

**Education of Best Management Practices in the Arroyo Colorado Watershed  
FY 05 CWA 319(h)  
TSSWCB Agreement No. 05-10**

Quarter no. 8 From 7/1/07 Through 9/30/07

**I. Abstract**

This quarter, 215 agricultural producers, youths, and residents from Cameron, Hidalgo, Willacy and Starr Counties were educated. A cotton and sugar cane field day were held as well as a pesticide safety training. In addition, a very successful Texas Ag Industry event was held where producers received training on participating in cost share programs. The total number of participants who have benefited from the Arroyo Colorado Education Program is now 4,155.

**II. Overall Progress and Results by Task**

**TASK 1: Project Coordination**

*Subtask 1.1: Conduct quarterly meetings as appropriate with project participants (TWRI, TCE, TSSWCB, SWCDs, NRCS, Arroyo-Colorado Watershed Coordinator, TAMU Kingsville, etc.) to discuss project schedule, completion of deliverables, outreach and participation strategies, communication needs and other requirements.*

The following actions have been completed during this reporting period:

- a. Project participants met on July 24 in conjunction with the Ag Issues Workgroup Meeting to discuss project schedule including completion of deliverables, and budget expenditures. The hiring of the project technician was the primary topic of discussion as the county extension agents have had a hard time locating an individual for the job.

**64% Complete**

*Subtask 1.2: TWRI will submit project strategies / programs and project status as necessary to the Ag Issues Workgroup via TSSWCB for inclusion in the Watershed Protection Plan.*

The following actions have been completed during this reporting period:

- a. TWRI Project Manager and Hidalgo county Extension agent provided an update of the project activities to the Ag Issues Workgroup meeting on July 24, 2007. Minutes from that meeting are attached in appendix A.

**64% Complete**

*Subtask 1.3: TWRI will prepare electronic quarterly reports and submit to TSSWCB*

The following actions have been completed during this reporting period:

- a. Submitted Year 2, Quarter 4 Progress Report to TSSWCB on October 15, 2007.

**64% Complete**

*Subtask 1.4: TWRI and TCE will develop a final project report and submit to TSSWCB.*

**0% Complete**

**TASK 2: Conducting Local Educational Meetings**

*Subtask 2.1: Meetings will serve to educate individuals on specific crop production techniques. Each of the following meetings will be held on an annual basis.*

- *2 cotton production meetings in Hidalgo, Cameron and Willacy Counties*
- *1 sorghum production meeting in Hidalgo, Cameron and Willacy Counties*
- *1 sugar cane production meeting in Hidalgo County*
- *1 citrus production meeting in Hidalgo County*
- *1 vegetable production meeting in Hidalgo County*
- *County / multi-county Pesticide Applicator Safety Training and Continuing Education*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
7/19/07	Cotton Field Day	Cameron Hidalgo Willacy	Information provided to cotton producers. Topics included: cotton harvest aids, cotton varieties, pesticide continuing education, new developments	90
8/29/07	Pesticide Safety Training	Cameron Hidalgo	Topics included: the principles of integrated pest management, non-chemical alternatives, pest features, ground and surface water protection, laws and regulations, pesticide labels, endangered species protection, Worker Protection Standards, record keeping, personal protection, application equipment, calibration and continuing education units.	10
9/26/07	RGV Boll Weevil Program Advisory Committee Meeting	Cameron Hidalgo Willacy Starr	boll weevil eradication program, cotton stalk destruction program, cotton residue management	12

**64% Complete**

*Subtask 2.2: Meetings, demonstrations and other educational activities will serve to educate individuals on nutrient management techniques. Specifically:*

- *A soil testing campaign will be conducted within the 3 counties to promote proper use of fertilizers.*

- *When available, summarized data will be collected from TAMU-Kingsville and compiled into educational fact sheets or presented.*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
9/20/07	Sugarcane Field Day	Cameron Hidalgo Willacy	soil testing campaign	63

**64% Complete**

*Subtask 2.3: Meetings and promotional events will serve to advertise and educate individuals on related programs addressing water quality. For example, TCE will:*

- *Promote cost-share programs (319(h), EQIP, etc.).*
- *Educate producers or assist SWCDs in development of water quality management plans.*
- *Educate producers on involvement and development of the Watershed Protection Plan and the potential effects of its implementation.*

The following actions have been completed during this reporting period:

Date	Event	County	Description	Attendance
9/18/07	Texas Ag Industry	Cameron Hidalgo Willacy	Presentation on the Arroyo Colorado Watershed Protection Plan; Presentation on 319 Cost Share program and how to participate; Presentation on	40

**58% Complete**

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

- The Extension Technician, Geraldo Tapia, was finally hired and began work on September 10, 2007. Mr. Tapia will work in Cameron, Hidalgo and Willacy Counties helping with and conducting education programs for the Arroyo Colorado watershed.

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

- The soil testing campaign will be kicked off this year at the Ag Nutrient Management Workshop on October 9, 2007 in Weslaco.
- The Ag Issues Workgroup will not meet this next quarter, but will plan to meet in January in conjunction with the next Arroyo Colorado Steering Committee meeting.

## **APPENDIX A**

### **Meeting Summary**

#### **Arroyo Agricultural Issues Work Group Meeting July 24, 2007, 9:00 am – 12:00 noon**

##### **Attendance**

- Ray Prewett – Texas Citrus Mutal
- Donald Thompson – Local Farmer
- Brad Cowan – TCE
- Os Longoria - NRCS
- Richard Eyster – TDA
- Laura De La Garza – TWRI
- Andy Garza – TSSWCB
- Gabrio ? - NRCS
- Jason Pinchback – Texas Watch
- Xavier Peries - TAES
- Brian Jones – Farmer
- Kevin Wagner – TSSWCB
- Aaron Wendt – TSSWCB
- Pamela Casebolt – TSSWCB
- Eduardo Mendez – TSSWCB
- Brad Lamb – EPA Region 6
- Fred Moore – EPA Region 6
- Ruben Saldana - TCE

##### **Welcome and Introductions – Andy Garza:**

Mr. Garza opened the meeting at 9:20 am, welcomed the group and introductions were made.

##### **Arroyo Colorado Watershed Protection Plan (ACWPP) – Aaron Wendt:**

Aaron review the agreed upon agricultural components of the ACWPP; that the goal is the reduction of agriculture contributions to BOD, total nitrogen, phosphorus, and sediment entering the Arroyo Colorado. Through volunteer adoption of agricultural best management practices he stated that by 2010 the goal is to have approximately 100,000 acres under water quality management plans; 150,000 acres by 2015. Aaron said to do that technical and financial assistance would be required along with additional monitoring.

Kevin asked Brad Lamb about the status of the ACWPP in regards to EPA's final approval. Brad said that the jury is still out and he was here today to see what is going on.

##### **Watershed Protection Plan Implementation Status – Laura De La Garza**

Laura reviewed ongoing activities of the Habitat Work Group and the Outreach and Education Work Group. Three pre-proposals have been drafted for Coastal Management Program grants. One was for a feasibility/site suitability analysis for a regional wetland system to help achieve the main goal of the Habitat Work Group to develop a regional wetland system.

Two additional pre-proposals were written for educational activities. Ongoing O&E projects included the making of a 3 feet x 7 feet physical watershed model, the establishment of a volunteer monitoring program with Texas Watch, and the Texas GreenScapes compost program. Laura said that a Wastewater Infrastructure Work Group meeting will be soon scheduled and that nominees for a new work group leader are being solicited.

### **Best Management Practice Implementation – Andy Garza:**

Andy reviewed some of the BMPs being implemented in the watershed. He said that 335 water quality management plans covering 34,000 acres have been processed using TSSWCB 319 funds. This in combination with NRCS EQIP contracts has resulted in development of a combined total 603 plans covering 61,000 acres.

The 319 project has expended \$1,795,991 for cost-share assistance. Approximately 156,288 feet of irrigation pipeline have been installed and 9,405 acres of irrigation land leveling has been completed.

Ray Prewett asked what the irrigation districts were doing in relation to what is being done. Brad Cowan said that by their irrigation distribution improvements, great head is generated making for more efficient irrigation and less runoff to the drainage ditches and Arroyo.

Kevin asked if we were going to be able to meet this year's goal. Aaron said that that meant 77,000 by the end of this fiscal year. Andy reminded the group that this is a volunteer program and that they are doing the best they can. There was a discussion about the cost share rate; that the one time rule and \$10,000 max limits program participation.

### **Best Management Practice Education – Cecilia Wagner and Brad Cowan**

Cecilia said that they had just submitted a quarterly report and that they were on task except for the hiring of an assistant. Brad said that more than just a student is needed, that an offer was made to a qualified person and he did not accept the position. Brad said that a more competitive salary may be needed.

Brad said that the hiring goal is to multiply extension education in three counties, that that person will be housed in Cameron and Hidalgo offices part of the week. Os Longoria said that he gets a lot of calls for watershed training and that an assistant could help with this.

The following question was asked about Sub-task 2.2. What has been the turn-out for the soil testing campaigns? Enrique Perez said that they have been good. Brad said that he was not sure about funds for fertility testing and that we might need to talk to Mark McFarland about funding needs.

Brad also said that educational events were listed if they had a water quality component and that there is need to develop a PowerPoint presentation with Andy Garza. Andy said that the NRCS has a wealth of information on BMPs.

### **SWAT Model Simulation of the Arroyo Colorado Watershed - Kevin Wagner**

Kevin said that they had just received the contract and that things were just getting rolling. Dr. Narayanan Kannan from the TAES Blackland Research and Extension Center was project lead. The goal of the model is to re-simulate nutrient loading to the Lower Laguna Madre. Aaron said that there have been many changes in the watershed since 1998 and they would use an updated SWAT model to better understand the Arroyo Colorado Watershed.

### **Agricultural Nonpoint Source Assessment – Kevin Wagner, Dr. Venki Uddameri, and Xavier Peries**

Kevin reviewed the purpose of the ag assessment study; that it was to evaluate BMPs and the effects the drainage ditches have on agricultural runoff. The vegetation in the ditches appears to act as a filter but was not accounted for in the previous TMDL model. The assessment includes an updated GIS data base which would identify all ag plan implementation and inventory BMPs. The land use data will be updated; however, project staff is struggling to find tile drain data. Richard Eyster suggested contacting Brian Smith, TCEQ, because the tile drains are considered injection wells according to the TCEQ. Someone suggested contacting the local contractors who install the drains.

Dr. Uddameri discussed his method for monitoring the drainage ditches and that one of the goals was to measure flux during both low flow vs. high flow conditions. Brad asked how many drainage ditches contribute flow to the Arroyo Colorado. Laura said hundreds. Ray Prewett asked how do illegal dumps contribute to the water quality problem. Illegal dumps are associated with oil, bacteria and possible homeowner unused chemicals. Brad said that there is opportunity to work with the counties on this dumping issue. However, part of the problem is existing regulations and lack of convenient dumping locations. This is a statewide problem.

Xavier Peries presented the proposed six sites for the ag BMP study for Dr. Enciso. Kevin asked for comments on site selection. Aaron asked if sites had WQMPs and Andy answered yes. With no objecting comments, Kevin said they will proceed with the six sites. Richard asked if pesticides would be sampled. Kevin answered no.

Aaron asked about future funding needs. Os said that he would like to see the soil sampling continued. Additional funding needs were also identified for education, additional monitoring, and cost-share assistance. There was additional discussion on the one-time rule and the \$10,000 maximum. Aaron asked what a reasonable amount might be and said he would discuss this with Jose Dodier. The elimination of the one-time rule could be sufficient and also increase the maximum to \$25,000 for cost-share assistance.

Brad Lamb said that special emphasis should be placed in targeted areas so that the model could be used to get better numbers. Level 1 and level 2 participation should be identified and refined for more interest.

Ray asked if this work group should send a letter to the TSSWCB. It was suggested that the letters should come from the farmers starting with the ones on the Steering Committee. It was also suggested that Jose Dodier come to the Valley to discuss this issue.

Aaron said that work on the FY08 goal should begin to increase the acres under WQMPs to 77,000.

Next meeting scheduled for the 4<sup>th</sup> Thursday in October.

**Adjourn**