

**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. 9 From 1.1.2013 Through 3.31.2013

**I. Abstract**

Work conducted this quarter includes continued stakeholder engagement through the delivery of the Texas Well Owners Network program in Wellington on March 28<sup>th</sup>. Flow in the creek resumed at 3 sites in March allowing for a few samples to be collected. The Buck Creek WPP is still undergoing the publishing process. The project team was notified that they are the 2013 winner of the Texas Environmental Excellence Award in the Pollution Prevention category. The team will receive this award on May 1<sup>st</sup> in Austin.

**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 3, Quarter 1 report to TSSWCB on 4.12.2013.

**95% 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 January 15, 2013, a total of \$107,651 or approximately 86% of project funding has been expended.

**93% 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. TWRI maintained contact with project staff this quarter. No formal meetings were held.

**95% 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 approved by EPA on 10.16.2012.
- b. Task complete.

**100% 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. Flowing water was found at 3 sites in March. All counts were below 100 cfu/100 mL.

**50% 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.

### **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 collected in March were analyzed and all were found to contain less than 100 cfu/100 mL of bacteria.

### **50% 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:

- b. Samples collected were processed for nitrates.

### **50% 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:

- c. Data were stored but not transferred this quarter due to low volume.

### **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. Work on the water quality monitoring report began this quarter.

### **20% 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. Task complete.

**100% 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. Input was provided to RRA during their annual CRP steering committee meeting in March.
- b. Task complete.

**100% 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 104 visits with 78% of those being new visits.
- c. Task complete.

**100% 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. Working with AgriLife Extension, the Texas Well Owners Network program was delivered in the watershed on March 28<sup>th</sup>.

**100% Complete**

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

- Drought continues to grip the region and the creek is once again dry limiting the number of water quality samples collected.
- The project team was notified that they are this year's winner of the Texas Environmental Excellence Award in the Pollution Prevention category. This awards program is sponsored by TCEQ.

- The Buck Creek Watershed Protection Plan is almost through the layout and formatting process and will be printed and delivered to EPA for acceptance.

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

The following will be accomplished during the coming quarter:

- a. Complete sampling in April as weather permits.
- b. Complete work on drafting the project final report that summarizes monitoring and data analysis; or the lack thereof.

