

**Texas 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. 10 From 01.1.2012 Through 03.31.2012.

I. Abstract

Planning for burning of debris on the river and the continuation of assisting cooperators in the implementation of the Water Quality Management Plans are the main activities for this quarter. There are interested producers who still want their saltcedar sprayed and they are being signed to access agreements in the event additional funds are made available in the future for continuation of the saltcedar spraying effort. Additionally, the Watershed Coordinator and the Crockett and Upper Pecos SWCD Field Technicians have attended numerous meetings throughout the watershed promoting the WPP and informing attendees of available opportunities. Planning for a series of field days early next quarter began this quarter as well.

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 10th QPR to the Watershed Coordinator on April 3, 2012.
- B. The Crockett SWCD Technician submitted 10th QPR to the Watershed Coordinator on March 9, 2012.
- C. AgriLife Extension submitted 10th QPR to the Watershed Coordinator on April 04, 2012.
- D. TWRI submitted the Year 3, Quarter 2 report to TSSWCB on April 10, 2012.

80% 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. A coordination meeting via conference call was conducted on March 7, 2012. All partners were represented at the meeting.

80% 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 (supplies, mileage, motel, per diem, and registration expenses).
- B. The Crockett County submitted reimbursement forms to the bookkeeper.
- C. To date, a total of \$157,771 has been spent, or approximately 27% of project funding has been spent through tasks 1, 4, 5, 6 and 7.

70% 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 238 individual site visits with approximately 79% of these being new visitors to the site.

85% 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. Subtask complete.

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 10th QPR to the Watershed Coordinator on April 3, 2012.
- B. The Crockett SWCD Technician submitted 10th QPR to the Watershed Coordinator on March 9, 2012.

85% 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 Crockett SWCD Technician identified landowners in priority areas in the Pecos River Watershed.
- B. The Upper Pecos SWCD Technician identified landowners in priority areas in the Pecos River Watershed.

85% 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. No activity to report at this time.

50% 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 Technician promoted the Pecos River Watershed Protection Plan at the Permian Basin Range Recovery Conference in Crane on March 1, 2012

75% 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 maintained communication with Red Bluff WPCD and various irrigation districts.

80% 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 Technician met with SWCDs 213, 231 and 241 during their monthly board meetings.

B. The Crockett SWCD Technician met with SWCDs 235, 224, 231 and 237 during their monthly board meetings.

85% 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 Technician:
 - a. Maintained communication with the Pecos River Watershed Coordinator and TFS personnel via meetings, phone, and e-mail.
 - b. Maintained communication with the landowners in the Pecos River Watershed.
- B. The Crockett County SWCD Technician maintained regular communication with the Pecos River Watershed Coordinator and landowners in the Pecos River Watershed.

85% 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 technician assisted a landowner in the development of a WQMP's in Pecos and Reeves Counties.
- B. WQMP # 231-12-002 was certified on February 17, 2012.
- C. The Crockett SWCD technician received certification of three WQMPs in Crockett Co. and two WQMP in Terrell Co.

85% 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. A total of Four WQMPs have been certified for \$42,731.55 in cost share assistance to date.

60% 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. This item is complete.

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 Crockett County Technician has assisted landowners with applying for EQIP.
- B. The Crockett County Technician has assisted landowners with applying for CStP.

60% 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. Crockett SWCD Technician is tracking the obligated cost-share funds and assisting landowners in utilizing obligated cost share funds on schedule.

15% 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 Crockett County SWCD Technician and the Upper Pecos SWCD Technician continue creating maps describing and showing the location of current WQMP applicants.

40% 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 and Crockett Co. SWCD Technicians have obtained permission to spray saltcedar and are continuing to obtain permission to conduct debris burns along the Pecos River and its tributaries.

90% 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:

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:

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:

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:

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. Extension is coordinating with the Watershed Coordinator and the Crockett County SWCD Technician to assure no conflicts between burning operations and beetle releases.

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. No activity this quarter as beetles have yet to emerge.

60% 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. All new release sites have been documented with GPS location points. The sites will be located on a map for dispersal to all involved parties.

50% 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 Crockett SWCD technician has obtained permission from 17 producers to burn debris. This equates to approximately 34 river miles.
- B. The Upper Pecos SWCD technician obtained permission for debris burning from Culberson, Reeves, Ward and Pecos Counties.

50% Complete

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

The following actions have been completed during this reporting period:

- A. No activity to report at this time.

0% 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 activity to report at this time.

0% 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.

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 Watershed Coordinator continually works with partnering agencies to implement the Pecos River WPP.

70% 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. Pecos River Watershed Coordinator is working with the Pecos Water Quality Coalition to pursue funding opportunities on the Pecos River.
- B. Pecos River Watershed Coordinator is working with the Pecos River Compact Commissioner to help desalinate the Malaga Bend stretch of the Pecos River in New Mexico.

60% 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 has been initiated on the draft of WPP addendum. Significant progress on this addendum is expected next quarter.

20% 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. Met with the citizens in Ward County, Winkler, and Crane Counties and discussed how to establish a groundwater conservation district and the potential effects of depleting the Aquifer upon the Pecos River Watershed
- B. Presented at the Permian Basin Pesticide Training Course on the proper ways to protect surface and ground water in the Pecos River Watershed.
- C. Met with the citizens in Presidio, Brewster, and Jeff Davis Counties to discuss water quality effects in the Pecos River Watershed.

65% 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. Attended the Clean Rivers Meeting for the Pecos River and succeeded in attaining a more accurate representation of the River in the TCEQ river sections.

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. No activity at this time.

70% 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. Work has continued in an effort to coordinate the resurrection of a salt mining effort near Malaga Bend, NM. This involves the establishment of an agreement between a private salt harvesting company and Red Bluff WPCD. The salt company has been permitted by

New Mexico Environmental Department to pump the brine from the well near Malaga Bend.

- B. The Watershed Coordinator is acting as the scientific reviewer for the Pecos River Compact Commissioner for the Malaga Bend Project.
- C. The Watershed Coordinator has attended numerous public meeting throughout the watershed and updated meeting participants on project activities.
- D. The Watershed Coordinator continues to support monthly meetings in Austin with the Pecos River Water Quality Coalition.
- E. The Watershed Coordinator is working with the Senate Bill 3 Basin, Bay, and Estuary Scientific Team to develop environmental flows for the Pecos River.

90% 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. Stream flow and water quality data is available online.

60% 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. No activity to report at this time.

0% Complete

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

No Issues/Problems or Unusual Developments to report this quarter.

IV. Projected Work for Next Quarter

- The SWCD Technicians will continue work on current WQMPs
- The SWCD Technicians will work to secure additional WQMPs
- The SWCD Technicians will send shape files to TFS for burning of dead debris

- The SWCD Technicians will encourage producers to complete cost share practices in a timely manner.
- Extension will update all current activities to deliver a complete list of accomplishments and planned activities for the remainder of the project.
- TWRI will continue to update the Pecos Basin Website to keep the public aware of activities in the watershed.
- Conduct two site visits for the public on the Pecos River and demonstrate and discuss the benefits of the WQMP's.
- Work with burning of saltcedar debris on the Pecos River.
- Follow up with goal accomplishments in the Pecos River WPP addendum.