

**Arroyo Colorado Watershed Steering Committee**  
DRAFT Meeting Summary – December 16, 2003

**ATTENDING: - 12/16//03 MEETING:**

Chris Rakestraw – C.S.A.C  
Debi Warner – Arroyo Colorado Audubon Society  
Clare Lee - USFWS  
Michael Weeks – TX Parks & Wildlife  
D. J. Davis –TCEQ Region 15  
Kevin Ayarzagotia – TCEQ Region 15 Small Business  
Rocky Freund – Nueces River Authority  
John Jacob – Texas Sea Grant  
Kim Jones- TAMUK  
Lisa Williams – The Nature Conservancy  
Chris Caudle – TCEQ Region 15  
Brunilda Fueutes-Capozello – US Fish & Wildlife Svc.  
Tony Reisinger – TAMUMAS  
Kevin Wagner – TSSWCB  
Andy Garza - TSSWCB  
Joe Krause – Sabal Palm Audubon Sanctuary  
Mary Lu Campbell – Frontera Audubon, Sierra Club  
John D. Wallace – U. S Fish & Wildlife Service, Laguna Atascosa NWR  
Don Hockaday – UT Pan America  
Mary Donahue – Rio Grande Valley Outdoor Center & OCO  
Archie Donahue – Rio Grande Valley Outdoor Center & OCO  
Jim Chapman – Sierra Club  
Debbie Green – TPWD & Rio Grande Valley Outdoor Center  
Brian E. Macmanus, P. E. – East Rio Hondo Water Supply Corporation  
Dave Buzan – TX Parks & Wildlife  
Roger Miranda - TCEQ  
Earlene Lambeth - TCEQ

**CALL TO ORDER/WELCOME/INTRODUCTIONS:**

Roger Miranda (TCEQ) opened the meeting with various introductions. He welcomed many new participants in attendance representing state agencies, the Audubon Societies, water supply corporations, etc. Handouts had been distributed prior to the start of the meeting as well as sign in sheets. Mr. Miranda reviewed the evenings' agenda and purpose of the meeting.

Earlene Lambeth gave a special thank you to various entities that assisted in the day's events. The Laguna Atascosa Wildlife Refuge provided a tour earlier in the day of the wildlife refuge with the assistance of John Wallace and tour guide Kevin Stevenson with the U. S. Fish & Wildlife Service. Dinner was provided prior to the meeting through donations from H·E·Butt Grocery Company, Environmental Affairs Department and an Arroyo Colorado Watershed contributor, the Buena Vista Ranch in Los Fresnos. Also, the Rio Grande Valley (RGV) Outdoor Center, Mary Jo Janovsky, deeply discounted the RGV Outdoor Centers' rate that enabled the committee a wonderful facility to accommodate the tour, dinner, and meeting. A thank you was also extended to the TCEQ Region 15 staff for assisting with vans and drivers for the tour of the wildlife refuge.

## **PROJECT OVERVIEW**

Mr. Roger Miranda (TCEQ) gave a brief history of the project and of the Arroyo Colorado Steering Committee and the Science and Technical Advisory Committee (STAC). Mr. Miranda covered the State's water quality assessment and TMDL development processes through a presentation. He said that a Total Maximum Daily Load (TMDL) establishes the maximum amount of a pollutant that a water body can assimilate and still meet Water Quality Standards and also allocates that load among pollution contributors. Mr. Miranda included in the presentation a chronology of the major events and history of the Arroyo Colorado TMDL that began with TNRCC's commitment to develop a TMDL starting in October 1998. Mr. Miranda explained the sequence of events for TMDL development is the following:

1. The waterbody is placed on the 303(d) list;
2. TMDL project is initiated;
3. TMDL report is completed after analysis and allocation is made;
4. TMDL Implementation Plan is developed to bring the waterbody into compliance (reducing whatever current load the waterbody is receiving to that determined by the TMDL);
5. Stakeholders implement the plan.

In 1998 Segment 2202 of the Arroyo Colorado was on the 303(d) list for bacteria and several pesticides. The tidal segment of the Arroyo Colorado was listed for low dissolved oxygen (DO) and toxicity of sediments. The Laguna Madre is the receiving water body for the Arroyo Colorado and was listed as well for low DO and bacteria. Since 1998, the pesticides and toxicity impairments have been dropped off the 303(d) list because TMDLs have been completed on the organochlorine compounds and additional sampling showed no problems with toxicity. Bacteria is, however, still on the 2002 303(d) List and the 2004 draft 303(d) list as showing up an impairment for the above tidal waterbody and the Laguna Madre.

The actual TMDL is a threshold for achieving water quality standards. He stressed that the implementation plan is what actually can "fix" the water quality problems. In many ways such as a diagnosis and a treatment...the TMDL is a diagnosis.

There are approved TMDLs for PCB's, toxaphene, and chlordane on the Arroyo. The PCB source was narrowed down to a three hundred meter area of the Donna Canal. The PCB impairment for the above tidal was not in the Arroyo itself but was in a tributary for the Arroyo, the Donna Canal. Work is on going on the PCB problem. TMDLs have recently been adopted for the other organochlorine compounds, but these have not yet been approved by the EPA. The TCEQ basically opted for natural attenuation as a remediation method on the pesticides. No drastic measures were taken such as dredging the whole Arroyo Colorado and it was recognized that even if we did that, there is still a significant but decreasing amount of DDT and organochlorines that are entering the Arroyo Colorado as legacy pollutants, which is what they are known as, because of their historical use. The Superfund area of TCEQ is working to clean up several hot spots and also the Donna Canal. Current use is not considered a source at this time. Mr. Miranda reported a significant amount of work has been performed to narrow down the sources of pesticides and PCBs in the area. He said it was a very difficult investigation because there was never a "smoking gun". There is a 4-½ mile stretch of the Donna Canal that was narrowed down to 300-meter area where the source is most likely located. The theory was that the source of the PCBs was from contaminated fill that was used to shore up the levies, and that PCBs are entering the canal in small quantities through the erosion process. A drastic

measure would be to line the canal with concrete since no buried drums could be found, no transformers, the best way to deal with the issue is through a combination of mitigation efforts and the natural attenuation process.

Mr. Miranda also reported that toxicity in sediments is no longer going to be an impairment listed in the 2004-303(d) list as a result of a TMDL study that was done on the tidal segment of the Arroyo. The Laguna Madre will still show up on the 303(d) 2004 list for dissolved oxygen and bacteria.

The zone of dissolved oxygen impairment in the Arroyo Colorado occurs between the turn basin and around Camp Perry, straddled by the City of Rio Hondo, which is the last municipal outfall in the tidal segment. There are other permitted outfalls associated with the shrimp farms near the confluence with the Laguna Madre.

In 2002 the TMDL analysis for the DO impairment was completed and concluded that the DO dynamics in the Arroyo Colorado were influenced by more than just loadings. The loadings in the Arroyo Colorado are high – high nutrient values, ammonia levels at almost 5.0 mg per liter, nitrate levels that are routinely at or above 8 mg per liter. It is highly nutrient rich but the TMDL analysis determined that the problem with DO in the Arroyo is related as much to the loadings as it is to the fact that the Arroyo suffers from a high degree of anthropogenic modification such as dredging, channelization, total lack of riparian environment in the non tidal segment, all by design.

The TMDL determined that in order to reach DO levels and meet water quality standards, loadings of nitrate, phosphate and BOD would need to be reduced by 90% which TCEQ does not believe will be realistically achievable. The TMDL analysis also determined the need for more information and further study.

Based on the conclusions of the TMDL study, the TCEQ decided to facilitate the development of a consensus-based watershed action plan. As part of this watershed action plan, the load reductions would be based on realistically achievable goals, not a numerical goal...but trying to reduce loading by what would be achievable. The TCEQ is planning to perform more modeling and monitoring on the impaired segments of the Arroyo Colorado. The main goal of the Arroyo Colorado Watershed Steering Committee is to develop a Watershed Action Plan for the Arroyo Colorado.

The six components of the Watershed Action Plan are:

1. Agricultural Issues Workgroup (met December 15, 2003 led by the TSSB)
2. Wastewater Infrastructure Workgroup (meeting pending)
3. Outreach Workgroup (met November 20, 2003)
4. Habitat Workgroup (met November 20, 2003)
5. TMDL Workgroup (not met but work is progressing)
6. Possible internal workgroup among state entities to decide whether to pursue reviewing the standards and criteria for DO for the Arroyo Colorado (to be discussed in detail at a later meeting between TCEQ and TX Parks and Wildlife)

The steering committee of the Arroyo Colorado is developing a Watershed Action Plan but the State of Texas is assisting in the process by hiring an independent watershed coordinator that

will facilitate the efforts of the watershed plan. This will be a cooperative effort between the stakeholders and the state. The state will offer proposals but also expects the stakeholders to offer proposals. The watershed action plan development process will be a consensus-based approach with the understanding that the resulting watershed action plan must adhere to federal requirements.

The Arroyo Colorado offers a unique opportunity for pollutant trading – point sources and non-point sources. There are enough polluters in the Arroyo Colorado that this could become a reality.

The present Arroyo Colorado Watershed Steering Committee will participate in the decision making process regarding the contents of the Watershed Plan. Even though the TCEQ would like the watershed action plan to be completed by a six to eight month period, the TCEQ realistically understands this document may not be ready for another year or so. There must be a TCEQ approval process similar to the TMDL approval process that could take 6 months. Implementation of the watershed action plan could take 2 to 4 years if reassessment of the criteria is decided upon and another two year for implementation.

At the last steering committee meeting held in November, a goal was set among the Watershed Action Steering Committee that they would meet again in December. Also, goals were set that the Workgroups would meet between September and December. This goal was met by 50% and explained later in this summary.

A presentation on possible federal funding available for the Arroyo Colorado watershed action plan by the Environmental Protection Agency (EPA) was to be given by Sylvia Ritzky at the 12/16/03 meeting but at the last minute had to be cancelled due to a family emergency. The presentation with the EPA will be rescheduled for a later date.

Ground rules for the Arroyo Stakeholder Committee were established when the group was originally formed. Since the goal(s) of the committee have now changed and the group has become the Watershed Steering Committee, new goals need to be established and re-vamped. Mr. Miranda provided a copy of the revised ground rules as part of the handouts. Mr. Miranda asked the members to review the ground rules and provide TCEQ with comments to ensure they were acceptable or begin to compile a new list of ground rules before the next meeting of the Watershed Steering Committee.

The next item on the agenda was to update the stakeholders on the progress of the five existing planned workgroups formed under the Arroyo Colorado Watershed Steering Committee. The first of which was the Infrastructure Workgroup that has not met as of the 12/16/03 meeting. The reason they have not met is that TCEQ has new management...a new Chairman, Kathleen White. Chairman White has requested a review of all enforcement policies. Since this review has not happened at this time and has a huge bearing on the Infrastructure Workgroup, this Workgroup has not met. In the past there has been a high level of non-compliance problems with the permittees in the Arroyo Colorado watershed. The workgroup will be composed of wastewater permittees in the Arroyo Colorado watershed. Since enforcement is part of the plan and compliance is essential to the success of the watershed plan, TCEQ will need to address this enforcement compliance before approaching the permittees in the watershed.

A meeting was held with the Water Development Board and members of the USDA Rural

Development, who are responsible for providing grants and low interest loans to economic distressed communities and wastewater treatment facilities that service these communities. Meetings have been held with TCEQ Enforcement Division and Permitting, as well as the Small Business Division to try to formulate a plan to address items like non-compliance and to improve the quality of effluent the facilities discharge into the Arroyo Colorado. Even though the Infrastructure Workgroup has not met, there has been movement and items are being addressed within the Workgroup.

A series of tailor-made plans will be compiled for each of the wastewater facilities through Small Business, etc. The workgroup will start with the City of Mission, looking at each of the wastewater treatment plants downstream in the Arroyo, reviewing their compliance history, outfall data, self-reported data and environmental management systems for a balanced approach.

The Agricultural Workgroup met in Weslaco on December 15, 2003. The lead Chairperson for the Agricultural Workgroup is Mr. Kevin Wagner with The Texas State Soil and Water Conservation Board. Items discussed at the meeting included how to increase participation in the watershed for the Agricultural Workgroup now being formed. Mr. Miranda gave a brief history of the project and the timeline for the development of the agricultural portion of the Watershed Action Plan. Mr. Wagner reported the Steering Committee and Workgroup(s) would be following EPA's newest nine-point guideline that was released in October 2003. Mr. Andy Garza discussed Best Management Practices (BMPs). Such practices try to optimize crop production and minimize pollutants in run off enters the stream or segment as a result of agricultural activity. Dave Buzan representing The Texas Parks and Wildlife, suggested looking at crops that produce higher BODs. Various models were discussed for the 330,000 acres of cropland in the watershed that includes crops of sugar cane and citrus. Mr. Miranda reported that according to the TCEQ model now being used, over half of the loadings were coming from agriculture. Mr. Miranda proposed exploring more of the data and an in depth study of various available models to compare and design a consensus based end product for a better model. Mr. Miranda also pointed out that one of the federal requirements included an estimate of the loadings associated with the watershed plan. He pointed out he could think of no better way to accomplish this other than using best technology and using perhaps the SWAT model along with reviewing monitoring data to support it.

More monitoring is being planned for the Arroyo Colorado, which for the most part is a "gated floodway". The next meeting of the Agricultural Workgroup is being planned for late March or early April 2004. Mr. Kevin Wagner and Mr. Andy Garza will in the meantime draft a skeleton agricultural watershed plan to discuss at the next meeting.

A joint meeting of the Habitat Restoration and Outreach Workgroup(s) was held on November 20<sup>th</sup> at The University of Texas – Pan American Coastal Studies Laboratory located in South Padre Island.

Mr. Miranda reported to the committee members that \$200,000, covering a two year period of time funded under 319, had been identified and earmarked to hire a full time Watershed Coordinator that would be totally dedicated and based in the Valley to take the lead on the development of the WAP. This funding would cover expenses and budget for officing, travel, salary, and related cost for development and coordination of the various workgroups formed under Arroyo Colorado Watershed Steering Committee.

Mr. Miranda also explained that TCEQ had requested 309 NOAA funding for a feasibility study for habitat restoration. Mr. Miranda also mentioned the need to work with the IBWC to restore the riparian environment for the non-tidal segment of the Arroyo Colorado. This would accomplish things such as offering a canopy along the Arroyo, which does not currently exist, bank stability, habitat restoration, etc. What can be done? Items to explore would be things such as the dredging in the Port of Harlingen, placement of the dredging spoils, Best management measures for load and off-load of fertilizers and diesel. Two segments of the Arroyo Colorado have different habitat issues. Non-tidal segment issues are more related to bank instability and a lack of riparian environment, which is by design under the IBWC. The IBWC refers to the Arroyo Colorado as the Rio Grande Flood Control Project. The Arroyo is basically a constructed pilot channel through much of the non-tidal portion. The workgroup needs to work closely with the IBWC, which was recently sued for routine mowing and removing hardwood and plant growth. Mr. Miranda reported that recently IBWC came up with an Environmental Impact Statement associated with the floodways. The TCEQ was unable to provide comment or participate in the development of the study. Concerns were expressed at the December meeting that this could impact the Habitat Restoration Workgroup and negotiations with IBWC need to take place.

In addition, Mr. Miranda reported an additional \$50,000 would be dedicated to the Habitat Restoration effort that was requested by a partner agency, the TX Parks and Wildlife. The hurdle that is pending regarding these funds is EPA approval.

Mr. Don Hockaday reported that he had begun to try to collect data of various groups and organizations that are already working on projects conducting Outreach. Workgroups could tap into this resource. He reported this is a huge project that will be timely and labor intensive and offered suggestions on how this could be accomplished.

Mr. Miranda reported that resources have been identified through the Small Business Division of the TCEQ dedicated for outreach and education. But, those final amounts are yet to be determined.

The TMDL Workgroup has not met but funding has been approved. \$196,000 Clean Water Act 106 funding has been earmarked for additional monitoring and modeling. Discussions are taking place with USGS for a monitoring plan for the second round of the TMDL. A Joint Funding Agreement between USGS and the TCEQ is expected to be in place around February 2004. The workgroup is expected to meet in February also.

The Uses, Standards, and Criteria Workgroup has not been formed and the establishment of this workgroup is dependent on resolution of problematic issues associated with this effort currently being debated among the different agencies of the State of Texas. Formation of this group is suspended until a decision is made on whether the dissolved oxygen criteria in the tidal segment of the Arroyo Colorado should be reassessed. Meetings are being scheduled between the TCEQ and The TX Parks and Wildlife to address this issue. The Standards Division at TCEQ has agreed to perform a data review of the use attainability study that was done on the Arroyo Colorado in 1984 to present at the discussions.

The projected outcome for the next meeting was the last item on the evenings' agenda. Mr. Miranda asked each of the workgroups to establish independent goals and a timetable to reach the goals. He asked that these goals and the timetable be presented at the next meeting of the

Arroyo Colorado Watershed Steering Committee. That means that all the workgroups need to meet and set these goals before the next meeting being planned for the last week in March or early in April 2004 at the Citrus Center in Weslaco. Mr. Andy Garza with the TX State Soil and Water Conservation Board volunteered to make arrangements for the meeting site at the Citrus Center. Goals for each of the workgroups need to be established in order to meet the goal of the Watershed Steering Committee, which is ultimately to write a Watershed Action Plan to improve water quality in the Arroyo Colorado.