

**Texas A&M AgriLife Research
Texas Water Resources Institute**

**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**

**FY 08 CWA 319(h)
TSSWCB Project No. 08-08**

Quarter no. 13 From 10.1.2012 Through 12.31.2012.

I. Abstract

Activity this quarter has focused on the continued implementation of WPP items. WQMPs continue to be developed and promoted, saltcedar leaf beetles continued to expand up until the first frost. Abnormally wet weather has prevented saltcedar debris burning as fuel moisture levels remain outside of designated burn prescription. Conversely, the exceptional drought in New Mexico continues and has led to diminished flows in the river. The Upper Pecos SWCD Technician continues to enroll people for saltcedar spraying and debris burning. Additionally, the Upper Pecos SWCD Technician attended numerous meetings throughout the watershed promoting the WPP and informing attendees of available opportunities. Last, a request for bids to hire a private burning contractor to supplement TFS efforts was released.

II. Overall Progress and Results by Task

TASK 1: Project Coordination and Administration

Subtask 1.1: TWRI will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. Extension, SWCD Technicians and TFS will collaborate with TWRI to develop QPRs. QPRs shall document all activities performed within a quarter and shall be submitted by the 15th of January, April, July and October. QPRs shall be posted on the project website and distributed to all project partners.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician submitted 13th QPR information to the Watershed Coordinator on January 3, 2013.
- B. TWRI submitted the Year 4, Quarter 1 report to TSSWCB on January 15, 2013.

95% Complete

Subtask 1.2: TWRI will host coordination meetings, conference calls, or TTVN meetings with the TSSWCB Project Manager and all Project Partners at least quarterly to discuss project activities, project schedule, lines of responsibility, communication needs, and other requirements. TWRI will develop lists of action items needed following each project coordination meeting and distribute to project personnel.

The following actions have been completed during this reporting period:

- A. No formal coordination meetings were held this quarter; however, numerous phone calls and meetings with selected members of the project team occurred this quarter.

95% Complete

Subtask 1.3: TWRI will perform accounting functions for Tasks 1, 4, 5, 6 and 7 and submit appropriate reimbursement forms to TSSWCB at least quarterly. The SWCD Technicians and Bookkeepers will perform accounting functions for Task 2 and will submit appropriate Reimbursement Forms to TSSWCB at least monthly. TSSWCB will manage project funds for Task 3.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician submitted reimbursement forms to the bookkeeper.
B. To date, a total of \$233,302 has been spent, or approximately 40% of project funding has been spent through tasks 1, 4, 5, 6 and 7.

75% Complete

Subtask 1.4: TWRI will continue to host and maintain an internet website (<http://pecosbasin.tamu.edu/>) for the public dissemination of information pertaining to the implementation of the Pecos River WPP. Project partners will provide appropriate content matter for the website as needed.

The following actions have been completed during this reporting period:

- A. Website updates were made throughout the quarter as needed.
B. Website usage this quarter consisted of 254 individual site visits with approximately 79% of these being new visitors to the site.

95% Complete

Subtask 1.5: TWRI, in collaboration with Extension, TFS, and the SWCDs, will develop, complete and submit an aggregate final report to TSSWCB at the culmination of the project. This report will be provided in electronic and hard copy format. The TSSWCB project manager will set the appropriate due dates for this task.

The following actions have been completed during this reporting period:

- A. No Activity to report at this time.

0% Complete

Subtask 1.6: TWRI will hire (Months 1-3) and oversee (Months 4-36) the Pecos River Watershed Coordinator. This position will be responsible for the general oversight and coordination of all project activities, be responsible for reporting requirements and directing educational activities, and serve as the primary conduit for interaction with landowners and entities to facilitate the implementation of the WPP. The Pecos River Watershed Coordinator shall be stationed in the watershed at Fort Stockton.

- A. Subtask complete.

100% Complete

TASK 2: Promotion, Development and Implementation of WQMPs

Subtask 2.1: SWCD 213 and SWCD 235 will each hire one full-time District Technician to promote, develop, and implement WQMPs. SWCD 213 and SWCD 235 will each hire one part-time Bookkeeper to assist with project accounting functions.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician continued covering duties of both the Upper Pecos and Crockett districts.

100% Complete

Subtask 2.2: To ease the development of the Final Report (Subtask 1.6), the District Technicians will submit quarterly updates to a template Final Report along with QPRs. The TSSWCB Project Manager will provide a template Final Report.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician submitted 13th QPR to the Watershed Coordinator on January 3, 2013.

95% Complete

Subtask 2.3: The District Technicians will identify landowners in priority areas in the Pecos River watershed to periodically distribute notifications announcing the availability of financial and technical assistance for developing and implementing WQMPs.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician identified landowners in priority areas of the Pecos River Watershed.

95% Complete

Subtask 2.4: The District Technicians will develop and distribute flyers, brochures, letters, news releases and other appropriate promotional publications to encourage participation from landowners. The TSSWCB Project Manager must approve all announcements, letters, and publications prior to distribution.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician distributed flyers and Watershed Protection Plan Overviews.
- B. The Upper Pecos SWCD Technician and Watershed Coordinator completed development of a promotional display to better convey the implementation message at meetings and events.

95% Complete

Subtask 2.5: *The District Technicians will work with NRCS and AgriLife Extension to educate landowners and agricultural producers about water quality issues and how WQMPs and BMPs address pollutant loadings from agriculture. The District Technicians will support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by NRCS and/or AgriLife Extension for the Pecos River watershed.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician participated in the Livestock and Range Update – 2012 Fall Program in Rankin to promote the Pecos River WPP and associated programs.

95% Complete

Subtask 2.6: *The District Technicians will work with organizations, such as Texas and Southwestern Cattle Raisers Association (TSCRA), Texas Wildlife Association (TWA), Texas Sheep and Goat Raisers Association (TSGRA) and Texas Farm Bureau (TFB), to educate their members on this opportunity to enhance the value of their operation and achieve water quality goals for the watershed at the same time. Additionally, the District Technicians will work with Irrigation Districts to educate their customers on this project.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician advertised the Pecos River WPP, WQMPs, biological control of saltcedar, and prescribed burning of saltcedar to Red Bluff WPCD.
- B. The Upper Pecos SWCD Technician promoted the Pecos River WPP, WQMPs, and BMPs available to landowners/cooperators at the Livestock and Range Update – Fall Program in Rankin.

95% Complete

Subtask 2.7: *The District Technicians will meet monthly with SWCDs 213 and 235, and as needed with SWCDs 224, 231, 237, and 241, in order to efficiently and effectively achieve project goals; summarize activities and achievements made throughout the course of this project; and discuss project activities, project schedule, communication needs, deliverables, and other requirements.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician met with SWCDs 227, 209, 213, 231, 234, 235 and 241 during their monthly board meetings to discuss project activities including WQMP availability, the prescribed burning program, saltcedar leaf beetles, FY13 WQMP Program Rules, and the §319(h) FY13 Grant Proposal for the Pecos River Watershed.

95% Complete

Subtask 2.8: *The District Technicians will cooperate and communicate with landowners and entities in the Pecos River watershed in order to efficiently and effectively achieve project goals and to summarize activities and achievements made throughout the course of this project. Specifically, the District Technicians will, at least, participate in meetings scheduled under the auspices of the WPP. The District Technicians will maintain regular communication with the TWRI Pecos River Watershed Coordinator, TFS personnel, and the selected chemical saltcedar control contractor.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician maintained communication with the TWRI Pecos River Watershed Coordinator, TFS personnel, and landowners in the Pecos River Watershed.
- B. The Upper Pecos SWCD Technician promoted the Pecos River WPP, WQMPs, and BMPs available to landowners/cooperators at the Livestock and Range Update – Fall Program in Rankin.

95% Complete

Subtask 2.9: The District Technicians, with assistance from NRCS and TSSWCB as appropriate, will assist landowners in the development of WQMPs and associated Prescribed Grazing Plans. The District Technicians will develop at least 10 WQMPs above Girvin and 10 WQMPs below Girvin. Noting that the 10-year goal of the Pecos River WPP is to develop at least 120 WQMPs along the riparian corridor and 50 WQMPs in other portions of the watershed, the District Technicians shall strive to develop additional WQMPs beyond the minimum of 20; cost-share availability for additional WQMPs is dependent upon outcomes of Subtask 2.10.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician
 - a. Assisted landowners in the development of two WQMPs in Crane, Ector, Jeff Davis and Reeves County.
 - b. Certified practices through the WQMP program in Terrell County (19,524' fence) and Reeves County (8,627' fence).
 - c. Processed payment of \$9,820.15 for 8,627' fence in Reeves County.
- B. To date, 10 WQMPs have been certified.

75% Complete

Subtask 2.10: The District Technicians, with assistance from NRCS and TSSWCB, will assist landowners in the Pecos River watershed in applying for and obtaining cost-share to aid in implementation of BMPs prescribed in WQMPs. This project provides \$200,000 in CWA §319(h) funding (TSSWCB project 09-02 provides an additional \$100,000 in CWA §319(h) funding) as cost-share through the TSSWCB WQMP Program with allocations of \$100,000 to each SWCD 213 and SWCD 235. Landowners shall be eligible to receive a maximum cost-share amount of \$15,000 from the TSSWCB §319(h) funds. The maximum cost-share rate shall not exceed 60% of the cost of implementation of the BMPs. The remaining 40% will be provided by the landowner. Cost-share will be based on actual cost not to exceed average cost of the practice.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician assisted landowners in applying for and obtaining cost-share in Reeves and Terrell Counties.
- B. To date, \$54,849.65 has been reimbursed to producers and an additional \$60,000 is obligated to producers.

75% Complete

Subtask 2.11: The District Technicians will prioritize WQMP development and cost-share applications consistent with the priority areas identified in the Pecos River WPP. Specifically, priority shall be given for operations nearest to the Pecos River or major tributaries and those lands where chemical saltcedar control and follow-up debris removal has been conducted.

The following actions have been completed during this reporting period:

- A. The 10 SWCDs participating in the Pecos River Watershed Protection Plan defined the two top priorities for WQMP financial assistance eligibility:
 - Tier 1: Priority will be given to applicants requesting funds for land adjacent to the Pecos River on a first come, first served basis.
 - Tier 2: Priority will be given to applicants requesting funds for land adjacent to a major tributary of the Pecos River.

100% Complete

Subtask 2.12: The District Technicians will assist landowners with WQMPs in acquiring financial assistance through USDA administered federal Farm Bill Programs, including but not limited to, the Environmental Quality Incentives Program (EQIP) 1) county-level funding based on resource concern priorities established by Local Work Groups and 2) any applicable State Resource Concerns], the Grasslands Reserve Program (GRP), and the Agricultural Water Enhancement Program (AWEP).

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician assisted a producer in Culberson County.

70% Complete

Subtask 2.13: The District Technicians will conduct annual status reviews on all WQMPs developed and certified through the course of this project and any existing WQMPs (certified prior to this project) in the Pecos River watershed to ensure that the landowners implement BMPs as specified and agreed to in the WQMP implementation schedule. The District Technicians will document any follow-up technical assistance needed or necessary modifications to the WQMP implementation schedule.

The following actions have been completed during this reporting period:

- A. No activity to report at this time.

0% Complete

Subtask 2.14: The District Technicians will track utilization of obligated cost-share funds and, with assistance from TSSWCB and NRCS, will assist landowners in utilizing obligated cost-share funds on schedule.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician tracked utilization of obligated cost-share funds in Crane, Pecos, Reeves and Terrell Counties. The District Technician assisted landowners/cooperators in utilizing obligated cost-share funds on schedule

50% Complete

Subtask 2.15: The District Technicians will create spreadsheets and maps describing and showing the location of all WQMPs developed and BMPs implemented through the project. These maps will not reveal the identity or exact location of any producer.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician continues to create maps and spreadsheets describing and showing the location of certified WQMPs and BMPs implemented.
- B. See attached map and summary sheet showing general locations and descriptions of certified WQMPs.

55% Complete

TASK 3: Chemical Control of Saltcedar

Subtask 3.1: The District Technicians will obtain permission to spray saltcedar, conduct debris removal (Task 5) and re-vegetation efforts. The SWCD 213 District Technician will work in the Pecos River, between Interstate-20 and Girvin, TX; and the SWCD 235 District Technician will work below Girvin down to the confluence with the Rio Grande. The District Technicians will also collect GPS coordinates of areas where chemical treatment will not be applied (e.g., sensitive areas, where permission is not obtained, or in areas where biological control is implemented).

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician have obtained permission to spray saltcedar and are continuing to obtain permission to conduct debris burns along the Pecos River and its tributaries.

95% Complete

Subtask 3.2: The District Technicians will send out notifications to landowners describing goals and asking for landowner cooperation. The letter will be accompanied by approved technical documents that illustrate the benefits of treating saltcedar. Contact information for the District Technician will be included. Verbal contact with the landowners that are not receptive to written communication will be made. The District Technicians will continue to promote participation in chemical treatment of saltcedar throughout the duration of the project.

The following actions have been completed during this reporting period:

- A. Subtask Complete

100% Complete

Subtask 3.3: TSSWCB will take bids from qualified aerial herbicide applicators experienced in strategically applying pesticides to sensitive areas using helicopters and GPS coordinates to treat selected saltcedar. The budget allows for chemical treatment at \$220 per acre.

The following actions have been completed during this reporting period:

- A. Subtask Complete

100% Complete

Subtask 3.4: TSSWCB will contract with the selected applicator (Subtask 3.3) (chemical saltcedar control contractor) to treat an estimated 1,422 acres of saltcedar in segment 2311 of the Pecos River, between Interstate-20 and Girvin, TX and an estimated 353 acres of saltcedar

in segments 2311 and 2310 of the Pecos River, between Girvin, TX and the Val Verde County line with ArsenalTM (Imazapyr) herbicide or a comparable generic version. The herbicide will be applied by helicopter in a selective manner using GPS guidance technology, to control saltcedar and having little or no effect on desirable plants and wildlife. General areas to be sprayed were developed from low-level, high-resolution aerial photography that was digitized and converted to GIS shapefiles. Areas will be ground-truthed by the District Technicians prior to initiating spraying. These files will be loaded into the helicopter's GPS system and will dictate where herbicide is applied.

The following actions have been completed during this reporting period:

A. Subtask Complete

100% Complete

Subtask 3.5: The District Technicians will be onsite with the TSSWCB contractor during aerial pesticide application to observe and document (Observation Checklist) the following: 1) chemical mixture, 2) chemical application, 3) treatment acreage, and 4) weather conditions.

The following actions have been completed during this reporting period:

A. Subtask Complete

100% Complete

TASK 4: Biological Control of Saltcedar

Subtask 4.1: Extension will coordinate site selection with the saltcedar spraying and debris removal efforts (Tasks 3 & 5) so that these areas do not overlap with biological control areas.

The following actions have been completed during this reporting period:

- A. Efforts continue to be made to ensure that burning areas and beetle release sites do not coincide.
- B. No new activity to report this quarter.

90% Complete

Subtask 4.2: Extension will establish at least 10 release sites across the watershed. Beetles will be placed in protective enclosures and the beetle populations will be allowed to go through one regeneration cycle before being released.

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician informed Extension of landowners interested in having beetle populations established on their property.
- B. Beetle populations naturally expanded rapidly this year and precluded the need to manually introduce beetles to a new area.
- C. Several beetle populations were augmented with additional beetles.

80% Complete

Subtask 4.3: Extension will track and document the location of biological control sites and leaf

beetle release dates and the subsequent acres of defoliated saltcedar on each site. Extension will create GIS maps showing the location of release sites and defoliated acres at each site.

The following actions have been completed during this reporting period:

- A. The ability to track the movement of individual beetle colonies has been precluded by the rapid rise in the beetle population and their natural dispersal and subsequent intermingling of populations.
- B. GIS maps are updated as new beetle locations are discovered.
- C. No new activity this quarter.

60% Complete

TASK 5: Prescribed burning for saltcedar debris removal

Subtask 5.1: TFS will coordinate with the District Technicians to obtain permission for debris burning activities from private landowners (Subtask 3.1).

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician continued to coordinate with landowners to obtain permission for debris burning activities.

70% Complete

Subtask 5.2: TFS will draft the appropriate prescribed burn plans.

The following actions have been completed during this reporting period:

- A. No new activity to report this quarter.

30% Complete

Subtask 5.3: TFS will work with the District Technicians to inform landowners of scheduled prescribed burns. Where practical, landowners and local prescribed burning organizations shall be involved in burning activities.

The following actions have been completed during this reporting period:

- A. No new activity to report this quarter.

30% Complete

Subtask 5.4: TFS will conduct prescribed burning on standing dead saltcedar that has been chemically treated prior to this project along the main channel of the river, between Girvin, TX and the confluence of the Pecos River and Independence Creek, or about 138 river miles. As stated in the WPP, at least 3 years should have transpired between chemical treatments and prescribed burning in order to achieve the most effective kill rate of saltcedar and the most effective degree of debris removal. Controlled burns will only be conducted in areas where landowners have given permission for these activities to be carried out.

The following actions have been completed during this reporting period:

- A. No activity to report at this time.
- B. Burning continues to be hampered in 2012 by wetter than normal conditions that have led to fuel moisture contents outside of the range specified in written burn plans.

0% Complete

TASK 6: Support and Facilitation of WPP Implementation, Education and Tracking

Subtask 6.1: *Extension will engage and facilitate Pecos River watershed landowners and other entities identified in the Pecos River WPP and work in cooperation with partner agencies to implement the Pecos River WPP. Extension will facilitate and host meetings of the landowners and partner agencies as needed, likely semi-annually at multiple locations across the watershed.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD District Technician promoted the Pecos River Watershed Protection Plan, WQMPs, and BMPs available to landowners/cooperators at the Upton and Glasscock County Livestock and Range Update-2012 Fall Program in Rankin, TX.
- B. The Upper Pecos SWCD District Technician assisted the Watershed Coordinator in drafting the FY13§319(h) Grant Proposal. The Technician also discussed the proposal and sought input from SWCDs, Red Bluff WPCD, and landowners/producers within the watershed.

93% Complete

Subtask 6.2: *Extension will assist governmental and non-governmental organizations in the Pecos River WPP, in identification and acquisition of resources (financial and technical) to enable WPP implementation. Extension will actively seek and pursue funding opportunities and work with partners to develop grant proposals.*

The following actions have been completed during this reporting period:

- A. The Watershed Coordinator and Upper Pecos SWCD Technician collaborated in drafting the FY13§319(h) Grant Proposal which was turned into TSSWCB for funding consideration on October 12, 2012.

80% Complete

Subtask 6.3: *Extension will evaluate progress toward achieving milestones established in the WPP. Extension will publish an addendum to the Pecos River WPP that describes modifications/updates to goals and milestones, explains new understandings of sources and cause of water quality issues, documents success in achieving goals and milestones and success in achieving water quality improvement and load reductions at least biennially. As the WPP was published in October 2008, this biennial addendum would most appropriately be published around October 2010, or soon thereafter.*

The following actions have been completed during this reporting period:

- A. Work on the Pecos WPP Addendum continued this quarter. Final results of the DO Modeling project are still pending.

35% Complete

Subtask 6.4: *Extension will facilitate and coordinate education and outreach activities as identified in the Pecos River WPP. Extension will develop and distribute press releases when warranted. Specifically, Extension will collaborate with NRCS and SWCDs to host workshops, field days, demonstrations, site tours, or other education events focused on each of the following topics:*

- *Texas Watershed Steward Program (2 events)*
- *Lone Star Healthy Streams Program (2 events)*
- *Nutrient Management (2 events)*
- *Wildlife Management (3 events)*
- *Crop Management (2 events)*
- *Irrigation Management (3 events)*
- *Feral Hog Management (2 events)*

The following actions have been completed during this reporting period:

- A. No new activity to report this quarter.

75% Complete

Subtask 6.5: *Extension will provide information to IBWC for inclusion in the Clean Rivers Program Basin Summary Report and Basin Highlights Report. Extension shall participate in IBWC-sponsored meetings of the Clean Rivers Program Basin Advisory Committee.*

The following actions have been completed during this reporting period:

- A. No activity to report this quarter.

75% Complete

Subtask 6.6: *Extension will develop and publish a semi-annual newsletter that is designed to keep landowners and entities informed of ongoing WPP implementation activities and other relevant information. The newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed.*

The following actions have been completed during this reporting period:

- A. The December 2012 newsletter was published and distributed on December 19, 2012.

85% Complete

Subtask 6.7: *The Watershed Coordinator will make deliberate efforts to increase awareness of the WPP and secure implementation support thereof from county and municipal governments, and irrigation districts throughout the watershed, as well as, the Red Bluff Water and Power Control District. The Watershed Coordinator will also work with the Pecos River Compact Commission and the New Mexico Environment Department (NMED) to explore mechanisms to influence the implementation of management measures in New Mexico that have positive effect to the Pecos River in Texas.*

The following actions have been completed during this reporting period:

- A. The Upper Pecos SWCD Technician attended numerous public meetings inclusive of

irrigation districts, Red Bluff Water Power and Control District and SWCDs throughout the watershed and updated meeting participants on project activities.

- B. The Watershed Coordinator has maintained contact with Red Bluff Water Power and Control District Staff, the Pecos River Compact Commissioner's office in Texas and individual landowners.

95% Complete

TASK 7: Compilation of Surface Water Quality Monitoring Data

Subtask 7.1: *Extension will maintain and update Red Bluff release and delivery databases. USGS gaging station discharge data and TCEQ Clean Rivers Program water quality and streamflow data from established monitoring sites will be updated and maintained in existing databases by Extension. This task will build upon the existing water quality database developed under TSSWCB project 04-11.*

The following actions have been completed during this reporting period:

- A. The Pecos River data viewer was updated as appropriate this quarter.

80% Complete

Subtask 7.2: *Extension will collaborate with IBWC to assess water quality data collected through the Clean Rivers Program and other projects in relation to achieving load reductions described in the WPP.*

The following actions have been completed during this reporting period:

- A. Work to assess water quality trends pre and post-WPP implementation is underway. These analyses will be incorporated into the WPP addendum.

35% Complete

III. Related Issues/Current Problems and Favorable or Unusual Developments

Adverse weather conditions continue to plague efforts to burn saltcedar debris along the river. Frequent rains have made moisture conditions higher than the burn plans allow.

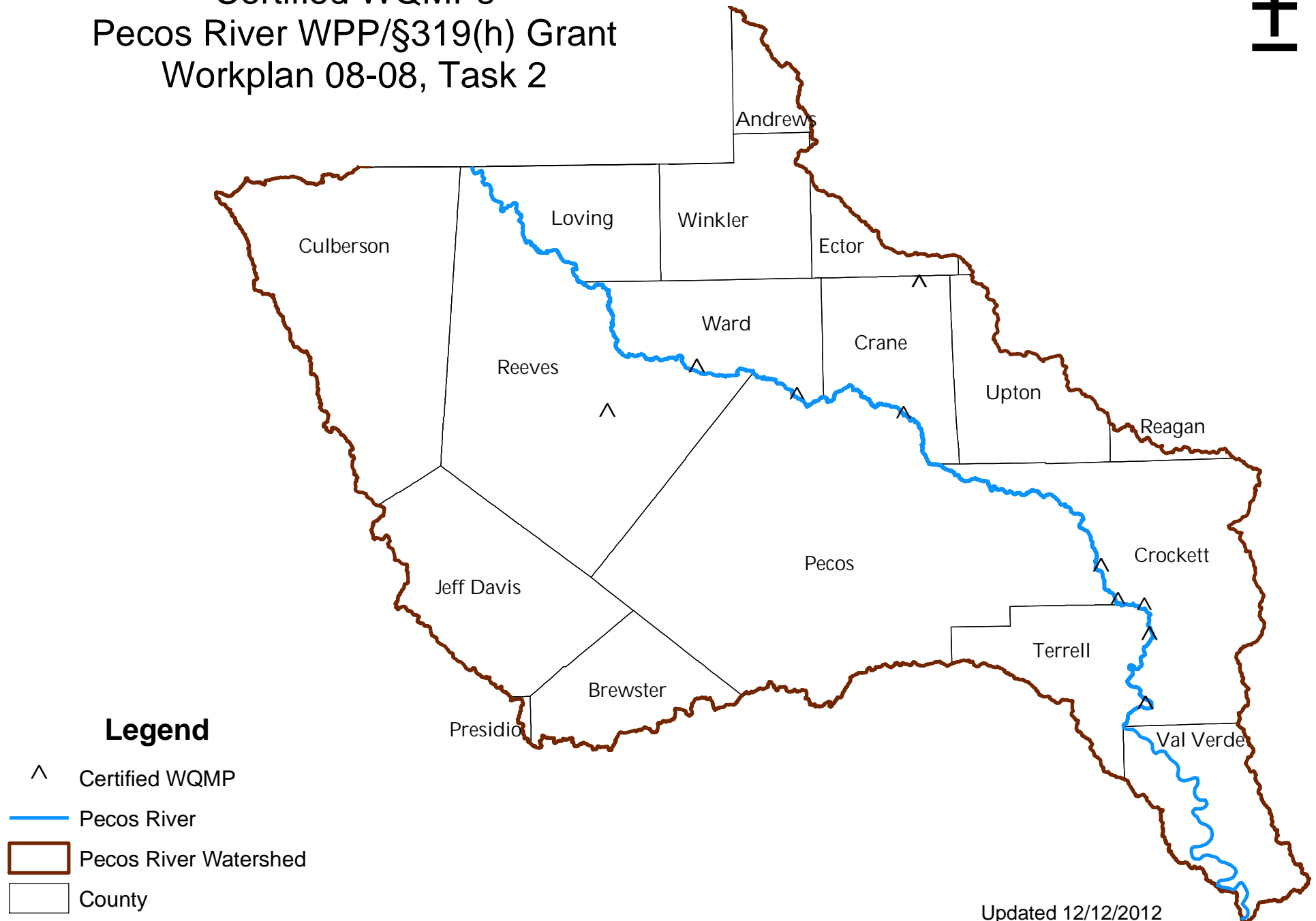
A request for bids from private burn contractors was released in November; however, only one bid was received. In an attempt to get a better value, the request for bids will be re-released early next quarter.

Drought in New Mexico continues to plague water levels in the Pecos. Water levels in Red Bluff are extremely low and downstream releases have been suspended.

IV. Projected Work for Next Quarter

- Continue to work on certifying WQMP practices installed and processing payment for certified practices.
- Secure additional WQMPs.
- Conduct WQMP status reviews.
- Advertise program availability to landowners in priority areas.
- Attend monthly board meetings with SWCD #s 213 and 235 and as necessary attend board meetings with SWCD#s 241, 231, 230, 209, 227, 237, and 224.
- Enroll additional landowners/cooperators in the debris removal program.
- The SWCD Technician will send shape files to TFS for burning of dead debris
- The SWCD Technician will encourage producers to complete cost share practices in a timely manner.
- The Watershed Coordinator will continue to engage watershed landowners, work on developing the WPP addendum and coordinate planning for future WPP Implementation with watershed landowners.
- TWRI will continue to update the Pecos Basin Website to keep the public aware of activities in the watershed.
- Hire private burning contractor to assist TFS in debris burning.

Certified WQMPs Pecos River WPP/§319(h) Grant Workplan 08-08, Task 2



Certified WQMP Summary Sheet

Pecos River WPP/§319(h) Grant

WorkPlan 08-08

WQMP #	County	Cost-Share		Certified Practices
		Obligated	Reimbursed	
235-11-001	Crockett		\$7,335.63	495' well; 1 storage tank; 1 trough
235-11-004	Crockett		\$15,000.00	4 FGWSF; 5,629.8' pipeline; 2,316' pipeline
235-11-003	Crockett		N/A	N/A
237-11-005	Terrell		\$10,052.29	3,086' fence; 1 concrete WSF
231-11-001	Pecos		\$12,641.58	9,163' fence
231-12-002	Pecos	\$15,000.00		
237-12-008	Terrell	\$15,000.00		
213-13-005	Reeves	\$15,000.00		
213-13-006	Reeves		\$9,820.15	8,627' fence
241-13-008	Crane/Ector	\$15,000.00		
	TOTAL	\$60,000.00	\$54,849.65	

Updated 12/12/2012



Pecos River Watershed Protection Plan Implementation

December 2012 Newsletter

Heliborne Electromagnetic Survey Project Funded on the Pecos River

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. Fueled by the need to identify salt sources influencing salt loading to the river, the Pecos Heliborne Electromagnetic Survey Project was developed and recently received approval for funding from the Texas State Soil and Water Conservation Board and the Environmental Protection Agency.

The project will employ an aerial-based electromagnetic survey to produce electrical resistivity readings of the soil and water it contains from the surface to depths up to 200 m. These readings will be analyzed to yield a high-resolution, 3-D visualization of salinity levels in the soil and water profile, thus providing exceptional details of the area's hydrogeology. The distribution of brackish groundwater will be assessed and saline hotspots determined.

A request for bids is currently being developed to procure the services of a capable entity to deploy and operate the equipment necessary to collect needed data. Actual data collection will occur sometime in the future but will depend on contracting and flight planning timelines.

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

Technical and 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 cost-share to implement conservation practices. Each operating unit is eligible for up to \$15,000 in cost-share. Conservation practices eligible for cost-share include:

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

Approximately \$163,000 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 the above mentioned practices are urged to contact Amy Porter.

Texas/New Mexico/Mexico Saltcedar Biological Control Consortium Meeting

The 8th annual meeting of the Texas/New Mexico/Mexico Saltcedar Biological Control Consortium was held on Oct. 30-31 in El Paso, Texas. This meeting brought together researchers and practitioners to discuss progress and challenges in the biological control of saltcedar in Texas, New Mexico and Mexico.



Beetle action is in full force across the state, and the Pecos River Watershed is no exception. During 2012, a total of 116,000 adult beetles were collected from and redistributed within the Pecos River watershed. Extensive defoliation of saltcedar along the Pecos and the Rio Grande by subtropical leaf beetles has been observed in 2012.

Saltcedar Debris Burning Update

Efforts to burn saltcedar debris along the river continue to progress. With winter weather finally here, fine fuels will dry much faster and should be within prescription allowing many more opportunities to burn. Also, a request for bids was released on Nov. 28 seeking prescribed burning service from eligible parties. Bids must be turned in by Dec. 19 and the winning bidder will be selected shortly thereafter.

Pecos River Information Management System

An interactive WPP implementation tracking tool called the Pecos River Information Management System (PRIMS) has been developed and is being continually updated by the Texas Water Resources Institute (TWRI) to illustrate general locations within the watershed where WPP implementation efforts have taken place. As new information is developed and implementation is completed, it is added to the viewer.

The database provides useful information to watershed managers and others wanting to spatially assess current management practices, such as



chemical and biological treatment of riparian Saltcedar in the Pecos Watershed. The extent of chemical spaying of saltcedar from 1999-2011 and the extent of defoliation of saltcedar by beetles from 2010-2012 can be viewed. Additionally, information on water quality monitoring locations, irrigation turnouts, stream gages, water wells and other information can all be seen.

If you have any suggestions to improve the viewer or requests for information to add, contact Lucas Gregory. For assistance on manipulating the viewer, be sure to click on the question mark symbol for the user's guide. The map and user's guide for the viewer can be found at pecosbasin.tamu.edu/map/.

New Compact Commissioner Appointed

Presidio County Rancher Rick Tate of Marfa has been appointed the new Pecos River Compact Commissioner for Texas by Gov. Rick Perry after former commissioner Rick Rylander resigned in June 2012 to take an appointment to the Texas Water Development Board. Commissioner Tate’s appointment is effective through Jan. 23, 2017. Tate is a cattle rancher who received a bachelor’s degree from the University of Colorado.

The Pecos River Compact Commission administers the Pecos River Compact established in 1948 between Texas and New Mexico. The Texas Legislature ratified the compact in 1949. Subsequently, the New Mexico Legislature ratified it, the U.S. Congress approved it, and the President signed the compact, making it both state and federal law. The compact, which applies to the Pecos River and its tributaries, protects the rights and interests of Texas by ensuring that New Mexico complies with the guidelines set forth in the compact.

Dissolved Oxygen Modeling and Monitoring Updates

The water quality model developed to simulate dissolved oxygen (DO) levels and other water quality parameters in the Pecos River from the river’s confluence with Independence Creek up to Red Bluff Reservoir has been used to evaluate the effectiveness of various control measures and best management practices (BMPs) to improve instream DO levels. Based on water quality monitoring data, the Pecos River is presently considered impaired due to DO levels that occasionally go below the allowed standard of 3.0 milligrams per liter (mg/L). These low DO values are most common during the warmer months of late spring and summer and 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. These early morning DO levels are frequently lower than the minimum standard during warmer months.

The model has been applied to evaluate various BMPs considered potentially beneficial to the improvement of DO. These BMPs include 1) reduced salt content in the Pecos River as a result of the Malaga Bend project, 2) decreases in the nutrient levels in releases from Red Bluff Reservoir, 3) increases in river flow during the prime algal growing season of April–October, 4) decreases in algal biomass, 5) decreases in bottom sediment nutrients and 6) adding riffle areas along the river. Initial results indicate that no single BMP can achieve the goal of maintaining minimum DO levels above the 3.0 mg/L standard the needed 90 percent of the time. Several combinations of BMPs were found to theoretically achieve this goal.

A final report describing this modeling effort and its results is being developed and will be available next year.

Conservation efforts highlighted in *Texas Wildlife*

Two recently published articles in the December 2012 edition of the *Texas Wildlife*, the magazine of the Texas Wildlife Association, highlight restoration efforts in the Pecos River. The articles describe restoration activities and conservation initiatives including the chemical, biological and physical removal of saltcedar from the watershed, native plant revegetation efforts and water quality management plan development.

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

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