

**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. 6      From: 1/1/2008 Through: 3/31/2008

**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 used 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 was conducted on a sub-watershed basis and only evaluated suites of BMPs instead of individuals. A final modeling report was drafted to summarize the results of the model simulations and the effectiveness of the BMP scenarios. That report is now available online.

In connection with the BMP evaluation, a document that describes each BMP in detail was developed. 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. This report is also available online.

All work for the project is now completed and the information produced by the project is available online at: <http://twri.tamu.edu/project-info/EnvironmentalInfrastructures/>.

**II. Progress By Task:**

Task 1: SWAT Assessment of BMPs

Activity this quarter:

- a. Calibration and validation of the SWAT model were finalized during this quarter.
- b. The model was used to assess various BMPs implemented in multiple areas of the watershed, results are presented in the Task 2 report.

**100% Complete**

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

Activity this quarter:

- a. The final modeling report, or infrastructure improvement plan for the North, Middle and South Bosque Rivers, has been completed.
- b. This report has been published as Texas Water Resources Institute Technical Report 313 and is available on the project website:  
<http://twri.tamu.edu/project-info/EnvironmentalInfrastructures/>

**100% 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 has been published at Texas Water Resources Technical Report 309.
- b. The report has been posted on the project website:  
<http://twri.tamu.edu/project-info/EnvironmentalInfrastructures/>

**100% Complete**

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

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

- None; all deliverable for this project have been completed.