

Lower San Antonio River

Texas

Background

The Coastal Prairie Region of South Texas is known for its production of cattle, hay, cotton, corn, sorghum, soybeans, and sesame. Recreational opportunities abound in this region with fishing, birding, hunting and nature tourism. The region holds the Aransas National Wildlife Refuge, which provides vital resting, feeding, wintering, and nesting grounds for migratory and aquatic birds and native Texas wildlife. The refuge and surrounding areas provide winter habitat for threatened and endangered species such as the whooping crane, peregrine falcon, and piping plover.

The warm shallow waters of San Antonio Bay provide shrimp, oysters, and crabs for commercial harvest, and excellent fishing for redfish, speckled trout, black drum, and flounder.

The greatest threats to the estuarine ecosystem come from contaminants and loss of habitat. Contamination may come from point sources, such as water treatment plants, or non-point sources, such as runoff. Habitat loss can result from alteration of the bay bottom, typically by dredging and trawling, development of wetlands and bay shorelines, and restricting fresh water inflow.

Runoff from cropland, rangeland, and pastureland contributes to sediments affecting the water quality of the three watersheds that run into the confluence of San Antonio River and Guadalupe River. This contributes to the critical health of the San Antonio Bay and estuary system, which flows into the Gulf of Mexico.

The three focus watersheds contain 150,000 acres, which includes 12,300 acres of cropland; 61,000 of rangeland; 8,000 acres of pastureland; 3,100 acres of the Aransas National Wildlife Refuge; 64,000 acres of water; and 1,300 acres of urban lands.

Goals / Objectives

Through this initiative, NRCS and its partners will help cooperators voluntarily implement a combination of core and supporting practices that reduce nutrient runoff, conserve water, protect fish and wildlife habitat including threatened and endangered species, reduce emissions of carbon and improve air quality, maintain agricultural productivity in a conservation "systems approach," and increase outreach and education on the benefits of implementing these practices to land managers and the public.

Kuy Creek – Guadalupe River

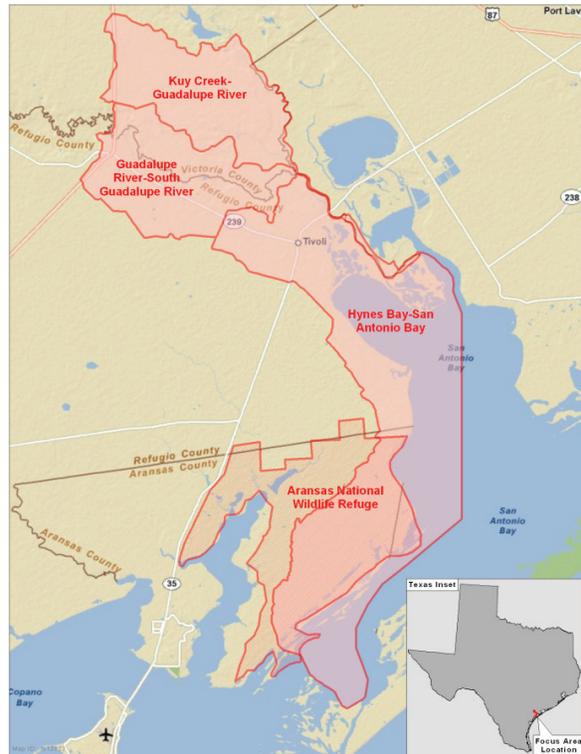
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Guadalupe River – South Guadalupe River

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Hynes Bay – San Antonio Bay

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Resource Concern	Total Acres Needing Treatment
Water Quality Surface Water – Excessive Nutrient Runoff of Pesticides, Organics, Sediment and Bacteria into Surface Water	50,000
Fish & Wildlife – Threatened and Endangered Species: Declining Species, Species of Concern	35,000

Actions

This initiative will focus on reducing nutrient runoff to protect and enhance water quality and fish and wildlife habitat on agricultural lands in the Coastal Prairie Region of South Texas by:

- Implementing Prescribed Grazing Systems on whole operating units
- Applying nutrients according to a nutrient management plan
- Reducing tillage on agricultural fields to improve air quality, conserve energy, and increase carbon sequestration
- Implementing Integrated Pest Management to reduce chemical application
- Installing riparian buffers, wildlife corridors, and native habitat to improve diversity for watershed health
- Protecting impaired areas along the watershed
- Restoring/enhancing wetlands for expanded habitat along San Antonio Bay and estuary system
- Implementing Upland Wildlife Habitat Management according to a Wildlife Management Plan with land managers
- Applying Prescribed Burns to improve/maintain coastal prairie habitat

Outcomes and Impacts

Anticipated long-term outcomes of this initiative are: a significant decrease in sediment deposited into the Gulf of Mexico, resulting in improved water quality, decreased turbidity, decreased levels of adsorbed nutrients, and improved dissolved oxygen content; an extensive network of riparian buffers for improved wildlife habitat including food sources for threatened and endangered species; improved recreational opportunities with reduced bacteria; and land managers and public educated in holistic management of our natural resources.



Overgrazing of pastures increases erosion and nutrient runoff.



Increase fish and wildlife, including federally listed threatened and endangered species. (Photo: TPWD)

Partners

United States Fish and Wildlife Service (USFWS) will provide technical assistance to program participants as well as biological and habitat guidance when dealing with federally listed threatened and endangered species and their habitats found within the watersheds.

Texas Parks and Wildlife Department (TPWD) will provide technical assistance to program participants as well as biological and habitat recommendations when dealing with state-listed threatened and endangered species and their habitats which are found within the watersheds.

Coastal Bend Bays and Estuaries Program (CBBEP) will assist with monitoring efforts in and around the San Antonio Bay and will consult with Federal, State, and local units of governments in addition to providing educational opportunities for the public and program participants on their efforts, studies, and plans for the Coastal Bend region of Texas.

Texas Soil and Water Conservation Board (TSSWCB) will assist with providing technical assistance and conservation program information to the landowners and land operators in the affected watersheds, in addition to holding stakeholder meetings and facilitating the implementation of the Upper San Antonio River Watershed Protection Plan.

San Antonio River Authority (SARA) will assist with continued monitoring of the San Antonio River in addition to providing educational and financial assistance to landowners and operators in the upper watershed. They will also hold stakeholder meetings that help facilitate the implementation of the Upper San Antonio River Watershed Protection Plan.

United States Geological Survey (USGS) will assist with sharing hydrological data as well as modeling information to Federal, state, and local agencies.