

**Texas AgriLife Research  
Texas Water Resources Institute**

**Modeling Support for Little Brazos River Tributaries Bacteria Assessment  
Texas State Soil and Water Conservation Board  
Total Maximum Daily Load Program  
TSSWCB Project #08-55**

Quarter no. 6 From 9/1/2009 Through 11/30/2009

**I. Abstract**

Work this quarter consisted of data continuing to be collected so that preliminary SELECT results can be expected to be completed and presented to project personnel at a project meeting in Centerville on 12/10/2009. Also, a stakeholder meeting is expected to be held during the next quarter to present the preliminary modeling results.

**II. Overall Progress and Results by Task**

**TASK 1: Project Coordination and Administration**

*Subtask 1.1: TWRI will prepare electronic quarterly reports for submission to the TSSWCB. All progress reports will be provided to all Project Participants. (Month 1 – 24)*

The following actions have been completed during this reporting period:

- a. The year 2, quarter 2 report was completed and sent to the TSSWCB on December 15, 2009

**75% Complete**

*Subtask 1.2: TWRI will submit appropriate Reimbursement Forms. (Month 1 – 24)*

The following actions have been completed during this reporting period:

- a. As of November 30, 2009, a total of \$10,352.90 or about 20% of total project funds have been expended.

**20% Complete**

*Subtask 1.3: TWRI and BAEN will participate in quarterly meetings (in person or TTVN) as appropriate with project participants to discuss project activities, project schedule, lines of responsibility, communication needs, and other requirements. (Month 1 – 24).*

The following actions have been completed during this reporting period:

- a. TWRI and BAEN met and discussed the additional data that needs to be collected, as well as the project timeline.

**75% Complete**

*Subtask 1.4: TWRI and BAEN will attend and participate in public stakeholder meetings as needed. (Month 1 – 24)*

The following actions have been completed during this reporting period:

- b. A public stakeholder meeting has been discussed and is anticipated to be held next quarter.

**75% Complete****Task 2: Development of Quality Assurance Project Plan**

*Subtask 2.1: TWRI will develop a QAPP for activities in Task 3 consistent with EPA Requirements for Quality Assurance Project Plans (QA/R-5) and the TSSWCB Environmental Data Quality Management Plan. (Month 1 – 2)*

The following actions have been completed during this reporting period:

- a. This task is complete.

**100% Complete**

*Subtask 2.2: Provide annual revisions to the QAPP and amendments, as necessary, to the TSSWCB and EPA. (Month 3 – 24)*

The following actions have been completed during this reporting period:

- a. This task is complete.

**100% Complete****Task 3: Conducting sanitary surveys to identify potential *E. coli* contributing sources in the impaired watershed**

*Subtask 3.1: BAEN will cooperate with BRA to develop a comprehensive GIS inventory for the study area through TSSWCB project 08-54. (Month 1 – 3)*

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

**65% Complete**

*Subtask 3.2: TSSWCB, in coordination with SSL, will provide BAEN a current land use classification for the study area through TSSWCB project 08-52, Classification of Current Land*

*Use/Land Cover for Certain Watersheds Where TMDLs or WPPs Are In Development. (Month 1 – 3)*

The following actions have been completed during this reporting period:

- a. This task is complete

### **100% Complete**

*Subtask 3.3: BAEN will assist BRA in designing a watershed source survey, to be conducted through TSSWCB project 08-54, that better characterizes the possible sources of bacteria loadings in the study area. (Month 1 – 4)*

The following actions have been completed during this reporting period:

- a. This task is complete.

### **100% Complete**

*Subtask 3.4: BAEN, with assistance from BRA through TSSWCB project 08-54, will conduct a LDC analysis of all historic and existing water quality monitoring data from the study area. LDCs will be developed for at least one critical index site per segment. LDCs shall be consistent with both EPA's An Approach for Using Load Duration Curves in the Development of TMDLs and EPA's Options for Expressing Daily Loads in TMDLs. (Month 3 – 6)*

The following actions have been completed during this reporting period:

- a. This task is complete.

### **100% Complete**

*Subtask 3.5: Using water quality monitoring data collected by BRA through TSSWCB project 08-54, BAEN, with assistance from BRA, will refine LDCs developed in subtask 3.4. LDCs will be used to determine bacteria load reductions needed to achieve water quality standards. (Month 7 – 21)*

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

### **0% Complete**

*Subtask 3.6: BAEN, with assistance from BRA through TSSWCB project 08-54, will conduct watershed modeling for the study area. Utilizing information from the GIS inventory (Subtask 3.1), the source survey (Subtask 3.3), and water quality monitoring (TSSWCB project 08-54), and in combination with LDCs from Subtasks 3.4-3.5, BAEN will develop a spatially explicit or mass balance model, such as SELECT, for each of the five watersheds in the study area. Modeling will be used to estimate loadings from various sources and to identify critical loading areas within the watersheds. (Month 7 – 21)*

The following actions have been completed during this reporting period:

- a. Data has been collected and preliminary SELECT runs will be completed and presented to TSSWCB staff on 12/10/2009 at a project meeting in Centerville.

**20% Complete**

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

- a. Nothing to report.

**IV. Projected Work for Next Quarter**

- a. BAEN will continue the setup process for the SELECT model and will present the preliminary results during a stakeholder meeting that will be held next quarter and a project personnel meeting in Centerville on 12/10/2009.
- b. Work will also continue in the updating of the GIS for the watershed and will be incorporated into the modeling effort as it is acquired.
- c. Submit seventh quarterly report.