

Louisiana Sea Grant College Program 2006-2008 Strategic Plan Outline

AREA 1. SEAFOOD HARVESTING AND PRODUCTION

Goal 1.1 Develop fishery management tools based on sound ecological principles.

- Objective 1. Characterize biological and ecological interactions.
- Objective 2. Develop improved forecasting models for fisheries management.
- Objective 3. Characterize the social and economic impacts of fisheries management strategies.
- Objective 4. Reduce conflict among fisheries resource stakeholders.
- Objective 5. Characterize selected fisheries habitats.
- Objective 6. Examine interactions between natural fisheries and aquaculture.
- Objective 7. Foster environmentally and economically sustainable fishing practices.

Goal 1.2. Establish a viable industry based on the intensive cultivation of marine finfish.

- Objective 1. Develop intensive culture practices for high-volume production of fingerlings.
- Objective 2. Develop improved growout systems.

Goal 1.3 Maintain economic viability of the region's oyster industry.

- Objective 1. Assist the industry by solving immediate production and consumer safety problems.
- Objective 2. Develop genetically superior broodstock and improved production technology.
- Objective 3. Develop and refine post-harvest treatment processes.
- Objective 4. Facilitate restoration of oyster habitat and infrastructure.

Goal 1.4 Advance full and safe use of seafood.

- Objective 1. Improve and maintain product quality and safety.
- Objective 2. Develop new processing technologies and products.
- Objective 3. Develop innovative waste management practices and byproducts.

Goal 1.5 Restore fisheries fleet and infrastructure.

- Objective 1. Facilitate vessel recovery and replacement.
- Objective 2. Facilitate rebuilding of the fisheries support sector
- Objective 3. Facilitate debris removal from waterways.

Goal 1.6 Investigate commercial applications for novel products extracted from the marine environment

- Objective 1. Identify, characterize, and extract potentially valuable biological compounds associated with oysters, menhaden, and waste materials from seafood processing.

AREA 2. SUSTAINABLE COASTAL COMMUNITIES

Goal 2.1 Balance economic development objectives with sustainability of coastal resources.

- Objective 1. Develop a science-based framework of generic principles, metrics, and criteria for assessing sustainable development of coastal resources.
- Objective 2. Develop outreach programs on sustainable use of coastal resources for community leaders and industry.
- Objective 3. Aid ports and maritime industries in mitigating environmental impacts and coastal hazards.

Goal 2.2 Strengthen leaders' knowledge and skills to undergird the stability of coastal communities.

Objective 1. Develop decision-making and planning models for coastal communities undergoing rapid growth or decline.

Goal 2.3 Assist communities in mitigating coastal hazards

Objective 1. Identify new resources for improving emergency preparedness and evacuation processes.

Objective 2. Define the role of mitigation and community planning in coastal emergency preparations and response.

Objective 3. Develop information on land use planning and building codes.

Objective 4. Provide information relevant to rebuilding and recovery.

Objective 5. Provide information concerning non-storm related hazards .

AREA 3. WETLANDS RESTORATION

Goal 3.1 Obtain a comprehensive understanding of changing coastal ecosystems in relation to sustainability of coastal resources.

Objective 1. Develop and refine predictive modeling technology.

Objective 2. Characterize socioeconomic implications of coastal restoration.

Objective 3. Develop ecological metrics and design criteria for restoring wetlands that are functionally equivalent to natural ecosystems.

Objective 4. Develop methodology for assessing health of wetlands.

Goal 3.2 Establish the academic research community as a major provider of applied research support for coastal restoration technology and programs.

Objective 1. Develop plant materials for marsh creation and restoration.

Objective 2. Develop public-private and university-agency partnerships.

Objective 3. Improve coupling of academe and government with industry for commercialization of coastal restoration technologies.

Objective 4. Develop performance metrics for coastal restoration projects.

Goal 3.3 Contribute to public awareness and understanding of sustainable development.

Objective 1. Educate Louisiana residents about their relationship with the marine and coastal environments, and the need for conservation and restoration.

Objective 2. Educate Louisiana residents about legal and regulatory aspects/implications of wetland protection and restoration.

AREA 4. WATER RESOURCES

Goal 4.1 Improve the quality of Louisiana coastal waters, reduce risks to public health and ecosystem productivity, and enhance water-based recreation and tourism industries.

Objective 1. Develop and refine wastewater treatment technologies.

Objective 2. Develop non-point source water quality education programs.

Objective 3. Characterize the processes and rates of transport, fate, and effects of anthropogenic contaminants and pathogens.

Objective 4. Develop methodology for detection, monitoring, prediction, and mitigation of harmful algal blooms.

Goal 4.2 Insure reliable sources of fresh water for sustainable coastal development.

- Objective 1. Participate in development of comprehensive water management policy.
- Objective 2. Develop and deliver educational programs for coastal audiences on water management.

Goal 4.3 Manage the introduction of nonindigenous aquatic nuisance species.

- Objective 1. Facilitate development and implementation of a state aquatic nuisance species management plan.
- Objective 2. Educate the Louisiana populace about invasive species and their effects on coastal ecology and local economies.
- Objective 3. Develop treatment technology for removal of nonindigenous aquatic nuisance species in ballast water.

AREA 5. PUBLIC AND FORMAL EDUCATION

Goal 5.1 Foster ocean literacy and comprehension of key marine and coastal issues.

- Objective 1. Deliver topical marine and coastal information to general and selected audiences.
- Objective 2. Advance environmental stewardship through teacher training and infusion of age-appropriate marine and coastal subject matter in the K-12 curriculum.

Goal 5.2 Maintain opportunities for baccalaureate and post-graduate students to acquire specialized scientific and technical knowledge of contemporary coastal and marine issues.

- Objective 1. Provide opportunities for undergraduate and graduate students to make informed career decisions through marine-related training and work experience.

AREA 6. NON-STRATEGICALLY PLANNED PROJECTS

(This category is assigned to funded projects that do not fit into categories defined through the formal, four-year strategic planning exercise.)

Goal 6.1 Conduct cross-cutting projects.

- Objective 1. Conduct cross-cutting projects.
- Objective 2. Develop coordinating mechanisms to improve efficiency and performance of Louisiana's research establishment.

Goal 6.2 Support investigations in unplanned categories.

- Objective 1. Conduct research projects in unplanned categories.