

**Texas A&M AgriLife**  
**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. 1 From 9/1/2008 Through 11/30/2008

**I. Abstract**

Work this quarter has focused on hiring a Research Technician for BAEN who will conduct GIS and data analysis for this and other projects. This person will begin working after the first of the year. The QAPP was approved by TSSWCB on September 16<sup>th</sup> and the first stakeholder meeting was held in Franklin on October 14<sup>th</sup> to brief stakeholders on the project, its goals and what they can be expect.

**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 1, quarter 2 report was completed and sent to the TSSWCB on December 10, 2008.

**25% Complete**

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

The following actions have been completed during this reporting period:

- a. No activity to report at this time. Project accounts have not been set up yet. This should be completed early next quarter.

**0% 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. No activity to report at this time.

**12% 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:

- a. One project meeting was held on October 14<sup>th</sup> and all project participants were in attendance. The meeting was held in Franklin to meet with stakeholders and inform them about the project and what it is hoping to accomplish.

**12% 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. The QAPP for the project was approved by TSSWCB on September 16<sup>th</sup>.

**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. No activity to report at this time.

**0% 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. None to report at this time.

**0% 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. None to report at this time.

**0% 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. No activity

**0% 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. No activity to report at this time.

**0% 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. No activity to report at this time.

**0% Complete**

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

- a. BAEN has hired a Research Technician that will perform work on this project starting after the Christmas Holidays.

**IV. Projected Work for Next Quarter**

- a. Work on Task 3 will begin following during the next quarter.