

**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. 1 From: 10/1/2006 Through: 12/31/2006

**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 is also being 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.

**II. Progress By Task:**

Task 1: SWAT Assessment of BMPs

Activity this quarter:

- a. Data collection and model set-up has been the major task of the last quarter. See attachment for a list of basic data sets used in the modeling process.
- b. Calibration of the model is yet to begin. This activity will be initiated next quarter and the model will be calibrated for the time period 1970-2000.

**20% Complete**

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

Activity this quarter:

- a. Work on this task has not been initiated; results from Task 1 will dictate what is included in this task.

**0% Complete**

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

Activity this quarter:

- a. Work was initiated on this document. Research information has been collected and writing is in progress.
- b. Approximately 5 out of 22 BMP descriptions are in final draft form.

**20% Complete**

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

- A meeting was held with project participants to discuss project timelines and deliverables

### **IV. Projected Work for Next Quarter**

- Model calibration and validation should be underway during the next quarter
- Writing of the Environmental Infrastructure Improvement plan will begin during the next quarter
- Work will continue on the BMP description document, the document should be nearing completion by the end of the quarter.