

**Best Management Practice- Benefit Verification Infrastructure Improvement Plan
for the Bosque River Basin**

Texas Water Resources Institute
FY06 Federally Appropriated Funds
Project #06-64255

Quarter No. 5 From: 10/1/2007 Through: 12/31/2007

I. Abstract:

This project is an extension of a previous project that identified 22 feasible best management practices (BMPs) that can be implemented in the Bosque River watershed in an effort to reduce sediment and nutrient loads entering the waterway. This second phase of the project is using the Soil and Water Assessment Tool (SWAT) to evaluate various BMP implementation scenarios and their ability to effectively prevent nutrients and/or sediment from entering the waterway. Analysis is being done on a sub-watershed basis and only evaluates suites of BMPs instead of individuals.

In connection with the BMP evaluation, a document that describes each BMP in detail has been drafted. Essentially, a description is given for each BMP along with information about feasible locations, applicable operations, estimated capital costs, operation and maintenance requirements and costs, expected pollutant reductions and installation considerations. This document will be used by people interested in installing or implementing one or more of the suggested BMPs to gain information about the practice, costs and expected benefits.

Project work during the fourth quarter focused on completing modeling activities and finalizing project reports. The BMP description document first draft has been completed will be published as a technical report during the next quarter. Work on the Environmental Infrastructure Improvement Plan is nearing completion. A draft of this document is expected early in the next quarter; once received, the document will be reviewed and then finalized.

II. Progress By Task:

Task 1: SWAT Assessment of BMPs

Activity this quarter:

- a. Calibration of the model has been completed. SWAT was calibrated for the time period 1970-2000.
- b. Validation of BMPs using the SWAT model is under way.

90% Complete

Task 2: Environmental infrastructure improvement plan for the North, Middle and South Bosque River

Activity this quarter:

- a. The plan is currently being developed. As more modeling results become available, the information is incorporated into the plan.
- b. A complete draft of this plan is expected during the next quarter.

35% Complete

Task 3: BMP description document that discusses the effectiveness of each practice at reducing NPS pollution

Activity this quarter:

- a. The final version of this document has been completed and is currently in the process of being published. Once it is published, this document will be placed on the project website.

98% Complete

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

- No unusual developments this quarter

IV. Projected Work for Next Quarter

- The BMP document will be published and posted to the project website.
- The draft of the Environmental Infrastructure Improvement plan will be completed during the next quarter; once received, this report will be reviewed and finalized.