

## **Sustaining Alabama Fishery Resources: A Risk-based Integrated Environmental, Economic, and Social Resource Management Decision Framework**

Mobile Bay, its watershed, and its adjacent marine waters offer a unique setting to employ and extend an Ecosystem Approach to Management (EAM). The natural systems that make up the watershed and estuary serve as critical natural infrastructure supporting the water supply, transportation, power generation, recreation, commercial fishing, agriculture, forestry, and a wide variety of other valued uses for the people in the watershed. While some recreational and commercial fish species are healthy and/or stable, population growth and multiple uses have placed tremendous stresses on both the ecosystem and the sustainable use of its resources. The unique biodiversity of this aquatic system is being impacted at levels unprecedented elsewhere in the nation.

This paper presents results of the first phase of a NOAA funded assessment of the Alabama fisheries and its interactions with various watershed activities. This project is a collaborative effort among government, corporate, and private stakeholders to build the resource management decision support tools needed to assure sustainable fisheries and coastal seafood industry for Mobile Bay and its watershed, while balancing statewide environmental, economic, and social demands.

The first objective of this program was building collaboration among stakeholders through workshops held in Mobile and Montgomery. These workshops identified priority threats to a healthy watershed and bay from a wide variety of uses and activities. The participants of these workshops identified the inability to understand and coordinate disparate and potentially competing interests as a higher priority threat than the traditional focus of our existing management regulations and systems.

On-going research activities are currently developing initial causal loop relationships between human and natural activities and infrastructure and environmental conditions. These relationships provide the basis for future activities designed to support development of new tools to model and evaluate social and environmental factors that influence management of a sustainable fishery, support man-made infrastructure investment decisions, and provide a common language for expressing goals, processes, and concerns necessary for the responsible stewardship of Alabama's fisheries resources.

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