

**Texas AgriLife Research  
Texas Water Resources Institute**

**Water Quality Monitoring in the Buck Creek Watershed and Facilitation of Buck Creek  
Watershed Partnership**

**FY 10 CWA 319(h)  
TSSWCB Project No. 10-06**

Quarter no. 6 From 4.1.2012 Through 6.30.2012

**I. Abstract**

Work conducted this quarter includes continued stakeholder engagement and the collection of a limited number of water samples. The creek and its watershed have finally received sufficient rain to restore flow to some of the sampling stations. The next newsletter is in development and nearing completion. It will be released early next quarter.

In conjunction with this project, the Buck Creek WPP is still undergoing revision. Comments were received from USEPA on the draft WPP in mid-May. Addressing these comments should conclude next quarter and it the plan will be re-released and delivered to USEPA for their official review.

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

**TASK 1: Project Coordination and Administration**

Subtask 1.1: *TWRI will prepare electronic quarterly progress reports (QPRs) for submission to the TSSWCB. QPRs shall document all activities performed within a quarter and shall be submitted by the 15<sup>th</sup> of January, April, July and October. QPRs shall be posted on the project website and distributed to all project partners.*

The following actions have been completed during this reporting period:

- a. Submitted Year 2, Quarter 2 report to TSSWCB on July 13, 2012.

**75% Complete**

Subtask 1.2: *TWRI will perform accounting functions for project funds and will submit appropriate Reimbursement Forms to TSSWCB at least quarterly.*

The following actions have been completed during this reporting period:

- a. As of June 4, 2012, a total of \$81,461 or approximately 71% of project funding has been expended.

**75% Complete**

*Subtask 1.3: TWRI will host coordination meetings, conference calls, or TTVN meetings, as appropriate, with project partners in order to efficiently and effectively achieve project goals, coordinate efforts and summarize activities and achievements made throughout the course of this project. TWRI will develop lists of action items needed following each project coordination meeting and distribute to project personnel.*

The following actions have been completed during this reporting period:

- a. A conference call was held on April 12, 2012 to discuss a path forward for the project in light of the exceptional drought conditions that gripped the area over the last year.
- b. It was determined that a no-cost extension will likely be needed to get at least a portion of the samples that were originally planned for collection.

**75% Complete**

## **TASK 2: Quality Assurance Project Plan Development**

*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.*

The following actions have been completed during this reporting period:

- a. The QAPP was approved on April 12, 2011.

**100% Complete**

*Subtask 2.2: TWRI will submit revisions and necessary amendments to the QAPP as needed.*

The following actions have been completed during this reporting period:

- a. The annual QAPP revision was submitted to TSSWCB on 1.23.2012 for review and approval.
- b. No new activity to report on the annual QAPP revision.

**25% Complete**

## **TASK 3: Water Quality Data Collection and Analysis**

*Subtask 3.1: AgriLife Vernon will conduct routine water quality monitoring collecting water samples, field parameters (DO, pH, temperature, specific conductance) and streamflow. Samples will be collected once monthly from 7 sampling sites in the Buck Creek watershed (Sites 3, 5, 6, 10A, 10C, 11, and 13). Total number of samples budgeted for collection through this subtask is 126; however, the number actually collected will likely be lower due to the ephemeral nature of the creek.*

The following actions have been completed during this reporting period:

- a. The effects of the drought are still being felt on Buck Creek.
- b. Limited pools returned to the creek in May and by June 3 sites once again had flowing water. These sites were sampled and other sites were visited.

**25% Complete**

*Subtask 3.2: AgriLife Vernon will conduct biased flow water quality monitoring collecting water samples, field parameters (DO, pH, temperature, specific conductance) and streamflow during 6 storm events. Samples will be collected from 7 sampling sites in the Buck Creek watershed (Sites 3, 5, 6, 10A, 10C, 11, and 13). Total number of samples budgeted for collection through this subtask is 42.*

The following actions have been completed during this reporting period:

- a. No activity to report at this time.
- b. Recent rains have not been sufficient to produce runoff but have restored water to the creek.
- c. Biased flow sampling is anticipated next quarter if rains continue.

**10% Complete**

*Subtask 3.3: AgriLife Vernon will enumerate E. coli colonies in water samples collected in subtasks 3.1 and 3.2 using EPA Method 1603. E. coli counts will be recorded electronically and in hard copy format.*

The following actions have been completed during this reporting period:

- a. 3 samples were collected and analyzed this quarter.

**25% Complete**

*Subtask 3.4: AgriLife Vernon will assess nitrate levels in water samples collected in subtasks 3.1 and 3.2 using EPA Method 353.2. Nitrate concentrations will be recorded electronically and in hard copy format.*

The following actions have been completed during this reporting period:

- a. 3 samples were collected and analyzed this quarter.

**25% Complete**

*Subtask 3.5: AgriLife Vernon will record and store all water quality data in electronic and hard copy formats. TWRI will transfer quarterly monitoring data from activities in Task 3 to TSSWCB for inclusion in TCEQ SWQMIS. Data will be transferred in the correct format using the TCEQ file structure, along with a completed Data Summary, as described in the most recent version of TCEQ Surface Water Quality Monitoring Data Management Reference Guide. Data Correction Request Forms will be submitted to TSSWCB whenever errors are discovered in data already reported. TWRI will also provide necessary information on this monitoring regime to RRA for inclusion in the Coordinated Monitoring Schedule.*

The following actions have been completed during this reporting period:

- a. Data were added to the AgriLife Vernon database.

**55% Complete**

*Subtask 3.6: AgriLife Vernon will develop a Technical Report that summarizes data collection and analysis results.*

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

**0% Complete**

#### **TASK 4: Maintain Stakeholder Communication**

Subtask 4.1: *TWRI and AgriLife Vernon will collaborate to develop and publish 4 semi-annual newsletters that provide updates on water quality data collection efforts and progress toward implementing the WPP and other relevant information. The newsletter shall be distributed as most appropriate to individual landowners and entities in the watershed.*

The following actions have been completed during this reporting period:

- a. Development of the next newsletter began this quarter and is nearing completion. It will go out early next quarter.

**65% Complete**

Subtask 4.2: *AgriLife Vernon or TWRI as appropriate will provide information to RRA for inclusion in the Clean Rivers Program Basin Summary Report and Basin Highlights Report. TWRI and/or AgriLife Vernon shall participate in RRA-sponsored meetings of the Clean Rivers Program Basin Steering Committee and Coordinated Monitoring meetings.*

The following actions have been completed during this reporting period:

- a. No new activity to report this quarter.

**50% Complete**

Subtask 4.3: *TWRI will ensure that the currently existing Buck Creek website (<http://buckcreek.tamu.edu/>) will be updated periodically to reflect accurate and current information regarding the project, WPP, implementation and other activities.*

The following actions have been completed during this reporting period:

- a. TWRI continues to maintain and update the project website.
- b. This quarter the website received 122 visits with 85% of those being new visits

**94% Complete**

Subtask 4.4: *TWRI and AgriLife Vernon will host and facilitate meetings of the Buck Creek stakeholders. Meetings will be held at a minimum of once annually for a total of 2 planned meetings. These meetings will be held to provide updates on the status of monitoring efforts, progress in identifying implementation funding, and movement towards water quality restoration.*

The following actions have been completed during this reporting period:

- a. No new action to report this quarter.

**75% Complete**

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

- Rainfall has returned to the watershed once again enabling sample collection.

- A decision was made late this quarter to request a 6 month no-cost extension to allow for additional water quality monitoring to take place.

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

The following will be accomplished during the coming quarter:

- a. Continue sampling as planned.
- b. Request a no-cost extension.