



Strategic Plan 2024 – 2027



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CONTEXT

Coastal Louisiana faces the nation's highest rates of wetland loss, highest rates of relative sea level rise, extensive nearshore eutrophication, continued recovery from the largest marine oil spill in U.S. history and coastal communities that remain vulnerable to extreme events such as river flooding and storms. Nine major hurricanes, two major river floods, annual hypoxic events and the Deepwater Horizon Oil Spill have all affected coastal Louisiana since 2005. Thus, Louisiana Sea Grant's most recent experience has been one of crisis management. This becomes even more significant considering that Louisiana's coastal resources include the largest fishery (commercial and recreational) in the contiguous U.S., the nation's largest supply of domestic energy and the largest port complex (by tonnage) in the country.

Since its establishment in 1968, the Louisiana Sea Grant College Program has worked to promote stewardship of the state's coastal resources through a combination of research, education and outreach. Louisiana Sea Grant is an integrated program of extension, education, law and policy, communications, research and management. These core functions carry out the program's mission.

Louisiana Sea Grant, based at Louisiana State University, is part of the National Sea Grant College Program, a network made up of 34 programs located in each of the coastal and Great Lakes states, Puerto Rico and Guam. Sea Grant programs work individually and in partnership to address major marine and coastal challenges. LSU was designated the nation's thirteenth Sea Grant College in 1978. State funding comes from Louisiana State University (LSU) and the Louisiana State University AgCenter (LSU AgCenter).

Extension serves Louisiana's coastal population. Sea Grant extension agents, who live in the coastal areas they serve, and extension specialists, who are based on the LSU campus, connect residents to university research. The Marine Extension Program is supported by Louisiana Sea Grant and the LSU AgCenter Cooperative Extension Service. Extension agents and specialists work on a wide range of topics including fisheries, aquaculture, natural resource economics, water quality, marine debris, resiliency, sustainability, shellfish aquaculture and seafood.

Education engages learners of all ages. The need for environmental literacy, especially as it pertains to the stewardship of coastal habitats and natural resources, is more urgent than ever. To promote wise management, use and conservation of Louisiana's rich coastal resources, Louisiana Sea Grant Education and Engagement provides a variety of formal and non-formal education materials and opportunities.

The **Law & Policy Program** aims to provide timely and relevant legal information and services for the many users of Louisiana's coastal lands and waters, including state and local governments, coastal businesses and the general public. This information covers a wide range of topic areas affecting the use, conservation and management of Louisiana's ocean and coastal environments and resources.

Research, sponsored and performed by Louisiana Sea Grant, is relevant and integrated. Sea Grant develops research dealing with natural science and socioeconomic information, design innovation, policy guidance for fisheries management, climate change adaptation, resilient communities and ecosystem restoration to enhance coastal systems and communities in Louisiana.

Communications supports the program's commitment to providing neutral, science-based information, keeping the public up to date on current research and the latest news on relevant issues. Communications maintains the program's website and social media, and produces publications, videos and other materials for a diverse range of user groups while supporting the program's other units.



MISSION

Louisiana Sea Grant's mission is to generate and provide science-based information and tools supporting thriving coastal communities and ecosystems and increasing coastal resilience and economic opportunities.

VISION

Louisiana Sea Grant envisions resilient and sustainable coastal communities, economies and ecosystems that are supported by engaged and informed public and decision-makers.

CORE VALUES

The National Sea Grant College Program's core values are essential to influence the organization and support the mission. These core values support a culture of integrity and scientific neutrality enabling Sea Grant to serve as a trusted broker of information. Louisiana Sea Grant follows these core values to serve the people of Louisiana.

Vision – Advancing creative, innovative solutions that address emerging and chronic challenges through engagement, science and stewardship.

Collaboration – Seeking and sustaining partners with whom we leverage each other's strengths, and responsively, respectfully integrating diverse expertise and perspectives to reach shared goals.

Sustainability – Advancing environmental stewardship practices and communicating the value of the services that the coastal, watershed and ocean ecosystems provide to the nation.

Accountability – Operating with integrity and transparency while maintaining quality and relevance in all functional areas, including program management.

Diversity, Equity, Inclusion, Justice and Accessibility – 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.

Non-advocacy – Maintaining a commitment to objective research and programming that avoids bias and advocacy in the development and delivery of information, tools and services.

THE 2024-2027 PLANNING PROCESS

Input for Louisiana Sea Grant's Strategic Plan 2024-2027 was obtained from multiple sources. Strategic planning efforts by key partners were consulted.

Notable at the federal level were the:

- National Sea Grant Strategic Plan
- 10-Year National Sea Grant Network Vision Documents

At the regional level:

- The Gulf of Mexico Alliance (GOMA) is a five-state effort, led by the respective governors, to "enhance the ecological and economic health of the Gulf of Mexico through increased regional collaboration."
- Fisheries management plans and amendments of the Gulf of Mexico Fisheries Management Council, as well as programs and publications of the Gulf States Marine Fisheries Commission

Considerable input was also received from partners, including:

1. *Louisiana Sea Grant Advisory Council*
2. *Louisiana Sea Grant Marine Extension Program survey*
3. *Public survey*
4. *LaDIA (Louisiana Discovery, Integration and Application) meetings*
5. *Education Advisory Board*
6. *Sea Grant Law & Policy Program Advisory Board*

1. *The 23-member Louisiana Sea Grant Advisory Council (Council)* was recently reformed with new members selected to fill gaps in user groups as well as increase overlap with the Law & Policy and Education advisory boards. Its members represent academia, the private sector, state and federal government agencies and non-governmental organizations. The need for thinking strategically about Louisiana Sea Grant's role in addressing coastal issues was discussed at the May 2022 Council meeting, and members were provided a summary of focus areas and goals to provide in-person input for the 2024-2027 planning process.

Those in attendance shared their diverse perspectives both on future program priorities as well as possible strategies for achieving the program's goals.

The topics of fisheries and seafood production, resiliency, adaptation to change and environmental literacy figured prominently in the discussions. Members suggested that Louisiana Sea Grant continue focusing on its strengths—both research and outreach—in fisheries and natural resources issues.

Louisiana Sea Grant has been a leader in building awareness and providing tools to help make coastal communities more resilient. However, coastal Louisiana has been through three consecutive years of natural disasters, as well as numerous natural and manmade



disasters over the last two decades. In the face of these disasters, how can you measure and appropriately identify resilience? Research and outreach have helped address vulnerabilities and responses to hazardous weather events and climate change.

Workforce development was identified as a key issue across the coast in many sectors, and Council members encouraged leveraging partnerships across the coast. Aquaculture was identified as a tool for resiliency, as well as harbors of refuge.

Additionally, members of the Council asked how Louisiana Sea Grant could be more visible and recognizable for its efforts. Concern that national metrics do not fully measure impact or appropriately capture the strengths of Sea Grant was discussed. Several members also encouraged reengaging with oil and gas, as well as our ports. While some entities are aware of what Louisiana Sea Grant is doing, other entities could use updates on Sea Grant activities.

2. Louisiana Sea Grant's extension staff – collectively called the Marine Extension Program - were asked to engage with their stakeholders on topics of interest related to the strategic plan. Extension personnel were then given an extensive survey including prioritizing focus areas, goals, outcomes as well as how we deliver information.

3. Public Survey. A shorter public facing survey was sent out through Louisiana Sea Grant's listserv, social media channels and website. This survey also included prioritizing focus areas and goals as well as missing areas, trust of information and delivery of information.

4. LaDIA. The Louisiana academic research community was engaged during the LaDIA program's two retreats in May 2022. Academic researchers representing seven universities and colleges were encouraged to provide input on our research efforts.

5. The Education Advisory Board discussed the strategic plan at their most recent semi-annual meeting in August 2022. Feedback was collected from participants whose experiences ranged from state agencies, non-profits, university outreach, museums and K-12 education providers. Some of the suggestions were to: (1) change or add language to encourage greater educational research, particularly as this is a focus area that is not frequently funded by LSG. This would include providing better guidance so that education proposals have a stronger research framework and also language that encourages universities to seek out additional education support from community partners; (2) a discussion on whether to reference the newly released Louisiana Department of Education's Environmental Education Key Principles and Concepts. The overwhelming consensus on this was no because leadership in the organization is changing and relevance has yet to be established.

Efforts will be made to return to the Key Principles and Concepts in the future if there is better guidance and its application results in more educational partnerships with K-12 schools; and (3) extensive discussion about language and word choice, so that projects focused on or incorporating environmental literacy are viewed more favorably to proposing researchers. Some of these language changes have been incorporated into this final draft to reflect a stronger focus on environmental literacy and workforce development.

6. The Sea Grant Law & Policy Program met with its Advisory Board in September 2022. A wide-ranging discussion was conducted concerning legal research needs for the State of Louisiana and the Gulf of Mexico region, as well as a detailed discussion on ways to enhance diversity in the program, both in terms of student hiring and as well as in advisory board membership. Topics identified as fertile areas for the law and policy program's research and outreach included: Mississippi River freshwater sediment diversion impacts on human habitation and use of aquatic habitats; sea level rise's effects on coastal property ownership; insurance availability as a driver of coastal development; impacts of storms and sea level rise on cemeteries, and mitigating those effects; issues with the FEMA assistance application process; updates to the state building code and other non-structural mitigation measures; the role of alternative oyster culture in mitigating the adverse effects of coastal restoration.

CROSS CUTTING PRINCIPLES

Louisiana Sea Grant supports three cross cutting principles that will enhance the program's capabilities to meet future needs:

1. Develop and sustain partnerships — Louisiana Sea Grant will use its distinct capacity to integrate the expertise and capabilities of its federal, regional, state and local agency partners, as well as those from academia, business, industry and nongovernmental organizations.
2. Enhance diversity, equity, inclusion, justice and accessibility — Louisiana Sea Grant will continue to seek new and diverse perspectives and viewpoints to enhance cultural understanding and enable Sea Grant to pursue its vision and mission effectively and efficiently. Louisiana Sea Grant will continue to use tools that allow all interested persons to participate in program activities so that a diverse range of perspectives and values are included.
3. Provide trusted, science-based information of value — Louisiana Sea Grant will serve as an academic, neutral party and assist to all audiences interested in coastal issues in making informed decisions about important, and sometimes controversial, issues in a factual and timely manner without advocating for specific positions or policies.



LOUISIANA SEA GRANT FOCUS AREAS and GOALS

In support of our mission, Louisiana Sea Grant will concentrate efforts in the following strategic focus areas aligning with the National Sea Grant Strategic Plan:

1. *Resilient Communities and Economies (RCE)*
2. *Sustainable Fisheries and Aquaculture (SFA)*
3. *Environmental Literacy and Workforce Development (ELWD)*
4. *Healthy Coastal Ecosystems (HCE)*

RESILIENT COMMUNITIES and ECONOMIES

Louisiana Sea Grant's resilient communities and economies efforts focus on three topic areas:

1. Climate change adaptation
2. Community sustainability
3. Quantity of water resources

Climate change is among the top environmental challenges facing coastal Louisiana and impacts both aquatic and terrestrial ecosystems; it also poses threats to human lives, water resources, environments and economies. Louisiana Sea Grant will continue to help communities and individuals plan for and adapt to projected climate changes, taking into account the uncertainty in many of the projections.

Coastal communities provide vital economic, social and recreational opportunities for thousands of Louisianans, but population migration, beginning with Hurricanes Rita and Katrina and continuing with Hurricanes Laura and Ida, have transformed the state's coastal landscapes and intensified demand for finite coastal resources including water resources and drainage infrastructure. Louisiana Sea Grant will continue to assist the coastal population and be responsive to expanding needs related to more recent population shifts to assist with community sustainability.

Louisiana Sea Grant will continue to assist the coastal population in applying the best available scientific knowledge and use its extension and education capabilities to support resilient coastal communities that are supported by diverse and vibrant economies and function within the capacity of their ecosystems.

RESILIENT COMMUNITIES & ECONOMIES GOAL 1:

Louisiana's coastal residents and leaders have the tools, resources and increased capacity to prepare, respond and adapt to extreme events, chronic coastal hazards, economic disruptions and other threats to community well-being.

Outcomes:

- Members of the community, including the underserved, have resources available and access to information to better understand, prepare and adapt to changing conditions and coastal hazards.
- Community leaders have increased understanding of changing conditions and coastal hazards from scientific, traditional and local knowledge, and socio-economic information that improves their capability to implement mitigation and adaptive strategies to improve resilience and community sustainability.

RESILIENT COMMUNITIES & ECONOMIES GOAL 2:

Communities make optimal decisions so that water resources meet existing and emerging needs of the communities, economies and ecosystems that depend on them.

Outcomes:

- Improved outreach and decision-support tools will help guide planning processes related to the state's water resources.
- Communities and stakeholders have access to science, data, tools and services to understand and anticipate changes in water quality and quantity and make informed decisions that support existing and emerging water resource needs.



SUSTAINABLE FISHERIES and AQUACULTURE

Louisiana Sea Grant's sustainable fisheries and aquaculture efforts focus on three topic areas:

1. Fisheries
2. Aquaculture
3. Seafood safety

Louisiana has experienced a decline in many of its major fisheries (marine and freshwater) while simultaneously seafood consumption nationwide has risen. Louisiana Sea Grant, through its research, extension and education activities, and work with industry partners, has helped to stabilize and improve many sectors of the state's seafood industries.

Historically, Louisiana aquaculture has included crawfish, alligator, oysters, soft shell crab and more. Aquaculture has the potential to expand economic opportunities which in turn will help meet the increased demand for seafood. But many questions need to be addressed for the industry's full potential to be realized.

Seafood safety is a concern in seafood production, and Louisiana Sea Grant plays key roles in advancing processors' and the public's understanding of the nature of these problems and opportunities. Louisiana Sea Grant supports the kind of informed public and private decision making that leads to a sustainable supply of safe seafood well into the future.

SUSTAINABLE FISHERIES and AQUACULTURE GOAL 1:

Marine and freshwater wild-caught fisheries and aquaculture resources provide food, jobs and economic and cultural benefits to coastal and inland communities.

Outcomes:

- The Louisiana seafood industry can adapt to economic and environmental changes and acquire innovative technologies to expand.
- The Louisiana seafood industry - including aquaculture, wild-caught and processing - employs technologies and reinforces strategies to ensure safe and sustainable seafood and products.

SUSTAINABLE FISHERIES and AQUACULTURE GOAL 2:

Natural resources are sustainably managed with improved science to support fishing communities and industries, including commercial, recreational and subsistence fisheries and aquaculture.

Outcomes:

- Resource managers and fishing and aquaculture communities have access to science, tools and resources to enhance their capacity to adapt to future resource management needs.
- Resource and restoration management decision-makers, commercial and recreational fishermen and aquaculture interests have access to information about efficient, sustainable and responsible tools, techniques and uses of coastal and freshwater resources.



ENVIRONMENTAL LITERACY and WORKFORCE DEVELOPMENT

Louisiana Sea Grant's environmental literacy and workforce development efforts focus on three topic areas:

1. Environmental and scientific literacy
2. Fishing industry professional development
3. Undergraduate and graduate professional development

An environmentally literate person is someone who has a fundamental understanding of the systems of the natural world, the relationships and interactions between the living and non-living environment and the ability to understand and use scientific evidence to make informed decisions regarding environmental issues. These issues involve uncertainty and require the consideration of economic, aesthetic, cultural and ethical values.

To address the environmental challenges confronting our state, scientific, technical and communication skills are critical to meet workforce needs. Well positioned to foster scientifically literate communities who will serve as stewards of our local coastal and marine resources, Louisiana Sea Grant is meeting the challenge of improving today's environmental education through its professional training for fishermen, educators and innovative curriculum resources for students and teachers, from PK to gray. The classroom and community stewardship programs are developed for all learners, including underserved student and fishing populations in coastal Louisiana. With a rich history providing professional development and education opportunities to commercial and charter fishing industries, Louisiana Sea Grant also supports the professional development of undergraduate and graduate students through peer student and youth mentoring and service programs, science communication competitions, conference travel awards and by offering fellowship programs and other career development opportunities.

ENVIRONMENTAL LITERACY and WORKFORCE DEVELOPMENT GOAL 1:

Louisiana communities are increasingly scientifically and environmentally literate, participating in lifelong learning opportunities allowing them to be active, engaged and relevant contributors in local, state or national dialogues about Louisiana's coastal issues.

Outcomes:

- Louisiana teachers have the knowledge and tools to instruct students about watersheds, coastal and marine ecosystems and resources allowing students to develop a sense of awareness, understanding and stewardship.
- Individuals consider themselves environmentally literate lifelong learners who use knowledge to support, build and restore healthy ecosystems and communities.
- Communities are knowledgeable and equipped with the best available science, technology and policy related information to be able to contribute to adaptive management.

ENVIRONMENTAL LITERACY and WORKFORCE DEVELOPMENT GOAL 2:

A diverse, skilled and environmentally literate workforce is engaged and able to build fulfilling lives and livelihoods in a changing world while addressing critical coastal, regional and national needs through traditional and innovative careers.

Outcomes:

- Increased opportunities are available for Louisiana's undergraduate and graduate students, as well as university faculty, resource managers and fishing industry members, to gain knowledge and experience in the science and management of Louisiana's watershed, coastal and marine resources and improve communication and community engagement skills.
- A responsive and diverse workforce is available to advance and benefit sectors that support the needs of Louisiana's coastal communities and ecosystems (e.g. industry, research, government).
- The state's existing and future workforce can adapt to and thrive in changing environmental, social and economic conditions.



HEALTHY COASTAL ECOSYSTEMS

Louisiana Sea Grant will stress three topics under the healthy coastal ecosystem focus area:

1. Water quality
2. Coastal restoration
3. Coastal ecosystem health

Healthy ecosystems are fundamental to life along Louisiana's coastal and economic development. Development, land-use practices, increasing natural disasters, marine debris of all sizes and sources, as well as sea level rise, subsidence, loss of barrier islands and other factors are contributing to water quality degradation and human health impacts, as well as a decline of aquatic and terrestrial habitat for fish and other species, wetlands loss and proliferation of invasive species. It is vital to provide protection and support restoration efforts that seek to achieve ecosystem function and deliver value. Working with partners in coastal communities, academia, industry and agencies, Louisiana Sea Grant plays a key role in identifying and assessing impaired ecosystems, recognizing and sharing relevant traditional and local knowledge, and supporting development of potential policies, technologies and processes that lead to the improvement of watershed, coastal and ocean ecosystems.

To help restore and preserve the state's coastal ecosystems, Louisiana Sea Grant will promote innovative research, co-production of knowledge and outreach that increases the understanding of ecosystems and their services. The goals in this area relate to protecting, restoring and conserving natural resources and developing mechanisms to help natural resource managers make optimal decisions.

HEALTHY COASTAL ECOSYSTEMS GOAL 1:

Coastal Louisiana habitats, ecosystems and the services they provide are protected, enhanced and/or restored through applied research and outreach of new knowledge.

Outcomes:

- Greater public awareness of water quality issues and impacts to Louisiana's ecosystems and participation in water resource management.
- Coordinated evidence-based science, traditional and local knowledge and innovative solutions inform and improve the management and conservation of coastal habitats.
- Development of tools and technologies to guide shoreline and coastal protection, cleanup or restoration.

HEALTHY COASTAL ECOSYSTEMS GOAL 2:

Louisiana's coastal ecosystems and habitats are managed with science, tools and stakeholder input in a sustainable manner.

Outcomes:

- Louisiana residents, managers and decision makers have resources, access to information and tools to make informed decisions about projected changes within the coastal ecosystem, how to improve coastal ecosystem health and how to adapt restoration and protection efforts to changing conditions.
- Community and/or participatory science initiatives are used and contribute to improving knowledge and stewardship of coastal systems.
- Communities share, access, understand and use information regarding projected changes and related impacts within ecosystems.



APPENDIX A

NATIONAL SEA GRANT COLLEGE PROGRAM PERFORMANCE MEASURES AND METRICS

National Performance Measures by National Focus Areas

Healthy Coastal Ecosystems (HCE)

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 (SFA)

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 (RCE)

Number of communities that adopt/implement sustainable economic and environmental development practices and policies as a result of Sea Grant activities

Annual number of communities that adopt/implement hazard resilience practices to prepare for and respond to/minimize coastal hazardous events

Environmental Literacy and Workforce Development (ELWD)

Number of Sea Grant products that are used to advance environmental literacy and workforce development

Number of people (youth and adults) 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 our partners/customers to improve ecosystem-based management

Economic and societal impacts and benefits derived from Sea Grant activities market and 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 postsecondary students and degrees 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/organized events

Number of public or professional presentations

Number of attendees at public or professional presentations

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

Visitor Attendance: Number of people that visit museums, aquariums and other informal education institutions hosting NOAA-supported exhibits or programs

Environmental Actions: Number of people participating in environmental actions through NOAA education programs





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