

**Bacterial Monitoring for the Buck Creek Watershed
FY 03 CWA 319(h)
TSSWCB Project No. 03-7**

Quarter no. 8 From 7/01/05 Through 9/30/05.

I. Abstract

Sample collection and analysis continued during quarter 8 at sites 3, 4, and 10. No flow was observed at the other sites. The process of updating the QAPP was initiated and is expected to be completed in the next quarter.

II. Overall Progress and Results by Task

TASK 1: Program Coordination with Project Participants

Subtask 1.1: Conduct meetings as appropriate with project participants, landowners, and other interested parties to discuss water quality monitoring activities, project schedule, lines of responsibility, communication needs, and other requirements. (Month 1 thru 24)

The following actions have been completed during this reporting period:

- a. Project staff discussed the E. coli levels between sites 10 and 11 with the landowner at site 10. Permission was requested from the landowner to test other areas on the ranch below site 10 to determine if there is in fact a significant a reduction in E. coli between the two sites. Upon approval by the landowner and successful amendment of the QAPP, project staff will test at additional sites on the ranch for the next several months.

70% Complete

Subtask 1.2: TAES will prepare electronic quarterly reports. All progress reports will also be provided to TCE project cooperators and participants, and Hall-Childress, Collingsworth, and Donley SWCD directors. (Month 1 thru 24)

The following actions have been completed during this reporting period:

- a. Submitted Year 2, Quarter 4 report to TSSWCB on 10-7-05.

70% Complete

Subtask 1.3: TCE will provide leadership for educational programs about water pollution and project findings. (Month 1 thru 24)

The following actions have been completed during this reporting period:

- a. TWRI maintains a project Web site which contains information about the project, the study area, photos, accomplishments, publications and educational outreach material, etc. The Web site can be viewed at <http://twri.tamu.edu/buckcreek>

60% Complete

Subtask 1.4: TAES and TCE will develop an electronic final report, which will include an executive summary of data collected during the project and educational program.

The following actions have been completed during this reporting period:

- a. No progress to report at this time.

0% Complete

Subtask 1.5: TSSWCB, TWRI, RRA and local SWCDs will assist, when needed, with composition, editing, and publication of final report. (Month 1 thru 24)

The following actions have been completed during this reporting period:

- a. No progress to report at this time.

0% Complete

TASK 2: Micro-Watershed Monitoring and Sampling

Subtask 2.1 Develop DQOs and a QAPP to be approved by USEPA. (Month 1 thru 3)

The following actions have been completed during this reporting period:

- a. The process to develop the annual update to the QAPP was initiated. The update will:
 - o Reflect changes in staff
 - o Correct the sampling site location for site 7 to reflect FR 339 is actually FR 338
 - o Drop sites 1, 2, 7, 8, and 9 since flow is rarely found there and possibly add more sites between 10 and 11 (with owners permission) to examine the anomaly observed between the 2 sites

100% Complete

Subtask 2.2: Select 12 or 13 sites to conduct water quality sampling. Maintain water quality monitoring equipment and collect water samples. (Month 1 thru 24)

The following actions have been completed during this reporting period:

- a. Selected 3 additional sites between site 10 and 11 for possible evaluation and ran preliminary YSI field tests and E. coli on samples from these areas.

100% Complete

Subtask 2.3 TAES will obtain sampling locations and deploy in accordance with arrangements made. (Month 4 thru 21)

The following actions have been completed during this reporting period:

- a. Technicians installed a WatchDog rain monitor near site 10 to track rainfall amount and intensity. Rainfall data will be downloaded bi-weekly to be presented in future reports.

100% Complete

Subtask 2.4 TAES will perform routine sampling, (grab sampling) at strategic locations within the Buck Creek watershed. (Month 4 thru 21)

The following actions have been completed during this reporting period:

- a. Continued bi-weekly sampling activities on sites 3 thru 13; however, only sites 3, 4, and 10 had consistent flow this quarter.

70% Complete

Subtask 2.5: TAES will collect a minimum of 8 rain event/high flow grab samples from the sites over the course of the study. (Month 4 thru 25)

The following actions have been completed during this reporting period:

- a. Samples were collected from sites 3, 4, 10, and 11 following a rainfall event on August 18, 2005. Debris in the trees over the creek indicates water levels rose to over 7 feet deep and filled the banks to an average width of 25 feet. Photos were taken for documentation.
- b. The rain event on August 18, 2005 brings the total number of events collected to 10.

100% Complete

Subtask 2.6 TAES will compile and analyze the sampling data. Data will be for informational and assessment purposes due to the limited data previously collected. (Month 4 thru 24)

The following actions have been completed during this reporting period:

- a. A preliminary examination of the data from July and August indicated a reduction in E. coli numbers below site 10.

60% Complete

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

Preliminary evaluation of data collected from Buck Creek to date indicates a potential anomaly at site 10. As stated, project staff is working with landowner to include additional testing sites to resolve irregular data.

IV. Projected Work for Next Quarter

The following will be accomplished during the coming quarter:

- a. TWRI will continue to update the project Web site and coordinate communication between project staff and Cooperative Extension Agents.
- b. Sample collection will continue.
- c. The QAPP will be updated.
- d. A no cost project extension will be requested.