

# Alaska Sea Grant Strategic Plan 2024–2027

This plan identifies Alaska Sea Grant’s mission, vision, core values, goals, actions, and desired outcomes in addressing key coastal and marine issues in Alaska. The plan helps us focus and unify Alaska Sea Grant’s vision and communicate our priorities to interested parties and partners. We use the plan to align with National Sea Grant and to guide how we direct staff and fiscal resources.

## Alaska Sea Grant

The Alaska Sea Grant College Program, one of 34 Sea Grant programs nationwide, is a statewide program headquartered at the University of Alaska Fairbanks.

Alaska Sea Grant was established in 1970 and is the only Sea Grant program located in the Arctic. We are a state-federal partnership with the majority of federal funding coming from the National Oceanic and Atmospheric Administration (NOAA). State funding comes from the University of Alaska Fairbanks. Grants and donations from state, federal, and local governments; tribes; industry; organizations; and program income from training and meeting fees and publication sales enhance Alaska Sea Grant’s funding.

Alaska Sea Grant is an integrated program of communication, education, extension, and research that engages partners and functions as a creator of knowledge, a convener, and a trusted provider of information. We strive to innovate and adapt as we address critical and changing coastal and marine issues in our state. We work to enhance the sustainable use and conservation of our marine, coastal, and watershed resources.

Alaska Sea Grant’s strength is in the trust that Alaskans have in our work and those who carry it out including Marine Advisory faculty, communications and administrative staff, researchers, students and fellows, and a diverse and active group of partners and advisors. For more than 50 years, we have served Alaska from offices located in coastal communities across the state as well as on the main University of Alaska Fairbanks campus. We increase our effectiveness and reach by collaborating with and building networks among people, communities, and organizations.

## Our mission

Alaska Sea Grant’s mission is to enhance the sustainable use and conservation of Alaska’s marine, coastal and watershed resources to create a strong economy, a healthy environment, and resilient and inclusive communities.

## Our vision

Alaska Sea Grant envisions diverse, thriving Alaskan coastal communities and ecosystems that are

supported by an engaged, environmentally-literate public and informed decision-makers.

## Core values

Alaska Sea Grant's core values are essential and enduring tenets that influence the organization and support its mission. The core values support a culture of integrity and scientific neutrality enabling Alaska Sea Grant to serve as a trusted broker of information.

1. **Place-based:** Serve Alaskans and their communities by advancing creative, innovative and local solutions that address emerging and chronic challenges.
2. **Collaboration:** Seek and sustain partners to leverage strengths and responsively integrate diverse expertise and perspectives to reach shared goals.
3. **Sustainability:** Advance environmental stewardship practices and communicate the value of services that Alaska's coastal, watershed, ocean and ecosystems provide to the state and nation.
4. **Accountability:** Operate with integrity and transparency while maintaining quality and relevance in all functional areas, including program management.
5. **Neutrality:** Maintaining a commitment to objective research and programming that avoids bias and advocacy in the development and equitable delivery of tools, services, and verifiable information.
6. **Diversity, Equity, Inclusion, Justice and Accessibility:** Proactively engage with the range of identities, cultures, communities and capacities present throughout our areas of work, with respect and sensitivity to each person's experiences, history and systemic challenges.

## How we work

Sea Grant programs integrate their efforts across the following functional areas, which represents how Sea Grant generates, transmits, translates and transitions knowledge to address critical issues with interested parties and partners.

- **Research.** The generation of new knowledge is a core part of Sea Grant, providing answers to key questions about our ocean, coasts, and watersheds. Research may be conducted by Sea Grant faculty, staff or through extramural research that has been reviewed for merit and that is often competitively selected.
- **Education.** Facilitating learning through formal and nonformal activities which help people integrate knowledge into their behaviors is central to the transformational nature of Sea Grant's work.
- **Extension.** The exchange of knowledge and its application by communities, governments, NGOs, business and industry--often accomplished through direct interaction, technical assistance, and

demonstration projects--is at the heart of Sea Grant's operational model.

- **Communication.** The transmission of information to targeted audiences through a variety of media to create awareness and engagement complements traditional extension and education activities.
- **Program Management.** Establishing and maintaining the infrastructure and partnerships needed to support the activities of a Sea Grant program is an essential task. This function allows programs to exist, grow and serve.

## Alaska's coast and marine environment defines us

Alaska's marine, coastal, and watershed environments are the most productive and pristine in the nation and are vital to the culture, livelihood, and economy of the state's residents. The Gulf of Alaska, Bering Sea, and Arctic coastlines stretch nearly 44,000 miles, and the marine systems off Alaska are larger than those in the rest of the United States combined. These marine, coastal, and watershed ecosystems are diverse, ranging from a temperate rainforest in Southeast Alaska to tundra in the far north. Alaska defines the United States as an Arctic nation.

Alaska's coastal waters support some of the world's largest fisheries, as well as vibrant populations of marine wildlife and coastal blue carbon ecosystems, including tidal wetlands, seagrasses, and kelp forests. Ecosystem change in Alaska has direct social and economic impacts that are likely to be more profound with the advances of climate change.

## Alaska's people

Over 70 percent of Alaska's 730,000 residents live along its coastline, seasonally joined by over 2 million visitors each year. Fewer than 10 percent of coastal communities in Alaska are connected by road; most are accessible only by boat or airplane. This remoteness is a defining feature of Alaska, and can lead to limited opportunities for education or business enterprises and high costs of power and transportation. On the other hand, residents live in communities that embody a sense of place and often support a rich traditional subsistence lifestyle. For Indigenous communities, this cultural heritage has been passed down through generations over thousands of years.

Alaska is the 12th most diverse state in the country, according to the 2020 U.S. Census, and 42.5% of its population identifies as non-white. Individually, some of Alaska's census areas have the highest diversity in the country. The Aleutians East and West Boroughs are ranked first and second in the nation, with a diversity index of greater than 75%. Alaska is home to many culturally and linguistically diverse Indigenous (Alaska Native) peoples organized into 228 federally recognized Tribes. Alaska Natives comprise about 15 percent of the state's population, with a much higher percentage in many rural Alaskan communities. Alaska Natives carry on rich cultural traditions today in both urban and rural communities.

## Alaska's unique dependence on marine and coastal resources

Over 200 coastal communities from Ketchikan to Kaktovik depend on the harvest and processing of fish and other marine resources including shellfish, marine mammals, seabirds, marine invertebrates, and

plants to feed their families and sustain local economies. For thousands of years, Alaska Native families and communities have shared marine resources, and this continues today. Food security in Alaska is a growing concern that encompasses food safety, sustainable supply of marine resources, and continued access to harvest.

More than half of the fish and shellfish harvest in the United States comes from waters bordering Alaska. The seafood industry contributed \$5.7 billion in economic output to Alaska's economy in 2019, including harvesting, processing, and support sectors. Commercial fishing and seafood processing are the largest direct private employers in the state; over 62,200 workers were directly employed by Alaska's seafood industry, earning \$1.75 billion in wages annually. Recreational and guided sport fishing activities occur along Alaska's expansive coastline, in lakes, and in rivers.

Alaskans depend heavily on boating as commercial fishermen, traditional harvesters, and recreational mariners. Drowning and accident rates in Alaska are eight times the national average, and drowning is the second leading cause of death for Alaska's children. While loss of life at sea among commercial fishermen in Alaska has been trending downward, in part due to mandatory and voluntary marine safety training, it still remains high. Climate change will continue to increase extreme storm and weather patterns, exacerbating the dangers that mariners face.

Coastal tourism accounts for much of the state's visitor industry. In 2019, over 2.2 million out-of-state visitors came to Alaska. Tourism supported over 45,000 peak-season jobs and contributed over \$1.4 billion in wages and benefits.

Alaska's coastal economy depends as well on other maritime occupations, such as oil and gas development, marine transportation and freight delivery, mineral extraction, shellfish and seaweed aquaculture, marine research, and coastal infrastructure such as boat building, repair, and provisioning. For many coastal communities throughout Alaska, the local economy depends on a blend of cash jobs and subsistence harvest.

## Environmental change creates uncertainty

Alaskans depend on healthy coastal ecosystems. The impacts of climate change are readily apparent in Alaska, as is true across the entire Arctic. Alaska is experiencing dramatic reductions in sea ice quality, quantity, and duration, resulting in increased storm surges and accelerated coastal erosion and infrastructure damage. Coastal inundation, changes in precipitation, diminishing permafrost, increasing stream temperatures, and changes in the abundance and distribution of subsistence and commercially important resources are all presenting difficult challenges to Alaska's resource-dependent communities. Expansion of harmful algal blooms, marine invasive species, decreased oxygen content in higher temperature waters, and ocean acidification are looming worries.

Erosion and flooding conditions are endangering coastal communities, primarily Alaska Native communities. In a 2019 statewide threat assessment conducted by the Army Corps of Engineers, 26 coastal or riverine Alaskan communities were designated as threatened or having significant hazards.

Environmental change threatens food security and food safety for coastal communities, both rural and urban. Concerns include ocean acidification affecting the abundance of shellfish and fisheries food chain

stocks, increasing harmful algal blooms that impact commercial and subsistence shellfish harvest, and threats to marine mammals from novel diseases, increased pollution, and noise from vessel traffic that threaten animals depended upon for food. The nutritional, cultural, and economic health of families and Alaska communities, many with few other economic opportunities, are reliant on the harvest of healthy, abundant, and regionally relevant marine-based resources.

## Strategic Plan 2024-2027

The Alaska Sea Grant strategic plan was developed with input from interested parties and partners who provided feedback through an online survey and through ongoing input on emerging issues from our Advisory Committee. Alaska Sea Grant faculty and staff and our statewide Advisory Committee reviewed a draft and provided input that was incorporated into this plan.

The plan is organized under four National Sea Grant focus areas and cross-cutting principles and aligns itself with National Sea Grant goals and the relevant goals of the University of Alaska Fairbanks. The four National Sea Grant Focus Areas are:

1. Environmental Literacy and Workforce Development
2. Sustainable Fisheries and Aquaculture
3. Resilient Communities and Economies
4. Healthy Coastal Ecosystems

## Cross-Cutting Principles

These concepts provide a common foundation across all of the following Focus Areas and the work Alaska Sea Grant conducts. Recognizing these Cross-Cutting Principles enhances Sea Grant's capabilities in order to meet future national needs. In the course of implementing the 2024-2027 Strategic Plan, Alaska Sea Grant will:

- Cultivate and sustain partnerships by integrating the expertise and capabilities of partners from communities; local, Tribal, state, federal and international governments as well as from academia, nongovernmental organizations and industry.
- Enhance diversity, equity, inclusion, justice and accessibility by seeking and integrating diverse perspectives to advance cultural understanding and enable Alaska Sea Grant to pursue its vision and mission with, and for, all audiences. We will actively create mechanisms to allow all people to participate in Alaska Sea Grant activities. Bringing a range of perspectives, values and tools together to find solutions that are more innovative, creative, inclusive, equitable and responsive will help us be successful in tackling problems facing coastal Alaskan communities.

## Focus Area: Environmental Literacy and Workforce Development

**Goal 1: A diverse, environmentally literate public participates in lifelong formal and nonformal learning opportunities.**

**ACTION 1.1:** Create and implement educational resources, partnerships and opportunities that are diverse, equitable, inclusive, just and accessible for learners to explore multiple ways of learning and knowing and to develop their curiosity and learning abilities throughout their lives.

**DESIRED OUTCOME:**

- **OUTCOME 1.1.1:** Individuals consider themselves environmentally literate lifelong learners who utilize knowledge to support, build, maintain and restore healthy natural and human communities.

**ACTION 1.2:** Develop, provide and assess research, curricula, tools and other resources for educators, students, researchers and lifelong learners to support personal choice, participatory decision-making and community planning processes.

**DESIRED OUTCOMES:**

- **OUTCOME 1.2.1:** Educators, students, researchers and lifelong learners have current information and innovative tools that meet or exceed relevant standards and practices.
- **OUTCOME 1.2.2:** People know about and effectively can act on issues that impact their well-being, communities and environments.
- **OUTCOME 1.2.3:** Community members use their knowledge to remove barriers and act for personal and community resilience and adaptation to changing economic, environmental and social conditions.

**ACTION 1.3:** Strengthen the ability of individuals, organizations, and communities so that they have the knowledge, dispositions, skills and abilities to make informed and responsible decisions regarding coastal and marine environmental issues.

**DESIRED OUTCOMES:**

- **OUTCOME 1.3.1:** Individuals, organizations and communities gain, contribute to and respect diverse ways of knowing and learning, address systemic problems in equitable and just ways, and integrate diverse cultures.

- **OUTCOME 1.3.2:** Coastal Alaska communities are sustainable, healthy, diverse centers of tradition, innovation and prosperity.
- **OUTCOME 1.3.3:** Inclusive collaborations with diverse partners address environmental literacy and workforce needs, especially for vulnerable communities.

**Goal 2: A diverse, skilled and environmentally literate workforce that is engaged and able to build prosperous lives and livelihoods in a changing world through traditional and innovative careers.**

**ACTION 2.1:** Increase equitable access to training and learning opportunities so that Alaska's and the nation's diverse population is connected to and prepared for the range of career paths that support the needs of Alaskan coastal communities.

**DESIRED OUTCOME:**

- **OUTCOME 2.1.1:** All members of a community are enabled to explore and pursue the variety of occupations that are essential to sustain coastal Alaskan communities, economies and ecosystems.

**ACTION 2.2:** Increase opportunities for students at all levels (P-12, undergraduate, graduate, post-graduate and technical, vocational, and others) to gain knowledge and experience addressing issues that are important to Alaska's and the nation's ocean, coasts and coastal watersheds.

**DESIRED OUTCOMES:**

- **OUTCOME 2.2.1:** Sea Grant learning opportunities provide increased literacy, experience and preparedness in critical disciplines, skills and issues.
- **OUTCOME 2.2.2:** People from all backgrounds and with diverse needs are thoughtfully and intentionally supported in and have access to formal, nonformal and experiential learning, training and research experiences.

**ACTION 2.3:** Develop and carry out programs and partnerships that help people discover, create and grow within careers that support the current and future needs of coastal communities and ecosystems and to adapt and thrive in changing conditions.

**DESIRED OUTCOMES:**

- OUTCOME 2.3.1: Employment and job opportunities in Alaska's coastal watershed communities expand and diversify.
- OUTCOME 2.3.2: The existing and future workforce (in cash and non-cash economies) is able to adapt and thrive in changing environmental, social and economic conditions.
- OUTCOME 2.3.3: Employment needs in Alaska's coastal communities and economies are addressed and served.

Focus Area: **Healthy Coastal Ecosystems**

**GOAL 3: Coastal habitats, ecosystems and the services they provide are protected, enhanced and/or restored.**

**ACTION 3.1:** Co-develop, improve, maintain and share knowledge, decision-support tools, technologies and approaches to protect and restore coastal ecosystems.

**DESIRED OUTCOMES:**

- OUTCOME 3.1.1: Alaskans, visitors to Alaska and Alaskan industries have greater awareness and understanding of ecosystem functions and the services they provide.
- OUTCOME 3.1.2: Alaskan coastal ecosystem science and conservation needs are identified and prioritized through diverse community participation.
- OUTCOME 3.1.3: Evidence-based science, including traditional and local knowledge, and innovative solutions inform and improve the management and conservation of coastal habitats.
- OUTCOME 3.1.4: Coastal biodiversity, habitats and ecosystem functions and services are conserved, restored and sustained.
- OUTCOME 3.1.5: Collaborative and inclusive planning and decision-making leads to enhanced stewardship and community benefits, especially for the most vulnerable.

**Goal 4: Land, water, and living resources are managed by applying science, tools and services to sustain resilient coastal ecosystems.**

**ACTION 4.1:** Support science that integrates research, observations, monitoring and modeling to inform management. The framework may include co-production of knowledge, community engagement, industry collaboration and/or traditional and local knowledge to provide an integrated scientific basis for informed decision-making.

**DESIRED OUTCOMES:**

- **OUTCOME 4.1.1:** Inclusive collaborations with diverse partners support planning, research and innovative solutions to address coastal resource management needs, especially for vulnerable communities.
- **OUTCOME 4.1.2:** Community science initiatives are supported, utilized and contribute to improving our knowledge with respect to stewardship of ecosystems and their contributions to coastal communities and economies.
- **OUTCOME 4.1.3:** Coastal communities and resource managers have access to and use science, data, tools and training to be effective in planning and decision-making processes.
- **OUTCOME 4.1.4:** Resource managers understand the risks, options, tradeoffs and impacts of their decisions.

**ACTION 4.2:** Identify and advance successful strategies that enhance resilient ecosystems in the context of changing conditions, including environmental variability and climate change.

**DESIRED OUTCOMES:**

- **OUTCOME 4.2.1:** Communities share, access, understand and use information regarding projected changes and related impacts within ecosystems.
- **OUTCOME 4.2.2:** Communities can apply knowledge, including traditional and local knowledge, from case studies, training and tools to improve their ability to plan, prepare and adapt to environmental variability and climate change.

## Focus Area: Sustainable Fisheries and Aquaculture

### **Goal 5: Alaskan fisheries, aquaculture and other coastal and freshwater natural resources supply food, jobs and economic and cultural benefits.**

**ACTION 5.1:** Promote and support hatchery, harvest, growing and processing techniques that lead to safe, sustainable, high quality food as well as economic, social/cultural and ecosystem benefits.

#### **DESIRED OUTCOMES:**

- **OUTCOME 5.1.1:** Consumers understand the cultural, health and sustainability benefits of Alaskan produced seafood and use that knowledge to inform their seafood harvesting and purchasing decisions.
- **OUTCOME 5.1.2:** Alaskans employ technologies and reinforce strategies to safely harvest and produce safe and sustainable foods and products.
- **OUTCOME 5.1.3:** Alaskan fishery, aquaculture, and seafood industries employ diverse strategies that balance economic, community, cultural and conservation goals.
- **OUTCOME 5.1.4:** Seafood businesses employ sound financial planning and management tools and training resources.

**ACTION 5.2:** Support development of a trained and diverse workforce and enhance technology transfer in a manner that recognizes a variety of methodologies and approaches, including those based on traditional and local knowledge.

#### **DESIRED OUTCOMES:**

- **OUTCOME 5.2.1:** Increased understanding of technological solutions, including traditional and local knowledge, aid management and production.
- **OUTCOME 5.2.2:** Community engagement and partnerships enable the seafood industry to acquire innovative technologies and adapt to changing conditions.
- **OUTCOME 5.2.3:** New entrants and existing participants in the seafood industry are aware of and have access to applied, financial, marketing and technical training.

### **Goal 6: Natural resources are sustainably managed to support coastal communities and working waterfronts, including commercial, recreational, subsistence fisheries and aquaculture.**

**ACTION 6.1:** Ensure the best available science, services and tools are created, available to and trusted by resource managers, fishing and aquaculture communities and consumers.

**DESIRED OUTCOMES:**

- **OUTCOME 6.1.1:** Commercial, traditional, recreational fishermen and aquaculturists are knowledgeable about efficient, sustainable and responsible tools, techniques, regulations and uses of coastal resources.
- **OUTCOME 6.1.2:** Alaskan resource managers and fishing and aquaculture communities have access to and share diverse knowledge and tools to increase their capability to adapt to changing resource management needs, including those driven by climate change.

**Focus Area: Resilient Communities and Economies**

**Goal 7: Alaska's coastal communities have the capability and resources to prepare for and adapt to extreme and chronic weather and coastal hazards, climate change, economic disruptions and other threats to community health and well-being.**

**ACTION 7.1:** Improve and expand exchanges of knowledge to better identify the diverse needs of communities and to increase the public's understanding of changing conditions and related impacts.

**DESIRED OUTCOMES:**

- **OUTCOME 7.1.1:** Improve scientific understanding, including traditional and local knowledge, to provide foundational information, and community members and coastal industries understand the impacts of changing conditions and coastal hazards and have the capability to prepare, respond and adapt.
- **OUTCOME 7.1.2:** Community leaders and state, federal and Tribal government agencies improve their understanding of changing conditions and coastal hazards and their capability to implement mitigation and adaptive strategies.

**ACTION 7.2:** Work with communities to advance collaborative comprehensive planning, actionable science, and adaptive strategies.

**DESIRED OUTCOMES:**

- **OUTCOME 7.2.1:** Inclusive collaborations with diverse partners support mitigation and adaptation efforts built on knowledge from and that is responsive to the needs of all, especially the most vulnerable.
- **OUTCOME 7.2.2:** Collaborate broadly to increase community capacity to monitor and respond to changes in coastal environments.

**ACTION 7.3:** Work with individuals, businesses, and communities to explore and support diversification, strengthening, sustainability and social equity within coastal economic sectors and the blue economy.

**DESIRED OUTCOMES:**

- **OUTCOME 7.3.1:** Coastal communities have access to and share knowledge, tools, services and technologies to adapt and grow resilient economies.
- **OUTCOME 7.3.1:** Leaders in coastal economic sectors understand how they can become more resilient through diversification including expanded renewable, regenerative, and clean practices.

**Goal 8: Water resources are enhanced, sustained and protected to meet existing and emerging needs of the communities and economies that depend on them.**

**ACTION 8.1:** Through domestic and transboundary engagement and information exchange, advance the understanding of how actions impact water quality, quantity and availability.

**DESIRED OUTCOME:**

- **OUTCOME 8.1.1:** Community members understand watershed and coastal functions and the ecosystem services they provide, understand how their actions will impact water resources, and are able to make informed decisions.

**ACTION 8.2:** Collaborate with diverse partners and interested parties, especially the most vulnerable, to advance plans and management practices for protecting and managing water resources.

**DESIRED OUTCOMES:**

- OUTCOME 8.2.1: Communities work with knowledge networks to share and access science, data, tools and services to anticipate changes in water resources, to protect and sustain water resources, and to make informed decisions.
- OUTCOME 8.2.2: Communities have diverse, sustainable economies and industries that support existing and emerging water resource needs.

## APPENDIX A: Definitions

**Accessibility:** The quality of being reachable or easily obtainable

**Action:** A tactic or means used to achieve desired outcomes

**Adaptive management:** A systematic approach for improving resource management by monitoring and learning from management outcomes. An adaptive management approach provides a framework for making informed decisions in the face of critical uncertainties and a formal process for reducing uncertainties so that management can improve over time

**Aquaculture:** The breeding, rearing, and harvesting of fish, shellfish, algae, and other organisms in all types of water environments. Alaska law (AS 16.40.210) prohibits the cultivation of finfish for commercial purposes, with the exception of fishery rehabilitation or hatchery operations. The definition of aquaculture in the context of this strategic plan is restricted to legal activities under Alaska statute

**Blue economy:** A knowledge-based economy, looking to the sea not just for extraction of material goods, but for data and information to address societal challenges and inspire their solutions

**Coastal communities:** Marine, coastal, island, and watershed communities, incorporating a wide variety of interests (e.g., individuals, government, Tribal, business, education, industry, research, non-governmental organizations, etc.)

**Coastal hazards:** Phenomena that threaten coastal structures, property and the environment under extreme weather and water conditions

**Community:** A group of people living in the same location or having a particular characteristic in common

**Community science:** Place-based research, outreach and education strategy providing inclusive and equitable opportunities for diverse participants and partners to advance science and inform decision-making

**Comprehensive planning:** A formal planning process resulting in an official document adopted by a local government setting forth goals, policies and guidelines for current and future development within its jurisdiction

**Core values:** Values that guide behavior and actions

**Cross-cutting Principles:** Fundamental propositions that will strengthen the organization as it implements its strategic plan

**Diversity:** The full representation of and collaboration between people with different identities, knowledge sets, experiences and perspectives

**Ecosystem:** A dynamic and complex association of plant, animal and human communities and associated

non-living physical components interacting as a functional unit

**Environmental literacy:** The possession of knowledge and understanding of a wide range of environmental concepts, problems, and issues; cognitive and affective dispositions toward the environment; cognitive skills and abilities; and appropriate behavioral strategies to make sound and effective decisions regarding the environment. It includes informed decision-making both individually and collectively and a willingness to act on those decisions in personal and civic life to improve the well-being of other individuals, societies and the global environment

**Equity:** The allocation and accessibility of resources for fair distribution of services, benefits and burdens

**Fisheries:** The commercial, sport, or subsistence take of living marine and aquatic resources, including but not limited to, mammals, fish, shellfish, and seabirds

**Fisherman:** A person engaged in the commercial, sport, or subsistence take of living marine and aquatic resources

**Focus Areas:** Areas of emphasis that are shaped to address ocean and coastal needs

**Formal education:** Classroom-based learning provided by trained educators

**Goal:** An aspirational concept that inspires a level of success in a focus area and broadly describes a desired future state

**Inclusion:** The creation of an open and welcoming environment that recognizes and affirms the value and dignity of all people

**Justice:** The systematic removal of barriers, which results in equitable opportunities and outcomes for every individual in a diverse society

**Knowledge network:** Formal or nonformal social networks that enable the transfer of traditional and local knowledge

**Lifelong learner:** Any person who learns through all or much of their life using both formal and nonformal learning opportunities in order to foster the continuous development and improvement of knowledge and skills needed for employment and personal fulfillment

**Lifelong learning:** All learning activity, formal and nonformal, undertaken throughout life, with the aim of enhancing knowledge, skills, and competencies from a personal, civic, social, or employment-related perspective

**Mission:** Communicates the purpose of the organization

**Nonformal education:** Learning that happens outside the classroom, in after-school programs,

community-based organizations, museums, or libraries

**Outcome:** An intended result or consequence

**Performance Measures and Metrics:** Indicators used to gauge program performance

**Resilience:** The ability to prepare and plan for, absorb, recover from and more successfully adapt to adverse events and changing conditions (e.g., severe weather, climate change, economic disruptions, demographic shifts, ecosystem changes)

**Restoration:** Activity to assist the recovery of something that has been damaged or destroyed

**Subsistence:** The non-commercial capture, harvest, or gathering of marine or terrestrial resources for direct or shared consumption or customary trade

**Sustainable:** Able to be maintained

**Seafood industry:** Individuals and organizations in the business of taking, processing, transporting, and any other sale of foods that are harvested from marine or aquatic ecosystems

**Technology transfer:** To convey from one person to another the practical application of knowledge in a particular area

**Traditional and local knowledge:** Ways of knowing, including Indigenous knowledge, that are passed down through generations (often through oral tradition) and/or reflects the observations and experiences of people living in a region and that often emphasizes interconnectedness between humans and their environment

**Vision:** A description of a future state that explains the basis for developing a strategic plan

**Vulnerable:** Indicating a higher risk for negative impacts as a result of the barriers to social, economic, political and environmental resources

**Water resources:** Waters, watersheds, and associated coastal resources that support human health, communities, and ecosystems

**Workforce:** People engaged in or available for work, whether in a cash or non-cash economy

## Appendix B. 2024-2027 National Performance Measures and Metrics

National Sea Grant defines national performance standards related to all Sea Grant program activities.

### *National performance measures by focus area*

#### ***Focus area: Environmental literacy and workforce development***

1. Number of Sea Grant products that are used to advance environmental literacy and workforce development
2. Number of people (youth and adults) engaged in Sea Grant-supported nonformal education programs
3. Number of Sea Grant supported graduates who become employed in a job related to their degree within two years of graduation

#### ***Focus area: Healthy coastal ecosystems***

1. Number of resource managers who use ecosystem-based approaches in the management of land, water, and living resources as a result of Sea Grant activities
2. Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities

#### ***Focus area: Sustainable fisheries and aquaculture***

1. Number of fishermen, seafood processing, or aquaculture industry personnel or seafood consumers who modify their practices using knowledge gained in fisheries sustainability and seafood safety as a result of Sea Grant activities

#### ***Focus area: Resilient communities and economies***

1. Number of communities that adopt/implement sustainable economic and environmental development practices and policies as a result of Sea Grant activities
2. Annual number of communities that adopt/implement hazard resilience practices to prepare for and respond to/minimize coastal hazardous events

### ***Cross cutting performance measures***

1. Number of Sea Grant tools, technologies, and information services that are used by our partners/customers to improve ecosystem-based management

2. Economic and societal impacts and benefits derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained; patents)

***Cross cutting performance metrics***

1. Sea Grant Staffing: Number of individuals and full-time equivalents (FTEs) devoted to Sea Grant
2. Core Funding Proposals: Number and origination of core funding pre- and full proposals
3. Number of volunteer hours
4. Number of postsecondary students and degrees financially-supported by Sea Grant in higher education programs (Undergraduate, Graduate)
5. Number of P-12 students who participated in Sea Grant-supported formal education programs
6. Number of P-12 students reached through Sea Grant-trained educators
7. Number of educators who participated in Sea Grant-supported professional development programs
8. Number of Sea Grant-sponsored/ organized events
9. Number of attendees at Sea Grant sponsored/ organized events
10. Number of public or professional presentations
11. Number of attendees at public or professional presentations
12. Number of marinas certified as “Clean Marina” by the Clean Marina Program as a result of Sea Grant Activities
13. Number of individuals certified or recertified in Hazard Analysis Critical Control Point (HACCP) as a result of Sea Grant activities
14. Number of peer-reviewed publications produced by Sea Grant
15. Visitor Attendance: Number of people that visit museums, aquariums, and other informal education institutions hosting NOAA-supported exhibits or programs (NEW; Pilot)
16. Environmental Actions: Number of people participating in environmental actions through NOAA education programs (NEW; Pilot)