RHODE ISLAND SEA GRANT STRATEGIC PLAN

2018–2022

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 of Rhode Island, 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 33 Sea Grant programs located in Great Lakes and coastal states, and U.S. territories.

MISSION AND VISION

Rhode Island Sea Grant's mission is to improve understanding and management of Rhode Island's coastal and marine ecosystems to achieve its vision for vibrant, healthy coastal communities, economies, and marine environments that are resilient in the face of change.

CORE VALUES

- Present unbiased interpretation of scientific, technical, policy, and legal research
- Offer neutral fora that encourage debate, consensus-building, and problem solving
- Foster stewardship of coastal and ocean resources
- Nurture innovation and share lessons learned
- Improve capacity of coastal and ocean practitioners and environmental leaders
- Be accountable to stakeholders
- Listen to and engage diverse stakeholder communities
- Build and sustain long-term partnerships
- Train the next generation of resources management professionals

At left, staff of the Coastal Resources Center/Rhode Island Sea Grant and the Narragansett Bay National Estuarine Research Reserve developed online climate adaptation training modules for municipal officials. Photos on cover and at left by Monica Allard Cox.

- Leverage resources for improved effectiveness and efficiency
- Invest in professional growth of staff as innovators and leaders

AN INCLUSIVE APPROACH

Rhode Island Sea Grant works for all coastal constituencies in Rhode Island and strives to be all-inclusive. This includes working with stakeholders with sometimes competing interests, such as commercial and recreational fishing, in order to find common ground and working solutions. Rhode Island Sea Grant also seeks to include groups that may not have adequate representation, but who are important users of coastal resources. Rhode Island Sea Grant continually works to expand partnerships with diverse stakeholders to broaden the reach and effectiveness of its efforts and programs, and to best represent the state.

AN INNOVATIVE APPROACH

Rhode Island Sea Grant calls upon the vast intellectual resources of the state's academic, business, and non-governmental organization (NGO) communities to develop innovative concepts and ideas for coastal resources management. It calls upon the on-the-ground knowledge and experience of local governments and citizens to harness and apply innovations in a practical way.

Using this integrated approach, in the 1980s, Rhode Island Sea Grant pioneered an ecosystem-based approach to managing coastal resources—the Special Area Management Plan (SAMP)—that brought together scientists, extension specialists, municipal and state agencies, and local citizens to develop the plan. Using state-of-the-art research, the SAMP process facilitates practical application of best-available science into resources management at local scales. The result is locally supported, state-approved policies to manage coastal resources.

The SAMP process has become a preferred method of work for the Rhode Island Coastal Resources Management Council, the state's coastal management agency. The most recently approved SAMP—the Ocean SAMP—helped streamline the permitting process for siting offshore renewable energy in Rhode Island. The Ocean SAMP paved the way for the development of the nation's first offshore wind farm, which is now providing renewable energy to the state's citizens.

SAMPs, improved aquaculture upwelling systems, probiotics that fight fish disease, models that identify at-risk-to-flooding municipal facilities, and trawl nets that exclude bycatch so fishermen can keep fishing are but a few of the many innovations sponsored by Rhode Island Sea Grant that help businesses, towns, and citizens of Rhode Island manage economic and environmental resources.

AN INTEGRATED APPROACH

Research, extension, communications, and legal programs work together to harness the power of science to improve resources management and quality of life in Rhode Island. 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 policy development. Stakeholder needs are reflected in research requests for proposals to ensure that research outcomes are applicable to stakeholder 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.

Research, extension, communications, and legal programs are not "stand alone" entities. They integrate across the entirety of Rhode Island Sea Grant, harnessing the power of science 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 of "Science Serving America's Coasts." Inclusion, innovation, and integration coalesce through partnerships into a powerful force for action.

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, stakeholders, and experts. It ensures that researchers work closely with Sea Grant extension specialists so that best available science and technical and legal information informs business and government. This "full service partnership," integrated approach between research and extension, and extension and stakeholders, enables and requires collaboration across disciplines and interests and builds a strong network for future research endeavors. In this way Rhode Island Sea Grant better ensures that the science conducted fully serves our stakeholders.

Rhode Island Sea Grant's long-term partners are aligned with Sea Grant's mission—to improve understanding and management of Rhode Island's coastal and ocean ecosystems. The major partnerships that sustain Rhode Island Sea Grant in accomplishing its mission are described below. Other essential partnerships include those with non-profit and private organizations, as well as state and federal agencies, that enable application of scientific findings.

While new partnership opportunities are continuously sought out, successful collaborations are not necessarily abandoned at project's end. Some partnerships, such as those with the University of Rhode Island (URI) and the URI Coastal Resources Center span four decades and more. Others, such as those with Roger Williams University School of Law, URI Coastal Institute, and Northeast Sea Grant Consortium, started a dozen or so years ago. Fledgling partnerships with the URI departments of landscape architecture and ocean engineering are only a few years old but show great promise for professional training and workforce development efforts well into the future.

The University of Rhode Island—URI holds special status as the host institution for the Rhode Island Sea Grant program, providing physical as well as fiscal facilities within which to operate. Location at the URI Graduate School of Oceanography (GSO) provides direct access to scientists of a globally recognized oceanographic university. Rhode Island Sea Grant also works closely with private universities within the state, as well as with universities in adjacent states, to support research on issues of importance to Rhode Island residents, resource users, and resources managers. Academic institutions provide the intellectual horsepower needed to conduct rigorous research, creating the foundation for innovative problem solving. From this research springs the tools and techniques used to manage and sustain coastal and ocean resources. Access to and engagement with the academic research community is the keystone to the Sea Grant model.

University of Rhode Island Coastal Resources Center—Rhode Island Sea Grant partners with the Coastal Resources Center (CRC), a leader in the development and implementation of coastal management programs in the U.S. and abroad. At its inception, 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 agents, works closely with scientists, Sea

Rhode Island Sea Grant, at the URI Graduate School of Oceanography, benefits from partnerships at the university and beyond. Photo courtesy of GSO.

Grant Legal Program staff, municipal and state resources managers, and business and industry leaders to integrate best available science and best management practices into the decision-making process. Interaction with CRC's international team brings a wealth of lessons learned, innovation, and creative thinking to bear on the issues confronting Rhode Island's coastal management community.

University of Rhode Island Coastal Institute—Rhode Island Sea Grant partners with the URI 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, for instance. This partnership allows both Sea Grant and the Coastal Institute direct access to a greater diversity of constituents than either could reach through their respective programs and events alone. Collaboration for support of *41°N*, a biannual magazine, and for public events such as symposia, webinars, lectures, and field site visits ensures that a broad diversity of constituencies is reached, and that target stakeholder audiences are more effectively provided the information they need to better understand issues and solutions.

University of Rhode Island Landscape Architecture and Ocean Engineering Departments—In partnership with the URI Landscape Architecture and Ocean Engineering departments, Rhode Island Sea Grant harnesses the enthusiasm of undergraduates for creative problem solving. Working with scientists, Sea Grant extension specialists, and local stakeholders, students develop innovative ways to address problems and improve resiliency to threats such as rising sea level, increased storminess, and flooding. Students hone professional skills by working directly with future peers and clients, and stakeholders receive novel ideas to address critical issues facing local communities.

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.

Landscape architecture students, with Professor Richard Sheridan (second from left), worked on concepts for Oakland Beach in Warwick. Photo by Jesse Burke.

In partnership with 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 regarding marine and coastal law and policy issues. The tools and techniques developed through research, in order to be successfully applied, must conform to the governance structures through which federal, state, and local municipalities work. Law and policy research finds a path for the application of innovative tools and techniques within existing governance structures, and helps to change existing law and regulation that bars the application of innovations developed through research. 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 professionals.

Northeast Sea Grant Consortium—The Northeast Sea Grant Consortium is a partnership of the seven Sea Grant programs extending from New York to Maine. This partnership fosters collaborative efforts around issues and problems that are best addressed at a regional scale, funding research projects that address issues of regional importance.

Rhode Island Sea Grant Senior Advisory Council—Rhode Island Sea Grant's Senior Advisory Council consists of representatives of Rhode Island's major stakeholder groups. The council assists Sea Grant in identifying and responding to stakeholder priorities related to coastal and ocean issues. The Senior Advisory Council helps shape the focus of Sea Grant's research request for proposals (RFP), extension efforts, and strategic direction so that it 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, Rhode Island Department of Environmental Management, and Rhode Island Statewide Planning. These agencies have direct primary responsibilities for resources management and planning, and therefore play a large role in shaping the direction of Rhode Island Sea Grant efforts, as well as being primary recipients of outreach and extension efforts. Statewide Planning provides a direct link to municipalities through its statewide mandate, and Rhode Island Sea Grant engages with municipalities in a collaborative fashion with this state agency to develop pilot projects in certain towns for implementation of new tools and innovations. Functional tools and techniques then flow from the pilot project sites to other municipalities through regional planning organizations and in collaboration with Statewide Planning.

Regional and National Partners—Rhode Island Sea Grant engages at various scales to improve the effectiveness of the national Sea Grant program network to accomplish mission goals and objectives. Staff members engage—often in leadership roles—in national networks for coastal, fisheries and legal extension efforts, communications, and research. Rhode Island Sea Grant serves the northeast region with legal resources and developed and coordinates the regional newsletter.

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 active engagement in the Northeast Regional Ocean Council. Further engagement with the Bureau of Ocean Energy Management, National Marine Fisheries Service, and Northeast Wind Resources Center, to name a few, occurs through close, working partnerships with the Rhode Island Coastal Resources Management Council and Rhode Island Department of Environmental Management and through activities undertaken as part of the Northeast Sea Grant Consortium.

Engagement in these partnerships, and through one-on-one work with other agencies and offices, ensures 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 is unparalleled in the U.S.

During this strategic planning period, Rhode Island Sea Grant will continue to seek out and forge new partnerships that improve effectiveness, foster innovation, and further leverage resources. Furthermore, Rhode Island Sea Grant will continue to enhance and expand existing relationships, as appropriate, to most fully accomplish mission goals and objectives at local, state, regional, and national levels.

A RESPONSIVE APPROACH

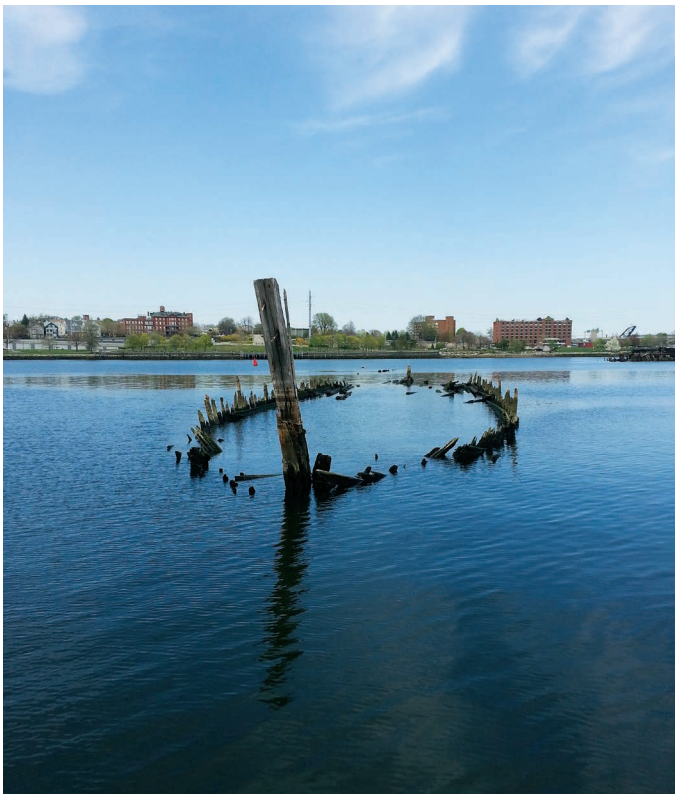
Rhode Island Sea Grant sets out its programmatic framework in its strategic plan, then defines its course of action to achieve elements of the plan through its four-year omnibus proposal. Resources management, however, does not exist in a vacuum. Change happens and unforeseen events occur. To this end, Rhode Island Sea Grant remains responsive to needs that could not be anticipated during the development of its four-year plan of work. Oil spills or fish kills, for example, are unexpected events whose impacts Rhode Island Sea Grant helped mitigate by being responsive.

For instance, during the fall of 2016, Rhode Island experienced its first harmful algal bloom in over 25 years. Rhode Island Sea Grant facilitated an assessment of agency response to the event and its impact on the shellfish industry so all could agree to useful changes in response should such an event recur in the future. Part of the assessment process brought forth critical information needs, and Rhode Island Sea Grant provided funds for research to fill those needs. Responsiveness remains a key ingredient to Rhode Island Sea Grant's ability to serve its stakeholders in a meaningful and timely fashion.

STRATEGIC PLAN DEVELOPMENT

Rhode Island Sea Grant will focus its efforts in four thematic areas that have been 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. The pages that follow outline Rhode Island Sea Grant's strategic goals, objectives, outcomes, and milestones for each focus area for this 2018–2022 strategic planning period.

Development of strategic goals, objectives, outcomes, and milestones was undertaken through an iterative process. The Rhode Island Sea Grant Senior Advisory Council played a major role in defining the issues of importance,



The remains of one of the vessels in "Rhode Island's largest ship graveyard," explored with Sea Grant funding. Photo courtesy of David Robinson.

which were refined through meetings with other stakeholder groups, as well as through one-on-one meetings with state agency, municipal, business, and non-profit organization staff. Rhode Island Sea Grant staff, through a combination of day-long and shorter length meetings, discussed and debated the issues defined by stakeholders and how they fit into ongoing and longer-term programmatic efforts. These deliberations resulted in this strategic plan document, which lays out the direction of Rhode Island Sea Grant efforts for the 2018–2022 timeframe. The Rhode Island Sea Grant 2018–2022 Omnibus Proposal serves as the "plan of work" by which we will move forward in accomplishing strategic goals and objectives. Rhode Island Sea Grant annually reviews its strategic plan to determine if amendment is needed to better address unforeseen issues and trends, and it reports annually on outcomes for each focus area.

Current research projects funded by Rhode Island Sea Grant will have results and outcomes that become available during Year 1 and Year 2 of this strategic planning period. Rhode Island Sea Grant plans for this "time lag" across strategic and work plan timeframes. Extension, communications, and legal programs will be poised, through the work plan defined in the 2018–2022 omnibus proposal, to engage with stakeholders to move best available science into practical application.

HEALTHY COASTAL ECOSYSTEMS

HUMAN PROSPERITY IS INTIMATELY LINKED TO THE HEALTH of coastal ecosystems, which is directly linked to informed and enlightened resources management. Sea Grant works to integrate science into the decision-making process to improve management of finite coastal resources in coastal communities locally, regionally, and nationally. Many issues affecting coastal ecosystem health—ranging from coastal development, working waterfronts, and food security to sea level rise and renewable energy—need to be considered and addressed at the policy level to maintain essential ecosystem services such as fisheries habitat and adequate water quality.

During this strategic planning period, Rhode Island Sea Grant will help local communities, industry, and government develop sound plans of use for coastal and ocean-based resources through the application of spatial planning tools and techniques that are based on scientific research findings. Sea Grant will also improve and enhance the decision-making process by incorporating legal and policy research into its projects and programs.

GOALS

- Fund research in the natural and social sciences and legal and policy fields that is responsive and directly applicable to the coastal and ocean issues of Rhode Island.
- Preserve and enhance coastal ecosystems and the services they provide through ecosystem-based management practices.

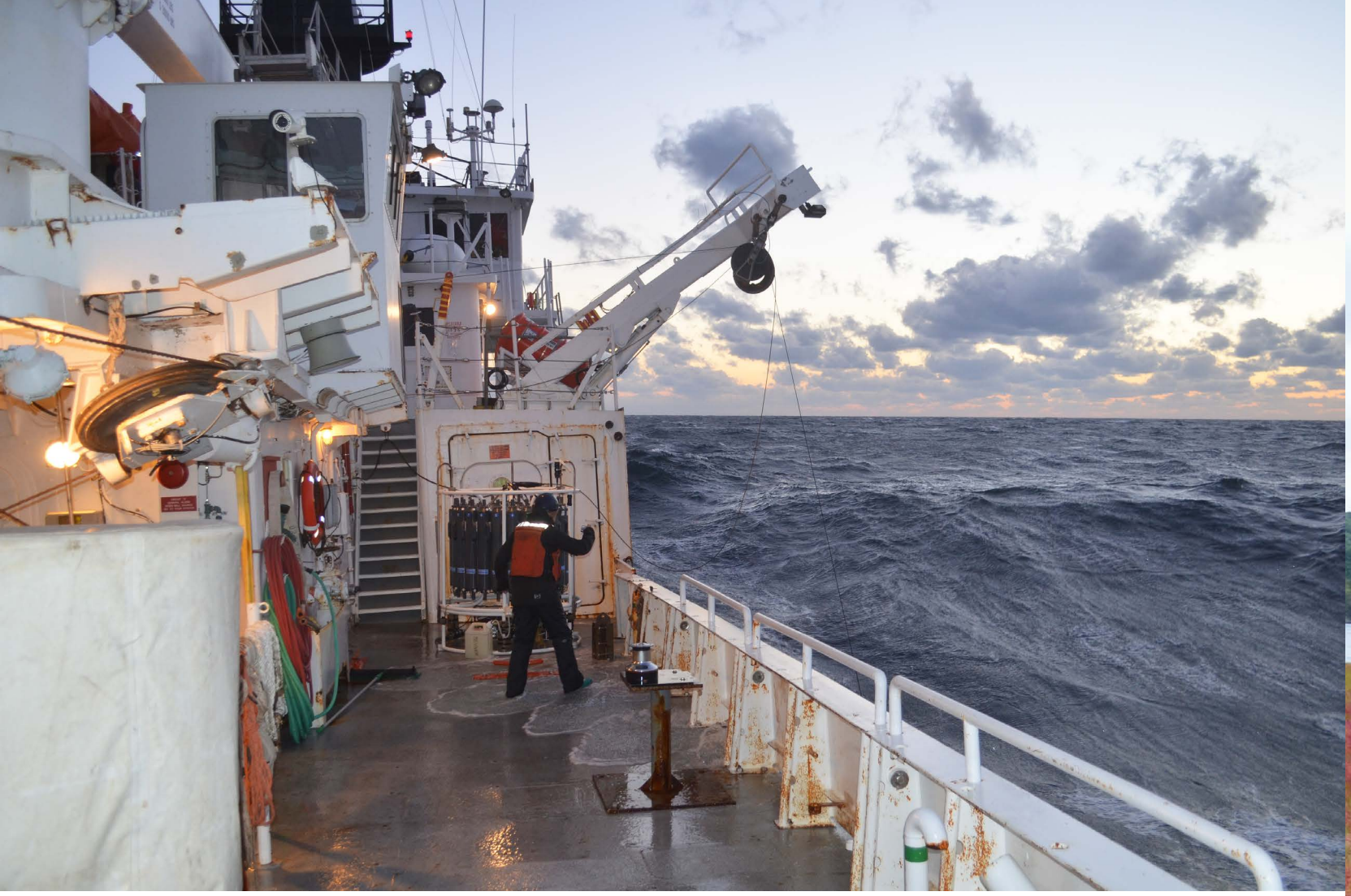
OBJECTIVES

- Annually meet with stakeholders to identify critical issues for research that inform biennial RFPs to reflect stakeholder needs.
- Incorporate best available scientific, technical, and legal policy information into coastal and ocean resources management and decision-making processes.
- Develop and maintain ecosystem-based management tools for use in resources management and decision-making processes, based on Sea Grant-funded research and best available science.

OUTCOMES

- Constituents are provided with new ecosystem-based management tools and trained in implementing and applying them in resources management and policy development.

At left, Billy Blank of Rome Point Oyster Farm displays some of his harvest. Photo by Melissa Devine. Above, winter flounder in its benthic habitat.



Mapping underwater habitats to help determine the best placement of offshore wind turbines and identifying salt marshes most vulnerable to sea level rise are some of the projects Rhode Island Sea Grant has supported to protect and improve the health of coastal ecosystems. Above photo courtesy of URI GSO; photo at right by Meredith Haas.

- New policies, guidance or regulations are developed, or existing ones modified with the intent of improved management, based on new research, best available information, and new tools and techniques.

MILESTONES

- Workshops, conferences, and symposia, such as the Coastal State Discussion Series, the Ronald C. Baird Sea Grant Science Symposium, and the Marine Law Symposium are convened to share lessons learned and present research findings in order to broaden awareness and understanding.
- An Ocean SAMP outreach strategy that includes stakeholder meetings, an active web site, and other actions is developed to broaden public understanding of how new research and updated best available information is informing coastal resources management decisions.
- Formal adoption of at least two Ocean SAMP chapters is completed.
- Baseline governance evaluation of the Shoreline Change, or Beach, SAMP initiative is completed and communicated to the public and decision-makers.
- Recommendations from the Shellfish Management Plan lead to creation of a state-wide, nationally aligned Rhode Island Shellfish Initiative, in partnership with NOAA's National Shellfish Initiative, the Rhode Island governor's office, and regional and state partners.


Capt Jesse

SUSTAINABLE FISHERIES & AQUACULTURE

FISHERIES AND AQUACULTURE PROVIDE CRITICAL FOOD resources and are important to Rhode Island's social and economic fabric. Effective management is needed to ensure that fishery and aquaculture resources remain safe and sustainable and conflicts are managed effectively. Issues such as stock abundance, regulatory structure, marine diseases, and consumer safety greatly impact the economic, environmental, and social sustainability of fisheries and aquaculture. Research to better understand these issues can improve management decisions and industry practices.

During this strategic planning period, Rhode Island Sea Grant will help industry and consumers build vibrant local markets for Rhode Island fishery and aquaculture products, and continue its commitment to provide training for safe seafood processing. Rhode Island Sea Grant will also work to promote sustainable, effective, ecosystem-based management of fisheries and aquaculture.

GOALS

- Rhode Island seafood consumers support local fisheries and aquaculture, utilizing locally abundant species as food.
- Rhode Island fisheries are sustainably managed and provide safe products to meet public demand.
- Coastal communities support their working waterfronts and plan for their long-term sustainability as important economic and social entities.

OBJECTIVES

- Support research of the economic, environmental, legal, and social issues surrounding emerging fishing industry sectors, including aquaculture, to provide a sound basis for future management and policy.

At left, fishing boats dock at Galilee. Photo by Monica Allard Cox. Below, American Mussel Harvesters employees sort oysters. Photo courtesy of American Mussel Harvesters.

Rhode Island Sea Grant supports an annual seafood cookoff for high school culinary students as part of its sustainable fisheries and aquaculture portfolio. Photo by Monica Allard Cox.

- Assess the social and economic uses of public waters for fisheries and aquaculture.
- Educate consumers about the nutritional value of seafood, and the economic and ecological benefits of buying locally abundant seafood products.
- Support seafood producers, processors, and handlers in effectively marketing safe and sustainable local seafood to Rhode Island consumers.
- Gain a better understanding of fishing and aquaculture stakeholder groups, including the recreational fishing industry in Rhode Island, so needs and uses can better be considered in resources management.
- Better understand the movement of underutilized species from dealer to consumer, and how best to utilize direct-to-market sales and other value-added marketing strategies.
- Initiate a formal Rhode Island Shellfish Initiative compatible with the NOAA National Shellfish Initiative.

OUTCOMES

- Prospective and new shellfish farmers and other aquaculturists are competent state permit applicants and engaged industry members.
- Key constituencies incorporate research findings into fisheries and aquaculture management.
- An enhanced in-person and online curriculum for training new and existing aquaculturists in all aspects of operating a 21st century shellfish farming operation is formalized for long-term implementation in Rhode Island.
- Social and economic assessments of the use of public waters for fisheries and aquaculture is conducted.
- The Rhode Island Shellfish Management Plan is updated to integrate shellfish-related Sea Grant research, and best available information, based on stakeholder input.
- Seafood producers, processors, and handlers are certified in the provision of safe seafood.
- Seafood consumers and producers participate in markets for locally abundant and emerging sustainable seafoods.

MILESTONES

- Market assessment of consumer needs and access to local seafood, including underserved communities, is conducted.
- A regular forum is developed for sharing learning opportunities among the public, state agencies, and researchers around management, policy, research activities, and emerging issues related to aquaculture in Rhode Island.
- Regional planning for direct-to-market opportunities for farmed and wild harvested seafood products, that creates a direct-to-market guide, is convened.
- Hazard analysis and critical control points (HACCP) curricula are assessed and appropriately modified to address newly emerging safety issues, with certification programs conducted annually.
- A “lessons learned” video is created and a peer-reviewed publication on the Shellfish Management Plan process is produced for use by practitioners.
- An enhanced in-person and online curriculum for training new and existing aquaculturists in all aspects of operating a 21st century shellfish farming operation is formalized and accepted for long-term implementation in Rhode Island.

RESILIENT COMMUNITIES & 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 unique to the coastal landscape.

During this strategic planning period, Rhode Island Sea Grant will help stakeholders, including state agencies, municipalities, and businesses, increase their capacity to develop effective decision-making processes that promote mitigation and adaptation to anticipated changes.

Above, Providence Harbor. Photo by Meredith Haas.

GOALS

- Help local and state entities improve their resilience to impacts associated with coastal hazard mitigation.
- Support research and planning for offshore wind energy development.

Above, beach restoration efforts. Photo courtesy of Bryan Oakley.
At right, Newport Harbor. Photo by Monica Allard Cox.

OBJECTIVES

- Develop tools and techniques that help mitigate impacts caused by, and improve adaptation to, changes associated with rising sea level, coastal erosion, and increased storminess.
- Provide technical and legal assistance to, and training for, local communities and state entities to apply tools and techniques for hazard mitigation.
- Explore innovative approaches to address the emerging issue of recycling end-of-life fiberglass boats so they can be removed from the waste stream in an environmentally sensitive fashion.
- Coastal communities develop and implement policies and guidance that preserve and enhance working waterfronts and water-dependent uses.
- Provide national and international leadership in understanding environmental, economic, legal, social, and cultural impacts of renewable energy development in the marine environment.

OUTCOMES

- Practitioners and interested stakeholders receive guidance and lessons learned from development of the nation's first offshore wind farm.
- Communities, state agencies, and businesses benefit from the training, outreach, and application of adaptive tools and approaches that reduce and mitigate social, economic, and ecological impacts associated with storms, flooding, sea level rise, and other hazards.
- A white paper on the feasibility of recycling fiberglass boats is developed as a foundation for addressing the issue.

MILESTONES

- The Rhode Island Coastal Resources Management Council uses STORMTOOLS and the Coastal Environmental Risk Index for decision-making in permitting and for use in municipal planning documents.
- The Beach SAMP and associated tools are adopted, implemented, and updated by the Rhode Island Coastal Resources Management Council.
- Municipal coastal resilience infrastructure resources, techniques, lessons learned, and training are disseminated to decision makers.
- A webinar series of trainings for municipal decision makers is developed and delivered.
- Science-based data, tools, and best management practices are compiled for use in hazard mitigation plans and local comprehensive plans, vulnerability assessments, and larger-scale planning efforts.
- A conceptual design will be developed for assessing changes (i.e., physical, governance, and/or behavior) in community resilience.
- Indicators to measure the impacts on tourism and recreation from the Block Island wind turbines are developed, communicated, and applied to help inform future management.
- Training programs on municipal resilience are developed and delivered to stakeholders.


THE NEWPORT

ENVIRONMENTAL LITERACY & WORKFORCE DEVELOPMENT

SOCIETY IS FACED WITH NEW AND DIFFICULT CHALLENGES as a result of rapidly changing environmental, social, and economic conditions. These changes present both threats to existing practices and opportunities to develop an economy and workforce that is prepared for the future. Current and emerging state leaders, as well as the public at large, must have the tools to understand and develop effective plans for mitigating threats and taking advantage of opportunities. 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 results for stakeholders and policy decisions, both in the private and public sectors. Rhode Island Sea Grant will also educate and provide opportunities for engagement for the next generation of coastal and ocean leaders.

GOALS

- Improve the abilities of current and emerging resources management professionals to integrate science into decision-making for ecosystem-based management.
- Engage people in better understanding research, law, and policy findings so they may apply them to improve natural, social, political, and economic systems.

OBJECTIVES

- Directly engage students in research, outreach, and extension activities to enhance their understanding of coastal and ocean resources management, science, law, and policy.
- Train professionals across a diversity of disciplines to understand, synthesize, and apply best available science and information to resolve coastal and ocean challenges.

OUTCOMES

- Law, graduate, and undergraduate students are trained in research, outreach, extension, communications, and education endeavors.
- Information about coastal and ocean resources, issues, science, policy, and law is communicated to the public and to professionals and leaders.
- Research findings that raise awareness and promote discussion of coastal and ocean resources are made available to the public.
- Graduate and undergraduate students in multiple disciplines are mentored to provide scientific, technical, outreach, and other support to Rhode Island Sea Grant extension, legal, and communications efforts.
- Undergraduate design studios that link to and/or directly aid Rhode Island Sea Grant extension efforts are supported.

At left, Coastweeks participants learn about sea level rise impacts in Newport. Photo by Monica Allard Cox. Above, “Clamming 101” participants learn about Rhode Island’s iconic shellfish, the quahog, and its commercial and recreational fishery. Photo courtesy of the Coastal Resources Center.


Sea Grant
Rhode Island