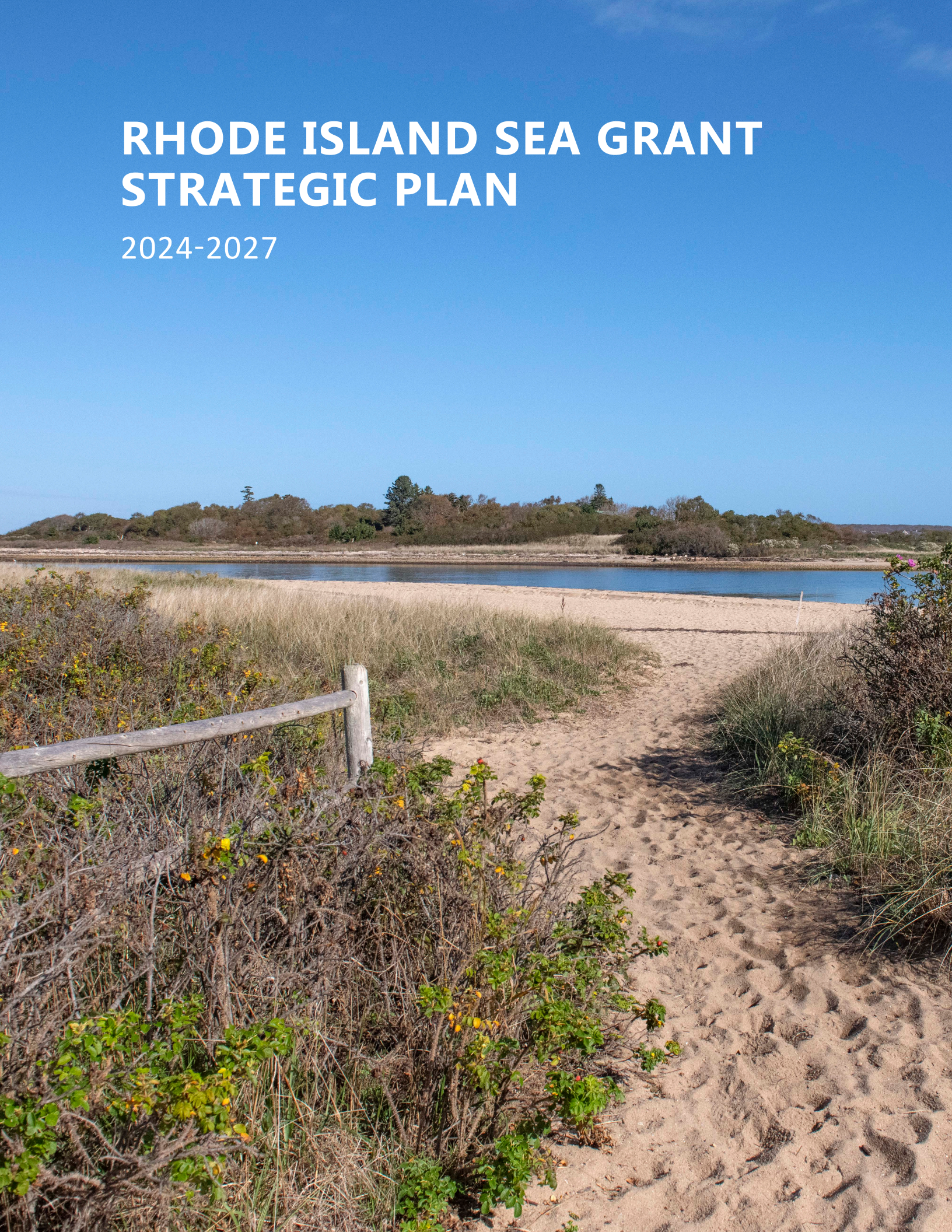
RHODE ISLAND SEA GRANT STRATEGIC PLAN

2024-2027



COURTESY OF ROBINSON FULWEILER .

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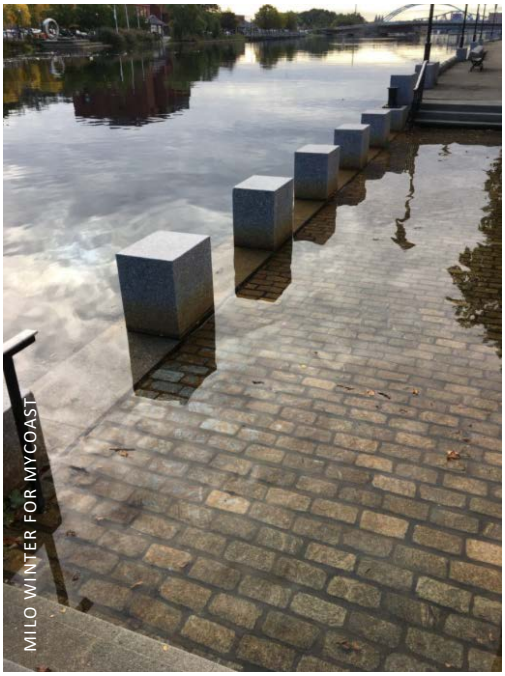
MILO WINTER FOR MYCOAST

PHOTOS
Coastal ecosystems, the blue economy, coastal resilience, and workforce development are just some of Rhode Island Sea Grant's priorities for 2024-2027.

Updated 2025

THE RHODE ISLAND SEA GRANT APPROACH

Based at the University of Rhode Island, the Rhode Island Sea Grant College Program is a partnership among the university, the National Sea Grant College Program, the National Oceanic and Atmospheric Administration (NOAA), and the state of Rhode Island. Rhode Island Sea Grant is part of a network made up of 34 Sea Grant programs located in Great Lakes and coastal states, and U.S. territories.

We work with communities throughout Rhode Island to ensure access to the best available science, and through community engagement, build long-term, sustainable solutions for our coastal and marine resources.

VISION

Vibrant and resilient coastal communities, economies, and environments that are supported by an engaged and informed public and decision-makers.

MISSION

Integrate research, extension, communications, legal, and workforce development activities to improve understanding and effective use and management of Rhode Island's coastal and marine ecosystems.

CORE VALUES

Scientific Integrity—Invest in high quality scientific standards that ensure rigorous scientific inquiry and practices to best serve communities and decision-makers.

Neutrality—Provide impartial and transparent interpretation of and access to scientific information, technical assistance, and policy research.

Stewardship—Foster stewardship of coastal and ocean resources that acknowledges and honors local cultures, uses, and knowledge.

Collaboration—Build long-term partnerships and broaden networks that connect with all individuals, groups, or organizations associated with coastal and ocean issues, especially those who might otherwise not participate in management discussions, to create sustainable solutions.

Engagement—Actively collaborate with individuals, groups, and organizations in the areas we work, ensuring that all needs and perspectives are acknowledged and considered.

Education—Provide opportunities to train the next generation of marine resource professionals, improve decision-making capacity of coastal and ocean practitioners and environmental leaders, and enhance communities' environmental literacy.

Accountability—Listen to, engage, and be accountable to the communities we serve.

Excellence—Invest in professional growth of staff and partners to achieve Rhode Island Sea Grant's vision and mission.

A COMPREHENSIVE APPROACH

Rhode Island Sea Grant serves the needs of all individuals, groups, and organizations associated with coastal and ocean issues in the state. Extension activities work to engage with communities, partners, and others that are representative of the broader populations where Rhode Island Sea Grant operates. Communications and outreach activities take a neutral and transparent approach to include all perspectives and maintain the program's reputation as a credible broker of information. To support the next generation of marine resource professionals, Rhode Island Sea Grant works to proactively recruit, retain, advance, and train a well-qualified workforce serving all coastal communities. Rhode Island Sea Grant also works to create research opportunities that attract and support investigators from across the state working on applied research benefiting communities throughout Rhode Island.

AN ADAPTIVE APPROACH

Rhode Island Sea Grant relies on the intellectual resources of the state's academic, business, and nonprofit communities to improve management of coastal and marine resources. We utilize on-the-ground knowledge and experience of local governments and local users to ground truth the applicability of new, innovative, and adaptive approaches to coastal management via scientific and local and traditional knowledge.

Using this adaptive, integrated approach, in the 1980s Rhode Island Sea Grant employed an innovative ecosystem-based approach to managing coastal resources—the Special Area Management Plan (SAMP). Scientists, extension specialists, municipal, state and federal agencies, and local communities worked together to create a science-based approach to resource management that incorporated local knowledge and place-based understanding. This process introduced a way to facilitate application of the best-available science and local and traditional knowledge into resources management.

The adaptive SAMP process has become a well-established tool used in Rhode Island and is currently being applied in the development of the Narragansett Bay SAMP that will help to define equitable siting of energy transmission lines and aquaculture farms in Narragansett Bay.

SAMPs are one example of the many innovations that help businesses, communities and organizations address real ongoing problems and issues that threaten sustainability of coastal resources in Rhode Island. Other innovative yet adaptive practices include training the next generation of aquaculture farm workers and commercial fishing fleet deck hands, aiding in the development of probiotics to fight fish and shellfish disease, supporting models that identify at-risk-to-flooding municipal facilities and predict harmful algal bloom spread, and engaging undergraduate students in planning for coastal resilience in local municipalities.

AN INTEGRATED APPROACH

The integration of scientific, engineering, legal, and policy research, as well as local and traditional knowledge, into extension activities is a prime directive of the work Rhode Island Sea Grant undertakes. Such an approach mandates integration across Rhode Island Sea Grant projects and programs. Legal and extension programs work hand-in-hand to bring best available knowledge into resource management. Research integrates with legal and extension programs to ensure that community needs are reflected in the research conducted and that research outcomes are applicable to these needs. Communications is integrated throughout everything Rhode Island Sea Grant does to ensure that complex science is broken down into more comprehensible concepts that help people understand the problems and their possible solutions. Furthermore, professional workforce development—through student fellowships and internships at graduate and undergraduate levels, post-graduate fellowship opportunities, and professional training activities—integrates academic learning into ongoing, professional Sea Grant activities. Fellows and interns are mentored in public engagement and the practice of applying best available science and local and traditional knowledge into decision-making and coastal management, improving the capacity of the next generation of management professionals.

Research, extension, communications, legal, and workforce development programs are not "stand alone" entities. They integrate across the entirety of Rhode Island Sea Grant, harnessing the power of science, local knowledge, and creativity to improve resources management and quality of life in Rhode Island.

A PARTNERSHIP APPROACH

The strength of Rhode Island Sea Grant stems from partnerships, which are essential to achieving the overall mission of the National Sea Grant College Program to enhance the use and conservation of coastal, marine and Great Lakes resources to create a sustainable and resilient economy founded on a healthy environment and vibrant communities. Adaptability and integration coalesce through partnerships into a powerful force for action towards achieving this mission.

Rhode Island Sea Grant funds scientific, policy, legal, and technical research in areas where further knowledge is needed for improved management of coastal and ocean resources. It identifies essential research topics through consultation with partners, experts, users, and local communities. It ensures that researchers work closely with Sea Grant extension specialists so that best available science, local knowledge, and technical, legal, and policy information inform business and government. This integrated partnership approach between research and extension, and extension and end users, enables and requires collaboration across disciplines and interests and builds a strong network for future endeavors. In this way, Rhode Island Sea Grant better ensures that the science conducted fully serves the needs of individuals, groups, and organizations associated with coastal and ocean issues in Rhode Island.

Rhode Island Sea Grant's long-term partners are aligned with Sea Grant's mission— supporting integrated research, extension, communications, legal, and workforce development activities to improve understanding and effective use and management of Rhode Island's coastal and marine ecosystems. The major partnerships that aid Rhode Island Sea Grant in accomplishing its mission are described below. Other essential partnerships include nonprofit and private organizations and local communities.

Rhode Island Universities—Rhode Island Sea Grant works closely with all universities within the state, as well as with universities in adjacent states, to foster research on issues of importance to Rhode Island residents, resource users, and resource managers. Academic institutions provide the intellectual capacity needed to conduct rigorous research, creating the foundation for innovative problem solving. Universities also support the training, mentoring, and teaching of undergraduate and graduate students. Rhode Island Sea Grant supports students working directly with scientists, Sea Grant exten-

The Rhode Island Sea Grant Law Fellow Program provides students with real-world experience and nonprofit and public sector clients with quality legal research.

sion specialists, and partners on relevant issues across Rhode Island. Universities also prepare students for participation in post-graduate activities offered through the National Sea Grant program.

Access to and engagement with a community of researchers working at a variety of career stages is a keystone of the Sea Grant model. While Rhode Island Sea Grant partners with universities throughout the state, the University of Rhode Island serves as the host institution for the Rhode Island Sea Grant program, providing physical as well as fiscal facilities within which to operate.

Roger Williams University School of Law—Rhode Island Sea Grant has the distinction of being the only Sea Grant program serving the New England region with dedicated capacity in legal and policy research and extension. In partnership with the Roger Williams University School of Law and the Department of Marine Affairs at the University of Rhode Island, this unique program provides research and outreach on marine and coastal law and policy issues and ensures that the tools and techniques developed through research and extension activities conform to the governance structures through which federal, state, and local municipalities work. The Rhode Island Sea Grant Legal Program provides critical legal research skills, and through engagement of law students in the process, helps build the next generation of legal and resource management professionals.

University of Rhode Island Coastal Resources Center—Rhode Island Sea Grant partners with the Coastal Resources Center (CRC), a leader in the development of coastal management programs in the U.S. and abroad. At its inception, the CRC helped design and implement Rhode Island's coastal management program, and has since played a strong supportive role, providing unbiased scientific syntheses for application to coastal resources management. The CRC U.S. Team, serving as Sea Grant extension specialists, works closely with scientists; Sea Grant Legal Program staff; municipal, state, and federal resource managers; and business and industry leaders to integrate best available science and local knowledge to formulate best management practices for decision-making. Interaction with CRC's international team brings a global perspective to bear on the issues confronting Rhode Island's coastal management community. In partnership with Rhode Island Sea Grant, the Coastal Resources Center uses Rhode Island as a living laboratory to share lessons learned with regional, national, and international resource management communities.

University of Rhode Island Coastal Institute—Rhode Island Sea Grant partners with the University of Rhode Island Coastal Institute to bring information about critical coastal and marine issues to a wider audience. The Coastal Institute works with a broad constituency of groups interested in biodiversity, water quality monitoring, and invasive species, and other important coastal issues. This partnership allows both Sea Grant and Coastal Institute direct access to a greater number of constituents than either could reach through their respective programs and events alone. Collaboration for support of 41°N, a biannual magazine, public events such as symposia, webinars, lectures, and field site visits, ensures that many constituencies are reached, and that target audiences are more effectively provided the information they need to better understand issues and potential solutions.

Northeast Sea Grant Consortium—The Northeast Sea Grant Consortium is a partnership of the seven Sea Grant programs from New York to Maine. This partnership fosters collaborative efforts around issues and problems that are best addressed at a regional scale, funding research and extension activities that address issues of regional importance. The Consortium, in collaboration with the Northeast Fisheries Science Center and the U.S. Department of Energy's Wind Energy Technologies Office and Water Power Technologies Office, recently funded six two-year projects that will examine the effects of ocean renewable energy on community resilience and economies in the Northeast.

Rhode Island Sea Grant Advisory Council—Rhode Island Sea Grant's Advisory Council consists of individuals from user groups, government, local communities, and organizations across the state. The Advisory Council helps to guide the direction of the program across its primary thematic areas and strengthens the program's connections with state and local agencies, communities, businesses, organizations, and others. The Advisory Council helps shape the focus of Sea Grant's research request for proposals (RFP), extension efforts, and strategic direction so that the program is adaptive in its response to ever changing conditions and the needs of Rhode Island.

State and Municipal Partners—State agencies and municipalities are critical partners for moving best available scientific and technical information into practice for planning, decision making, and implementation. Key state agency partners are the Rhode Island Coastal Resources Management Council, the Rhode Island Department of Environmental Management, the Rhode Island Infrastructure Bank, Statewide Planning, and the Rhode Island Emergency Management Agency. These agencies have direct primary responsibility for resource management and planning, and therefore play a large role in shaping direction of Rhode Island Sea Grant programming, as well as being recipients of outreach efforts. Rhode Island Sea Grant engages with municipalities collaboratively to develop pilot projects for implementation of new tools and innovations that then flow from the pilot project sites to other municipalities with assistance from state agencies and regional planning organizations for the benefit of communities around the state and region.

Regional and National Partners—Rhode Island Sea Grant engages regional and national partners to accomplish its mission. Staff members also engage in—often in leadership roles—national Sea Grant program networks (i.e., coastal, fisheries and legal extension; communications; research). Rhode Island Sea Grant also provides the Northeast region with access to legal and policy research for incorporation into resources management. Rhode Island Sea Grant's extension lead also serves as the National Sea Grant Offshore Wind Energy Liaison, sharing lessons learned from the development of the Ocean SAMP and other advanced ocean-based technology planning efforts to build understanding and capacity of the Sea Grant network and its partners.

Rhode Island Sea Grant regularly engages with other NOAA offices, such as the National Weather Service and National Estuarine Research Reserves, and with multiple federal agencies through its engagement in the Northeast Regional Ocean Council (NROC). Other collaborations with the Bureau of Ocean Energy Management, the National Marine Fisheries Service, and the Northeast Wind Resources Center, to name a few, occur through working partnerships with the Rhode Island Coastal Resources Management Council and the Rhode Island Department of Environmental Management, and through activities undertaken as part of the Northeast Sea Grant Consortium.

These partnerships and others ensure that Rhode Island Sea Grant is leveraging resources from, and sharing knowledge and understanding with, others in the NOAA network and beyond. The organizational network within which Sea Grant works—regionally, nationally, and internationally—ensures that best available knowledge is readily and rapidly shared. The end result is a depth of knowledge, and a practical set of tools for application to resources management, that vastly exceeds individual program, office, or agency capacity to achieve.

NGO and Local Community Partners—Nongovernmental organizations and local community groups are important partners in accomplishing mission activities. Both provide direct access to people outside of academic and governmental arenas and make for direct connection to those using coastal resources and often open avenues to engage user groups and communities that have not historically engaged in traditional public processes. Save The Bay, the Ocean State Aquaculture Association, the Rhode Island Marine Trades Association, the East Coast Shellfish Growers Association, the Commercial Fisheries Research Foundation, The Nature Conservancy, the Common Fence Point Association, the Providence Resilience Partnership, and the Rhode Island Saltwater Anglers Association are examples of groups with broader reach that Rhode Island Sea Grant works with on a regular basis.

During the time frame of this strategic planning period,

Rhode Island Sea Grant will continue to seek out and forge new partnerships that improve effectiveness, foster innovation, expand connections, and further leverage resources. Furthermore, Rhode Island Sea Grant will continue to enhance and expand existing relationships, as appropriate, to most fully achieve the Rhode Island Sea Grant vision, mission, and goals.

A RESPONSIVE APPROACH

Rhode Island Sea Grant sets out its programmatic framework in its strategic plan, then defines its course of action to achieve elements of the plan through its omnibus proposal. However, change inevitably happens and unforeseen events occur.

To this end, Rhode Island Sea Grant remains responsive to needs that could not be foreseen during the development of its omnibus proposal plan of work. Oil spills, hurricanes, harmful algal blooms or fish kills, and global pandemics, to name a few, are events that could not be foreseen and planned for, but whose impacts Rhode Island Sea Grant helped mitigate by being responsive.

For example, when the global COVID pandemic shut down seafood markets, both finfish and shellfish industries were economically impacted. Furthermore, Rhode Island residents were cut off from a local, healthy food source. Rhode Island Sea Grant Legal, Extension, and Communications programs were able to respond by providing legal and policy research that helped open an "on the dock" mechanism for seafood products to be sold direct from harvesters. Extension specialists worked with harvesters to help them in their ability to take advantage of this opportunity. Sea Grant Communications experts spread the news of a new mechanism for seafood product purchase so that residents could get seafood back on the menu at home. The result was a win-win outcome for all involved. Responsiveness remains a key ingredient to Rhode Island Sea Grant's ability to serve its constituents in a meaningful and timely fashion.

STRATEGIC PLAN DEVELOPMENT

The Rhode Island Sea Grant 2024-2027 Strategic Plan was developed with broad input from coastal and ocean users, community members, government staff, scientists, and local organizations. The plan provides direction for Rhode Island Sea Grant's Research, Communications, Extension, Legal, and Workforce Development Programs for 2024-2027.

Development of strategic goals, objectives, and outcomes was undertaken through an iterative, multi-step process from April-August 2022. Information was gathered from the broader public through an online survey that asked participants to help define topics and issues important to individuals, groups and organizations associated with coastal and ocean issues in Rhode Island. Rhode Island Sea Grant staff participated in several interactive meetings, including a virtual kick-off meeting in April 2022, a series of virtual weekly staff presentations, and two half-day in-person workshops in June 2022. Rhode Island Sea Grant staff also hosted a Rhode Island Sea Grant Advisory Council meeting in May 2022, where advisory council members shared information about critical issues and priorities and

Rhode Island Sea Grant helps monitor water quality at the URI Bay Campus beach in response to an identified need.

deliberated about the future direction of the Rhode Island Sea Grant program.

The National Sea Grant Office has also been leading a Strategic Planning Process at the national level. The NSGO held a number of listening sessions in March and April 2022. A draft National Sea Grant College Program 2024-2027 Strategic Plan was distributed in June 2022 and written comments were accepted.

The information and feedback from the survey, virtual and in-person staff meetings, a Rhode Island Sea Grant Advisory Council meeting, and the draft National Sea Grant Strategic Plan were integrated into a draft Rhode Island Strategic Plan submitted to the National Sea Grant Office (NSGO) in August 2022 for initial review. After feedback from the NSGO was provided, the plan was updated and sent out to the Advisory Council and Rhode Island Sea Grant staff for further review and input.

For the 2024-2027 strategic planning period, Rhode Island Sea Grant will focus its efforts in four thematic areas identified by the National Sea Grant College Program: 1) Healthy Coastal Ecosystems, 2) Sustainable Fisheries and Aquaculture, 3) Resilient Communities and Economies, and 4) Environmental Literacy and Workforce Development. This plan presents Rhode Island Sea Grant's strategic goals, objectives, and outcomes for each of the four thematic areas.

HEALTHY COASTAL ECOSYSTEMS

Human well-being is intimately linked to the health of coastal ecosystems, which is directly tied to informed resources management. Sea Grant works to integrate scientific, local, and traditional knowledge into the decision-making process to improve management of coastal resources in communities locally, regionally, and nationally. Many issues affecting coastal ecosystem health, including coastal development and waterfront use, warming waters, sea level rise, and marine debris and plastics, need to be addressed to maintain essential ecosystem services such as benthic organism and fish habitat, water quality, and shoreline stability.

During this strategic planning period, Rhode Island Sea Grant will help communities, business and industry, and government develop sound plans of use and protection for coastal and ocean resources through the application of spatial planning tools and techniques that are based on scientific research findings and available local and traditional knowledge. Rhode Island Sea Grant will also support enhanced decision-making processes by incorporating legal and policy research into its programs and promoting the engagement of community members in planning and management.

GOAL 1.1

Support sustainable management of coastal and ocean habitats, ecosystems, and the services they provide towards balanced development, protection, and enhancement.

OBJECTIVES

- Facilitate partnerships among coastal and ocean users and communities, researchers, practitioners, and decision-makers to engage in research and information gathering and sharing.
- Support the inclusion of local and traditional ecological knowledge and meaningful public engagement in coastal and ocean resources management and decision-making processes.

OUTCOMES

- Strategic, collaborative planning and decision-making lead to enhanced stewardship and community benefits.
- Rhode Island coastal and ocean ecosystems and the services they provide are protected, restored, and sustained.

GOAL 1.2

Technical, engineering, and scientific tools and techniques, as well as legal, policy, and planning approaches, are implemented towards the sustainable management of coastal and ocean habitats, ecosystems, and the services they provide.

OBJECTIVES

- Work directly with individuals, groups, and organizations associated with coastal and ocean issues to support the incorporation of best available scientific findings, innovation, local and traditional knowledge, and technical, legal, and policy information into coastal and ocean resource management and decision-making processes.
- Through partnerships, develop, improve, and maintain decision-support tools, technologies, and approaches, based on Sea Grant-funded research, best available science, and local and traditional knowledge for use in resource management and decision-making processes.

OUTCOMES

- Individuals and groups affected by Rhode Island coastal and ocean issues have access to and are using state-of-the-art ecosystem-based management tools and are trained in their implementation for resource management and policy development.
- New policies, guidance, plans, or regulations are developed, or existing ones modified and implemented, for improved management based on best available scientific findings, local knowledge, and technical, legal, and policy information.

Wenley Ferguson of Save The Bay participates in a shoreline planting effort in partnership with Rhode Island Sea Grant and Portsmouth's Common Fence Point community.


SAVE THE BAY.

JIM KARPEICHIK

SUSTAINABLE FISHERIES AND AQUACULTURE

Fisheries and aquaculture provide critical food resources and are important to Rhode Island's social, cultural, and economic fabric. Effective management is needed to ensure that fishery and aquaculture resources remain safe, sustainable, and accessible to all users, and that conflicts are managed effectively. Issues such as stock abundance, new regulatory policies, marine diseases, warming waters, ocean acidification, marine debris, and consumer safety greatly impact the economic, environmental, and social sustainability of fisheries and aquaculture. Better understanding of these issues can improve management decisions and industry practices.

During this strategic planning period, Rhode Island Sea Grant will support sustainable uses of fisheries and aquaculture resources, working directly with scientists, managers, and commercial, recreational, subsistence, and traditional users to ensure that fisheries and aquaculture resources remain resilient.

GOAL 2.1

Management of fisheries and aquaculture in Rhode Island supports social, cultural, economic, and ecological benefits associated with the ocean economy.

OBJECTIVES

- Ensure the best available science, local and traditional knowledge, and technical, legal and policy information associated with fisheries and aquaculture are available to support decision-making.
- Support harvesting, processing, handling, and marketing that contribute to a safe and sustainable seafood supply.

OUTCOMES

- Increased understanding and technological solutions aid management and production.
- Safe and sustainable seafood is readily available.

GOAL 2.2

Commercial, recreational, subsistence, and traditional uses of fisheries and aquaculture resources are sustainable, effectively managed, and accessible.

OBJECTIVES

- Build and strengthen relationships with people associated with fisheries and aquaculture.
- Improve and expand knowledge exchange with different fishing and aquaculture communities regarding their use of living marine resources.
- Facilitate co-existence in coastal and ocean spaces of commercial, recreational, subsistence, and traditional uses of fisheries and aquaculture.

OUTCOMES

- Coastal and ocean spaces host a variety of fisheries and aquaculture activities that contribute positively to the local economy and community well-being.
- Strong public engagement and partnerships ensure safe, sustainable, and accessible seafood supply.

GOAL 2.3

Applied science supports resilient natural resources and communities associated with fisheries and aquaculture within the context of environmental change.

OBJECTIVES

- Support the development and use of tools and technologies that allow fisheries and aquaculture industries to adapt and respond to changing conditions.
- Improve and expand knowledge exchange about environmental change among people associated with fisheries and aquaculture including scientists, managers, and commercial, recreational, subsistence, and traditional users.
- Facilitate input regarding environmental change from people associated with fisheries and aquaculture.

OUTCOMES

- Local communities employ tools and technologies that contribute to resilience in the face of environmental change.
- Scientific understanding and local knowledge provide a foundation for addressing and adapting to environmental change.


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RESILIENT COMMUNITIES AND ECONOMIES

In order for coastal communities to be resilient, it is important that they are prepared to address and adapt to ever-changing economic, social, and environmental conditions.

During this strategic planning period, Rhode Island Sea Grant will work to build capacity within Rhode Island's municipalities, communities, academic institutions, marine-related industry and businesses, and others, to provide support through technical assistance, partnership building, community engagement, and applied legal and scientific research that enhance community resilience. Rhode Island Sea Grant will also foster and expand leadership and coordination opportunities within the state's ocean economy so that it sustainably responds to coastal community needs.

GOAL 3.1

Leverage Rhode Island's ocean economy community to collectively contribute to a sustainable and resilient ocean economy.

OBJECTIVES

- Foster connections within the Rhode Island ocean economy trade organizations, government, and academic communities to support innovation, sustainability, and well-being within the ocean economy.
- Serve as a neutral broker and provider of scientific, technical, legal, and policy information on advanced ocean-based technology at state, regional, and national scales.

OUTCOMES

- Rhode Island ocean economy leaders across different sectors implement innovative solutions toward enhancement of a vibrant and resilient ocean economy.
- Informed individuals, groups, and organizations associated with coastal and ocean issues engage in planning for sustainable, effective use of Rhode Island's oceans and coasts.
- Sea Grant programs, resource users, and community members are making informed decisions about advanced ocean-based technology.

GOAL 3.2

Coastal communities have capacity and resources to prepare for and adapt to the impacts of flooding, erosion, sea level rise, and urban heat island effect.

OBJECTIVES

- Provide technical and legal assistance to, and training for, communities, industry, and government entities to apply tools and techniques for preparing for and sustainably responding to changing coastal conditions.
- Support individuals, organizations, and communities in the development and implementation of policies and actions that preserve and enhance working waterfronts and their water-dependent uses.

OUTCOMES

- Communities, state agencies, and businesses have access to and are using adaptive tools and approaches that reduce and mitigate social, cultural, economic, and ecological impacts due to changing coastal conditions.
- Working waterfronts maintain their relevance and productivity towards responding to societal issues including climate impacts, energy needs, public access, food security, and human well-being.

GOAL 3.3

Safe, welcoming, and ecologically healthy coastal places are accessible to all residents, users, and visitors.

OBJECTIVES

- Ensure the exchange of best available science, local and traditional knowledge, and technical, legal, and policy information related to coastal public access.
- Build and strengthen community science efforts associated with public access and coastal change.
- Support the coexistence of commercial, recreational, subsistence, and traditional uses in coastal spaces.

OUTCOMES

- Individuals, communities, and organizations are knowledgeable about coastal public access and environmental health.
- Community engagement in monitoring improves environmental literacy and stewardship of coastal places.
- Commercial, recreational, subsistence, and traditional uses coexist in coastal spaces.

ENVIRONMENTAL LITERACY AND WORKFORCE DEVELOPMENT

Society is faced with new and difficult challenges because of rapidly changing environmental, social, and economic conditions. These changes threaten current practices but also present new economic and professional opportunities for existing and emerging workforces. Leaders, practitioners, educators, and the public at large must have knowledge and understanding of a wide range of environmental concepts, problems, and issues as well as the tools to make sound and effective decisions regarding the environment and human well-being. Environmental literacy is a foundational prerequisite for an effective response that prepares Rhode Island for the future.

During this strategic planning period, Rhode Island Sea Grant will provide context for, and accessibility to, best available scientific, legal, and policy research and interpretation, as well as local and traditional knowledge, for policy decisions in the private and public sectors. Rhode Island Sea Grant will also train, mentor, and provide opportunities for engagement in professional activities for the next generation of coastal and ocean leaders from a variety of backgrounds and experiences.

GOAL 4.1

An environmentally literate public that participates in lifelong learning opportunities related to oceans and coasts.

OBJECTIVES

- Engage public audiences using a variety of methods to enhance their understanding of coastal and ocean resources management, science, law, and policy.
- Best available science and information about coastal and ocean resources, issues, science, policy, and law is communicated to the public and to professionals and leaders.

OUTCOMES

- Individuals from across Rhode Island are actively engaged in coastal and ocean science communication activities.
- Rhode Islanders understand and can act on coastal and ocean issues that impact their lives, communities, and environments.

GOAL 4.2

A skilled and environmentally literate workforce that is engaged and able to build prosperous lives and livelihoods.

OBJECTIVES

- Support training and mentoring of students and emerging professionals in research, outreach, extension, communications, and workforce development endeavors.
- Support training of professionals to improve understanding, synthesis, and application of best available science and information to resolve coastal and ocean challenges.

OUTCOMES

- Students and emerging professionals apply the experiences and knowledge gained through their Sea Grant-supported experiences in their professional endeavors.
- Training opportunities are provided to professionals from different backgrounds to increase coastal and ocean literacy and the knowledge and skills needed for coastal and ocean professions, particularly in emerging fields.


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Researcher Jonathan Puritz studies oyster health.
PHOTO COURTESY OF URI

Appendix A.
National Sea Grant Performance Measures and Metrics

Healthy Coastal Ecosystems
- 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
- Number of acres of coastal habitat protected, enhanced, or restored as a result of Sea Grant activities

Sustainable Fisheries and Aquaculture
- 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

Resilient Communities and Economies
- Number of communities that adopt/implement sustainable economic and environmental development practices and policies as a result of Sea Grant activities
- Number of communities that adopt/implement hazard resilience practices to prepare for and respond to or minimize coastal hazardous events as a result of Sea Grant activities

Environmental Literacy and Workforce Development
- Number of Sea Grant products that are used to advance environmental literacy and workforce development
- Number of people engaged in Sea Grant supported nonformal education programs
- Number of Sea Grant-supported graduates who become employed in a job related to their degree within two years of graduation

Cross Cutting National Focus Area Measures
- Number of Sea Grant tools, technologies and information services that are used by partners/customers to improve ecosystem-based management
- Economic and social impacts and benefits derived from Sea Grant activities (market or non-market; jobs and businesses created or sustained; patents)

Cross Cutting National Performance Metrics
- Sea Grant Staffing: Number of individuals and full-time equivalents (FTEs) devoted to Sea Grant
- Core Funding Proposals: Number and origination of core funding pre- and full proposals
- Number of volunteer hours
- Number of post-secondary students financially supported by Sea Grant in higher education programs (undergraduate/graduate)
- Number of P-12 students who participated in Sea Grant-supported formal education programs
- Number of P-12 students reached through Sea Grant-trained educators
- Number of educators who participated in Sea Grant-supported professional development programs
- Number of Sea Grant-sponsored/organized events
- Number of attendees at Sea Grant-sponsored events
- Number of public or professional presentations
- Number of attendees at public or professional presentations
- Number of marinas certified as “Clean Marina” by the Clean Marina Program as a result of Sea Grant activities
- Number of individuals certified or recertified in Hazard Analysis Critical Control Point (HACCP) as a result of Sea Grant activities
- Number of peer-reviewed publications produced by Sea Grant

Sea Grant
RHODE ISLAND