

**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. 8 From 7/1/12 through 9/30/12

I. Abstract

Two well screenings were held during this quarter, and selection of targeted counties for TWON program delivery continued. Since April 2011, 24 screenings have been held with almost 1,500 samples screened. The TWON Handbook is being finalized and is expected to be published by the end of October. TWON workshops are beginning to be prepared and scheduled.

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 7th Quarter, Year 2 report to TSSWCB on July 13, 2012.

60% 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 October 2, 2012, \$226,164.63 or 48% of federal project funds had been expended.

48% 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 September 25, 2012, to discuss project deliverables and status. Action items are included in Appendix A.

66% 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 TWON Coordinator presented at North Texas Groundwater Conservation District meetings on July 19 in Collin County for 11 participants and in Denton County July 24 for 37 participants. The North Texas Groundwater Conservation District provided partial funding for travel.
- b. Extension Water Resources Specialist co-chaired the Texas Groundwater Protection Committee Public Outreach and Education (TGPC POE) Subcommittee quarterly meeting September 20 and provided status reports regarding TWON screenings, and publications and workshop development and scheduling.

58% 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 2.171 unique visitors with 429 of those in the last quarter.

58% 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. Kristine Uhlman resigned, and Drew Gholson was hired on September 17, 2012, as the new TWON Coordinator.

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.

65% 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 proof has been reviewed by TWON personnel and TSSWCB. Final edits are being incorporated and the Handbook is expected to be published by the end of October.

90% 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.

75% 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, New Waves 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. TSSWCB-approved press releases were sent out promoting well screenings to local areas.
- b. Four additional press releases were sent to TSSWCB for review on July 27, 2012 and August 20, 2012.

63% 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. No activity to report this quarter.

0% 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 24 of the 30 required well screenings have been held.
- b. Well screenings were held in;
 - i. Kerr County, July 9 & 10
 - ii. Hamilton County, September 12 & 13

80% 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 development continues. Example surveys from other similar programs are being assessed, working towards incorporating into TWON.

40% 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

- The previous TWON Coordinator, Kristine Uhlman, has resigned, and Drew Gholson was hired September 17, 2012 for the TWON Coordinator position.
- Brent Clayton left Texas A&M AgriLife Extension; Ryan Gerlich will continue to assist with TWON activities.
- TWON project personnel are now meeting internally at least twice a month to provide increased communication of project activities and deliverables.

IV. Projected Work for Next Quarter

- Four well screenings have been scheduled for next quarter.
- The TWON Handbook will be published.
- TWON trainings will be scheduled.
- TWRI will schedule quarterly meeting with program leaders and TSSWCB.
- The first 6-hour workshop will be scheduled for November, 2012.

APPENDIX A

QUARTERLY COORDINATION MEETING — NOTES *Preventing Water Quality Contamination Through the Texas Well Owners Network* September 25, 2012 @ 1:30 pm

Attendees – Diane Boellstorff, Ryan Gerlich, Drew Gholson, Danielle Kalisek, Jana Lloyd, John Smith

Goals

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

Discussion Points

Introduction

- Introduced new TWON Coordinator, Drew Gholson

Update on TWON Handbook and Trainings

- TJ is still looking at the handbook; *since this meeting, comments have been returned to us*
- Drew is working on the PowerPoint modules for the training
- PowerPoints will be based off of Texas Watershed Stewards module
- *Edits are now back at AgriLife Communications*

Articles or briefs for media publications (Conservation Matters, txH2O, etc.)

- Training news releases – development and distribution

Program evaluation/participant survey

- Have some in draft. Will make similar to Texas Watershed Stewards
- Look at actual knowledge gained

Project communications

- Will start weekly internal meetings of TWON personnel on-campus; *first meeting 10/5*

TWON continuation proposal

- Draft scope of work and budget are under review
- Securing letters of support
- Proposal package will be submitted to TSSWCB by 5:00 pm October 12, 2012

Action Items

- Finalize handbook by the end of October
- Schedule trainings
- Develop news release about trainings
- Finalize evaluation/survey
- Continue internal project meetings at least twice a month
- Finish TWON continuation proposal and submit