

Texas Water Resources Institute

Implementing Educational Components of the Arroyo Colorado Watershed Protection Plan Focused on Agricultural Nonpoint Source Pollution FY 2010 CWA §319(h) TSSWCB 10-11

Quarter no. 5 From 10/1/11 Through 12/31/11

I. Abstract

Work this quarter consisted primarily of working with the Extension Assistant to draft a general Ag cost-share program NPS pollution presentation and create a cost-share database and fact sheet. Additionally, the Extension Assistant has drafted a presentation regarding cost-share programs and a fact sheet to accompany the presentation.. The presentation has been presented at the Ag Issues Workgroup meeting on October 19, 2011 and the new presentations will be presented at the April 2012 Ag Workgroup Meeting. Also the Soil Testing Campaign was kicked-off in October and has already received over 350 samples. Additionally, the website is up and running and has received about 585 unique visitors to date. Work next quarter will focus wrapping up the soil testing campaign and putting together the remaining materials that will be presented at the various meetings.

II. Overall Progress and Results by Task

TASK 1: Project Administration and Coordination

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 posted on the project website and distributed to all project partners.

The following actions have been completed during this reporting period:

- a. The year 2, quarter 1 report was completed and sent to the TSSWCB on January 15, 2012.

40% 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. Currently, a total of \$22,756.87 or 11% of total project funding has been expended.

11% Complete

Subtask 1.3: TWRI will host coordination meetings, conference calls, or TTVN meetings, at least quarterly, with project partners 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. The project team communicates on a regular basis to discuss project needs and the status of deliverables.

40% Complete

Subtask 1.4: AgriLife Extension will oversee an Extension Assistant who will be responsible for coordinating with County Extension Agents to implement this project. The Extension Assistant will serve as the primary conduit for coordination with project partners and landowners on agricultural NPS outreach and education activities in the watershed. The Extension Assistant shall be stationed in the Arroyo Colorado watershed.

The following actions have been completed during this reporting period:

- a. The Extension Assistant has participated in several meetings involving approximately 112 project partners and landowners to convey the importance of adopting WQMPs.

40% Complete

Subtask 1.5: TWRI and AgriLife Extension will participate in the Arroyo Colorado Watershed Partnership, Steering Committee, and Agricultural Issues Workgroup in order to communicate project goals, activities and achievements to affected parties and to obtain direction and input on the development of outreach and education materials for this project.

The following actions have been completed during this reporting period:

- a. TWRI and AgriLife Extension participated in the Arroyo Colorado Watershed Partnership, Ag Issues Workgroup meeting on October 19 and the Steering Committee meeting on October 20, 2011.
- b. A Habitat Workgroup and Steering Committee meeting is scheduled for February 9.

40% Complete

Subtask 1.6: TWRI will continue to host and maintain <http://www.arroyocolorado.org/> and develop a project webpage that contains information on Tasks 2-4.

The following actions have been completed during this reporting period:

- a. The project webpage is up and running on the Arroyo Colorado Website. Thus far, 585 people have visited the website.
 - October 2011 – 7 unique visitors
 - November 2011 – 1 unique visitors
 - December 2011 – 0 unique visitors

72% Complete

Subtask 1.7: TWRI, with assistance from AgriLife Extension, will develop a final report for the project, assessing effectiveness of the education program including programmatic outcomes such as number of producers reached, number of soil samples collected and potential nutrient (N and P) savings.

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

0% Complete

TASK 2: Increase Landowner Participation in Technical and Financial Assistance Programs

Subtask 2.1: Using data developed in TSSWCB projects 06-10 and 09-09, the Extension Assistant will compile (Months 1-6) a list of producers, categorized by priority areas identified in the Arroyo Colorado WPP, in the watershed that are not currently participating in technical and/or financial assistance programs through the local SWCDs, HRO, or NRCS. AgriLife Extension will update the list semi-annually (Months 7-36).

The following actions have been completed during this reporting period:

- a. The Extension Assistant has compiled a list of producers with continuous updates.

45% Complete

Subtask 2.2: The Extension Assistant will develop and periodically distribute direct mailings (at least once per year) to producers identified through Subtask 2.1. Further, AgriLife Extension will engage producers through personal contact. Direct mailings and personal contact shall be geared towards highlighting the availability of and encouraging participation in technical and financial assistance programs. Direct mailings must be coordinated with project partners. The TSSWCB must approve all direct mailings prior to distribution.

The following actions have been completed during this reporting period:

- a. The Extension Assistant has engaged individual producers in regards to the importance of WQMPs.
- b. Through direct contact and presentations and meetings the Extension Assistant encouraged producers in participating in the Soil Testing Campaign and other cost-share programs.

16% Complete

TASK 3: Develop Educational Program Materials

Subtask 3.1: The Extension Assistant will inventory and assess educational and related materials developed through similar efforts in Texas and other states addressing water quality BMPs and cost-share programs.

The following actions have been completed during this reporting period:

- a. The Extension Assistant is currently researching related Cost-Share Education efforts that have been conducted in the State.

45% Complete

Subtask 3.2: The Extension Assistant will develop (Month 1-6) a survey tool to evaluate barriers to BMP adoption by agricultural producers. The survey tool should build upon the survey conducted by SUMA/Orchard Social Marketing, Inc. which was used in the development of the WPP. The survey tool will be initially distributed (Months 6-9) to landowners identified in Subtask 2.1. The survey will continue to be applied to newly identified producers and to participants in field days and workshops in Task 4. The TSSWCB must approve the survey tool prior to distribution.

The following actions have been completed during this reporting period:

- a. The Extension Assistant has begun drafting a survey tool that will help identify barriers to BMP adoption by agricultural producers.

8% Complete

Subtask 3.3: The Extension Assistant will develop additional materials to educate producers on technical and financial assistance programs, WQMPs and BMPs that impact water quality. In order to foster cooperative conservation across the Arroyo Colorado watershed, these materials will be designed to provide a common message for use by AgriLife Extension, NRCS, SWCDs, and HRO. Materials will include:

- *a one-pager and a standard presentation on the agricultural NPS components of the Arroyo Colorado WPP and goals established by the stakeholders*
- *fact sheets and a standard presentation that describe the applicability and eligibility of different technical and financial assistance programs available to producers within the Arroyo Colorado Watershed*
- *Fact sheets on individual BMPs that extol the water quality benefits of each*
- *Fact sheet on the BMP effectiveness study from TSSWCB project 06-10 (Task 7)*

AgriLife Extension will collaborate with NRCS, SWCDs, and HRO to develop these materials. The TSSWCB must approve all educational materials prior to distribution.

The following actions have been completed during this reporting period:

- a. The Extension Assistant presented a standard one-pager and NPS presentation at the Ag. Issues Workgroup meeting on October 19, 2011.

- b. b. The Extension Assistant has drafted a fact sheet, a database, a one-pager and a presentation on statewide cost-share programs..

32% Complete

Subtask 3.4: The Extension Assistant will work with AgriLife Research to develop materials that incorporate and highlight outcomes from TSSWCB project 06-10 regarding the quality of delivered irrigation water. The Extension Assistant will provide these materials to Irrigation Districts in order to facilitate discussion regarding encouraging producers to take into account “free” nutrients in delivered irrigation water, thereby decreasing fertilizer application rates and abating agricultural NPS nutrient runoff.

The following actions have been completed during this reporting period:

- a. The Extension Assistant has begun reviewing the draft reports created in 06-10.

10% Complete

TASK 4: Conduct Education and Outreach

Subtask 4.1: AgriLife Extension will coordinate with SWCDs, NRCS, and HRO, to host one educational meeting annually specifically dedicated to promoting technical and financial assistance programs.

The following actions have been completed during this reporting period:

- a. The Extension Assistant presented a general Cost-Share Education presentation at the Ag Issues Workgroup meeting on October 19,2011
- b. b. The Extension Assistant presented information on the Soil Testing Campaign and WQMP's at producer meeting in October and November 2011.

32% Complete

Subtask 4.2: AgriLife Extension will coordinate with SWCDs, NRCS, HRO, and cooperating producers to host field tours that demonstrate benefits of BMPs and WQMPs. At least 2 field tours will be held annually. Demonstrations will include the use of equipment to illustrate the efficacy of BMPs. For example, a soil compaction probe will be used to demonstrate the efficacy of the no-till BMP.

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

0% Complete

Subtask 4.3: AgriLife Extension will coordinate with SWCDs, NRCS, and HRO to include at least one presentation on technical and financial assistance programs in the following regular meetings held once per year:

- *1 cotton production meeting*
- *1 sorghum production meeting*
- *1 sugarcane production meeting*
- *1 citrus production meeting*
- *1 nutrient management meeting including the soil testing campaign kickoff*
- *Irrigation district trainings*

The following actions have been completed during this reporting period:

- a. Given planting and harvesting schedules, few production meetings were being held this quarter.
- b. Nutrient Management presentation on the Soil Testing Campaign is scheduled for the Cotton & Grain Pre-Plant Conference on January 18, 2012

24% Complete

Subtask 4.4: To encourage the use of soil testing in support of nutrient management, AgriLife Extension will host a soil testing campaign for agricultural producers in Cameron, Hidalgo and Willacy counties. The soil testing campaign will be offered in the fall/winter of 2010, 2011, 2012. Producers will be encouraged to soil test to determine nutrient application needs and AgriLife Extension will provide follow-up educational assistance to interpret soil test results.

This project will pay up to \$10 per soil test sample taken within the Arroyo Colorado watershed; this project will pay for all soil tests necessary to comply with soil testing frequencies consistent with the NRCS practice standard for Nutrient Management (590). Soil tests and shipping paid for with project funding must be completed by a public soil testing laboratory, such as the AgriLife Extension Soil, Water and Forage Testing Laboratory. AgriLife Extension will work with producers to geo-reference each soil test sample location (i.e., to the field-scale as identified from aerial imagery or preferably coordinates from a GPS receiver).

The following actions have been completed during this reporting period:

- a. Project personnel kicked off the Soil Testing Campaign.
- b. Thus far for the 2012 campaign 324 Soil Samples have been collected.
- c. 153 in Cameron County
- d. 57 in Hidalgo County
- e. 114 in Willacy County
- f. Of the soil samples received, approximately 95% contain the FSA tract #s which will allow project personnel to georeference samples.

45% Complete

Subtask 4.5: The Extension Assistant will develop and distribute flyers, news releases and other appropriate promotional publications to 1) educate agricultural producers about availability of financial assistance programs, 2) promote the soil testing campaign, and 3) advertise workshops and field tours. The Extension Assistant will coordinate with HRO, SWCDs, and NRCS on materials being developed through TSSWCB project 09-09. The TSSWCB must approve all promotion materials prior to distribution.

The following actions have been completed during this reporting period:

- a. The Extension Assistant developed promotional flyers and displays with forms for sampling procedure and information along with a news release.

20% Complete

Subtask 4.6: The Extension Assistant, in coordination with CEAs, NRCS, HRO, and SWCDs, will work with Irrigation Districts to educate their customers on the water quantity conservation benefits of implementing WQMPs and participation in financial assistance programs.

The following actions have been completed during this reporting period:

- a. The extension Assistant met with the manager of Irrigation District #6 on BMP's and WQMP's adoption.

20% Complete

Subtask 4.7: The Extension Assistant will work with commodity organizations, such as Texas Citrus Mutual, Rio Grande Valley Sugar Growers, Texas Vegetable Association, and Texas Farm Bureau, to educate their members on the opportunity to enhance the value of their operation and achieve water quality goals for the watershed at the same time by participating in technical and financial assistance programs.

The following actions have been completed during this reporting period:

- a. The Extension Assistant met with *Texas Citrus Mutual, Texas Vegetable Association, Cotton & Grain Producers Board, and Rio Farms* on nutrient managements as it relates to water quality.

20% Complete

Subtask 4.8: The Extension Assistant will work with TAMU-K to develop materials that incorporate and highlight outcomes from TSSWCB project 06-10 regarding the degree to which pollutant assimilation is occurring in drainage ditches. The Extension Assistant will provide these materials to Drainage Districts in order to facilitate discussion regarding the management of vegetation in drainage ditches to contribute to agricultural NPS pollution abatement.

The following actions have been completed during this reporting period:

- a. No activity to report at this time.

0% Complete

Subtask 4.9: The Extension Assistant will support, promote, and participate in, as appropriate, any field days, demonstrations, site tours, or education events sponsored by NRCS, HRO, and/or SWCDs for the Arroyo Colorado watershed.

The following actions have been completed during this reporting period:

The Extension Assistant participated in October and November meetings.

20% Complete

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

- N/A