

**Texas AgriLife Research
Texas AgriLife Extension Service
Texas A&M University College of Agriculture and Life Sciences
Texas Water Resources Institute**

**Watershed Characterization, Public Outreach and Education in the Brownsville-Resaca
Watersheds of Cameron County Texas
FY 14 CWA 319(h)
TCEQ Agreement No. 582-14-41167**

Quarter no. 2 From 6/11/14 Through 8/31/14

I. Abstract

II. Overall Progress and Results by Task

TASK 1: Project Administration

Subtask 1.1: Project Oversight – Texas Water Resources Institute (TWRI) will provide technical and fiscal oversight of the staff and/or subgrantee(s)/ subcontractor(s) to ensure Tasks and Deliverables are acceptable and completed as scheduled and within budget. With the TCEQ Project Manager’s authorization, TWRI may secure the services of subgrantee(s)/ subcontractor(s). Project oversight status will be provided to TCEQ in the Quarterly Progress Reports (QPRs).

The following actions have been completed during this reporting period:

- a. TWRI has provided guidance and assistance to the project team as well as maintained close contact to ensure project deliverables are on time and of acceptable quality.

12% Complete

Subtask 1.2: Quarterly Progress Reports (QPRs) – TWRI will submit QPRs to the TCEQ Project Manager by the 15th of the month following each state fiscal quarter for incorporation into the Grant Reporting and Tracking System (GRTS). The Reports are to include the following:

- *Status of deliverables for each Task*
- *Brief narrative description in Progress Report format*

The following actions have been completed during this reporting period:

- a. The year 1, quarter 2 report was completed and sent to TCEQ on September 15, 2014.

18% Complete

Subtask 1.3:Reimbursement Forms – TWRI will submit reimbursement forms to the TCEQ Contract Manager by the last day of the month following each state fiscal quarter. For the final quarter of the contract period, Reimbursement Forms are required on a monthly basis.

The following actions have been completed during this reporting period:

- a. As of September 15, 2014, approximately \$5,047.00 has been spent on the project. Overall, there is about \$210,329.00 remaining in the project budget.

% Complete

Subtask 1.4:Contract Communication – TWRI will participate in a post-award orientation meeting with TCEQ within 30 days of contract execution.

TWRI will maintain regular telephone and/or e-mail communication with the TCEQ Project Manager regarding the status and progress of the project in regard to any matters that require attention between QPRs.

Matters that must be communicated to the TCEQ Project Manager include, but are not limited to:

- *Notification a minimum of 14 days before TWRI has scheduled public meetings or events, initiation of construction, or other major Task activities.*
- *Notification within 48 hours regarding events or circumstances that may require changes to the budget, scope of work, or schedule of deliverables.*

The following actions have been completed during this reporting period:

- a. TWRI and the ACWC maintain regular contact with the TCEQ project manager regarding the status and progress of project activities.

18% Complete

Subtask 1.5:Coordination Meeting with EPA – TWRI will attend a project update and coordination meeting with EPA in Dallas to share progress on goals, measures of success, challenges, and opportunities mid-way through the project.

The following actions have been completed during this reporting period:

- a. No activity this quarter

% Complete

Subtask 1.6:Annual Report Article – TWRI will provide an article for the Nonpoint Source Annual Report upon request by TCEQ. The article will include a brief summary of the project and describe the activities of the past fiscal year.

The following actions have been completed during this reporting period:

- a. No activity this quarter

% Complete

Task 2: Quality Assurance

Subtask 2.1: QAPP Planning Meetings – TWRI will schedule a QAPP planning meeting with the TCEQ Project Manager, Quality Assurance staff, technical staff, and contractors, to implement a systematic planning process based on the elements in the TCEQ NPS QAPP Shell. The information developed during this meeting will be incorporated into a QAPP. The storage location of data records, and how data should be coded, will also be determined during these meetings. TWRI may conduct additional meetings to determine whether changes to an existing QAPP are needed.

The following actions have been completed during this reporting period:

- a. No activity to report this period.

12% Complete

Subtask 2.2: Secondary Data QAPP – TWRI and Tarleton Institute for Applied Environmental Research (TIAER) will develop and submit to TCEQ a QAPP with project-specific DQOs and other components consistent with the following documents:

- EPA Requirements for QAPPs (QA/R5)
- EPA Guidance for Geospatial Data QAPPs (QA/G-5G)
- EPA QAPP Requirements for Secondary Data Research Projects
- TCEQ Surface Water Quality Monitoring (SWQM) Procedures
- TCEQ NPS QAPP Shell(s)

TWRI will develop the QAPP in consultation with the TCEQ Project Manager, QA and technical staff, and contractors. TWRI will submit the QAPP to the TCEQ 120 days or more prior to the scheduled initiation of environmental data operations. The QAPP must be signed/fully approved by TCEQ and, if necessary, EPA, before any environmental data operations begin.

Activities covered under this QAPP:

- *Data acquisition, data analysis, mapping*

Tasks covered under this QAPP:

- *Task 3*

Tasks NOT covered under this QAPP:

- *Task 1, 4 and 5*

The following actions have been completed during this reporting period:

- a. TIAER developed a draft of the Acquired Data QAPP and submitted it to TWRI for review on July 14, 2014.

- b. TWRI reviewed the draft QAPP and then submitted the QAPP to the TCEQ on August 1, 2014.

9% Complete

Subtask 2.3: QAPP for Monitoring - The TWRI and University of Texas at Brownsville (UTB) will develop and submit to the TCEQ a QAPP with project-specific DQOs consistent with EPA Requirements for Quality Assurance Project Plans (QA/R5) format and the TCEQ NPS QAPP Shell 120 days prior to the initiation of any data collection. All of the monitoring procedures and methods prescribed in the QAPP will be consistent with the guidelines detailed in the TCEQ Surface Water Quality Monitoring Procedures, Volume 1 and 2. The TWRI and UTB will develop the QAPP with technical assistance from the TCEQ Project Manager, QA and technical staff, management, and contractors. The QAPP must be approved by the TCEQ.

Activities covered under this QAPP:

- *Data collection*

Tasks covered under this QAPP:

- *Task 3*

Tasks NOT covered under this QAPP:

- *Task 1, 4 and 5*

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 2.4: QAPP Annual Updates or Reissuances – TWRI will submit annual QAPP updates or reissuances no less than 90 days prior to the end of the effective period of the QAPP. The last approved version of a QAPP will remain in effect only for the specified approval period. Upon expiration of the approval period for a QAPP, all the work covered by the expired QAPP will cease until such time as revised a QAPP has been fully approved by TCEQ and, if necessary, EPA.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 2.5: QAPP Amendments – TWRI will submit amendments when changes to QAPPs are necessary. Amendments must be submitted 90 days prior to the scheduled initiation of changes. A justification, summary of changes, and detail of changes must be provided with the amendment.

TWRI will ensure that changes conveyed within amendments are not implemented until the amendment is fully approved by TCEQ and, if necessary, EPA.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Task 3: Watershed Characterization – Data Evaluation

Subtask 3.1: Assemble Existing Data and Information – TIAER, with the assistance of UTB, will gather existing data and information pertaining to water quality impairments and issues in the watershed. This data and information will, to the extent possible:

- *describe relevant watershed characteristics;*
- *identify the causes and sources of water quality impairments and issues; and,*
- *estimate pollutant loadings (or potential loadings) from these sources if available data exists to support estimation methods. At minimum, loadings will be estimated for point sources and nonpoint sources.*

This data and information will be assembled into a data inventory for the watershed. The data and information will be presented in appropriate formats including graphs, tables, and maps. This work will be consistent with the procedures specified in Chapter 5 of the Handbook for Developing Watershed Plans to Restore and Protect Our Waters (USEPA, 2008).

The following actions have been completed during this reporting period:

- a. TIAER Modeling team consisting of Dr. Larry Hauck and David Pendergrass made a reconnaissance trip to the watershed on August 12 and 13, 2014. Dr. Jude Benavides, UTB, and the WC met with TIAER and gave them a tour of the entire watershed, including all of the Resacas, so they could gain a better understanding of the complexity of the watershed.

9% Complete

Subtask 3.2: Analyze Existing Data and Information – TIAER, with the assistance of UTB, will analyze the existing data and information and, to the extent possible, characterize water quality conditions, watershed conditions, and sources of pollution contributing to water quality impairments and issues. The analysis will:

- *identify indicator parameters that can be used to assess current conditions and measure progress toward meeting water quality goals. At a minimum, these indicators will include those used to implement water quality standards;*

- *produce a conceptual model of the linkage (cause and effect relationship) between water quality problems and sources of pollution in the watershed;*
- *lead to an understanding of where and when water quality impairments and/or issues occur and what could be causing the impairments and issues; and,*
- *be the basis for the selection of the analytical method that will be used to estimate pollutant loadings from sources in the watershed that contribute to water quality impairments and issues conducted in future projects.*

This work will be consistent with the procedures specified in Chapters 4 and 7 of the Handbook for Developing Watershed Plans to Restore and Protect Our Waters (USEPA, 2008).

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 3.3: Identify Additional Data Collection Needs – Based on the evaluation of existing data and information, TIAER, with the assistance of UTB, will identify any additional data and information that is needed to support the analytical method for estimating pollutant loadings. A plan for collecting additional data will be included in the Watershed Characterization – Data Collection Report.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 3.4: Identify Analytical Method for Estimating Pollutant Loads – TIAER, with the assistance of UTB, will select the analytical method by working with the stakeholders that can be used to estimate pollutant loadings from sources in the watershed that contribute to water quality impairments and issues. The analytical method will establish the cause-and-effect relationship between pollutant loads from the sources in the watershed and the response in the water body. The selection of the analytical method will be based on data availability, pollutants, water body type, source types, time frames, spatial scale, and available resources. Existing data and information will be evaluated to determine if there is sufficient data and information to support the selected analytical method. Gaps in the existing data will be identified, evaluated, and prioritized. This work will be consistent with the procedures specified in Chapters 6 and 8 of the Handbook for Developing Watershed Plans to Restore and Protect Our Waters (USEPA, 2008). A plan for estimating pollutant loads will be included in the Watershed Characterization – Data Collection Report.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 3.5: Watershed Characterization – Data Collection Report – TIAER, with the assistance of UTB, will develop a report summarizing information developed under Task 3 to characterize the watershed and identify causes and sources of pollution. The report will be submitted for approval to the TCEQ Project Manager, and be presented to stakeholders for feedback.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 3.6: Water Quality Monitoring – Contingent upon data gaps identified in the analysis conducted in Subtask 3.3, UTB, with assistance from the project team, will conduct water quality monitoring at approximately 2 sites for no more than 2 years to help fill gaps needed for future loading reduction calculations. Samples will be delivered to local accredited laboratories to conduct the appropriate analysis needed to fill data gaps. Data will be submitted in a form consistent with TCEQ formatting requirements for upload into the Surface Water Quality Monitoring Information System (SWQMIS). A report will be developed summarizing water quality monitoring efforts.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Task 4: Partnership Coordination

Subtask 4.1: Public Participation Plan (PPP) – TWRI will develop a draft PPP prior to initial Stakeholder Group development. The PPP will provide an outline of the goals of future meetings, topics, and an estimated timeline that will provide an outline for project personnel to follow as the watershed planning and implementation process is conducted. The PPP must be approved by the TCEQ Project Manager and presented to stakeholders for feedback.

The following actions have been completed during this reporting period:

- a. The WC has drafted the outline of the PPP and identified several key stakeholders that will become the original Steering Committee for the project.

- b. The WC has sent the draft outline of the PPP to the SC for comments and feedback on August 6, 2014.

12% Complete

Subtask 4.2: Facilitate and Coordinate Meetings – TWRI will implement the PPP by working to identify and meet with key stakeholders across the watershed on an individual or small group basis. The purpose of these meetings will be to inform these key stakeholders of the water quality issues and solicit their input on goals, objectives, and indicators that will help in the watershed planning process. Meetings with key stakeholders will be documented with information including meeting date, meeting participants, and meeting content summary.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 4.3: Stakeholder Group Activities – TWRI will implement the PPP by mobilizing a stakeholder group and their activities, including:

- *overseeing the formation and continued facilitation of the Stakeholder Group;*
- *hosting and facilitating meetings;*
- *leading the Stakeholder Groups in developing/refining goals that will include meeting water quality standards;*
- *identifying issues of concern and address significant issues where possible;*
- *presenting major deliverables to the Stakeholder Group and soliciting feedback; and, gaining community acceptance of the project.*

Stakeholder Group and Public meetings will be documented with meeting agendas, minutes, sign in sheets and other available documentation.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 4.4: Dissemination of Project Information – TWRI will conduct public outreach in accordance with the PPP to inform the public about the project and its status, sources of pollution, and how the public/stakeholders can address water quality issues. Activities may include but are not limited to:

- *hosting a project webpage;*
- *communicating via media sources (e.g. newspaper articles); and, holding and/or participating in public education and outreach events.*

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 4.5: Partnership Coordination Report – TWRI will develop a report summarizing the public outreach activities. The report will be submitted for approval to the TCEQ Project Manager and be presented to stakeholders for feedback.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Task 5: Final Project Report

Subtask 5.1: Draft Final Project Report – TWRI will provide a Draft Final Project Report summarizing all project activities, findings, and the contents of all previous deliverables, referencing and/or attaching them as web links or appendices. This comprehensive, technical report will provide analysis of all activities and deliverables under this scope of work. The report should be structured per the following outline:

- *Title*
- *Table of Contents*
- *Executive Summary*
- *Introduction*
- *Project Significance and Background*
- *Methods*
- *Results and Observations*
- *Discussion*
- *Summary*
- *References*
- *Appendices*

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

Subtask 5.2: Final Project Report – TWRI will revise the Draft Final Project Report to address comments provided by the TCEQ Project Manager and the EPA. TWRI will submit the Final Report to the TCEQ Project Manager, who will subsequently submit it to EPA.

The following actions have been completed during this reporting period:

- a. No activity this quarter

0% Complete

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

N/A

IV. Projected Work for Next Quarter

Task 1

- Continue project oversight and accounting functions.
- Continue coordinating project meetings.

Task 2

- Continue to coordinate QAPP Planning meetings as necessary.

Task 3

- Watershed Characterization – Data Evaluation
- No activities will commence until the QAPP has been approved.

Task 4

- Partnership Coordination
- Public Participation Plan (PPP)-The WC will continue to draft the PPP for the project.
- Facilitate and Coordinate Meetings
- Stakeholder Group Activities
- Partnership Coordination Report

Task 5

- Final Project Report N/A

