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

Quarter no. 8 From 07/01/06 Through 09/30/06

I. Abstract

Work has continued to move forward on the majority of the project. Results from the USGS aquatic life and habitat survey on the lower portion of the river were received this quarter while the TCEQ and IBWC were unable to conduct the study on the upper Pecos due to insufficient flows. Many of the tributaries in the basin remained dry during the quarter despite some flooding occurring on the main stem of the river. Flow and salinity simulations have continued and are being used to evaluate management options for the river. An overview document entitled "A Brief History of Water Resources Challenges Facing the Pecos Basin of Texas" was completed and is now in the process of being published while a shorter fact sheet is being reviewed for later publication and distribution. Studies have continued to evaluate the quantity and fate of water salvage from saltcedar control and work has continued on the watershed protection plan.

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. No progress to report this quarter.

70% Complete

Subtask 1.3: Aquatic Life and Habitat Inventory

The following actions have been completed during this reporting period:

a. Results from the aquatic survey on the lower portion of the Pecos River were received from USGS.
b. TCEQ and the IBWC are waiting on sufficient flow in the river to sample the upper half of the river.

50% 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. Streamflow and salt routing simulation using the ROTO had been completed and the results are being documented.
b. Major algorithm of riparian zone simulation 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.

85% 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.

60% 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. Evaluated and interpreted land surface and groundwater surface profile data, and water quality data.
b. Conducted permeability tests for surface soils adjacent to monitoring wells near the river in July.
c. Conducted slug tests of monitoring wells to determine subsurface hydraulic conductivity in July.
d. Recorded additional cross-section profiles in July.
e. Prepared a draft interim progress report for this subtask.

70% 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. A draft of Annual Report 2 was completed and reviewed internally. Several updated maps are being created to add into the report. It will be finalized during the next quarter.

50% 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. Writing of the first draft of the Watershed Protection Plan continued.

10% Complete

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

a. A TTVN meeting was held on October 6, 2006 for all task leaders that were able sit in on the meeting. Each task was discussed and an overview of progress and future activities were highlighted.
b. Some well data was lost during June and July due to flooding; the data loggers were damaged.
c. The group decided that Will would call the next TTVN meeting when he deemed that it was needed.

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 – Data gathering will be continued and stakeholder meetings within the basin will be attended in an attempt to complete groundwater data collection and dissemination.
Subtask 1.3 – IBWC will work with TCEQ to perform the aquatic survey on the upper reach of 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 – Begin the coding of riparian zone simulation.
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 – Time series analysis of water level monitoring data will be conducted. River water quality will be verified to identify possible transition zones for more detailed profiles. Another slug test will be conducted and results analyzed. A cross-sectional map of hydraulic conductivity will be prepared.
Subtask 4.1 – Complete and submit Annual Report 2.
Subtask 4.2 – Continuation of writing the first draft of the Watershed Protection Plan.