CEFI), including additional staff resources.
- Increase regulatory efficiency in partnership with the North Pacific Fishery Management Council and through project prioritization, early staff engagement, proactive project



Glacier Point Oysters farm in Halibut Cove, AK. Credit: NOAA Fisheries.

- management techniques (e.g., goal setting, action planning, milestones), and seeking ways to streamline internal rule-making processes (e.g., replacing current project tracking software and facilitating concurrent review).
- Identify opportunities to support sustainable expansion of mariculture and the growth of the Blue Economy.
- Implement NOAA Fisheries Equity and Environmental Justice (EEJ) strategy by developing an EEJ Implementation Plan for Alaska with specific components focused on local

and Indigenous community needs.

- Enhance engagement with Indigenous tribes, organizations, and communities of Alaska in order to build trust and maintain good working relationships.
- Advance workforce diversity, inclusion, and equity, in particular in partnership with and in service to Indigenous communities of Alaska.
- Support total worker wellness for our staff, including personal and professional learning and growth opportunities.

Strategic Goal 1

Adaptively manage fisheries for sustainability and economic competitiveness

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 Fishery Management 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 Performance 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
- Number of tribal consultations
- Trend in U.S. marine aquaculture production (percent increase in pounds over previous year)



The Alaska pollock fishery is the largest commercial fishery in the U.S.
Credit: NOAA Fisheries.

Strategies

Manage stocks for optimum yield and build climate and economic resilience in U.S. seafood and fishing sectors

- Support the NOAA Fisheries National Seafood Strategy by promoting full utilization, reduced bycatch, reduced regulatory discards, and reduced economic discards.
- Conduct surveys at sufficient geographic scope and frequency

to support effective stock assessments.

- Conduct high utility and quality assessments that will directly contribute to the most effective assessment tier of fish and crab.
- Provide stock assessment and fishery evaluation reports to the North Pacific Fishery Management Council and consistently engage with

and contribute to the Council process.

- Support and maintain robust fishery monitoring that integrates observer and electronic monitoring data collections to meet quota management and stock assessment needs.
- Develop fishing gear and fishing methods that minimize bycatch while maximizing target catch.

- Support socioeconomic data monitoring and analyses of global fishery markets relative to Alaska fish stocks intended to inform management actions.
- Improve targeted socioeconomic data collection and analyses of the impacts on stakeholders of regulatory decisions to support long-term optimum yield principles in fisheries management.
- Implement statutory authorities, including the Magnuson-Stevens Fishery Conservation and Management Act (MSA) and other federal statutes.
- Prepare regulations efficiently and submit them in a timely fashion in accordance with current NOAA Fisheries guidance and requirements outlined in the MSA and other applicable law.
- Investigate and employ options that advance flexibility and reduce rulemaking burdens.
- Coordinate the issuance of fishery permits, licenses, and quota under catch share programs and other limited access systems.
- Maintain and enhance our coordinated management of crab, groundfish, scallop, and salmon stocks with the State of Alaska.
- Undertake fishery management actions necessary to open and close fisheries to maximize harvests while ensuring annual catch limits and overfishing levels are not exceeded.

Advance climate science and ecosystem-based management (EBM) to increase the sustainability of marine fisheries

- Create next-generation fish and crab stock assessments that are



Callogorgia compressa, is a type of soft coral in the family Primnoidae. **Callogorgia** have a fan shaped body structure that often serves as a habitat for other organisms. Credit: NOAA Fisheries.

- robust to climate and ecosystem changes and challenges.
- Hindcast, forecast, and project direct and indirect effects of climate change on fish, crab, and marine mammals and the associated communities that rely on these resources.
- Conduct applied marine ecosystem and socioeconomic analyses and assessments to support sustainable fisheries management.
- Synthesize and assess ecosystem information at ecosystem and stock scales (e.g., Ecosystem Status Reports, Ecosystem and Socio-economic Profiles).
- Conduct scientific research to inform and develop products such as Fishery Ecosystem Plans and Regional Action Plans for Climate Science that support critical strategic management decisions and analyses.
- Improve ecosystem indicators through coordinated survey efforts (data sharing and platform coordination), validation of ocean models with process studies, or development of remote sensing products to inform, evaluate, and support management decisions.
- Conduct risk analyses (using simulation or empirical analytical approaches), management strategy evaluations, and trade-off analyses to optimize ecosystem-based fisheries management performance.
- Participate in the North Pacific Fishery Management Council Ecosystem Committee in conjunction with external partners.
- Implement the Aleutian Islands Fishery Ecosystem Plan and Bering Sea Fishery Ecosystem Plan and develop plans for other LMEs.

- Lead the Deep Sea Coral Initiative in Alaska and communicate findings with the North Pacific Fishery Management Council.
- Incorporate local and traditional knowledge from tribes, fishermen, other stakeholders, and coastal community members into management and science.

Mitigate and adapt to climate-driven changes in fisheries habitat

- Conduct scientific research to identify spatial habitat utilization for managed species to inform essential fish habitat designations, pursuant to the MSA mandate.
- Investigate ecosystem-level changes (habitat, food webs, trophic dynamics, distributional shifts, etc.) with field and modeling studies.
- Identify and describe essential fish habitat change by incorporating temporal scale considerations, trophic interactions, and other processes that allow estimates of spatial-temporal shifts in habitat use and habitat-related population productivity and provide this information to the North Pacific Fishery Management Council.
- Provide habitat-related metrics and indicators to stock assessment scientists and the North Pacific Fishery Management Council to provide mechanistic explanations for observed changes in species distribution and abundance, improve population dynamics models, and allow for more informed management decisions.
- Improve the delivery of science to fishery management and adapt fishery management

processes and approaches to be responsive to impacts of climate change and other drivers of global change.

- Incorporate local and traditional knowledge from tribes, fishermen, coastal community members, and other stakeholders to identify species at risk to climate-driven changes.
- Identify opportunities to conserve and restore essential fish habitat that assists in mitigating and adapting to climate change to support sustainable fisheries, healthy ecosystems, and resilient coastal communities.

Diversify our data collection technologies and expand/modernize data products and services

- Promote data innovation and quality improvement to facilitate scientific research and support data-driven decision-making.
- Develop innovative technologies to support our mission with improved performance and cost effectiveness.

- Expand 'omics research capacity to expand our ability to detect, survey, and assess living marine resources.
- 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.
- 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.
- Maintain and enhance methods to collect fishery-dependent data, assess data quality from a wide range of data sources, and estimate total catch in the groundfish and halibut fisheries.
- Modernize and re-engineer fisheries management business processes through the development of the Alaska Integrated



A scientist collecting fish for assessment. Credit: NOAA Fisheries.

Fisheries Application to increase customer service for fishery participants, streamline permitting, and support implementation of catch share programs.

- 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.
- Engage with partners about our data and methods to more accurately assess the ecological, social, and economic performance of fisheries and fishing communities.
- Coordinate the ranking of research activities to prioritize research and monitoring.

Ensure equity and accessibility for tribal, Indigenous, and underserved communities

- Prioritize identification, equitable treatment, and meaningful involvement of underserved communities.
- Provide equitable delivery of services.
- Prioritize EEJ in our mandated and mission work.
- Create an EEJ Engagement Plan, engage with tribal partners and underserved communities to identify priorities and needs, and develop an EEJ Implementation Plan to submit to the NOAA Fisheries Headquarters office using the information provided by tribal, Indigenous, and underserved communities.
- Develop a tribal consultation protocol with Alaska Native Tribes and Corporations to streamline expectations,



An Alaska Native woman uses a traditional ulu knife to cut strips of salmon to hang in the smokehouse at a fishing camp along the Kuskokwim River. Credit: NOAA Fisheries.

processes, and procedures for government-to-government consultation in Alaska.

Counter IUU fishing activity

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

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

- Prioritize our core fishery-independent stock assessment surveys.
- Ensure coordination among the Alaska Fisheries Science Center, Alaska Regional Office, North Pacific Fishery Management Council, International Pacific Halibut Commission, and the Alaska Department of Fish and Game in developing research and data collection that supports and informs upcoming

policy decisions and management needs.

- Coordinate with our partners to ensure the timely and effective implementation of fishery monitoring through the North Pacific Groundfish and Halibut Observer Program.

Increase mariculture production in Alaska

- Expand research capacity to support shellfish and seaweed mariculture that avoids or minimizes impacts to fisheries, ecosystems, and protected species.
- Coordinate internally and with partner agencies to improve incorporation of ecosystem benefits provided by mariculture in the permitting and review process.

- Advance the Joint Alaska Aquaculture Action Plan, accomplishing national goals and objectives identified in the NOAA Aquaculture Strategic Plan at a regional level.
- Improve internal coordination through the NOAA Fisheries Alaska Region Aquaculture Team.
- Collaborate with state and federal permitting agencies to identify needs for new tools for permitting efficiencies such as application checklists, pilot processes, and permitting portals and build off existing permitting tools where appropriate.
- Engage with the State of Alaska on the potential benefits of Aquaculture Opportunity Areas (AOAs) in state waters and how AOAs may align with state initiatives.

- Expand stakeholder engagement to inform marine spatial planning efforts and identify challenges and opportunities related to the AOA process.
- Create regulatory efficiencies for mariculture projects to improve both Essential Fish Habitat and Endangered Species Act consultation timelines while ensuring species and habitat conservation.
- Promote Alaska mariculture through communication and outreach efforts.
- Work with industry and academic partners on fish and shellfish rehabilitation and enhancement efforts (e.g., king crab, and pinto abalone, and salmon that includes Inflation Reduction Act funding via the Pacific Coastal Salmon Recovery Fund).



Jonny Antoni and Kaitlyn Tolin of Sea Quester sugar kelp farm outside of Juneau, Alaska. Credit: NOAA Fisheries.

Strategic Goal 2

Safeguard protected species and propel their recovery

Protected species in Alaska under NOAA Fisheries' jurisdiction include whales, porpoises, Steller sea lions, northern fur seals, ice seals, and harbor seals. These species may be impacted by federal activities, including construction of marine infrastructure such as docks, piers, and bridges and fishing activities through competition for prey, direct mortality, and disturbance. Efforts are made to limit these impacts and protect these species through fishery management measures such as closed areas and limitations on harvest of prey species or action-specific mitigation measures. As an example, NOAA Fisheries conducts consultations under Section 7 of the Endangered Species Act (ESA) to ensure that federal 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 has trust relationships with Alaska Native Tribes and Organizations for the conservation of marine mammals and co-management of subsistence use of marine mammals. We actively work with nine co-management agreements and partners to ensure marine mammal subsistence and cultural uses are sustained for Alaska's Indigenous peoples. On the north slope of Alaska we work actively with our partners at the U.S. Department of the Interior Bureau of Ocean Energy Management and with local communities at the intersection of energy development and subsistence use of bowhead whales. Likewise we have significant investment in facilities and in fur seal research and management with the island communities of St. Paul and St. George in the Pribilof Islands.

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 Marine Mammal Protection Act (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 Performance 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 population assessments
- Average number of days to complete consultations, permits, and authorizations

Strategies

Implement actions to recover listed endangered and threatened species

- Expand data collection on marine mammal stocks that are not well studied and find efficiencies with current foci stocks where stock trajectories and life histories are better understood.
- Continue efforts to understand the threats faced by Cook Inlet

beluga whales through implementing actions in the Recovery Plan and the Species in the Spotlight Action Plan.

- Increase efforts to understand summer and winter distribution and threats faced by North Pacific right whales.
- Continue efforts to understand the decline of the western population of Steller sea lions, as

it continues to decline rapidly in the central and western Aleutian Islands.

- 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.
- 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.

- 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.
- Develop biological assessments and other tools necessary to assess the impacts of fishery management actions on threatened and endangered species.
- Ensure that Endangered Species Act Section 7 consultations are carried out efficiently and effectively and based upon the best available scientific information.
- Identify data gaps and pursue mechanisms for programmatic consultation to improve consultation efficiencies while conserving species and critical habitat.
- Sustain co-management of the subsistence use of marine mammals with our Alaska Native partners throughout the state.
- Work cooperatively with the State of Alaska on marine mammal research in Alaska.

Model and predict the effects of climate change on protected species to improve conservation outcomes

- Conduct high-quality assessments for marine mammal stocks.
- Create next-generation marine mammal stock assessments.
- Investigate ecosystem-level changes (e.g., habitat, food webs, trophic dynamics, and distributional shifts) with field and modeling studies.



A mother/calf Cook Inlet beluga whale pair photographed by hexacopter. Credit: NOAA Fisheries/Hollis Europe/Jacob Barbaro.

- Hindcast, forecast, and project direct and indirect effects of climate change on marine mammals and the associated communities that rely on these resources.

Expand the use of advanced and innovative technologies

- Promote data innovation and quality improvement to facilitate science and support data-driven decision-making.
- Continue to develop artificial intelligence (AI), including computer vision and machine learning, to advance marine mammal research.
- Refine collection of multispectral aerial imagery to detect and classify marine mammals to estimate abundance.
- Increase the capacity and application of uncrewed systems to support marine mammal surveys needed for conservation and recovery of protected species.
- Expand ‘omics research capacity.

Protect and restore important habitats necessary for the recovery of endangered marine species

- 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.

Protect marine species while supporting ocean-based economic growth

- 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.
- Engage the public through outreach events to inform on current and future monitoring activities and recent scientific findings.
- Work with state and federal agency regulators, industry representatives, and researchers to develop best management practices for aquatic farm siting, construction methods, and operations to minimize conflicts with marine mammals.
- Coordinate with 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.
- Assist NOAA Fisheries’ Office of Law Enforcement with investigations into potential marine mammal harassment or other violations of the MMPA and ESA.

Strategic Goal 3

Diversify our workforce, promote equity and environmental justice, and improve our mission performance through organizational excellence

To provide the best possible science and stewardship for Alaska’s living marine resources, NOAA Fisheries must build a workforce that is representative of the people and nation we serve. We must also strive to ensure equitable engagement in our regulatory process among our many constituents. We actively seek to enhance processes that are open and transparent in communicating our activities and in gathering input to management plans, stakeholder services, and science programs. Efforts are underway to develop equity and environmental justice strategies and effective implementation of those strategies.

Organizational excellence means fulfilling our mission by empowering our workforce to provide efficient delivery of the programs and services that support our stakeholders as well as the sustainable management of marine resources. This includes effective and regular communication internally between the Alaska Regional Office and the Alaska Fisheries Science Center, as well as with the North Pacific Fishery Management Council and its bodies, the International Pacific Halibut Commission, the State of Alaska, tribes, our co-management partners, and our many other partners. We also seek process improvements to enhance regulatory efficiency and to expand our technological expertise and applications and our fiscal accountability.



Key Performance Indicators:

- Process improvement assessment
- Assessment of internal and external communications
- DEIA Performance Standards included in performance plans
- Workforce diversification
- Inclusive workplace practices
- Employee access to learning and growth opportunities

Strategies

Ensure total worker wellness

- Foster a culture that values and practices transparency, engagement, accountability, and respect.
- Promote a culture of continual growth and improvement to support a resilient organization.
- Provide training and resources for employee wellness best practices.
- Promote and participate in activities and programs

sponsored by the NOAA Fisheries Total Worker Wellness Program.

- Develop an organizational culture of wellness by providing programs that support employee self-care.
- Recognize and reward achievement.

Improve workforce diversity, equity, inclusion, and accessibility

- Design programs and create opportunities to improve diversity and inclusion in our workforce.
- Use direct hire mechanisms for under-represented groups to fill vacancies.
- Increase the diversity of students in internship programs and in the workforce.



Left: Alaska’s Deputy Regional Administrator Jamal Moss participates in a media interview during the 2023 Belugas Count! Credit: NOAA Fisheries. **Middle:** NOAA Fisheries Alaska staff visit Akutan to work face-to-face with our co-management partners at Alaska Native Organizations. Credit: NOAA Fisheries. **Above:** In 2023, NOAA Fisheries Alaska Regional Office held the first raising of the Progress Pride Flag at the Juneau Federal Building as a show of respect, and to build a work environment that promotes inclusion, equity, and accessibility. Credit: NOAA Fisheries.

- Strategically recruit and retain talented staff in Alaska.
- Develop a STEM program and pursue other avenues to successfully recruit from Alaska Native communities and increase diversity in NOAA Fisheries Alaska in general.
- Foster a workplace culture that values diversity and inclusion, including robust training for supervisors and staff and opportunities to pursue leadership development programs.

Develop workforce skills for the future

- Advance succession planning and develop training, mentoring, and shadowing programs to meet projected staffing needs that promote a more successful and diverse work environment.
- Expand opportunities for personal and professional learning and growth for employees.
- Provide training opportunities to keep staff current

- in their fields, improve and refine interpersonal and communication skills, strengthen cultural awareness so we can be responsive and successful in communicating and working with stakeholders, and help staff pursue individual development opportunities.
- Partner with academia to develop curricula that meet future workforce needs.
- Create cutting-edge technology training opportunities.

Embrace a new paradigm for the workplace

- Empower all individuals to model inclusive workplace practices grounded in respect for others, embracing diverse perspectives and input, and a welcoming culture that fosters a sense of psychological safety and belonging.
- Enhance processes that ensure integrity of business operations (fiscal accountability and effective workforce management

functions), a safe work environment, and proactive and strategic communication.

- Embrace change management by communicating early and often about any workplace changes that will be made.
- Strengthen organizational resilience to retain employees by addressing burnout through catalyzing new behaviors.

Adaptively manage infrastructure

- Assess infrastructure needs for cost effectiveness.
- Engage in facilities planning to evaluate the contribution of assets to mission priorities, and participate in NOAA Fisheries and NOAA level facilities portfolio reviews.
- Prioritize funding for facilities assets to address facility condition assessments and deferred maintenance and sustainment needs.

- Assess and seek to address gaps in vessel and aircraft infrastructure needs with OMAO.
- Establish robust infrastructure, support, and services that enable cost-effective and at-scale provisioning of on-premise and cloud-based computing, storage, networking, and visualization services and tools.
- Develop and improve IT services, minimizing barriers to internal and external collaboration, and increasing awareness and adoption of available research services and technologies.
- Maintain robust IT security practices and plan strategically for future needs in high-performance computing, data storage, data science, and related IT infrastructure.

Optimize resources

- Create a new approach for priority-based resourcing decisions.
- Develop business plans for each division to align budget and staffing with organizational priorities.
- Continue to implement strategic resource management to review and optimize base resource allocations and execution, and develop guidance for strategic staffing.
- Address fiscal challenges by utilizing top-down and bottom-up approaches to identify ways to reduce effort, become more effective and efficient, and refocus and build capacity in emerging topics and opportunities.



Alaska Tribal Research Coordinator Mabel Baldwin-Schaeffer in Utqiagvik.
Credit: NOAA Fisheries.

Expand internal and stakeholder communications

- Enhance internal communication to ensure equitable access to process, procedures, and information.
- Continue regular science center, regional office, and council discussions to align planned priorities and to evaluate whether expectations are being met.
- Expand communication and coordination between the North Pacific Fishery Management Council, Alaska Fisheries Science Center, and Alaska Regional Office.
- Adopt new processes to enhance working relationships with the

Alaska Department of Fish and Game.

- Develop new communication tools and strategies for stakeholder communications that increase equitable access to information.
- Collaborate with Indigenous Knowledge holders to develop bi-directional and parallel knowledge pathways to support climate-informed fisheries, marine mammal, and ecosystem policies regionally and internationally.
- Build on successful partnerships with the commercial fishing industry, the State of Alaska, and the Pacific States

Marine Fisheries Commission to conduct many of our fisheries surveys and other research and monitoring activities that support common goals to improve resource assessment and management.

- Continue to develop and foster relationships with private sector businesses to extend our technical capabilities.
- Expand partnerships with academic institutions to generate high-caliber science products, provide growth and learning opportunities, and mentor the next generation of marine scientists.
- Foster collaborations with existing and new partners to support our scientific mission.

Implement an Equity and Environmental Justice Strategy

- Develop a region specific EEJ strategy for engagement with stakeholders and underserved communities.
- Launch a Tribal Engagement Team.
- Expand coordination with Alaska Native tribes and organizations to advance mission priorities.
- Ensure equitable access to regulatory processes and scientific information.
- Serve stakeholders equitably by engaging underserved communities in the science, conservation, and management of the nation’s ocean resources and their habitat.

- Identify and recognize underserved communities, as well as address access barriers and more equitably and effectively serve all communities.
- Build on equity and environmental justice efforts to provide guidance for incorporating and prioritizing EEJ in ongoing and future activities.

Internal strategic plan implementation

- Advance actions and measure progress under this plan and inclusive of the respective Alaska Region (2022-2027) and Alaska Fisheries Science Center (2023-2027) strategic plans.

Implementing This Plan

Between 2024 and 2027, this plan will serve as primary guidance for planning, budgeting, and execution. Activity plans and milestones will be developed to focus execution on these strategies and to track progress, and key performance indicators will provide evidence of success.



Alakanuk citizens Faith Patterson, Klatedra Alstrom and Sharon Alstrom, and YDFDA biologist Courtney Weiss head out to sample Yukon River Salmon. Credit: Robert Alstrom, Yukon Delta Fisheries Development Association. Back cover: NOAA Fisheries researchers use high-resolution digital cameras and thermal sensors to spot the ribbon seals on ice during an ice seal census. Credit: NOAA Fisheries.



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