

# Pennsylvania Sea Grant Strategic Plan 2009 - 2013

## Mission

*To promote the ecological and economic sustainability of Pennsylvania's coastal resources through science-based research, education, and outreach.*

## Vision

*To be a nationally recognized leader in providing coastal research, education, and outreach programs and services.*

## Guiding Principles

- Serve as a balanced provider of information and services and not as an enforcer of regulations.
- Incorporate a science-based approach to all programs.
- Encourage the use of best available data and management practices.
- Promote educational practices that engage participants in activity-based learning.
- Foster collaboration among stakeholders with mutual interests.

## Strategic Parameters

- Take an ecosystem approach to watershed management of the Commonwealth's coastal resources, focusing on the Delaware, Susquehanna, and Lake Erie watersheds for the benefit of Pennsylvania's citizens.
- Capitalize on the intellectual and physical resources of Pennsylvania's colleges and universities.
- Utilize a broad base of public and private funding sources when consistent with the program's mission.
- Tap the vast resources of the Penn State University system to accomplish program goals.

- Effectively integrate and collaborate with sponsor and partner organizations such as NOAA; Coastal Zone Management; Pennsylvania Departments of Environmental Protection, and Conservation and Natural Resources; and others.
- Serve as a local resource to support and disseminate findings and resources of NOAA and other partner organizations.

## FOCUS AREA ONE: HEALTHY COASTAL ECOSYSTEMS

*Goal: Build a better understanding of how natural systems function, advance regional problem solving, and support initiatives to help planners and decision-makers adopt an ecosystem-based approach to managing coastal resources.*

**Strategy:** Assist in monitoring of ecosystem health targets and restoration plans for the Presque Isle Bay Area of Recovery; monitor sediment contamination, fish tumor rates, and contaminant input to the bay.

**Strategy:** Promote the sustainability of Pennsylvania's fisheries.

**Strategy:** Develop methodologies that can be used to evaluate ecosystem-based management approaches to assess their effectiveness once they are in place, and to guide future management efforts, working with the National Marine Fisheries Service and other federal, state and local partners.

*Goal: Widespread use of ecosystem-based approaches to managing land, water and living resources in coastal areas.*

**Strategy:** Provide assistance in regional

coastal water quality problem-solving initiatives.

**Strategy:** Support the development of regional coastal observation systems and other collaborative efforts that advance our capability to predict the effects of human activities and environmental changes on coastal resources in order to take steps to mitigate their effects.

**Strategy:** Provide life-long learning programs for people of all ages that enhance understanding of coastal, ocean and Great Lakes environments and promote stewardship of healthy ecosystems.

*Goal: Restored function and productivity of degraded ecosystems.*

**Strategy:** Support research to improve the effectiveness of ecosystem restoration and identify promising new restoration approaches and technologies.

**Strategy:** Foster AIS prevention and control through the adoption of effective policy, prevention, and control methods; minimize the potential economic and ecological AIS impacts to Pennsylvania aquatic systems. **Strategy:** Provide technical assistance to expand understanding of disease impacts and pathways, such as avian botulism and viral hemorrhagic septicemia.

**Strategy:** Improve the safety, environmental quality, and human health related to coastal recreation; facilitate the adoption of safe boating, clean boating, and clean marina practices among marina operators and recreational boaters

## **FOCUS AREA TWO: SUSTAINABLE COASTAL DEVELOPMENT**

*Goal: Assist coastal communities in*

*protecting their environmental amenities, strengthening their economies, and improving their quality of life.*

**Strategy:** Support research and outreach activities that provide local communities with information and techniques to help them enhance their waterfront-related economic activities such as commercial and recreational fishing, aquaculture, tourism, and energy and port development, without diminishing the long-term health of the natural coastal environment.

**Strategy:** Support local, regional, and national efforts to preserve and increase public access to the nation's beaches and waterfronts through assessment of access needs, analysis of legal issues, and technical assistance.

**Strategy:** Use Sea Grant extension and education capabilities to engage coastal communities in planning processes that support the efforts of community leaders to identify and pursue sustainable economic development policies and programs.

*Goal: Coastal communities that make efficient use of land, energy and water resources and protect the resources needed to sustain coastal ecosystems and quality of life.*

**Strategy:** Strengthen Sea Grant's research activities and extension capacity to help coastal communities determine the sustainable carrying capacity of their land, water, and other resources through resource assessments, scenario building, modeling, and other techniques.

**Strategy:** Support innovative research on land-use practices and building designs that promote energy and water conservation, coastal-ocean related renewable energy

technologies, and the creation of other tools to help communities grow in sustainable ways.

**Strategy:** Work with NOAA's Climate Program Office, coastal programs, and other partners to help communities evaluate their ecological footprints and grow in environmentally sustainable ways.

*Goal: Coastal citizens, community leaders, and industries that recognize the complex inter-relationships between social, economic and environmental values in coastal areas and work together to balance multiple uses and optimize environmental sustainability.*

**Strategy:** Work with NOAA's Office of Ocean and Coastal Resource Management and Coastal Services Center, EPA's Offices of Smart Growth, and other federal, state and local partners to disseminate assessment tools, model plans and ordinances, best management practices, alternative development approaches, and other techniques that will enable the citizens of our coastal zones to develop their coastal economies in environmentally-sound ways.

**Strategy:** Build local capacity to evaluate cost-benefit trade-offs in the coastal zone through a greater emphasis on socio-economic research, impact studies, and other methods of evaluating alternative future scenarios for coastal communities.

**Strategy:** Foster regional cooperation and partnerships among local government officials, community stakeholders, and regional planning organizations to promote sustainable growth plans and strategies that protect local and regional natural resources that will ensure an abundance of these resources is available to serve future generations.

### **FOCUS AREA THREE: SAFE AND SUSTAINABLE SEAFOOD SUPPLY**

*Goal: Play a key role in advancing the understanding of seafood problems and opportunities by helping public and private decision-makers adopt sound outreach and management practices that will lead to a sustainable supply of safe seafood.*

**Strategy:** Assist the Pennsylvania aquaculture industry to become more competitive in meeting the growing seafood demand and to address problems related to international trade, fish diseases, and emerging seafood contamination.

*Goal: Informed consumers who understand the importance of ecosystem health and sustainable harvesting practices to the future of our domestic fisheries, who appreciate the health benefits of seafood consumption, and who understand how to evaluate the safety of the seafood products they buy.*

**Strategy:** Increase understanding among anglers and other Pennsylvania citizens of the risks and benefits of consuming wild, stocked, and commercially available seafood and aquatic wildlife.

### **FOCUS AREA FOUR: HAZARD RESILIENCY IN COASTAL COMMUNITIES**

*Goal: Help local citizens, decision-makers, and businesses better understand and plan for long-term climate trends and maximize Pennsylvania's ability to prepare, respond, and rebuild when natural hazards strike.*

**Strategy:** Enhance understanding of coastal processes associated with lakeshore erosion and bluff recession, fluctuating lake levels associated with long-range climate trends, and the impact on coastal erosion and coastal economies.

**Strategy:** Increase understanding and preparedness for the possible environmental impacts of global climate and ecosystem change.

**FOCUS AREA FIVE (CROSSCUTTING):  
COASTAL LITERACY**

*Goal: To enhance teacher and student environmental literacy and understanding of Pennsylvania's coastal ecosystems.*

**Objective 1:** Promote the development and delivery of K-12 educational programs and educational resources.

**Objective 2:** Promote undergraduate and graduate student education and practicum opportunities.

**Objective 3:** Promote collaboration between environmental educators and scientists.