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pecos river basin wpp implementation

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The Pecos River is important—historically, biologically, hydrologically and economically—to the future of the entire Pecos River Basin and the Rio Grande. The Pecos provides approximately 9.5 percent of the annual inflows to the International Amistad Reservoir, a major source of drinking and irrigation waters for the lower Rio Grande Valley and its millions of residents. However, the river also contributes an estimated 26 percent of salt loading to the reservoir annually, periodically causing salinity levels to approach the maximum drinking water standard.

The Pecos River winds more than 900 miles through semi-arid and arid landscapes of eastern New Mexico and West Texas and is crucial to many communities, mainly for irrigation, recreational and environmental use and for recharging underlying aquifers.

The Pecos was once a critical source of water in the Trans-Pecos region of the state, providing early settlers with abundant water to irrigate crops and water livestock. Today, the river's flow has dwindled to a trickle in some areas, its salinity is so high that its use for irrigation and livestock watering is limited in many instances, and dissolved oxygen (DO) levels in portions of the river do not meet Texas' water quality standards. The reduced quality and quantity has also harmed the river basin's biodiversity.

Through the ***Watershed Protection Plan Development for the Pecos River*** project, a watershed protection plan (WPP) was developed that addresses watershed concerns, impairments and resource management issues. The WPP was developed using scientific data gathered throughout the course of the project along with information and guidance from watershed landowners. The WPP was completed and distributed to watershed landowners in December 2009. Concurrently, two separate projects were initiated to implement portions of the Pecos WPP.

Projects

The project, ***Implementing the Pecos River Watershed Protection Plan through Invasive Species Control (Saltcedar) and by Providing Technical and Financial Assistance to Reduce Agricultural Nonpoint Source Pollution***, is implementing some of the highest priority practices recommended in the WPP.

Objectives

- Treat saltcedar chemically along the riparian corridor in areas not previously treated, promote the use of biological control mechanisms in areas near and away from the river channel and assist landowners in removing saltcedar debris from earlier treatments through the use of controlled burns
- Develop a minimum of 20 water quality management plans to improve watershed management, enhance watershed health and restore water quality by providing technical and financial assistance to landowners for management practice implementation
- Provide educational programming for watershed landowners and residents to increase awareness about watersheds, watershed management and stewardship

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- Facilitate working relationships with watershed landowners and establish long-term restoration efforts that lead to the sustainability of the WPP implementation effort and ultimate restoration and protection of the water body

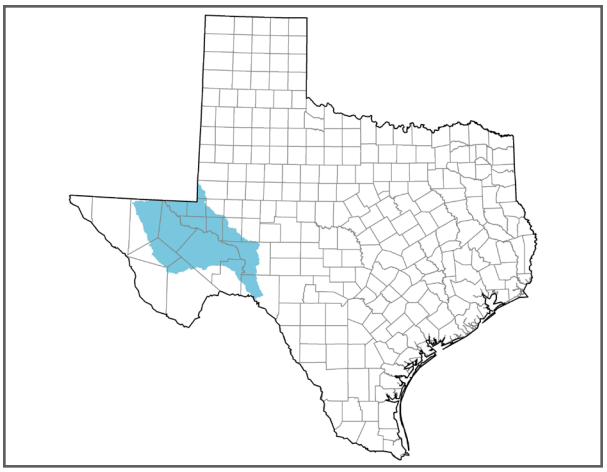
Accomplishments

- Sprayed 2,642 acres of saltcedar along the Pecos and its tributaries
- Fully established three saltcedar leaf beetle release sites
- Developed five Certified Water Quality Management Plans
- Coordinated the delivery of two Texas Watershed Steward Programs
- Provided educational events covering management of wildlife, feral hogs, pesticides and irrigation and crop
- Facilitated efforts to seal two leaking oil wells that were injecting salts into the Pecos River system
- Assisted Red Bluff Irrigation District with improving irrigation efficiencies

The project, ***Implementing the Pecos River WPP through Continuous Water Quality Monitoring and Dissolved Oxygen Modeling***, is serving two primary purposes. Project members are implementing additional water quality monitoring in the Pecos River watershed and are evaluating DO levels along with environmental factors influencing its in-stream levels using computer-based modeling.

Objectives

- Enhance water quality monitoring in the watershed through installation of a new real-time water quality monitoring station near Girvin, Texas, that will be incorporated into the Texas Commission on Environmental Quality's continuous water quality monitoring network
- Develop a computer-based watershed model to evaluate DO levels in the river, assist in identifying potential sources of pollutants contributing to the limited DO levels and assist in identifying management measures that when implemented will rectify pollutant loadings and restore DO levels in the river



Accomplishments

- Installed real-time water quality monitoring station near Girvin

Collaborators

- Texas Water Resources Institute
- Texas AgriLife Extension Service
- Texas Forest Service
- Upper Pecos Soil and Water Conservation District #213
- Crockett Soil and Water Conservation District #235
- USDA Natural Resource Conservation Service
- Texas Institute for Applied Environmental Research
- Texas Commission on Environmental Quality
- International Boundary and Water Commission, U.S. Section

Funding Agencies

- Texas State Soil and Water Conservation Board
- U.S. Environmental Protection Agency

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