

**Texas AgriLife Research
Texas Water Resources Institute**

**Preventing Water Quality Contamination Through the Texas Well Owner Network
FY 10 CWA 319(h)
TSSWCB Project No. 10-04, FAMIS Account #07-428570**

Quarter no. 11 From 4/1/13 through 6/30/13

I. Abstract

Five 6-hour “Well Educated” trainings were held this quarter with a total of 181 participants. Five well screenings were held during this quarter, which is above the required 30 screenings in the contract. Since April 2011, 39 screenings have been held with more than 2,538 samples screened.

II. Overall Progress and Results by Task

TASK 1: Project 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 15th of January, April, July and October. QPRs shall be distributed to all project partners.*

The following actions have been completed during this reporting period:

- a. TWRI submitted the 11th Quarter, Year 3 report to TSSWCB on July 10, 2013.

77% 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 May 31, 2013, \$339,224.02 or 71% of federal project funds had been expended.

71% 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 meeting between TWRI, TSSWCB and the project partners was held on May 2, 2013, to discuss project deliverables and status. Action items are included in Appendix A. Meeting participants included: Diane Boellstorff (SCSC), Ryan Gerlich (BAEN), Drew Gholson (SCSC), Allen Berthold (TWRI) and Jana Lloyd (TSSWCB).
- b. The next meeting is tentatively scheduled for August 1.

85% Complete

Subtask 1.4: *TWRI and SCSC will attend and participate in the Texas Groundwater Protection Committee and subcommittee meetings, Texas Alliance of Groundwater Districts conferences, and other meetings as appropriate in order to communicate project goals, activities and achievements accomplishments to affected parties.*

The following actions have been completed during this reporting period:

- a. The Extension Water Resource Specialist and TWON Coordinator presented information about the TWON program and schedule at the Texas Groundwater Protection Committee Public Outreach and Education Subcommittee quarterly meeting in Austin on June 12, 2013.
- b. Information regarding the TWON project and upcoming training in Killeen was presented at the Lampasas River Watershed Protection Plan coordinating committee meeting on June 13, 2013.
- c. The TWON Coordinator attended the Texas Alliance of Groundwater District quarterly meeting and discussed upcoming training locations and dates..

75% Complete

Subtask 1.5: *TWRI in collaboration with SCSC, will create (Months 1-3), host and maintain (Months 4-36) a website to serve as a clearinghouse for TWON information and resources including updated and renamed, web-adapted Tex*A*Syst educational materials and online delivery of TWON.*

The following actions have been completed during this reporting period:

- a. The Texas Well Owner Network website went online on June 10, 2011, and continues to be maintained and updated. It can be found at <http://twon.tamu.edu/>. Since the website went online, it has been viewed by a total of 4,400 unique visitors with 843 of those in the last quarter.
- b. The website continues to be maintained and updated, and this quarter the publications page was significantly revised to provide easy access to publications from the AgriLife bookstore regarding water conservation and quality and water wells..
- c. A link was established from the TWON home page to the National Ground Water Association webpage promoting Groundwater Day, September 10, 2013.

78% Complete

Subtask 1.6: *TWRI and SCSC will develop a project final report.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

TASK 2: Development of TWON Educational Materials/Curriculum

Subtask 2.1: *SCSC will employ a TWON Coordinator to develop and deliver the TWON curriculum in selected watersheds.*

The following actions have been completed during this reporting period:

- a. This task is complete. Drew Gholson was hired on September 17, 2012.

100% Complete

Subtask 2.2: *Update and rename existing TEX*A*Syst documents to reflect changes/improvements in laws and regulations and private well management, maintenance and protection. Revisions will be developed by the*

TWON Coordinator, with significant assistance from Project Co-Leads and the BAEN Program Specialist. Existing publications include:

- *Improving Wellhead Management and Conditions*
- *Improving Pesticide Storage and Handling*
- *Improving Fertilizer Storage and Handling*
- *Improving Petroleum Product Storage*
- *Improving Hazardous Waste Management*
- *Improving Household Wastewater Treatment*
- *Improving Livestock Manure Storage and Treatment Facilities*
- *Improving Livestock Holding Pen Management*

All documents, educational materials, etc. will be provided to the TSSWCB for review and comment prior to dissemination.

The following actions have been completed during this reporting period:

- a. The TWON factsheets are in various stages of being written and reviewed by project Co-PIs.

75% Complete

Subtask 2.3: Develop and adapt additional educational resources to create a TWON curriculum. Resources will be developed by the TWON Coordinator, with significant assistance from Project Co-Leads and the BAEN Program Specialist. Specific components or modules of the curriculum may include:

- *Watershed and groundwater hydrology and the importance to neighbors and the public of safeguarding aquifer integrity and groundwater quality*
- *Proper siting of drinking water wells and avoiding improper well construction techniques*
- *Proper maintenance and protection of the wellhead*
- *Solid and hazardous household waste management*
- *Aging and failure of well construction materials*
- *Locating and properly plugging abandoned wells*
- *Improperly sited and functioning on-site wastewater treatment systems*
- *Maintenance, aging and failure of on-site wastewater treatment systems*
- *Effects of land use changes on well water quality*
- *Successful methods of sharing TWON information with neighbors and community.*

TWON curriculum will include a handbook for participants, standardized presentations for program delivery and availability of program materials online.

All documents, educational materials, etc. will be provided to the TSSWCB for review and comment prior to dissemination.

The following actions have been completed during this reporting period:

- a. The TWON Handbook has been published. This task is now complete.
- b. Presentations were finalized for the training, and continue to be adjusted due to responses and evaluations of the trainings.

95% Complete

TASK 3: Deliver updated and renamed TEX*A*Syst Publications, Well Water Screenings, and TWON trainings

Subtask 3.1: SCSC will develop a preliminary list of watersheds where the Well Water Screenings and TWON trainings will be delivered. SCSC will work with the TSSWCB and other state and local organizations to select locations for these training events. SCSC will coordinate efforts with state agencies and organizations already

involved in WPP/TMDL processes or who are planning future WPP/TMDL processes in specific watersheds.

The following actions have been completed during this reporting period:

- a. The TWON schedule continues to be updated to reflect requests from local communities as well as from the TSSWCB.

88% Complete

Subtask 3.2: SCSC with assistance from TWRI will develop and disseminate informational materials in order to actively market well water screenings and TWON trainings including news releases, internet postings, newsletter announcements, public/conference presentations, flyers, etc. As appropriate TWRI will include information on the project in the txH₂O, Conservation Matters e-letter, and AgriLife news. All announcements, letters, and publications will be provided to the TSSWCB for review and comment prior to dissemination.

The following actions have been completed during this reporting period:

- a. Six TSSWCB-approved press releases were sent out promoting TWON “Well informed” well screenings to local areas.
- b. Press releases were developed for the five TWON “Well Educated” trainings, approved by TSSWCB and published through Texas A&M AgriLife Communications. These press releases continue to be updated for each upcoming training.

77% Complete

Subtask 3.3: Deliver 6-hour TWON trainings in selected watersheds, with the minimum goal being 6 trainings in year 2, and 8 trainings in year 3 to increase local understanding of the factors which can adversely impact well water quality and provide access to the knowledge and tools which can be employed to prevent and/or resolve them. Trainings will be delivered by the TWON Coordinator, and a combination of the BAEN and SCSC Program Specialists and the SCSC Assistant Professor and Extension Specialist.

The following actions have been completed during this reporting period:

- a. There were five trainings held this quarter. They were held in Lubbock on April 9; Haskell on April 10; Lockhart on May 9 in the Plum Creek Watershed; Junction on June 1 in the Upper Llano River Watershed; and in Killeen on June 20 in the Lampasas River Watershed.. There was a total of 181 attendees for the trainings held this quarter..

57% Complete

Subtask 3.4: Deliver well screening events to provide well-head protection information and recommendations for remediating well contamination, if appropriate. Screenings will be delivered by the SCSC Assistant Professor and Extension Specialist, TWON Coordinator and/or the SCSC Program Specialist as appropriate. A minimum of 30 well screening events will be delivered throughout the course of the project. Well screening event educational programming will include an overview of the topics discussed in more detail during comprehensive TWON trainings. Well screening events will be conducted in conjunction with TWON trainings as well as other Texas AgriLife Extension programs.

The following actions have been completed during this reporting period:

- a. A total of 39 of the 30 required well screenings have been held. An additional five screenings have been held during this quarter. and more have been scheduled and requested. From the five screenings below, 268 samples were collected.
- b. Well screenings were held in:

- i. Hays County, April 16 with 121 samples
- ii. San Jacinto County, April 24 with 67 samples
- iii. Val Verde County, June 5 with 36 samples
- iv. Coryell County, June 10 with 26 samples
- v. Wilson County, June 12 with 18 Samples

95% Complete

TASK 4: Evaluate the effectiveness of the TWON trainings

Subtask 4.1: *SCSC will develop and deliver pre-test/post-test evaluation strategy to evaluate increased knowledge by individuals participating in the TWON trainings regarding program principles, appropriate BMPs, and other activities; to address proper private well management, to evaluate participant satisfaction with the program; and to evaluate participant's intentions to change their behavior as a result of the TWON training.*

The following actions have been completed during this reporting period:

- a. Survey has been developed and is distributed at the trainings.

65% Complete

Subtask 4.2: *SCSC will develop and deliver 6 month follow-up survey via online techniques to assess behavior changes adopted and other activities (such as number of neighbors contacted) by TWON training participants.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

30% Complete

Subtask 4.3: *SCSC will analyze results obtained from the pre-test/post-test and 6 month follow-up evaluations using descriptive, correlational, and analysis of variances statistical procedures.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

Subtask 4.4: *SCSC will modify educational program and materials as appropriate.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

0% Complete

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

- No activity to report this quarter.

IV. Projected Work for Next Quarter

- TWON Well Educated trainings will be delivered September 12, October 2, and October 10.
- Additional TWON trainings will continue to be scheduled.
- TWON fact sheets will continue to be developed and published.
- TWRI will schedule quarterly meeting with program leaders and TSSWCB.

TWON Well Screening scheduled for September 16, 2013 in Wharton County

APPENDIX A

QUARTERLY COORDINATION MEETING — NOTES *Preventing Water Quality Contamination Through the Texas Well Owners Network* May 2, 2013 @ 10:30am

Attendees – Diane Boellstorff, Ryan Gerlich, Drew Gholson, Jana Lloyd, Allen Berthold

Goals

- Discuss current project activities, project schedule, communication needs, deliverables and any other issues

Discussion Points

Discuss trainings held

- Buck Creek Watershed, Wellington/Collingsworth County, March 28, 2013 – 22 Attended
- Lubbock, TX April 9, 2013- 19 Attended
- Haskell, TX April 10, 2013 – 29 Attended

Next scheduled trainings this quarter

- Lockhart – scheduled for May 9, 2013
- Junction – scheduled for June 1, 2013
- Weatherford – tentatively scheduled for October 3
- Killeen – no meeting to advertise yet

News releases for Junction training is currently being developed

Fact Sheets

- Septic fact sheet has been sent to TSSWCB
- Pesticide – currently in progress
- Suggested that TSSWCB wait until all are received before reviewing

Screenings

- Amount completed has exceeded what was specified in the contract. Future screenings will continue as requested and/or as the budget allows

Website updates

- has been updated to be more user friendly but the publications page is still in progress. Will link to BAEN OSSF, Rainwater Harvesting, and Abandoned Well websites.

Action Items

- Complete and send news release to TSSWCB
- Prepare slides for Lucas to advertise during Pecos watershed meetings
- Continue screenings
- Continue internal project meetings
- Continue finalizing fact sheets
- Continue publicizing training events through various media and word-of-mouth sources