

## **Arroyo Agricultural Issues Work Group Meeting**

Meeting Summary – July 27, 2004, 3:00pm

Attending Work Group Committee Members – 7/27 Meeting

Kevin Wagner – TSSWCB

Jaime Longoria – Hidalgo SWCD

Andy Garza – TSSWCB

Roger Miranda – TCEQ

Wes Rosenthal – TAES Blackland Research Center, Temple

Ricardo Chapa – SWCD #319

Fidencio Mesa – SWCD #319

Laura De La Garza – Citizen

Arturo Ibarra – NRCS

Wayne Halbert – Southmost SWCD

### **Call to Order and Opening Remarks – Andy Garza:**

Mr. Garza gave the opening remarks, making note of the low attendance. Andy recommended that meeting notices be sent out via e-mail one month in advance of the next meeting and then a reminder be sent via mail one week in advance of the next meeting in order to improve attendance.

### **Work Group Membership – Andy Garza:**

Work Group membership, including the list of invitees, was reviewed and briefly discussed.

### **Work Group Goals and Objectives – Kevin Wagner:**

The State has determined that the Arroyo Colorado is impaired as a result of low dissolved oxygen. Low dissolved oxygen resulted from excessive levels of nitrogen, phosphorous, and oxygen demanding substances (BOD) entering the Arroyo from agricultural and urban runoff, waste water treatment plants, and the hydrology of the Arroyo. A TCEQ study found that a 90% reduction in pollutant loadings would be required to restore the Arroyo. The same study found that agricultural runoff contributed 87% of the sediment, 41% of the BOD, 68% of the nitrate, 64% of the ammonia, and 49% of the phosphate found in the Arroyo.

In order to restore the Arroyo, it is roughly estimated that agriculture would need to reduce nitrogen runoff by over 1300 tons per year, phosphorus runoff by 100 tons per year, and BOD by over 1600 tons annually. These reductions may not be feasible.

The goal of the Work Group is to assess what agriculture can do and assemble a plan of action. This plan can then be used as the basis for future funding requests.

### **Arroyo Colorado TMDL Status and Timeline– Roger Miranda:**

In 2002, TCEQ completed a draft TMDL report for the Arroyo. TCEQ recognized that the 90% reductions described by the draft TMDL were not reasonable. As a result of uncertainty in the

modeling used, TCEQ is moving forward with a project to improve the modeling. Through a joint agreement with USGS, a study has been initiated to reduce the uncertainty associated with the model inputs. After completion of this project in August 2007, the in-stream model will be updated based on the findings. SWAT is being considered for use instead of HSPF.

**Modeling Impacts of Ag BMPs – Wes Rosenthal:**

Dr. Rosenthal gave an overview of the completed TSSWCB project to assess the long term affects of nutrient management and conservation tillage implemented in 2000 and 2001 on water quality in the Arroyo. SWAT was utilized in this assessment. The model was validated with edge of field data collected by TIAER and TCE (Guy Fipp’s data). The study indicated that nutrient management resulted in approximately a 50% decrease in phosphorous runoff and greater than a 50% decrease in nitrogen runoff from each acre it was applied. However, conservation tillage had minimal impact on water quality.

To further evaluate the impacts of agricultural BMPs on water quality, Dr. Rosenthal has submitted a proposal for CSREES funding to assess water quality affects of irrigation practices, as well as a variety of other conservation practices in the Arroyo. If funded, this project will be coordinated with the TMDL effort.

**Watershed Action Plan Status & Timeline – Kevin Wagner:**

Input was then obtained from the Work Group on the watershed protection plan. The Work Group discussed and provided input on the following:

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| a. Causes and Sources           | f. Timeline for Implementation    |
| b. Load Reductions Expected     | g. Interim Milestones             |
| c. Management Measures Needed   | h. Criteria for Assessing Success |
| d. Costs and Sources of Funding | i. Monitoring                     |
| e. Information/Education Needs  |                                   |

Included in this discussion, was the integration of the efforts of the Arroyo Education and Outreach (E&O) Work Group with those of the Arroyo Ag Issues Work Group and the steps that could be taken to help the E&O Work Group to reach out to the producers in the Valley. Wayne Halbert mentioned that the irrigation districts should be doing more of this type of thing and that articles could potentially be written in the local Ag publications. The TSSWCB and SWCDs could help the O&E Work Group with the special considerations for meeting/presentation attendance applicable to the local producers (provisions for food, scheduling around growing season, etc.)

The Work Group will shoot for finalizing the watershed protection plan by March 2005.

**Plan Next Meeting – Andy Garza:**

The Work Group will plan to meet in October 2004 and January 2005. Reminders will be sent both one month and again one week in advance of the meetings in order to provide adequate notification and gain better participation in the process.

**Adjourn – Andy Garza:**

The meeting adjourned at 5:00.