# **DRAFT**

Meeting Summary of the Arroyo Colorado Habitat Restoration Workgroup of the Arroyo Colorado Watershed Steering Committee

Texas A&M University Kingsville – Citrus Center

December 8, 2005

### ATTENDING WORKGROUP COMMITTEE MEMBERS

Laura De La Garza – Arroyo Colorado Watershed Coordinator
Kay Jenkins – TPWD State Parks
Randy Blankinship – TPWD Coastal Fisheries
Olivia Gomez – TPWD Coastal Fisheries
Tim Noack – Alan Plummer Associates
Kim Jones – Texas A&M Kingsville
Venki Uddameri – Texas A&M Kingsville
Loretta Mokry – Alan Plummer Associates
John Lloyd-Reilley – NRCS Plant Material Center
Chris Hathcock – TPWD State Parks, World Birding Center
Paul Bergh – Coalition to Save the Arroyo Colorado and LLMF
Steve Benn – TPWD Wildlife
Harold Burgess – Citizen
Neil Haman – TWDB
John Donahue – Trinity University

## CALL TO ORDER/WELCOME/INTRODUCTIONS

Kay Jenkins (TPWD) opened the eighth meeting of the Habitat Restoration Workgroup meeting held in Weslaco on December 8, 2005. The workgroup members in attendance introduced themselves.

### **PRESENTATIONS**

D.J. Davis - TCEQ

# Draft technical report from the habitat restoration feasibility study

Tim Noack and Loretta Mokry with Alan Plummer Associates, Inc. presented a summary of the draft technical report of the feasibility analysis that they have conducted for the Habitat Workgroup. Ten copies of the document were available for workgroup members to look at during the presentation. The presentation provided more details regarding the ten strategies that the Habitat Workgroup selected at the October 18, 2005 meeting for further study. The presentation provided information about the constraints, estimated load reductions and estimated costs associated with the ten strategies. The draft technical report also contained several maps that the workgroup members looked at during the presentation.

#### **AGENDA ITEMS**

# Habitat Restoration Plan Development

Due to the length of time needed for the presentation and discussion of the draft technical report produced by Alan Plummer Associates, Inc., Kay Jenkins invited workgroup members interested in participating in the writing of the habitat component of the Arroyo Colorado

Watershed Protection Plan to attend a meeting the following day at Estero Llano Grande State Park headquarters in Weslaco.

#### **CLOSURE**

Kay suggested that the workgroup meet again in January to review a draft of the habitat components of the plan since the draft watershed plan is due at the end of January.

# **DRAFT**

Meeting Summary of the Arroyo Colorado Habitat Restoration Workgroup
Follow Up Meeting
Estero Llano Grande State Park
December 9, 2005

### ATTENDING WORKGROUP COMMITTEE MEMBERS

Laura De La Garza – Arroyo Colorado Watershed Coordinator Kay Jenkins – TPWD State Parks Randy Blankinship – TPWD Coastal Fisheries Olivia Gomez – TPWD Coastal Fisheries Chris Hathcock – TPWD State Parks, World Birding Center Steve Benn – TPWD Wildlife Harold Burgess – Citizen

### **AGENDA ITEMS**

## Habitat Restoration Plan Development

Workgroup members in attendance reviewed the December 8, 2005 revision of the Habitat Components of the Arroyo Colorado Watershed Protection Plan prepared by Kay Jenkins and available for members to pick up at the December 8 and 9 meetings. Suggested contributors' names were assigned to specific portions of the habitat components where their expertise and experience would be very valuable for completing the draft. Other members not present at the meeting as well as people with expertise who have not participated in the workgroup were also suggested as potential contributors to the habitat draft. Randy Blankinship and Chris Hathcock handed out components of the habitat chapter outline that they had already prepared. Randy's contribution included a draft summary of a recently completed TPWD aquatic animal biodiversity study in the tidal portion of the Arroyo Colorado that also includes some water quality parameters. Randy's draft write up also identified future threats to the habitats within the Arroyo Colorado, fish and wildlife resource conservation plans, and bibliography citations. Chris Hathcock produced a draft list of freshwater aquatic and wetland plants indigenous to Hidalgo and/or Cameron counties categorized by maximum water-depth tolerances that will be included as an appendix to the habitat plan.

When the members got to the part of the habitat component of the watershed plan outline where an implementation plan of the studied strategies is to be recommended, Randy Blankinship suggested that the Workgroup base the recommendations on two criteria. The first criterion is that the strategy should show potential for reducing nutrient loading into the Arroyo Colorado and the second criterion is that the strategy should have potential for

restoring and improving habitat. Randy noted that the term habitat also includes the water column itself. The attendees observed that the last four strategies of the ten that were studied in the last phase of the feasibility study, involving the creation of wetlands for the treatment of wastewater effluent and the collective treatment of water containing both wastewater and nonpoint source loads, showed the strongest potential of meeting both suggested criteria.

The workgroup members took the maps provided by Alan Plummer Associates, Inc., produced from data provided by TCEQ and other sources, in the draft technical report and spread them out on the tables. It appeared that sub-basins 5 and 6 produces higher nonpoint source nutrient loadings to the Arroyo Colorado than do the other sub-basins, while sub-basin 8 produces larger loadings of nutrients from wastewater effluent to the Arroyo Colorado than do the other sub-basins. From this quick overview of the information provided in the technical report, the meeting attendees suggested that strategies 1-6 could be recommended for implementation in sub-basins 5 and 6. The group suggested that the habitat implementation plan could recommend seeking funding to conduct a suitability analysis to develop a suite of nonpoint source treatment strategies, evaluate appropriate sites for implementation, and determine the number of acres for each included strategy that would be required to produce specific reductions in nutrient loadings from those sub-basins. The group also thought that a pilot project should be implemented, perhaps in cooperation with the Agriculture Workgroup, while the suitability analysis was ongoing. The pilot project and suitability analysis would help stakeholders implement appropriate strategies that would meet realistic nutrient loading reduction goals for those strategies and the sub-basin as a whole.

The workgroup members could see that sub-basin 8 had more than one wastewater treatment plant in relative close proximity and thus it may be an appropriate site for implementing either strategy 8 or 10 involving the "regional" treatment of effluent from more than one treatment plant and/or the treatment of collected water containing nonpoint source pollutants. The members thought that the habitat plan should recommend the implementation of a pilot project (in any of the sub-basins) involving the creation of habitat while treating wastewater effluent especially since there were interested municipalities and landowners already interested in partnering in such projects. Results from a pilot project would provide data that would help decision makers choose whether or not to pursue larger or regional treatment strategies.

The group thought that it would be a good idea to recommend a suitability analysis on the in channel wetland strategy (strategy 9) if implementing that strategy was desired by stakeholders. Without knowing the quantifiable water quality benefits that can be achieved in a wetland where water detention for nutrient uptake cannot interfere with the channel's ability to convey flood waters, the group decided it would not recommend implementing strategy 9 until further studies are conducted to locate a suitable location for a large in channel wetland and a pilot project that would be effective in uptaking nutrients and acceptable to the managing entities. Land ownership within the channel and finding an entity willing to take on the wetland maintenance issues that would arise from damage occurring to the wetlands from flooding events were seen as strong constraints that would have to be addressed during the future study.

For the monitoring component of the habitat plan, the group liked the idea of recommending repeating studies conducted by TPWD in the tidal portion of the Arroyo Colorado and comparing the results to the earlier studies.