

**Arroyo Colorado Wetland Meeting**  
December 17, 2007                      2:00 pm -4:30 pm

**MEETING SUMMARY**

**Participants**

Neil Haman, HWWS	Meg Jorn, Megamorphosis
John Percy, La Feria/Megamorphosis	Joe Winston, LaFeria/Sigler Winston
Chris Hathcock, TPWD	Mike Heep, Heep's Nursery
Jim Tabak, Valley Land Fund	Darala A. Jones, La Feria
Sunny K. Philip, La Feria	Michelle Leftwich, Mercedes
Harvey Rodriguez, San Juan EDC	Miki McCarthy, San Juan EDC
Robert Diaz deLeon, Alamo	Roger Miranda, TCEQ
Arthur Talley, TCEQ	Kim Jones, TAMUK
Tony Reisinger, Texas Sea Grant Extension	Julie Morris, UTB
Adan R. Gonzales, San Benito	Romeo Garza, Jr., San Benito
Jaime Rosas, San Benito	Martha McClain, San Benito
Alex Nunez, TPWD	John Day, LSU/Comite Resources, Inc
Orlando Cruz, San Benito	David Day, San Benito/Casa Engineering
Amy Rangel, ACWP/TWRI	Laura De La Garza, ACWP/TWRI

**2:00 pm Welcome and Introductions** .....Laura De La Garza, TWRI

**2:10 pm Four Cities Wetland Project**

Project Overview .....Roger Mirand and Arthur Talley, TCEQ

- Brief Overview
  - From TMDL to WPP
  - Environmental benefits of plan and wetlands
- Measures of Progress
  - Permit issue, permit amendment not a barrier
  - Not much money spent nor anything built
  - Permitting amendments creating cost and time issues
  - Each city making progress on permits
  - City of LaFeria submitted preliminary design to TCEQ
  - City of San Benito in discussions with TCEQ
  - City of San Juan submitted preliminary design report to TCEQ
  - Wetland project value, twice green – potential for economic & environmental benefits
  - Reminder to cities to review TCEQ contract, keep up with reporting requirements
  - 1% of project funds sent to date

City of San Juan ..... Mikki McCarthy, San Juan EDC

- Delays due to permit amendments and realization of need to use more than 5 acres
- Cells originally to be in stormwater detention facility
- Preliminary design uses 7.75 acres
- Dealing with other issues with cells being so far from plant
- Eventually use project for education
- Taken a year to get 2<sup>nd</sup> outfall permitted
- Submitted preliminary design report to TCEQ in November
- TCEQ currently reviewing application

- February- expect permit for new outfall
- Wetland construction to begin mid-spring
- Won't be online until 2010
- Will be a hike and bike trail component
- PSJA working on outdoor classroom for school district
- Project paid for by 319 grant funds and EDC open space and park development funds
- City of San Juan donated land for project
- Permitting through the City of San Juan

City of Mercedes..... Mitchell Leftwich, City of Mercedes

- Currently running out of treatment capacity at wastewater treatment facility
- In process of getting permit amendment for facility expansion
- Have not begun the process to permit a new outfall for discharge to wetland
- Timing issue due to wastewater treatment expansion.
- Must deal with this amendment before focusing on any others

City of La Feria..... Darla Jones, City of La Feria

- City commission has approved contract amendments
- Project located close to Arroyo
- Construct wetlands project due to past wastewater permit violations
- Nature park will have green buildings, local long-life materials to be used
- Budget has been biggest challenge
- Life cycle cost considered in green building
- Flexibility designed in

City of San Benito..... Martha McClain, City of San Benito

- Project site located near the Arroyo Colorado at the site of the recently decommissioned lagoon-style water treatment plant. Two of the six ponds will be utilized.
- The City Commission approved contract amendments, economic benefits recognized
- General goal – to implement Phase IA of the wastewater pollutant reduction component of the ACWPP and to produce a 20-acre model wetland system using treated effluent from San Benito's new wastewater treatment facility
- Project is part of a Supplemental Environmental Program (SEP) as required by EPA due to past permit violations
- 20-acre wetland planned, room for expansion
- New 2.5 MGD plant to be expanded to handle 3.75 MGD
- Objective to construction wetlands for environmental and ecological benefit
- Educational and recreational components to be incorporated
- December 4, 2007 - Wastewater permit filed, awaiting response
- December 11, 2007 - City Commission approved contract amendment
- April 30, 2009 - Wetland construction complete
- August 31, 2009-Vegetation installed and controlled through-flow achieved
- Thanks to the Arroyo Colorado Watershed Protection Plan for guidance
- Thanks to the TCEQ and EPA for financial assistance

Questions and Answers..... Laura De La Garza, TWRI

- Timelines? TCEQ extended timelines due to permitting.

- All cities have negotiated different timelines.
- All cities expressed desire to create a wetland curriculum for their wetlands. Laura to coordinate effort with cities.

**3:20 pm Wetlands, Plants and Availability:**

Project Experience .....Dr. John Day, LSU

- Extensive wetland work in Louisiana
- Wastewater as a fresh water resource
- Use of effluent from two cities to re-grow/restore deteriorating wetlands
- Savings to communities by using wetlands to treat wastewater
- Increase carbon and nutrient sequestration through the creation of a Cypress forest
- Importance of a diversity of plant community
- Important to consider flood pulse concept
- Ecological engineering allows for self design

Project Experience .....Dr. Kim Jones, TAMUK

- Discussed what has worked and what has not
- Problems with salinity hikes
- Don't believe everything you read in books. Books have said that certain plants would not work however experience has shown different.
- All cattails die one year possibly due to increased salinity
- Advantage to deep and shallow ponds in association with wetlands
- Value in putting in top-soil
- Over-planted one site on hindsight
- Plants will establish themselves naturally
- Success with black mangroves however freeze risk
- Give hydro-periods flexibility

Local Wetland Plants and Availability ..... Chris Hathcock, TPWD

- Good wetlands in the LRGV are few and far between
- Supply water, and plants will establish themselves. Birds bring in a variety of plants.
- Example of a wetland birds like - a shallow wetland established in a ressaca. Diverse plants. Fluctuating water levels.
- Sedges and water hyssop will come to site on own.
- Reviewed a number of local native plants found in different zones associated with wetlands including: water hyacinths, germander, creeping love grass, pennywort, pink smartweed, soft-stem bulrush, water lily, arrowhead, water star grass, musk grass, and alkali bulrush.
- TPWD has a local wetland nursery.
- Wetland plant available at Heep's Nursery.
- Not sure how some native plant will handle high nutrient water.
- Chris available to cities for any wetland plant questions.

**4:20 pm Final Question and Answer Session .....Laura De La Garza, TWRI**

- Do plants have to be harvested? Yes, in some cases.
- Final reminder that treatment and optimum removal of nutrients are the goals.
- Built-in option to divert water away from wetland if deemed necessary.