

**Pecos River Basin Assessment Program
FY04 CWA Section 319(h)
TSSWCB Project No. 04-11**

Quarter no. 9 From 10/01/06 Through 12/31/06

I. Abstract

Several main activities were worked on during the quarter and are now nearing completion. The Aquatic Life and Habitat Inventory survey was conducted on the upper reach of the Pecos by TCEQ and IBWC. Releases from Red Bluff decreased enough to allow for a safe study to be conducted. A report of their findings is now in the works. Simulation of flow and salinity of the Pecos is nearing completion, models were completed this quarter and documentation/reports will be finalized in the next quarter. Educational programming has continued this quarter as well. No formal project meetings were held, but progress was made on the Pecos History document and the Pecos History factsheet. Several new documents were also added to the project website. Water quality monitoring has continued as well. Routine samples were collected as a part of the CRP program. Work on Subtask 3.3 has continued as well, more data were collected and analyzed for inclusion in the final report for the subtask. The final report for Subtask 3.3 has been developed and is currently being reviewed by project personnel. The year 2 annual report was submitted to the TSSWCB for review and approval, it is expected that the report will be edited and re-submitted to the TSSWCB for approval during the next quarter. The first draft of the WPP has been completed and has been sent to project members for review.

II. Overall Progress and Results by Task

TASK 1: Basin Assessment

Subtask 1.1: Aerial Photography, Delineation, and Characterization

The following actions have been completed during this reporting period:

- a. Work has continued toward the production of multi-layered maps of the Pecos River basin.

95% Complete

Subtask 1.2: Historical Water Quality, Irrigation Delivery, Rainfall, Red Bluff Lake Levels, and Groundwater Monitoring

The following actions have been completed during this reporting period:

- a. Work continued toward gathering and compiling groundwater data for the basin.

- b. Relevant water news items were identified and distributed to team members.

80% Complete

Subtask 1.3: Aquatic Life and Habitat Inventory

The following actions have been completed during this reporting period:

- a. USIBWC and TCEQ performed a biological survey on the upper reach of the Pecos River.

75% Complete

Subtask 1.4: Identify and Characterize the Volume and Quality of Tributaries and Springs

The following actions have been completed during this reporting period:

- a. There has been no activity this quarter, due to absence of measurable water quantities in tributaries identified as part of this study.

25% Complete

Subtask 1.5: Identify and Characterize Saline Water Sources Entering the Pecos River

The following actions have been completed during this reporting period:

- a. This subtask is completed

100% Complete

Subtask 1.6: Simulate Flow and Salinity of the Pecos River for Evaluating River Management Options

The following actions have been completed during this reporting period:

- a. A report on the impact of tributaries, including the Pecos River on salinity of Amistad Reservoir was finalized.
- b. Application of a reservoir simulation model to Red Bluff was completed.
- c. Streamflow and salt routing simulation using the ROTO had been completed and the documentation is nearly completed.
- d. Major algorithm of riparian zone simulation was completed.

85% Complete

Subtask 1.7: Economic Modeling of the Pecos River Basin and Assessment of Saltcedar Control Activities

The following actions have been completed during this reporting period:

- a. The principle investigator for this subtask has been called up for active duty in the Army National Guard, and will not return until 2007. As such, work on this subtask will be postponed until his return.

8% Complete

Task 2: Educational Programming

Subtask 2.1: Publish Written Informational Materials to Educate Private Landowners, Stakeholders, and Policy Makers about the Pecos River basin and the effects of saltcedar

The following actions have been completed during this reporting period:

- a. The historical document titled “A Brief History of Water Resources Challenges Facing the Pecos Basin of Texas” was completed, and is being prepared for print. In addition, a shorter “fact sheet” version was prepared and is being internally reviewed.

85% Complete

Subtask 2.2: Educational Meetings of Interested Parties for Input and Organizational Support

The following actions have been completed during this reporting period:

- a. No activity this quarter.

50% Complete

Subtask 2.3: Develop a Website for Dissemination of Information

The following actions have been completed during this reporting period:

- a. Ongoing activities and updates were posted to the project website.

88% Complete

Task 3: Establish a Monitoring Program

Subtask 3.1: Develop a QAPP for Sampling Protocol

The following actions have been completed during this reporting period:

- a. This task is completed.

100% Complete

Subtask 3.2: Water Quality Monitoring, including Total Dissolved Solids (TDS), Total Suspended Solids, Potential Hydrogen (pH), Dissolved Oxygen (DO), and Electrical Conductivity (EC)

The following actions have been completed during this reporting period:

- a. Routine water quality samples were collected as part of the Texas Clean Rivers Program.

65% Complete

Subtask 3.3: Quantity and Fate of Water Salvage as a Result of Saltcedar Control

The following actions have been completed during this reporting period:

- a. Conducted permeability tests for surface soils adjacent to monitoring wells near river in November;
- b. Conducted slug tests of monitoring wells to determine subsurface hydraulic conductivity in November;
- c. Verified land surface and monitoring wellhead elevation and collected additional hydrological profile data in November;
- d. Surveyed streamflow temperatures near the bank at multiple locations along a 5 km segment in attempt to identify groundwater discharge points;
- e. Evaluated and interpreted land surface and groundwater surface profile data;
- f. Prepared final report for this subtask.

80% Complete

Task 4: Watershed Protection Plan

Subtask 4.1: Develop Annual Reports and a Final Report Summarizing Basin Assessment, Educational Programming, and Monitoring

The following actions have been completed during this reporting period:

- a. Annual Report 2 was completed and submitted to the TSSWCB for their review and approval.

75% Complete

Subtask 4.2: Produce the Final Watershed Protection Plan for Pecos River Segments 2312, 2311, and 2310

The following actions have been completed during this reporting period:

- a. The first draft of the Watershed Protection Plan was completed and is currently being reviewed by team members.

20% Complete

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

- Drought continues to be a problem in the basin and has prohibited monitoring of tributary water quality and quantity.

IV. Projected Work for Next Quarter

The following will be accomplished during the coming quarter:

Subtask 1.1 – Work will continue towards the completion of multi-layered Pecos River basin maps.

Subtask 1.2 – Work will continue towards the completion of a groundwater database for the basin.

Subtask 1.3 – TCEQ will perform the identification of biological samples and send results to the USIBWC CRP for assessment of all the biological data collected in the Pecos River.

Subtask 1.4 – Selected tributaries will be sampled if measurable water quantities exist.

Subtask 1.5 – No activities planned.

Subtask 1.6 – Complete the documentation of the salt and flow routing model.

Subtask 1.7 – No activities planned.

Subtask 2.1 – Print the historical document. Review and finalize the fact sheet.

Subtask 2.2 – No activities planned.

Subtask 2.3 – Post updates and documents to the project website.

Subtask 3.1 – No activities planned.

Subtask 3.2 – Routine water quality samples will be collected as part of monitoring activities carried out through the Texas Clean Rivers Program.

Subtask 3.3 – Analyze hydrological profile data and monitoring data to characterize surface water and groundwater interaction. Analyze slug test results and assess hydrological properties of alluvium. Conduct time series analysis of water level monitoring data. Finish the final report.

Subtask 4.1 – Make changes requested by the TSSWCB and finalize the annual report.

Subtask 4.2 – Internal review of the WPP will begin. A meeting of team members to discuss the first draft is scheduled for February 6.

