



Mississippi-Alabama Sea Grant Consortium

2024-2027 Strategic Plan

Providing integrated university- and college-based research, education and engagement programs to coastal communities that lead to the responsible use of ocean and coastal resources.



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October 26, 2022

Planning Process

Mississippi-Alabama Sea Grant Consortium began its strategic planning process in February 2022. During a joint MASGC Engagement and Education (EnE) team retreat and Advisory Council (AC) meeting the AC members shared the issues that the program should focus on during 2024-2027. Based on input from the National Sea Grant Office and the input from the AC members it was clear that it would be most efficient to continue the planning process using the four focus areas that was in the current strategic plan. Those focus areas are Environmental Literacy and Workforce Development, Resilient Communities and Economies, Sustainable Fisheries and Aquaculture and Healthy Coastal Ecosystems.

Then, the EnE team and administrative office identified target audience members to invite to focus groups with one meeting per focus area. The target audience members were asked their availability and dates were selected based on the availability of the majority of participants. In order to make the focus groups accessible to as many participants as possible two were held in Mississippi and two were held in Alabama and also offered for in-person and virtual participation. They were held from May 11-23 at the following locations:

- Environmental Literacy and Workforce Development: Environmental Studies Center, Mobile AL (9 people contributed to the focus group meeting)
- Resilient Communities and Economies: Gulf and Ship Island Building, Gulfport, MS (9 people contributed to the focus group meeting)
- Healthy Coastal Ecosystems: 5 Rivers Delta Center, Spanish Fort, AL (12 people contributed to the focus group meeting)
- Sustainable Fisheries and Aquaculture: Coastal Research and Extension Center, Biloxi, MS (converted to 100% virtual due to weather) (6 people contributed to the focus group meeting)

The EnE lead for the focus area facilitated the focus group and participants answered the following questions:

1. What are the three most pressing issues facing our coastal communities and environment?
2. What research questions need to be answered within the next five years?
3. What training, workforce development, and K-12 education gaps need to be addressed within the next five years that you believe Sea Grant is most qualified to address?
4. Please share how Sea Grant could address Diversity, Equity, Inclusion, Justice and Accessibility (DEIJA) into our work on critical coastal issues.

The focus groups were asked to not limit their answers within the heading of a specific focus area and could share any issues and needs that they wished to.

Next, a survey was distributed to MASGC's contact list of 1,360 people on May 26th with a reminder on June 6th. In addition, the survey was advertised by EnE team members and input requested at two Coast Guard Area Committee meetings (one in Alabama and one in Mississippi). The survey included similar questions as the focus group meetings and an additional question was asked about potential partnerships. People that are supported by Sea Grant (research, extension, outreach, education, communications, legal, administration) were also encouraged to complete the survey too. The survey was closed on June 20th.

The input from the Advisory Council meeting, four focus groups and survey was aggregated and coded by common topics and categories. A conceptual model (Figure 1) illustrates the most pressing issues and how they align with the strategic planning goals described later in this plan.

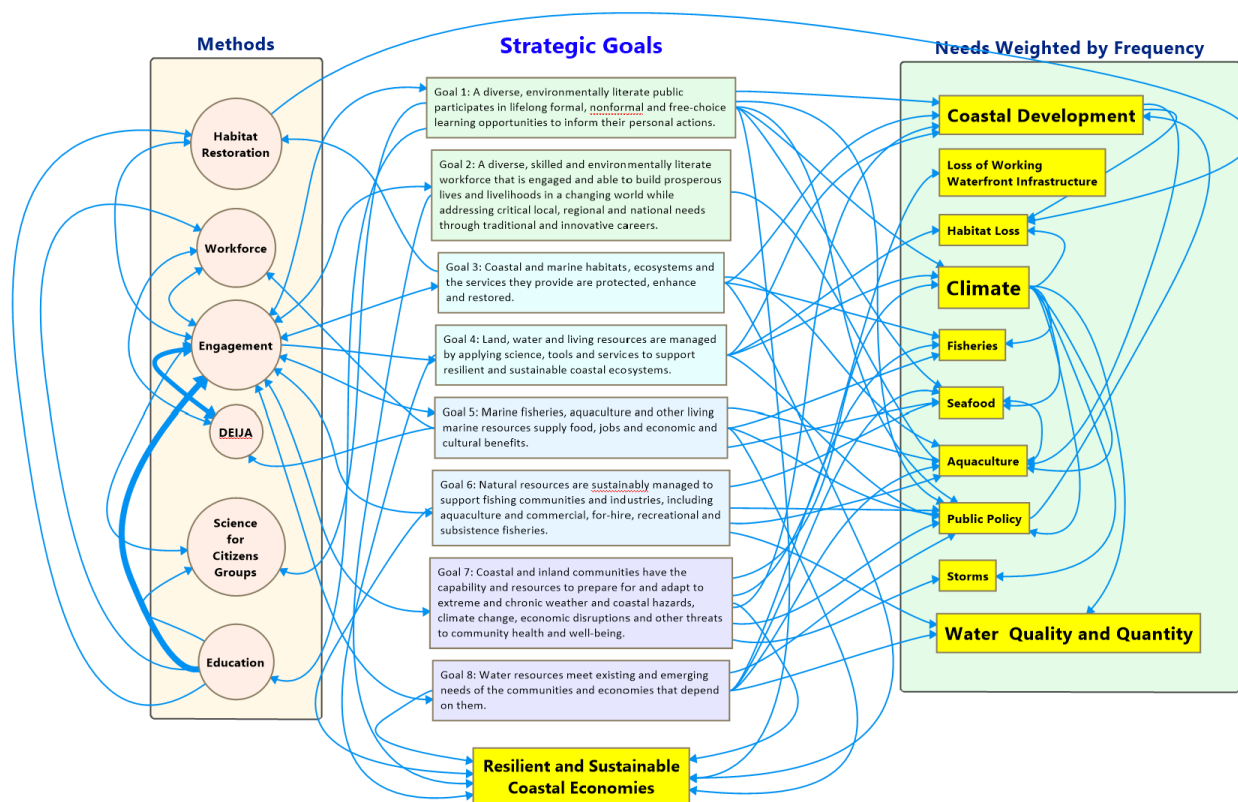


Figure 1. Conceptual model for aligning needs identified by constituents with strategic plan goals. Goals are located in the center, methods recommended by constituents are on the left and constituent needs are located on the right.

Finally, MASGC reviewed other relevant planning documents to identify research, education and engagement needs that MASGC could address through its programs. Priorities in these

plans were cross referenced with the priorities that were collected through the survey, focus groups and advisory committee.

They include:

- National Oceanic and Atmospheric Administration (NOAA) RESTORE Act Science Program's Science Plan
- Mississippi Oyster Plan
- Regional Ecotourism Plan developed by the Coastal Alabama Partnership
- Mobile Bay National Estuary Program's Coastal Comprehensive Plan
- Local Adaptation to Climate Effects: Sea-Level Rise (PLACE: SLR)
- NOAA Water Initiative Vision and Five-Year Plan
- Gulf of Mexico Alliance's Action Plan IV 2021-2026
- United States Contributions to Global Ocean Plastic Waste: Report Release
- Sea Grant Aquaculture Research, Education and Engagement Plan 2021

Vision

MASGC envisions a future where people live, work and play along our coasts in harmony with the natural resources that attract and sustain them. This is a vision where we use our natural resources in ways that capture the economic, environmental and cultural benefits they offer, while preserving their quality and abundance for future generations.

Mission

MASGC provides integrated university- and college-based research, education and engagement (communications, extension and legal) programs to coastal communities that lead to the responsible use of ocean and coastal resources in Alabama and Mississippi through informed personal, policy and management decisions.

Core Values

MASGC's values are essential and enduring tenets that influence the organization and support its mission. The core values support a culture of integrity and accountability within coastal communities that leads to a trust relationship between MASGC and its constituents. The values presented in this document are derived from MASGC's 50-year collective experience, A Mandate to Engage Coastal Users¹ and the values identified in the 2024-2027 National Sea Grant Strategic Plan. MASGC values:

¹ A Mandate to Engage Coastal Users: A Review of the National Sea Grant Extension Program and a Call for Greater National Commitment to Engagement (November 2000) and NOAA's Science Advisory Board's report on Engaging NOAA Constituents. Each report defined constituent engagement as being responsive, accessible, respecting partners, maintaining scientific neutrality, integrating diverse expertise, coordination of efforts and building resource partnerships.

1. Academic Neutrality – Following the science and data analysis to assist constituents in making informed decisions about important, and sometimes controversial, issues in a factual and timely manner without advocating a position.
2. Visionary – Advancing creative, innovative solutions that address emerging and chronic challenges through education, engagement, science and stewardship.
3. Sustainability – Advancing practices that will meet the economic, environmental and societal needs for future generations.
4. Accessibility – Ensuring accessibility of programs to everyone.
5. Diversity, Equity and Inclusion – Proactively engaging 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.
6. Responsiveness – Listening to the needs of constituents by asking the right questions and then providing the proper services to respond to their needs.
7. Respect for partners – Respecting the skills, capabilities, responsibilities and situations of partners, including those with industry sectors, to provide the most effective service-centered programming.
8. Integration – Understanding the value of programs that solve real world problems through integration of research, education and engagement.
9. Accountability – Operating with integrity and transparency in all areas.

Cross-Cutting Principles

MASGC’s cross-cutting principles build off its core values. Respect for its partners and addressing the needs of underserved audiences are two values that are implicit in its cross-cutting principles and will continue to be an integral part of every program it initiates. MASGC’s cross-cutting principles include:

- Resilience and sustainability address short- and long-term impacts on coastal communities. Increasing the resilience of communities, business sectors and individual families help these audiences plan for, respond to and recovery from natural (e.g. storms, harmful algal blooms) and technological disasters (e.g. oil spills). Programs implemented in all four MASGC focus areas have a role in increasing resilience of the built, natural, social and economic domains (Figure 2). MASGC programs must consider how actions taken over the short term foster long-term sustainability and ensure that future generations of resource users, including groups who are currently underserved by MASGC programs, have access equal to or greater than the current generation of resource users.
- Every aspect of MASGC programming involves workforce development ranging from students to adults (e.g. contractors, famers, fishermen, ecotourism business staff and resource agency personnel). An adequately trained workforce that receives better wages is one way to address the inequity and the high poverty rates in Alabama (5th

most impoverished state) and Mississippi (most impoverished state)². Workforce development should address the needs of the current workforce and the needs of the future workforce. MASGC workforce development programs will respond to the needs of the those entering the workforce and the needs of the existing workforce who are seeking alternative career paths (e.g. shift from commercial fishing to aquaculture) using structured, unstructured, formal, informal, internships, mentoring and other methods for program participants (students, adults, military, underserved, etc.) to be successful in their jobs and their lives.

- An environmental literate public is at the core of being good stewards of coastal environments. An environmental literate public must include people from all demographics, including age, socioeconomic status and race. Environmental literacy as a cross-cutting principle also provides the opportunity to engage with coastal residents in research, stewardship programs and other MASGC-supported programs that enable citizens to be able to make informed decisions affecting their lives and the natural environment.

Focus Areas, Goals, Actions and Outcomes

MASGC's overarching goal is to support sustainable coastal communities and associated environments through the application of research discovery. For the purposes of this plan, MASGC defines sustainability as the intersection of resilience using built, natural, social and economic domains (Figure 2).

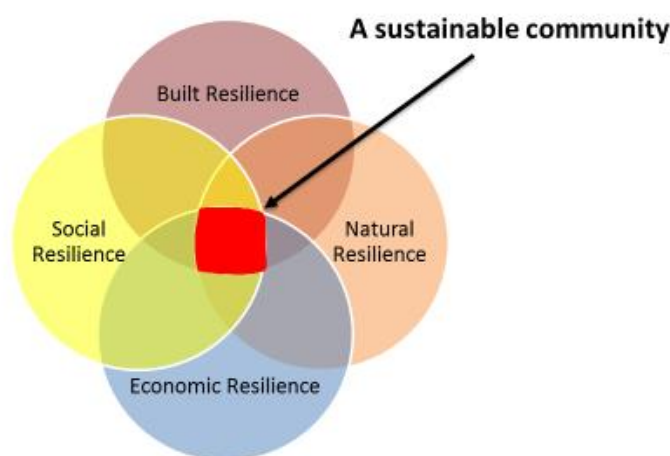


Figure 2. The four cross-cutting domains of resilience (built, natural, social and economic). The overlap of the four domains leads to a sustainable community.

² US Census Bureau: Income and poverty in the United States: 2020
<https://www.census.gov/data/tables/2021/demo/income-poverty/p60-273.html>

Based on the guiding principle of sustainability, the MASGC will invest resources in the following focus areas:

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

Focus Area: Environmental Literacy and Workforce Development

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

Desired Outcomes:

- Individuals consider themselves environmentally literate lifelong learners who utilize knowledge to support, build and restore healthy natural and human communities.
- Educators, students and lifelong learners have current information and innovative tools that meet or exceed relevant standards and practices.
- People know and can act on issues that impact their lives, communities and environments.
- Community members use their knowledge to remove barriers and act for personal and social resilience and adaptation to changing economic, environmental and social conditions.
- Individuals, organizations and communities create innovative opportunities, businesses and communities that respect diverse ways of knowing and learning, address systemic problems in equitable and just ways, and integrate traditional and novel cultures.
- Coastal communities are sustainable, healthy, diverse centers of tradition, innovation and prosperity.

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.

Desired Outcomes:

- All members of a community are enabled to explore and pursue the variety of occupations that are essential to sustain coastal communities, economies and ecosystems.
- Sea Grant student opportunities provide increased literacy, experience and preparedness in critical disciplines, skills and issues.
- Students 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.
- Employment in coastal and watershed communities expands and diversifies.

- The existing and future workforce is able to adapt and thrive in changing environmental, social and economic conditions.

Focus Area: Healthy Coastal Ecosystems

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

Desired Outcomes:

- Communities have greater awareness and understanding of ecosystem functions and the services they provide.
- Coastal ecosystem science and conservation needs are identified and prioritized through diverse participation by constituents.
- Evidence-based science, traditional and local knowledge and innovative solutions inform and improve the management and conservation of coastal habitats.
- Coastal biodiversity, habitats and ecosystem functions and services are restored and sustained.
- 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.

Desired Outcomes:

- Inclusive collaborations with diverse partners and other constituents support planning, research and innovative solutions to address coastal resource management needs, especially for vulnerable communities.
- Community science initiatives are utilized and contribute to improving our knowledge with respect to stewardship of ecosystems and their contributions to coastal communities and economies.
- Coastal communities and resource managers have access to and use science, data, tools and training to be effective in planning and decision-making processes.
- Resource managers understand the risks, options, tradeoffs and impacts of their decisions.
- Communities share, access, understand and use information regarding projected changes and related impacts within ecosystems.
- Communities can apply 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: Domestic fisheries, aquaculture and other coastal and freshwater living resources supply food, jobs and economic and cultural benefits.

Desired Outcomes:

- Coastal residents and U.S. seafood consumers understand the benefits of domestically-produced seafood, both wild and farmed, for individual and environmental health.
- Coastal resource industries employ technologies and reinforce strategies to ensure safe and sustainable seafood and products.
- Coastal resource industries employ strategies that balance economic, community, cultural and conservation goals.
- Increased understanding and technological solutions aid management and production.
- Engagement with constituents and partnerships enable the industry to acquire innovative technologies and adapt to changing conditions.

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

Desired Outcomes:

- Commercial and recreational fishers and aquaculturists are knowledgeable about efficient, sustainable and responsible tools, techniques and uses of coastal and freshwater resources.
- 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.
- Consumers understand the health and sustainability benefits of domestically produced seafood and use that knowledge to inform seafood purchasing decisions.

Focus Area: Resilient Communities and Economies

Goal 7: 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.

Desired Outcomes:

- Scientific understanding, including traditional and local knowledge, provides foundational information, and all community members understand the impacts of changing conditions and coastal hazards and have the capability to prepare, respond and adapt.
- Community leaders improve their understanding of changing conditions and coastal hazards and their capability to implement mitigation and adaptive strategies.

- Inclusive collaborations with diverse constituents and partners support mitigation and adaptation efforts built on knowledge from and responsive to the needs of all, especially the most vulnerable.
- Coastal communities have access to and share knowledge, tools, services and technologies to adapt and grow resilient economies.
- 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.

Desired Outcomes:

- 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.
- 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.
- Communities have diverse, sustainable economies and industries that support existing and emerging water resource needs.

Implementation Strategy

The 2024-2027 MASGC Strategic Plan aligns with the National Sea Grant 2024-2027 Strategic Plan with particular focus on specific needs for Alabama and Mississippi. The MASGC strategic plan will be implemented through the program's portfolio of merit-reviewed research, communications, education, extension and legal projects. This implementation strategy utilizes Sea Grant's unique combination of research, education and engagement capabilities and capitalizes on its strong federal-university-state-private sector partnerships.

The MASGC strategic plan will be used to assess MASGC's progress toward meeting the goals outlined in it. MASGC will track performance measures, other numerical metrics and impacts to highlight Sea Grant's contributions in achieving the goals identified in the MASGC and National Sea Grant strategic plans. Sea Grant will revisit this plan yearly to ensure that the organization is accomplishing its four-year goals while staying alert to new trends and opportunities.

Tracking Impacts Across Plans

This MASGC strategic plan covers 4 years. The application of MASGC-supported work does not follow a strategic planning cycle. As a result, it is essential to continually engage the scientists we support across multiple strategic plans (Figure 3). Maintaining the same focus areas and similar performance measures can improve the continuity between plans and improves MASGC's ability to document societal impacts.

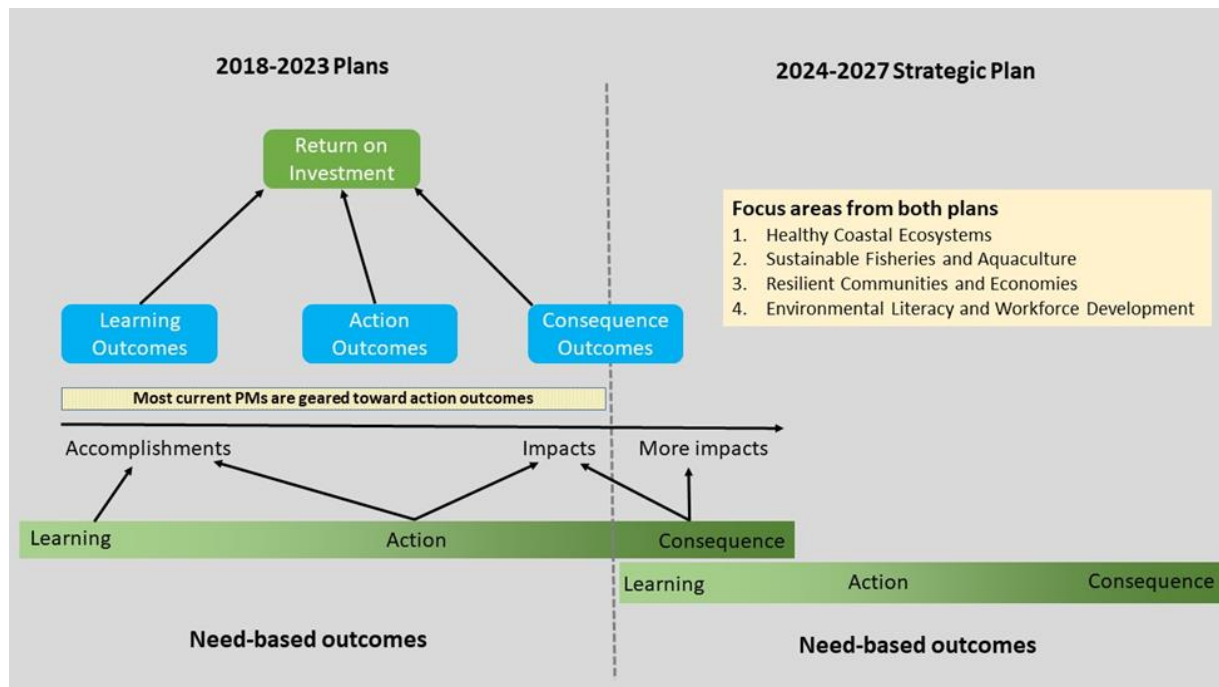


Figure 3. Comparisons between the 2018-2023 strategic plans and the 2024-27 strategic plan to demonstrate how consequence outcomes (long-term outcomes) are infrequently achieved during a four-year planning period. As a result, a reporting process is used to track consequence outcomes (impacts) from projects after a project ends.

About MASGC

MASGC is part of a network of 34 Sea Grant college programs based at universities in U.S. coastal and Great Lakes states and territories. MASGC's mission is to enhance the sustainable use and conservation of ocean and coastal resources to benefit the economy and environment.

Funded through the National Oceanic and Atmospheric Administration, with additional support from Alabama and Mississippi state governments and other funding sources, MASGC offers research funding to address local and regional issues, fellowships, a legal program, and extension, outreach and education programs.

The consortium's members include Auburn University, Dauphin Island Sea Lab, Jackson State University, Mississippi State University, The University of Alabama, The University of Alabama at Birmingham, The University of Mississippi, The University of Southern Mississippi and University of South Alabama (Figure 4).



Figure 4. Mississippi-Alabama Sea Grant Consortium member universities and laboratories and their locations in Mississippi (left) and Alabama.

Performance Measures and Metrics to Measure Success

Performance Measure (PM) or Metric (M)	Focus Area	PM or M
Number of Sea Grant products that are used to advance environmental literacy and workforce development	ELWD	PM
Number of people (youth and adults) engaged in Sea Grant-supported informal education programs	ELWD	PM
Number of Sea Grant supported graduates who become employed in a job related to their degree within two years of graduation	ELWD	PM
Number of acres of coastal habitat protected, enhanced or restored as a result of Sea Grant activities	HCE	PM
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	HCE	PM
Number of fishers, seafood processors, 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	SFA	PM
Number of communities that adopt/implement sustainable economic and environmental development practices and policies as a result of Sea Grant activities	RCE	PM
Annual number of communities that adopt/implement hazard resilience practices to prepare for and respond to minimize coastal hazardous events	RCE	PM
Number of Sea Grant tools, technologies and information services that are used by our partners/customers to improve ecosystem-based management	Crosscutting	PM
Economic and societal impacts and benefits derived from Sea Grant activities (market and non-market; jobs and businesses created or sustained; patents/licenses)	Crosscutting	PM
Number of postsecondary students and degrees financially-supported by Sea Grant in higher education programs (Undergraduate, Graduate)	Crosscutting	M
Number of P-12 students who participated in Sea Grant-supported formal education programs	Crosscutting	M
Number of P-12 students reached through Sea Grant-trained educators	Crosscutting	M
Number of educators who participated in Sea Grant-supported professional development programs	Crosscutting	M
Number of peer-reviewed publications produced by Sea Grant	Crosscutting	M

Performance Measure (PM) or Metric (M)	Focus Area	PM or M
Number of people that visit museums, aquariums and other informal education institutions hosting NOAA-supported exhibits or programs	Crosscutting	M
Number of individuals and full-time equivalents (FTEs) devoted to Sea Grant	Crosscutting	M
Number and origination of core funding pre- and full proposals	Crosscutting	M
Number of volunteer hours	Crosscutting	M
Number of marinas certified as "Clean Marina" by the Clean Marina Program as a result of Sea Grant activities	Crosscutting	M
Number of other certifications granted through MASGC programming ³	Crosscutting	M
Number of Sea Grant- sponsored/organized events	Crosscutting	M
Number of attendees at Sea Grant- sponsored/organized events	Crosscutting	M
Number of public or professional presentations	Crosscutting	M
Number of attendees at public or professional presentations	Crosscutting	M
Number of people participating in environmental actions through NOAA education programs	Crosscutting	M

³ The number of other certification programs granted by MASGC will capture programs such as seafood industry certifications, Master Naturalists certifications and anticipated workforce development certifications. This metric is an internal metric that will be reported annually and is not required by the National Sea Grant Office.



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