



**Marine Extension and
Georgia Sea Grant**
UNIVERSITY OF GEORGIA



Strategic Plan 2018-2021

“Science Serving Georgia’s Coast”

Executive Summary

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Our Vision

We envision a coastal Georgia where healthy ecosystems and natural resources maximize the resilience and economic vitality of communities.

Our Mission

To support research, education, and outreach activities that promote environmental and economic health in coastal Georgia by helping improve public resource policy, encouraging far-sighted economic and fisheries decisions, anticipating vulnerabilities to change and educating citizens to be wise stewards of the coastal environment.

Our Core Values

Our core values are fundamental tenets that shape our strategy and inspire us daily.

- *Promote scientific excellence and knowledge-sharing:* We recognize that the full spectrum of benefits and impacts of our programs can only be achieved through the foundation of scientific research and full utilization of research results by the communities that we serve. Service to our stakeholders is at the heart our mission.
- *Be objective and transparent:* We uphold the principles of objectivity and transparency by maintaining the highest quality and integrity of our research, providing impartial and timely service through education and outreach, and encouraging broad public engagement.
- *Embrace and drive change:* To anticipate future challenges and seize opportunities, we strive to be nimble, relevant, and engaged in a world of constant change.
- *Develop meaningful partnerships:* We believe that we can address challenges and seize opportunities only by forming effective and strong partnerships with diverse stakeholders. We build and expand our partnerships to engage stakeholders on local, regional, and national scales.
- *Inspire inclusion and diversity:* We acknowledge that our activities, programs, services, and everyday interactions are enriched by welcoming a diversity of people engaged in open, respectful, and meaningful exchange.

Situation Statement

Introduction to Georgia's Coast

Nothing conveys the dynamism of Georgia's coastal zone more convincingly than its tremendous tides. The difference between high and low tide in Georgia (six to ten feet) is the second greatest range on the United States Eastern Seaboard. Twice a day, the tides completely submerge and expose Georgia's 378,000 acres of expansive salt marshes, which constitute more than one quarter of the remaining salt marshes on the east coast of the United States. In so doing, they nourish and sustain one of the most biologically productive ecosystems on earth. Georgia's salt marshes vary from four to six miles in width and lie between the mainland and a series of eight barrier island complexes containing 14 barrier islands. Like all barrier islands, they protect the coastline from storm surges and tidal action. However, unlike other barrier island complexes in the U.S., Georgia's are largely undeveloped. At the end of the 19th Century, a number of wealthy northern industrial families, among them the Carnegies, Vanderbilts, and Rockefellers, purchased Georgia's "Golden Isles" as private hunting and recreation retreats. Jekyll, Cumberland, Ossabaw, Sea, Sapelo, St. Catherines and Wassaw Islands were all privately owned until the middle of the 20th century. Having these critical barrier islands in the hands of wealthy families for so long kept them from being developed, which in turn kept much of the salt marsh and estuarine waters they shelter relatively undisturbed. Dynamism also characterizes social aspects of Georgia's coastal zone. Unlike most coastal regions in the eastern United States, Georgia's coast did not become accessible to most of the population until late in the 20th Century, after the completion of Interstates 95 and 16. Population increased from about 280,000 people in 1970 to over a half a million in 2010. In the first decade of the new millennium, population increased up to 32% in some counties and averaged 22% across all 11 coastal counties.

Georgia's Changing Coast

Georgia's increasing population, shifting demographics, finite resources, fragile coastal ecosystems, urbanization, building and maintenance of local infrastructure are all pressing issues that demand careful consideration and sound decisions. The immediate and long-term challenge is to balance economic vitality, ecological integrity, and social responsibility. This includes maintaining abundant clean water, ensuring the availability of clean beaches, maintaining easy access to waterways, preserving the vast acres of tidal marsh that provide valuable nursery habitat for fish and shellfish, and protecting urban areas from the ravages of sea level rise and storm surge.

Programmatic Focus Areas

The 2018-2021 strategic plan outlines goals, strategies, outcomes, and corresponding performance measures organized under our four national focus areas, namely,

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

These focus areas mirror the National Sea Grant Program's 2018-2021 Strategic Plan and reflect America's most urgent coastal needs, NOAA's goals and Sea Grant's strengths and core values.

Outcomes are categorized as *learning, action, and consequence*

- Learning outcomes lead to increased awareness, knowledge and skills, and changes in attitudes, opinions, aspirations or motivations through research and/or constituent engagement.
- Action outcomes lead to behavior change, social action, adoption of information, changes in practices, improved decision-making or changes in policies.
- Consequence outcomes in most cases require focused efforts over multiple strategic planning cycles. Consequence outcomes in a four-year strategic plan serve as reference points toward reaching focus area goals between the current and future strategic plans.

There are two types of performance measures identified in this plan:

- Performance measures that are closely linked to a single focus area.
- Crosscutting performance measures of progress towards goals for all four focus areas.

Healthy Coastal Ecosystems

Situation: Healthy Coastal Ecosystems are critical to Georgia. They have intrinsic ecological cultural and aesthetic value, and are essential for sustaining the diversity of coastal and marine life that draws people to the coast of Georgia and supports many coastal communities. The health of Georgia's coastal ecosystems is under assault from various stressors, many of which are of anthropogenic origin. When drought, upstream water withdrawal, contamination or other conditions stress the ecosystem, fisheries and tourism decline, and both economic and environmental prosperity suffers. Economic growth must be balanced with environmental conservation in a way that meets present needs without compromising quality of life for future generations.

Goal 1: Ecosystems and the services they provide are preserved and/or improved by sustaining the biodiversity and abundance of living resources in order to support communities and economies.

Strategy 1a: Support research, outreach and educational activities provided by Georgia Sea Grant and partners to demonstrate the value and function of healthy ecosystems, as well as the factors and practices that affect them.

Learning Outcomes

- Scientific understanding of ecosystem processes and responses is improved.
- Natural resource managers, coastal and watershed stakeholders, and the general public recognize the value and function of species biodiversity, productive habitats and healthy ecosystems.

Action Outcome

- Communities demonstrate actions and plans that utilize the benefits of natural resource-based land use concepts and practices to support biodiversity, habitats, and ecosystems.

Consequence Outcome

- The value and function of healthy ecosystems and the factors and practices that sustain them are supported and factored into economic development and environmental planning processes.

Strategy 1b: Provide research-based information that explains to all stakeholders the economic and ecological importance of sustaining critical habitats, biodiversity, ecosystem services, and wildlife corridors.

Learning Outcome

- Increased body of knowledge on the importance of sustaining diverse and abundant living resources to benefit healthy ecosystems, and the utilization of the information by natural resource managers, planners, regulatory entities, coastal and watershed stakeholders and residents.

Action Outcome

- Apply research-based information to make informed decisions on sustaining diverse and abundant habitats and living resources to benefit healthy ecosystems.

Consequence Outcome

- The application of ecosystem-based management approaches result in the balanced use and conservation of critical habitats, species richness and ecosystems.

Goal 2: Land, water, and living resources are managed by applying sound science, tools and services to sustain ecosystems.

Strategy 2a: Support research and outreach to enhance public and policy dialogue, support private sector models, and launch initiatives to inform sustainable water management, and increase water capture, reuse, and conservation.

Learning Outcomes

- Resource managers, regulatory entities, coastal and watershed stakeholders, and the general public recognize the impacts of habitat alteration and loss of ecosystem function in coastal environments and watersheds.
- Baseline data, standards, methodologies, and indicators are developed or used to assess the health of Georgia's coastal ecosystems and watersheds.

Action Outcomes

- Georgia's coastal communities engage in planning efforts to protect water supplies and improve water quality.
- Coastal and watershed stakeholders act and plan for the impacts of human development on coastal ecosystems.
- Residents, resource managers, and businesses integrate social, natural, and physical sciences when managing Georgia's coastal resources, and work with all sectors in the decision-making processes.

Consequence Outcomes

- Georgia's land, water, and living resources are managed using ecosystem-based approaches.

Strategy 2b: Support social, economic, and environmental research to demonstrate the importance of habitat enhancement, ecosystem restoration, nonpoint source pollution control, green infrastructure, sustainable land development and landscaping, better site planning and design, low impact development, and living shoreline initiatives.

Learning Outcome

- Coastal and watershed stakeholders can identify and access data, methodologies, and best management practices to balance the use and conservation of natural resources and coastal Georgia's ecological systems.

Action Outcomes

- Coastal and watershed stakeholders apply scientific information and tools provided by Georgia Sea Grant and partners to enhance, preserve, and protect coastal Georgia's ecological systems.
- Coastal communities work with Georgia Sea Grant and partners to compare and evaluate best management practices.

Consequence Outcome

- Coastal and watershed stakeholders take into account the importance of proactive and comprehensive land use planning to guide management

decisions, minimize user conflicts, and improve natural resource conservation efforts.

Strategy 2c: Provide outreach and education to coastal communities on the best available resources, technology-based tools, legal and policy tools, and best management practices that best protect and sustain coastal ecosystems on a regional, local and site-specific level.

Learning Outcome

- Coastal and watershed stakeholders can identify and access information and tools that facilitate the compatible, efficient and flexible management of multiple uses of Georgia's coastal natural resources and critical habitats.

Action Outcomes

- Georgia resource managers, policy- and decision-makers, and the general public use results from best available science to support ecosystem-based management.
- Coastal and watershed stakeholders choose and utilize tools, resources, and training that support ecosystem-based planning and management approaches, through research, outreach and education.

Consequence Outcome

- Coastal communities adopt current, science-based, sustainable land use, and water resource tools and best management practices and policies.

Strategy 2d: Enable industry to grow economically alongside management efforts to protect resources and enhance or restore ecosystems.

Learning Outcome

- Industry and management are aware of the importance of proactive and comprehensive natural resource-based land use practices to guide management decisions, minimize user conflicts, and improve resource conservation efforts while enhancing economic growth.

Action Outcome

- Industry and resource managers cooperate to obtain economic growth while protecting, enhancing, and restoring ecosystems.

Consequence Outcome

- The application of collaborative industrial and managerial economic approaches result in the protection, enhancement and restoration of ecosystems.

Goal 3: Ecosystems and their habitats are protected, enhanced or restored to support communities and economies.

Strategy 3a: Develop and share scientific understanding, decision-support tools, technologies, and approaches to protect and restore ecosystems.

Learning Outcomes

- Georgia residents, resource managers, and businesses understand the importance of the benefits provided by preserving non-degraded ecosystems.
- Georgia residents, resource managers, and businesses understand the science behind the threats to ecosystems and the consequences of degraded ecosystems.

Action Outcome

- Scientists develop technologies and approaches to restore degraded ecosystems along Georgia's coast and in contributing watersheds.

Consequence Outcome

- Resource managers set realistic and prioritized goals and policies to protect, enhance, and restore habitats along Georgia's coast and in contributing watersheds by incorporating ecosystem-based scientific information and public input.

Strategy 3b: Support research, outreach, and education activities to improve the effectiveness of remediation and restoration of impaired habitats and identify new restoration approaches and technologies.

Learning Outcome

- Coastal and watershed stakeholders are aware of critical scientific, management and restoration needs and strategies for coastal Georgia's ecological systems, identified through research, outreach and education.

Action Outcome

- Develop tools and technologies that can be utilized by resource managers and landowners to enhance or rehabilitate degraded habitats.

Consequence Outcome

- Resource managers, businesses, and residents adopt innovative strategies and technologies to maintain or improve the function of ecosystems along Georgia's coast and in contributing watersheds.

Sustainable Fisheries and Aquaculture

Situation: In recent decades, the most important components of Georgia's fisheries have been shrimping, the trapping of blue crabs, and recreational fishing. Although these three remain paramount, change has come. Imported seafood threatens the economic viability of shrimping and crabbing, and diminished public access to waterways constrains recreational fishing. However, developments in aquaculture and mariculture promise a brighter future for dormant

shellfish fisheries, such as oysters and clams, and demand for local and sustainably harvested seafood may give new life to shrimping and crabbing fisheries.

Goal 1: Provide a safe, secure, and sustainable supply of seafood to meet current and future public needs.

Strategy 1a: Support research and extension efforts to help Georgia's seafood industry market their products and maximize profits.

Learning Outcome

- Georgia's seafood industry is knowledgeable of established and innovative technologies, strategies, legal and policy frameworks, and/or resources that add value to and increase profitability for their products.

Action Outcome

- Georgia's seafood industry uses technologies, strategies, and/or resources that add value to and increase profitability for their products.

Consequence Outcome

- Georgia's commercial seafood industry remains economically and socially viable.

Strategy 1b: Provide training and technical assistance for Georgia's seafood industry to ensure products are properly and safely handled.

Learning Outcome

- The Georgia seafood industry understands how to apply science-based methods to safely handle and produce seafood.

Action Outcome

- Georgia seafood industry members adopt approved handling and processing practices to supply safe and healthful seafood to consumers.

Consequence Outcome

- Georgia seafood is sustainably managed and safely produced.

Strategy 1c: Collaborate with Georgia's fishing industry to identify and respond to emerging issues that threaten the health and sustainability of its seafood supply.

Learning Outcome

- Georgia's fishing industry is knowledgeable about emerging issues that threaten the health and sustainability of its seafood supply.

Action Outcomes

- Georgia's fishing industry participates in efforts that help identify and track changing conditions that affect the health and sustainability of its seafood supply.

- Managers are able to make more informed decisions about managing Georgia's fishing industry.

Consequence Outcome

- Georgia's fishing industry is more resilient to changing environmental conditions.

Strategy 1d: Educate chefs, retailers and consumers about the manner in which Georgia seafood is harvested, handled, and marketed, including sustainable fisheries issues and safe consumption practices.

Learning Outcomes

- Seafood consumers are informed about the health, safety and sustainability of Georgia seafood.
- Seafood consumers have the knowledge to evaluate sustainable seafood choices.

Action Outcome

- Seafood consumers make informed choices about the seafood they purchase/catch and consume.

Consequence Outcome

- Consumers improve their health through increased consumption of safe and sustainable seafood products.

Goal 2: Fishing communities and fishing industries including aquaculture enhance their productivity and sustainability.

Strategy 2a: Facilitate the expansion and diversification of Georgia's molluscan shellfish aquaculture industry through research and outreach.

Learning Outcome

- The Georgia shellfish aquaculture industry is knowledgeable about grow out and processing techniques, technologies, and/or law and policies for established and potential species.

Action Outcomes

- Georgia's shellfish industry applies techniques and approaches to new production and grow-out technologies/techniques to maximize efficiency and productivity.
- Georgia resource managers establish policies and regulations that balance economic benefit and conservation goals.

Consequence Outcome

- Georgia expands its sustainable domestic aquaculture industries.

Strategy 2b: Collaborate with Georgia’s commercial and recreational fishing industries on research and outreach to promote safe and sustainable fishing practices and informed management decisions.

Learning Outcomes

- Georgia fishermen are informed about safe and sustainable fishing practices relevant to their industries.
- Georgia fishermen are knowledgeable about fisheries regulations and policies relevant to their industries.

Action Outcome

- Georgia fishermen adopt innovative technologies and techniques that minimize negative environmental, economic, and/or social impact associated with their industries.

Consequence Outcomes

- Georgia’s fishing industry is sustainably managed.
- Georgia’s fishing industry remains socially and economically viable.

Strategy 2c: Support research and extension efforts that support sustainable and resilient working waterfronts and marine-dependent businesses.

Learning Outcomes

- Georgia’s coastal communities know about the important linkages between economic health and the health of natural and cultural systems.
- Georgia’s coastal communities have access to information needed to understand the value of waterfront- and tourism-related economic activities.

Action Outcomes

- Georgia’s communities engage in economic development initiatives that capitalize on the value of their natural and cultural resources while balancing resource conservation and economic growth.
- Georgia resource managers, policy- and decision-makers and/or business’s use research-based information to support the development of sustainable and resilient working waterfronts and marine-dependent businesses.

Consequence Outcomes

- Working waterfronts in Georgia communities are part of a diverse and healthy economy.
- Georgia’s working waterfronts and marine-dependent businesses are economically and socially viable.

Resilient Communities and Economies

Situation: Living and conducting business in Georgia’s coastal zone means increased exposure to extreme weather events and climate-related risks. Short-term hazards such as coastal storms

and flooding can quickly threaten property and people. In addition, coastal citizens also must consider the longer-term effects of sea level rise and drought. To insure human safety, economic vitality and the environmental health of coastal habitats, federal, state and local governments, agencies and organizations must work together to develop plans to recover from and adapt to the challenges nature presents.

Goal 1: Coastal communities use their knowledge of changing conditions and risks to become resilient to extreme events, economic disruptions, and other threats to community well-being.

Strategy 1a: Support research and outreach that is informed by community needs and helps communities assess their vulnerability to climate-related hazards, such as shoreline erosion, flooding, drought and salt-water intrusion, man-made disasters and development.

Learning Outcomes

- Residents and decision-makers in coastal Georgia communities can explain the processes that produce hazards and climate change and the implications of those processes for them and their communities.
- Decision-makers along Georgia's coast have access to hazard- and climate-related data, resources and information needed to assess local risk vulnerability.

Action Outcome

- Residents and decision-makers use their knowledge of weather and climate information to create plans for adaptation and building resilience.

Consequence Outcome

- Georgia's coastal communities are resilient in the face of extreme events, economic disruptions, and other threats to community well-being.

Strategy 1b: Create models or tools to inform comprehensive planning, to include adaptive management strategies.

Learning Outcomes

- Georgia coastal communities have access to information, tools, law and policy frameworks, and techniques to mitigate the potential negative impacts from hazards and disasters.
- Decision-makers in Georgia understand the legal and regulatory regimes informing adaptation and climate resilience measures, including coastal and riparian property rights, disaster relief, and insurance issues.

Action Outcomes

- Residents and decision-makers use tools and information to explore alternatives in coastal development, including community visioning exercises, resource inventories, and coastal planning.

- Residents and decision-makers work together to implement plans for the future and to balance multiple uses of coastal areas.

Consequence Outcome

- Quality of life in Georgia’s coastal communities, as measured by economic and social well-being, improves without adversely affecting environmental conditions.

Strategy 1c: Through education and extension, inform coastal citizens about the connection between economic growth and resource protection, translate science on coastal hazards and increase awareness about coastal hazard mitigation measures.

Learning Outcome

- Residents and decision-makers understand the value of taking flood and coastal resilience measures such as flood insurance coverage, participating in the Community Rating System (CRS) Program and improving CRS ratings.

Action Outcome

- Georgia coastal communities take action to reduce the impact of coastal hazards on lives and property, in preparation of an event, during an event, and through the recovery phase of an event.

Consequence Outcome

- Georgia’s coastal communities are resilient and experience minimum disruption to life and economy following hazards events.

Goal 2: Water resources are sustained and protected to meet emerging needs of the communities, economies and ecosystems that depend on them.

Strategy 2a: Support research and engagement activities on population growth, land use changes and climate change to inform water use governance.

Learning Outcomes

- Georgia’s communities are educated about the impact of human activities on water quality and quantity.
- Georgia’s coastal communities can explain the value of clean water, adequate supplies, and healthy watersheds.
- Georgia’s coastal communities understand the rationale behind water laws and policies affecting the use and allocation of water resources.

Action Outcomes

- Georgia’s coastal communities engage in planning efforts to protect water supply and improve water quality.
- Georgia’s coastal communities adopt mitigation measures, best management practices, and improved site designs in local policies and ordinances to address water supplies and water quality for all living resources.

Consequence Outcomes

- Water supply in Georgia are sustained.
- Water quality in Georgia is protected and improved.

Goal 3: Vulnerable and at-risk coastal communities and economies are resilient to changing conditions and can improve their overall community well-being.

Strategy 3a: Support research to understand, model, and visualize coastal hazards and disasters and assess interconnections with vulnerable and at-risk communities.

Learning Outcomes

- Researchers develop a better understanding of gender dimensions of disasters.
- Georgia's communities can explain the important linkages between environmental and economic health of natural and cultural systems.
- Georgia's communities can develop community-driven approaches to drive a climate risk reduction agenda in support of their development goals.

Action Outcomes

- Georgia's coastal communities adopt communications strategies for hazardous events that increase awareness for all coastal residents, including the most socially vulnerable.
- Georgia's coastal communities develop and adopt hazard mitigation and adaptation strategies suited to local needs.

Consequence Outcome

- Vulnerable and at-risk coastal communities in Georgia are able to diversity livelihood and fall-back options, such as turning to livelihoods that are less sensitive to climate-related or other forms of risk.

Strategy 3b: Assist keystone businesses, local governments and the public in planning for weather-related disasters in order to build digital resilience, improve communication and facilitate recovery.

Learning Outcomes

- Gaps in current knowledge and practice that inhibit the ability to coastal communities in sharing and using emergency communications are identified.
- Residents and decision-makers have access to data and tools to help them map and visualize risk to their communities and homes due to weather-related disasters and climate events.

Action Outcomes

- Georgia's coastal communities use digital tools and technologies for management and policy decisions to build resilient communities and economies.

- Georgia’s coastal communities can initiate proactive recovery-focused plans to build community resilience weather-related disasters and climate events.

Consequence Outcome

- Georgia’s coastal communities are able to leverage digital and social support networks to respond, recover, and become resilient to emergencies and disasters.

Strategy 3c: Facilitate planning for coastal tourism to enable economic development, support of healthy coastal ecosystems and sustainable use of natural resources.

Learning Outcomes

- Georgia’s coastal communities have access to information needed to understand the value of waterfront- and tourism-related economic activities.
- Georgia’s coastal communities can develop sustainable tourism strategies and action plans.

Action Outcomes

- Georgia’s coastal communities implement sustainable tourism action plans that are build on the principles of being region specific, conserving specific coastal landscapes and habitats, maximizing local revenues from tourism investments, and enabling self-determined cultural development in the region.
- Georgia’s coastal communities lead initiatives that capitalize on the value of their natural and cultural resources while balancing resource conservation and economic development.

Consequence Outcome

- Georgia’s coastal communities maximize on the economic, environmental, and socio-cultural benefits of sustainable coastal tourism.

Environment Literacy and Workforce Development

Situation: Education is a component in every state’s Sea Grant program, but it is especially important in Georgia, where many people live far from the coast. Many inland citizens do not recognize how deeply intertwined their lives are with coastal resources and communities. There is further a misconception that the Georgia coast is somehow less vulnerable than those of neighboring states to climate threats, such as hurricanes and storm surge. In order to correct misunderstanding and foster stewardship, it is critical that Marine Extension and Georgia Sea Grant increase the basic understanding of coastal and ocean environments. Education imparts knowledge and values that lead to better choices.

Goal 1: *An environmentally literate public that is informed by a continuum of lifelong formal and informal engagement opportunities that reflect the range of diversity of our communities.*

Strategy 1a: Increase effective environmental and ocean literacy instruction for K-12 students by formal and informal educators.

Learning Outcomes

- Teachers and students are aware of opportunities to engage in STEM programs and can employ their knowledge to support sustainable practices.
- Formal and informal educators understand ocean literacy principles.
- Lifelong learners are able to engage in informal science education opportunities on coastal topics.

Action Outcomes

- Outreach and engagement professionals use ocean literacy principles in their programs.
- Extension and free-choice learning programs are developed and refined using the best available scientific research on the effectiveness of environmental and science education.
- Formal and informal educators, students, and/or the public collect and use coastal data in inquiry and evidence-based activities.
- Formal and informal educators collaborate with Marine Extension and Sea Grant to develop grant proposals and implement education activities.

Consequence Outcome

- Georgians incorporate broad understanding of their actions on the environment into personal decision-making.

Strategy 1c: Increase effective environmental literacy communication to stakeholders, including how ecosystem change affects economic, social, and cultural values, as well as implications for conservation and management.

Learning Outcomes

- Residents and decision-makers develop a thorough understanding of how ecosystem change affects economic, social, and cultural values, as well as implications for conservation and management.

Action Outcomes

- Residents and decision-makers make choices and decisions based on information learned through informal science education opportunities.
- Communities implement sustainable strategies when managing natural resources and make decisions based on information acquired through informal science education.

Consequence Outcome

- Residents and decision-makers become wise and responsible stewards of Georgia's coastal environment.

Goal 2: A diverse and skilled workforce is engaged and enabled to address critical local, regional, and national needs.

Strategy 1a: Prepare a responsive and diverse workforce to participate in and benefit from the nation's marine resource sectors (e.g. industry, research, government, etc.), and to adapt and thrive in changing conditions.

Learning Outcome

- There is increased awareness of maritime occupations and career pathways among residents of Georgia.

Action Outcome

- Innovative new models of education are launched to engage wide variety of students.

Consequence Outcomes

- Employment in all sectors of the U.S. marine resource enterprise expands and diversifies.
- The existing and future workforce is able to adapt and thrive in changing environmental, social, and economic conditions.

Strategy 1b: Increase opportunities for undergraduate and graduate students to gain knowledge and experience in the science and management of watershed, coastal, and marine resources.

Learning Outcome

- College level courses and internships provide increased literacy, experience, and preparedness in areas of watershed, coastal, and marine ecosystems for all students particularly those from underrepresented groups.

Action Outcome

- Undergraduate and graduate students particularly those from underrepresented groups, are supported and have access to formal and experiential learning, training, and research experiences.

Consequence Outcome

- Undergraduate and graduate students acquire skills and training beyond academia by engaging in internship and experiential learning initiatives.

A detailed version of our strategic plan can be found here

<http://gacoast.uga.edu/research/funding/sea-grant-request-proposal/>