Gulf of Mexico Initiative
GoMI

USDA NRCS
United States Department of Agriculture
Natural Resources Conservation Service

Escambia River Watershed

Alabama/Florida

Canoe Creek
HUC #031403050401
Pine Barren Creek - Sandy Hollow
HUC #031403050501
Little Pine Barren Creek
HUC #031403050502

Background

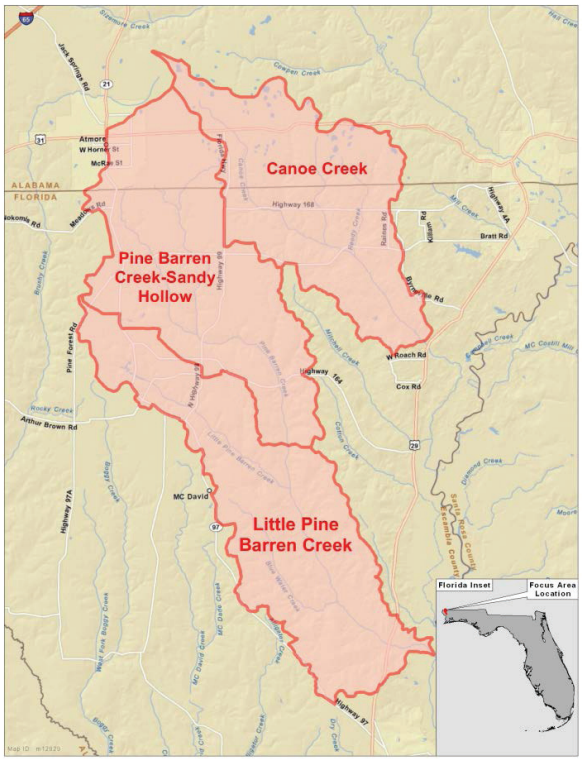
The Escambia River is a large alluvial river that flows south from Alabama through the Florida Panhandle to the Pensacola Bay Estuary and the Gulf of Mexico. The Escambia River Basin is highly productive, and serves as a nursery for commercially important shellfish and finfish, as well as a diverse array of flora and fauna.

The Basin ecosystem provides diverse habitats ranging from mature bottomland hardwood forest to pine uplands, agricultural lands, and estuarine marsh. It provides important habitat for numerous species of plants and animals, including more than 85 native freshwater fish species, candidate mussel species, and rare, threatened, and endangered species such as the brown pelican and piping plover.

The estuary also acts as a filter for pollutants, provides shoreline stabilization, and offers recreational and educational opportunities for the local population and tourists.

In recent years, the Escambia River Watershed has experienced extreme drought conditions. Problems associated with sedimentation have been exacerbated by poor flushing and large sediment loads. Current and historic land uses have left a legacy of polluted sediments that contribute to water quality concerns because of the threats that they pose to human health, aquatic health, and decreased fish and shellfish production.

The major land uses are cropland, forestland, rangeland, and pastureland. Croplands in the area are dominated by row crop agriculture. The major crops are cotton and peanuts, with corn and soybeans as minor crops.



Goals / Objectives

This initiative will reduce sediments and nutrient loads generated from agriculture operations in the focus area, and as a result, reduce their deposition into tributary streams of the Escambia River. Ultimately, this will improve wildlife habitat and the quality of water delivered to Pensacola Bay and the Gulf of Mexico.

Resource Concern	Total Acres Needing Treatment
Water Quality – Excessive Nutrients and Organics in Surface Water and Excessive Suspended Sediment and Turbidity in Surface Water	17,620
Water Quality – Harmful Levels of Pathogens	1,750
Soil Erosion – Classic Gully and Streambank	255
Soil Erosion – Sheet & Rill Erosion	15,620
Fish and Wildlife – Threatened and Endangered Species, Declining Species	8,000

State Proposal - Alabama/Florida

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Actions

This initiative will focus on reducing soil erosion, improving water quality, and improving wildlife habitat on cropland, pastureland, and forestland by:

- Installing grade control structures to stabilize eroding gullies
- Implementing precision agriculture to reduce chemical application overlap and protect sensitive environmental areas
- Increasing adoption of residue and tillage management, cover crops, and conservation crop rotations to reduce sheet and rill erosion and improve soil organic matter, which will result in cleaner runoff and improved water quality
- Planting grass and trees to stabilize eroding areas
- Installing cross-fences and watering facilities to facilitate grazing distribution
- Controlling cattle access to streams to improve water quality and streambank stability
- Planting and managing native plant species to improve wildlife habitat and to assist with restoration of a multitude of declining species
- Promoting energy conservation by eliminating the need for annual mechanical removal of sediment from split ditches
- Implementing grazing management
- Installing heavy-use area protection pads

Outcomes and Impacts

Anticipated long-term outcomes of this initiative are: a significant decrease in sediment deposited into the Pensacola Bay and the Gulf of Mexico, resulting in decreased turbidity, decreased levels of absorbed nutrients, and improved dissolved oxygen content; improved water quality in the Gulf of Mexico and Pensacola Bay; improved fish and wildlife habitat; and increased community awareness about resources and best management practices to support conservation and renewal of our natural resources.

Cotton production in Florida.

Precision planting and chemical application in a high residue cover crop in Alabama.

Partners

Escambia County Commission, Florida provides staffing assistance in the Molino USDA Service Center Office.
Escambia Soil and Water Conservation District, Florida and Alabama provides technical assistance and outreach to producers.
Florida Department of Agriculture and Consumer Services helps with outreach.
Florida Fish and Wildlife Conservation Commission provides staffing assistance.
Northwest Florida Water Management District provides technical assistance with permits and outreach.
Florida Three Rivers and Alabama Gulf Coast RC&D assists NRCS with outreach, initiative feedback, and support.
Florida Division of Forestry provides outreach to producers and technical recommendations.
U.S. Fish and Wildlife Service helps restore habitat for listed mussels and improve fish passage.
Perdido Bay Indian Tribe provides outreach and public support.
Poarch Band of Creek Indians works with tribal members to implement conservation measures.
Alabama Cooperative Extension System assists with producer meetings and technical assistance to promote precision agriculture.
Alabama Department of Conservation and Natural Resources has technical resources for habitat recovery and monitoring.
USDA-Agricultural Research Service, Alabama assists with producer meetings, evaluation of conservation tillage, and economic evaluation.
Alabama Department of Environmental Management collects and analyzes water quality data which will assist NRCS in monitoring results of applied conservation practices.