Pecos River Watershed Protection Plan Implementation

July 2013 Newsletter

Draft WPP Update Available for Review

Updates to Watershed Protection Plans (WPPs) are developed to track implementation progress, revise management strategies in the plan and evaluate water quality post-WPP implementation. The Pecos River WPP was completed in October 2008, and the update currently being developed will serve as a 5-year update to the plan.

The draft of the Pecos River WPP Update was released for review and comment during public meetings held across the watershed June 4–5 and is available on the project website at: pecosbasin.tamu.edu. It highlights implementation progress to date, discusses additional management needs identified by landowners and reports on recent trends in water quality.

We would like each of you to review the update and provide us with comments. They should be sent to Lucas Gregory as soon as possible.

Saltcedar Debris Burning Update

A private company, Global Frontline Solutions, LLC, was hired to conduct prescribed burns along portions of the river where landowners requested this service. For land to qualify for burning, saltcedar must have been sprayed at least 3 years earlier and the land could not be enrolled in any program that did not allow burning.

In March 2013, preparations for the prescribed burns, including installing firebreaks and developing burn plans began. The public was notified of the planned prescribed burns through public notices in area newspapers. On April 15, prescribed burning commenced near Pecos, Texas.

Over the course of 14 burning days, the company burned 35 river miles between Pecos and Sheffield. It burned 19 miles on both sides of the river with an additional 16 miles burned on one side of the river.

The photo series above illustrates what the typical river scene looked like before, during and after burning.

At this point, all funds allocated to prescribed burning in the current grant have been expended. Additional funding will be sought as considerable landowner interest in debris burning still exists.

Saltcedar Biological Control Update

On schedule this year, saltcedar leaf beetles began to emerge around tax day; however, late winter weather was not on schedule as several freezes arrived after beetles emerged. Luckily, these late freezes had little or no impact on the beetle populations or their attack on saltcedar.

As of early June, defoliated saltcedar could be found in and around Pecos, near Balmorhea, Coyanosa, Imperial, Girvin, Iraan and Sheffield. In some cases, outer limbs on trees have died from several years of repeated defoliation. Some trees are also showing signs of stress with clumps of leaves sprouting from the main stems of the plant.

Another positive observation about saltcedar leaf beetles this year is their feeding on saltcedar regrowth following prescribed burning. This is what was anticipated and the hope is that this defoliation will further stress the trees and speed the trees' death.

There are no plans to move beetles across the watershed this summer; however, if you are interested in using beetles, please contact Amy Porter, and we will make arrangements to collect and distribute beetles. Otherwise, the beetles will disperse on their own. Project efforts will focus on documenting beetle locations across the watershed and how much saltcedar has been defoliated.

The photos above were taken about 10 weeks post-burn and show newly defoliated saltcedar regrowth in the burn area.

Technical & Financial Assistance Available

Through the Water Quality Management Plan (WQMP) Program, farmers and ranchers in the Pecos River Watershed are eligible to receive technical assistance and apply for financial assistance to implement conservation practices. Each operating unit is eligible for up to $15,000 in financial assistance. Eligible practices include:

- Fencing
- Livestock water development: water wells, pumping plants (wind, solar or electric), pipelines, watering facilities
- Riparian buffers
- Range planting

Approximately $96,000 in cost-share funding is available through September 2013. At that point, any unused monies will return to the funding agency. Producers interested in participating in the WQMP Program and implementing eligible practices are urged to contact Amy Porter.

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TEXAS WATER RESOURCES INSTITUTE
1500 Research Parkway, Suite 110
2260 TAMU
College Station, TX 77843-2260

Draft DO Modeling & Monitoring Report Released

Based on water quality monitoring data, the Pecos River is presently considered impaired due to dissolved oxygen (DO) levels that are occasionally below the allowed 3.0 milligrams per liter (mg/L) standard. This typically occurs during the warmer months of late spring and summer; however, the specific cause of these low DO levels is not known. To determine the main cause of these periodically low DO levels, Texas Institute for Applied Environmental Research (TIAER) scientists developed a computer-based water quality model to simulate DO levels in the Pecos River and the impacts of potential management strategies on DO.

The development and application of the model was completed, and it indicated that the periodically low DO levels are a response to prolific attached algae beds along portions of the Pecos River. The photosynthesis/respiration cycle of algae results in high afternoon levels of DO and low DO levels in the morning prior to sunrise.

At the June 4–5 public meetings, TIAER scientists presented a summary of the model used, data that went into the model, the calibration and validation of the model as well as its results. A copy of this presentation is available online at: pecosbasin.tamu.edu/meetings.

They also developed a draft report that further describes the model and its application. This report describes each aspect of the model, its development, testing and application in detail. It discusses the modeled potential of several management scenarios to improve low DO in the Pecos River. These modeled scenarios are based on recommendations of the Basin and Bay Expert Science Team and other management measures commonly used to improve low DO. The feasibility of these modeled scenarios was not considered as the goal of the modeling exercise was to see what, if any, management would improve instream DO conditions.

This report was distributed to landowners during the June meetings, and public comments were requested. If you have not received a copy of this report, it can be downloaded at: pecosbasin.tamu.edu, or a paper copy can be requested. Any questions or comments should be sent to Lucas Gregory as soon as possible.

Heliborne Electromagnetic Survey Project Funded

Elevated levels of salinity in the Pecos watershed, especially between Coyanosa and Girvin, have had adverse impacts on the river's uses and its aquatic life. The Pecos River WPP listed identifying the sources of these salts and developing a better understanding of the local hydrology in that area as one of the priority management measures needed to address this problem. In response to this need, the Pecos Heliborne Electromagnetic Survey Project was developed as a way to rapidly collect the needed data to address these needs.

Once underway, the project will use an aerial-based electromagnetic survey to produce electrical resistivity readings of the soil and water from the surface to depths up to 200 m. The project team will analyze these readings to yield a high-resolution, 3-D visualization of salinity levels in the soil and water profile, thus providing exceptional detail of the area's hydrogeology. They will assess the distribution of brackish groundwater and determine saline hotspots, enabling potential management scenarios to be developed.

The team is currently working with area landowners to develop an amenable strategy for deploying this technology and completing this salinity assessment.

For further information about this project, please contact Lucas Gregory.

Need Information?

For information on project happenings and other meetings in and around the watershed, please visit our website at pecosbasin.tamu.edu or contact:

Lucas Gregory
Pecos River Watershed Coordinator
1500 Research Parkway
College Station, TX 77843-2260
979-845-7869
lfgregory@ag.tamu.edu

Amy Porter
Upper Pecos SWCD District Technician
1415 West 3rd Street
Pecos, TX 79772
432-445-3196 ext. 3
amy.porter@tx.nacdnet.net