

## Texas Water Resources Institute

### Development of a Synergistic, Comprehensive Statewide Lone Star Healthy Streams Program FY 09 CWA 319(h) TSSWCB Project No. 09-06

Quarter no. 3 From 4/1/10 Through 6/30/10

#### I. Abstract

This quarter, project activities accelerated with the hiring of the Extension Program Specialist on June 1. The Extension Program Specialist has begun compiling information and educational materials for use in the LSHS program and formulating the layout for the standardized educational manuals. The Extension Program Specialist has also developed a logo for LSHS to assist with promoting the program. In addition, the Extension Program Specialist has begun evaluating a variety of programs available (i.e. Moodle, Toolbook Instructor, etc.) for developing interactive websites to make the educational materials developed easily accessible by the public. The Professor/State Forage Specialist met with the Texas Pasture and Forage Work Group and the Texas Beef Workers about LSHS on May 19 in San Angelo. These groups will be integral in ensuring that the LSHS Program is supported and delivered around the State once it is completed. Finally, on June 24, the TSSWCB, AgriLife Extension, and TWRI met to discuss project vision, tasks, activities to date, and timeline. At this meeting, the LSHS Program Development Committee meeting was tentatively scheduled for August in College Station and the LSHS Program Steering Committee meeting was tentatively scheduled for September or October in conjunction with an Ag Council Meeting in Austin.

#### 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 15<sup>th</sup> of January, April, July and October. QPRs shall be posted to the project website and distributed to all project partners.*

The following actions have been completed during this reporting period:

- a. TWRI submitted Year 1, Quarter 2 Progress Report on April 13, 2010.

**20% 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 30, 2010, \$11,738 or 3% of federal project funds had been expended.

- b. Progress of Allocations to each Department is as follows:
- TWRI has expended 12% of their funds
  - SCSC has expended 2% of their funds

**3% Complete**

Subtask 1.3: *TWRI will host coordination meetings, conference calls, or TTVN meetings with the TSSWCB Project Manager and SCSC at least quarterly to discuss project activities, project schedule, communication needs, deliverables, and other requirements. 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 hosted a coordination meeting on June 24 with the TSSWCB Project Manager and SCSC to discuss project vision, tasks, activities to date, and timeline.

**20% Complete**

Subtask 1.4: *TWRI will work with AgriLife Extension to develop a Final Report summarizing all project activities.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

**0% Complete**

**TASK 2: LSHS Program Coordination**

Subtask 2.1: *AgriLife Extension SCSC will hire an Extension Program Specialist. The Extension Program Specialist will report to the State Extension Forage Specialist. The Program Specialist will be responsible for carrying out all Subtasks for Tasks 2 and 3.*

The following actions have been completed during this reporting period:

- a. Jennifer Peterson was hired as the Extension Program Specialist on June 1.

**100% Complete**

Subtask 2.2: *TWRI and AgriLife Extension will utilize the framework of the TSSWCB project 06-05 LSHS Project Steering Committee to establish a LSHS Program Steering Committee to direct this synergistic project. This LSHS Program Steering Committee will include entities representing grazing and dairy cattle, poultry, horses, and feral hogs. At a minimum, membership shall be composed of TSSWCB, SWCDs, NRCS, TDA, GLCI, TFB, TSCRA, ICA, TCFA, TPF, TAD, TWA, TAHC, TPWD, and Texas Horse Council. This LSHS Program Steering Committee will primarily serve as the review panel for the educational materials developed through the project; endorsement of the final LSHS Program by Steering Committee member entities will be sought. This LSHS Program Steering Committee will meet as frequently as needed, likely semi-annually.*

The following actions have been completed during this reporting period:

- a. At the June 24 Coordination Meeting, the establishment and first meeting of the LSHS Program Steering Committee was discussed. It has tentatively been discussed to hold it in September or October in conjunction with an Ag Council Meeting in Austin. TSSWCB is checking into the feasibility of this. Tentative topics include national water quality legislation, update on bacteria issues in Texas, results of BMP evaluations to date, and discussion of the education program. Work will continue next quarter to set the date and finalize the agenda.

**10% Complete**

*Subtask 2.3: The Extension Program Specialist will work with the Principal Investigators of the amassed body of work to compile the information and educational materials developed. At a minimum this LSHS Program Development Committee shall consist of the Associate Professor and Extension Dairy Specialist – Stephenville, Animal Science Dept.; Assistant Professor and Extension Wildlife Specialist, Wildlife Fisheries & Sciences Dept.; Assistant Professor and Extension Waste Management Specialist, Poultry Science Dept.; Professor and State Soil Environmental Specialist, Soil and Crop Sciences Dept.; Agricultural Engineer, USDA-ARS, Temple; Professor and Extension Wildlife and Fisheries Specialist – Overton, Dept. of Wildlife and Fisheries Sciences; Professor and Extension Dairy Specialist – Dallas, Dept. of Animal Science; Associate Professor and Extension Specialist, Dept. of Biological & Agricultural Engineering; Professor and Extension Livestock Specialist – Corpus Christi, Animal Science Dept.; Professor and State Extension Forage Specialist, Soil and Crop Science; Professor and Extension Horse Specialist, Animal Science Dept.; and Associate Director, TWRI. This LSHS Program Development Committee shall meet as often as needed, including by TTVN. This LSHS Program Development Committee will primarily serve to ensure that the Extension Program Specialist accurately captures and represents the species-specific information from the amassed body of work.*

The following actions have been completed during this reporting period:

- a. At the June 24 Coordination Meeting, the establishment and first meeting of the LSHS Program Development Committee was also discussed. It has tentatively been discussed to hold it in August at the O.D. Butler meeting facility. Tentative topics include TSSWCB's vision for the program, review current LSHS materials, identify top 10 BMPs for each animal species, and discuss the path forward. TWRI and SCSC will begin working to set this meeting up. In addition to inviting the Specialists, Pete Gibbs, Darrell Dromgoole, and all RPDs will be invited to attend.

**10% Complete**

*Subtask 2.4: The Professor/State Forage Specialist, with assistance as needed from TWRI, will work closely with Texas AgriLife Extension Service Regional Program Directors, County Extension Agents, Extension Specialists, and other Extension Leadership, as appropriate, to ensure that the LSHS Program is supported around the state to ensure delivery of this program upon completion.*

The following actions have been completed during this reporting period:

- a. As discussed above in Subtask 2.3, RPDs and Extension Leadership will be invited to participate in the first LSHS Program Development Committee Meeting tentatively scheduled for August.
- b. The Professor/State Forage Specialist met with the Texas Pasture and Forage Work Group and the Texas Beef Workers annual meeting, May 19 in San Angelo.

**10% Complete**

### **TASK 3: LSHS Program Development**

*Subtask 3.1: The Extension Program Specialist will compile the amassed body of work including, but not limited to, information and educational materials developed through TSSWCB projects 06-05 (Lone Star Healthy Streams), 06-08 (Education Program for Improved Water Quality in Copano Bay), 06-07 (Monitoring and Educational Programs Focused on Bacteria and Nutrient Runoff on Dairy Operations in the Leon Watershed), 05-06 (PLAN for Tomorrow: Poultry Litter Application on New Sites), and 08-07 (Implementing Agricultural Nonpoint Source Components of the Plum Creek WPP).*

The following actions have been completed during this reporting period:

- a. The Extension Program Specialist has begun compiling the amassed body of information and educational materials developed through relevant TSSWCB projects and others throughout the country.

**10% Complete**

*Subtask 3.2: The Extension Program Specialist will work with the materials (subtask 3.1) and the Development Committee (subtask 2.3) to develop standardized educational manuals on bacteria issues and BMPs for addressing bacteria runoff from grazing cattle, dairy cattle, poultry, horses, and feral hogs. These five Resource Manuals will include species specific information on the bacteria water quality issues, BMPs (i.e., BMP description, effectiveness, cost, photo and other pertinent information), and technical and financial assistance programs available for implementing BMPs. These Resource Manuals should be similar to the Texas Watershed Steward Handbook developed through TSSWCB project 05-05, A Community-based Water Quality Curriculum which Enhances Stakeholder Involvement in Watershed Protection Plan Initiatives: A Pilot Project.*

The following actions have been completed during this reporting period:

- a. The Extension Program Specialist has begun formulating what the layout will be utilizing examples already compiled through subtask 3.1.

**10% Complete**

*Subtask 3.3: The Extension Program Specialist will work with the materials (subtask 3.1) and the Development Committee (subtask 2.3) to develop standardized educational presentations on bacteria issues and BMPs for addressing bacteria runoff from grazing and dairy cattle, poultry, horses, and feral hogs to be used for in-person LSHS Program delivery. These presentations should be based on and flow from the Resource Manuals (subtask 3.2)*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter. This will be completed as the resource manuals are completed.

**0% Complete**

*Subtask 3.4: The Extension Program Specialist will develop promotional materials to be used for LSHS Program delivery and to inform the public of the availability of the LSHS Program. Promotional materials should at least include one-pagers or brochures on each species-specific component and the Program as a whole; and standard press releases for species-specific component delivery events and the Program as a whole.*

The following actions have been completed during this reporting period:

- a. The Extension Program Specialist has developed a logo for LSHS (see below).



**10% Complete**

*Subtask 3.5: The Extension Program Specialist will work with TDA and Texas Certified Crop Advisors Program to establish CEU credits for the educational program to encourage participation by landowners and crop advisors in the program.*

The following actions have been completed during this reporting period:

- a. The LSHS I cattle program has been approved for 4 hours of credit for the Texas Certified Crop Adviser Program and has submitted an application for 1 CEU through TDA for Certified Pesticide Applicators. As other components are completed, similar approvals will be sought.

**10% Complete**

Subtask 3.6: *The Extension Program Specialist will develop pre- and post- participant surveys to evaluate (1) changes in producer knowledge and awareness, (2) expected adoption of BMPs, and (3) any barriers to producer participation and successful implementation of the program to be used at in-person LSHS Program delivery events. Surveys may need to be species-specific.*

The following actions have been completed during this reporting period:

- a. A survey instrument has been developed for LSHS I to evaluate changes in producer knowledge and awareness of important production and environmental issues as well as identify any barriers to producer participation and successful implementation of the program. This instrument will be reviewed by the TSSWCB, Program Development Committee, and Program Steering Committee and modified as needed.

**10% Complete**

Subtask 3.7: *The Extension Program Specialist, Professor & State Forage Specialist, Assistant Professor & District Agronomist at Overton, and the Assistant Professor & District Agronomist at Corpus Christi will pilot each of the five components of the LSHS Program at selected sites in East, Central, and South Texas. Watersheds selected for piloting of the LSHS Program shall be TSSWCB priority TMDL or WPP watersheds.*

The following actions have been completed during this reporting period:

- a. No activity to report this quarter.

**0% Complete**

#### **TASK 4: Develop Interactive Website to Increase Access To LSHS Program**

Subtask 4.1: *Using the latest appropriate technology, the Extension Program Specialist and TWRI IT Associate will work together to develop an interactive website to make the educational materials developed under Task 3 easily accessible by the public, landowners, county agents, soil and water conservation districts, decision makers, and others. The online modules will flow from the Resource Manuals and in-person presentations and utilize the surveys developed in Subtask 3.6 above. The Extension Program Specialist will also evaluate the feasibility of providing CEUs for participation in online modules and if found to be feasible, will work to make those available online as well.*

The following actions have been completed during this reporting period:

- a. The Extension Program Specialist has begun evaluating a variety of programs available (i.e. Moodle, Toolbook Instructor, etc.) for developing interactive websites to make the educational materials developed easily accessible by the public, landowners, county agents, soil and water conservation districts, decision makers, and others.

**5% Complete**

Subtask 4.2: *The Extension Program Specialist will develop and provide information for the website to the TWRI IT Specialist and update this information quarterly. The number of unique visitors to the website will be tracked to assess its impact and reported in each QPR.*

The following actions have been completed during this reporting period:

- a. Since September 2007, the website titled “Improving Water Quality of Grazing Lands” (<http://grazinglands-wq.tamu.edu/>) has been used to disseminate information on *Lone Star Healthy Streams* and related projects. A grand total of 1,019 unique visitors since September 2007.
- b. This quarter, the website was viewed by 38 unique visitors:
  - 19 unique visitors in April 2010
  - 9 unique visitors in May 2010
  - 10 unique visitors in June 2010
- c. This website will be transitioned to a new website titled “Lone Star Healthy Streams” with the url of <http://lshs.tamu.edu>.

**10% Complete**

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

- N/A

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

- Prepare and submit Year 1, Quarter 3 Progress Report on July 15.
- Host Coordination Meeting
- Schedule and Prepare for LSHS Program Steering Committee Meeting
- Host LSHS Program Development Committee Meeting
- Continue compiling information and educational materials
- Begin development of standardized educational manuals, presentations, and promotional materials on bacteria issues and BMPs for addressing bacteria runoff from grazing cattle, dairy cattle, poultry, horses, and feral hogs
- Transition info on “Improving Water Quality of Grazing Lands” website to new “Lone Star Healthy Streams” website