

**Arroyo Colorado Education and Outreach Workgroup  
Formed under the  
Arroyo Colorado Watershed Steering Committee**

DRAFT Meeting Summary – May 10, 2004

**ATTENDING WORK GROUP COMMITTEE MEMBERS:**

Paul H. Bergh  
Donna Berry  
Randy Blankinship  
Layne Budd  
Christopher Caudle  
Rocky Freund  
Laura De La Garza  
Linda Gardner  
Don Hockaday  
Richard Moore

Present at Austin through video-conferencing:

David Buzan  
Amy Kolterman  
Earlene Lambeth  
Roger Miranda

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

Don Hockaday opened the third meeting of the Education and Outreach meeting hosted at the University of Texas – Pan American Coastal Studies Laboratory located in South Padre Island. Introductions were made and there were discussions of what needed to be covered and the agenda. Video-conferencing was set up for participants through the Austin TCEQ.

Dave Buzan told the group about a Coastal Expo that would be given through the TX Parks and Wildlife that would be an opportunity for the Education and Outreach Committee to participate in. Dave suggested a festival in conjunction with the Expo and the TPWD would assist with resources such as funding, staff, and assistance. File attached at end of document from TPWD.

Various annual events and communities were discussed that the Expo could participate in. These festivals that are being planned in the Valley are held in various towns. There is a possibility of teaming up with festivals or events to begin getting the “word out” about the Arroyo Colorado and begin the educational campaign that is so needed. The “Getting In Step” program could be utilized through the Expo. Dave reminded the group that TPWD does not pre-suppose what the message of the Expo should be but that was the work to be done by the Education & Outreach Workgroup.

The group decided that the Coastal Expo would be a wonderful opportunity and would like to pursue. Dave reported to the group that Edinburg wanted to do one and would probably be held

in late winter or early spring. McAllen is also interested in an Expo. Dave asked the group to give the TPWD a three-month lead-time for putting on an Expo. TPWD depends on volunteers from the community for an event. The group thought that Harlingen would be an ideal location.

Roger reported to the group that he and Earlene Lambeth had visited the International Museum of Art and Science (IMAS) in McAllen. Roger told the group about the tour and that the museum had a water educational program established. He suggested the possibility of the museum bringing their water outreach program to the Expo also.

Amy Kolterman with the Texas Watch program reported that on Saturday, August 14, Texas Watch is having a meeting with IMAS and suggested that maybe some of the workgroup might attend. She reported that there are a couple of possible opportunities that the Education & Outreach Workgroup could participate in. Amy said the agenda is still being drafted, but the Arroyo Colorado was definitely on the agenda but goals have not been established for the meeting at this time. Amy reported that since the meeting was at such a nice venue, there is a possibility and hope to have family activities for children and also adult water educational speakers, primarily geared to the Arroyo Colorado.

Don Hockaday talked to the group about the "Getting In Step" program in beginning to focus on identifying the goals of the program. He gave a brief review of the historical events and committees formed to assist with the water quality issues associated with the Arroyo Colorado. He discussed agricultural runoff, behavior of households, and wastewater discharges. He asked the group what could be done about these issues though the workgroup in beginning to identify the goals of the group through education and outreach. He suggested that through the Coastal Expo, data could be gathered to help in identifying the long-term goals of the group.

Chris Caudle suggested the target audience at this point should be the general public and that the Agricultural Workgroup formed under the Steering Committee would educate the farmers on agriculture issues.

Roger Miranda reported that in terms of the Wastewater Infrastructure, progress had been made. A meeting was held in Austin at TCEQ with Ken Jones with the Lower Rio Grande Valley Development Council. Mr. Jones had agreed to assist in forming the Infrastructure Workgroup members and signed the Arroyo Colorado Ground Rules.

Roger gave an update on the progress saying that the TCEQ has completed the system reviews of all the wastewater plants in the Arroyo watershed. The reviews include self-reported data graphed against permit limits and violations through self-reported data. TCEQ staff combed through the files in order to "home in" on what the problems historically have been with each facility. A plan is being drafted and after the TCEQ has approved it, it will then be taken to the Water Development Board. The next step will then be to meet with each permittee and get their input. After that is completed, the Lower Rio Grande Development Council will suggest the members of the Wastewater Infrastructure. Even though the group has not met, there is a draft document awaiting approval and many steps have been taken toward the goal(s) of the workgroup.

The Agricultural Workgroup has also been doing a lot of background work, solidifying their membership and working to gain more attendees for the next meeting. Roger said he did not believe the Agricultural Workgroup would be performing "outreach" to the farmers. At this point, Roger did not believe they viewed their role as one of getting out a message to their constituents.

The role of the Agriculture Workgroup in getting the message out was discussed. This information was discussed in conjunction with trying to identify all the goals of the Education and Outreach and who their target audience should be...general public, agricultural, wastewater dischargers?

Don Hockaday reminded the group the water quality problems (low DO & bacteria) associated with the Arroyo were mainly due to agricultural non-point source and wastewater discharges. He expressed concern over making the goal of the Education & Outreach Workgroup geared toward the general public instead of the agriculture and municipal non-point source or discharges into the Arroyo.

Don suggested meeting with the different workgroups (focus groups) formed under the Steering Committee to see how the Education & Outreach Workgroup could assist the other workgroups in designing an effective message. Don wanted to be realistic in what could be done and to whom the target audience should be. Roger commented that the more the general public is made aware of the water quality issues in the Arroyo and the more people who care about the Arroyo Colorado, the better the counter-balance will be toward the driving forces that are contributing to the impairments. If the general public is concerned, united, and speaks with a voice, Roger suggested some of the things that are going on in the Arroyo now, will not be going on. No one should be pointing fingers. Another comment was if someone owned property on the Arroyo Colorado and wasn't aware that the Arroyo had poor water quality and it was getting worse, they are oblivious to the problem. The citizens and general public would be more apt to be involved if they knew the issues about the Arroyo.

Leadership was solidified through the Education and Outreach Workgroup. Don Hockaday and Chris Caudle were elected co-leaders of the workgroup.

Roger gave a brief review of the items going on in the watershed for the benefit of new workgroup members. He spoke of the Habitat Restoration specialist through the TPWD, the hiring of a Watershed Coordinator for the Arroyo through Sea Grant, and the various grants that had been applied for and some have been granted.

Roger reported that the Education and Outreach Workgroup did not have any funding at this time, but that he was endeavoring to bring funds through the Border 2112 Proposal and the Gulf of Mexico program, or possibly 106 grant funds. Resources have also been identified through the TCEQ Small Business Office for displays and pamphlets related directly to the Arroyo.

Another idea discussed was a water bottle idea for advertising and getting the Arroyo message out on the label to the public. It would be used as a give away at all the events being planned. Amy suggested possibly talking with GBRA because they bottle their water.

Amy also suggested that even though the workgroup did not have available funds at this time, there are many groups such as Texas Watch, IMAS, TPWD, TCEQ, etc., that can definitely add resources to the project. She suggested trying to decide on goals and putting those goals together with the various groups and being able to work on it together.

The next item was to brainstorm step number one, in the "Getting In Step" program. Making people aware of the problem, what is a watershed, there are so many little things that can be done to begin to create awareness without pointing fingers. One workgroup member said it has been his experience that some people don't see the Arroyo as a river but just a big ditch! Discussions

were held on the various mindsets of the community about the Arroyo and it was suggested that it is the job of the workgroup to provide hope in cleaning it up. Yes, it is bad but it is getting worse.

Driving forces were discussed – maybe eating the fish is bad but the main thing is to keep the message simple. A driving force might be the major fish kills that happen repeatedly and as recent as March 2004. How does a lack of understanding or apathy on the part of the public contribute to the quality of the water?

There was a break in video conferencing transmission at this time.

Tasks were being identified when the transmission resumed.

Chris Caudle asked if there was a possibility of a web site for the Arroyo Workgroups to document the progress that is being made. Members made suggestions on what could be on the site, web cams about fish kills, or research projects on going in the Valley. One of the tasks of the Watershed Coordinator will be to have and maintain an Arroyo Colorado web site. It has not been decided where the web site will be housed at this time. Funding had been allocated for this task. The meeting minutes and meeting dates & times are on the TCEQ web site located at:

[http://www.tnrcc.state.tx.us/water/quality/tmdl/arroyo\\_group.html](http://www.tnrcc.state.tx.us/water/quality/tmdl/arroyo_group.html)

Chris Caudle said he would follow up with some contacts that he was aware of for environmental education.

The workgroup decided that at this time it needed to meet more frequently and the members set the third Tuesday of each month to meet, preferably at TCEQ in Harlingen. The TCEQ in Harlingen does not have video conferencing capability at this time so it was decided that the next meeting scheduled on June 15, 2004 would be held at the Pan American Coastal Studies Laboratory in South Padre until another site with video conferencing could be located. TCEQ agreed to check into conferencing at the Harlingen Regional Office or we would look into another meeting site for Harlingen.

Roger agreed to continue to work on the funding for the Education & Outreach Workgroup, work on the Gulf of Mexico grant, track the 2112 and the 106 funds.

Dave asked the workgroup to let him know potential events being scheduled in the Arroyo watershed that the workgroup would like to partner with for the Coastal Expo. He needs information on where and when. Linda Gardner agreed to assist with the contacts.

The workgroup decided an e-mail group would be a great value at this time. Linda Gardner ?? volunteered to put this together.

Roger told the group about a couple of conferences that were coming up that possibly someone could attend. On May 15 the Lone Star Chapter of the Sierra Club is sponsoring a conference and asked if someone did attend, to report back to the group and how it might connect with the Arroyo groups' efforts. There is also a Flood Emergency Coordination meeting in Weslaco being sponsored by the IBWC on May 19 @ 1:00 PM. Randy Blankinship said he was a speaker at the May 15 meeting and in passing could mention the Arroyo project.

There was a break in video conferencing transmission at this time and reconnection was not restored.

Chris Caudle compiled a list of goals and objectives and sent them to the workgroup after the meeting as they were discussed in the evening's meeting. The list is attached to this summary.

## **Information received from Dave Buzan on Coastal Expo:**

### **Main text on home page**

Texas Parks & Wildlife Department brings the coast to several local communities each year through Coastal Expo. Coastal Expo is a fun, family- oriented event with activities for all ages! Visitors see and touch crabs, sea stars, and other coastal animals; view a glass-bottom stream; solve a mysterious fish kill; learn what washes up on the Texas coast; and fish for live catfish. While the visitors participate in these and other great activities, they learn about Texas coastal ecosystems, why they are important, and how to protect them.

Three thousand people attended the Texas Parks and Wildlife Department's 2<sup>nd</sup> Annual Buc Days Coastal Expo on Saturday, April 24, 2004 at the Memorial Coliseum. Outdoor enthusiasts discovered the wildlife below ocean waves, coastal conservation issues and beach habitats while visiting the Buc Days Carnival. Participants tried their skill at catching a fish, determining a stream's health, and climbing a 32-foot rock wall!

Buccaneer Days Commission and the Coastal Bend Bays & Estuaries Program sponsored the event. Exhibitors included: U.S. Coast Guard, Texas General Land Office- Adopt a Beach and Oil Spill Prevention and Response programs, Aransas National Wildlife Refuge, City of Corpus Christi Storm Water Department, San Patricio Municipal Water District, Mustang Island State Park, Native Plant Society, and the Texas Department of Health- Seafood Safety. Texas Parks & Wildlife Department Divisions that contribute their time and staff include: Communications, State Parks, Wildlife, Coastal Fisheries, Inland Fisheries, and Law Enforcement.

If you would like more information, please contact Kris Shipman at 512/912-7037 or e-mail at [kris.shipman@tpwd.state.tx.us](mailto:kris.shipman@tpwd.state.tx.us).

### **Coastal Expo's Mission Box**

Coastal Expo's Mission: Increase public awareness of Texas coastal ecosystems, why they are important, and how people can protect them.

### **Top Box on Right**

#### Information

- Coastal Expo Kits
- Volunteers/Exhibitors/Sponsors
- Previous Coastal Expos
- Texas Parks & Wildlife Expo
- Education
- Outdoor Programs
- Texas Water

- Fishing

### **Bottom Box on Right**

#### Activities/ Booths

- Crab Marsh
- Glass- bottom Stream
- Mystery Fish Kill
- Discovery Boxes
- Educational Resources
- Coastal Fisheries Touch Tanks
- Fish Prints
- Beach Goodies
- Fishing
- Fish Rubbing Tables
- Coastal Fishing (Backyard Bass)
- Junior Angler
- Junior Boater
- Hunter Education
- Rock Wall

### **Top Box on Right- Text for Links**

- [Coastal Expo Kits](#)



Texas Parks & Wildlife Department (TPWD) conducts Coastal Expos to increase awareness of coastal ecosystems. These outreach events include hands-on activities to bring the wonders of our coastal environments to people who do not typically get to enjoy the great Texas coast.

Traditionally, we have conducted Coastal Expos in communities with a high percentage of minority and urban populations. Our previous locations include the Rio Grande Valley area, Beaumont, San Antonio, and Corpus Christi. These events have been very successful and we would like to expand the number of Coastal Expos conducted in Texas. Unfortunately, we have a limited number of staff and resources to commit to Coastal Expo and need your help to ensure the success of future events.

This year, we are creating Coastal Expo kits. These kits will be made available to local schools, organizations, and communities that are interested in hosting their own Coastal Expo. The kit will provide all the necessary information needed to conduct a Coastal Expo in your community!

If you are interested in bringing the coast to your school or community or have any questions, please contact Kris Shipman at [kris.shipman@tpwd.state.tx.us](mailto:kris.shipman@tpwd.state.tx.us) or 512/ 912-7037.

- [Volunteers/Exhibitors/Sponsors](#)



If you are interested in becoming a volunteer, exhibitor, or sponsor for Coastal Expo, please contact Kris Shipman at [kris.shipman@tpwd.state.tx.us](mailto:kris.shipman@tpwd.state.tx.us) or 512/ 912- 7037.

A big thank you to all of our past volunteers, exhibitors, and sponsors! We would not be able to put on such great events without your help. Previous sponsors include:



### [Top Box on Right- Text for Links](#) [Crab Marsh](#)

Touch and learn about fiddler crabs, hermit crabs, and blue crabs at our crab-shaped pool. The crab marsh has sand and local marsh plants that create a “true” habitat for the visiting crabs. Children and adults will learn about where the crabs live, what the crabs eat, what eats the crab, the importance of marsh habitat, and why we should care about their habitat.

### [Glass-bottom Stream](#)

A V-shaped, glass trough is filled with water, rocks, and native aquatic plants to replicate the structure of a natural stream. The glass-bottom allows visitors to see the 3-D picture of a stream and how fish and invertebrates can “hide” from predators. The stream

demonstrates the importance of habitat, and how aquatic insects act as water quality indicators. Ever wonder about the quality of your local stream? Now you will be able to tell just by looking at the insects!

### **Mystery Fish Kill Game**

Become an honorary member of the Kills and Spills Team by solving the mysterious fish kill, just like a TPWD biologist! Real clues, pictures, and facts are used to help teach how fish kills can be caused by natural conditions and/or human contamination. The circumstances of the fish kill and the clues are used to communicate about the physical and biological characteristics of coastal ecosystems. Each participant is rewarded with a Kills and Spills Team sticker.

### **Discovery Boxes**

Wooden boxes with coastal artifacts inside and an opening at one end encourage participants to identify the contents of the box by touch. It is a fun way to learn about the diversity of our coastal habitats and objects.

### **Educational Resources**

Teachers, are you looking for educational resources that have an environmental tone? Check out our educational trunks and our Bucket-O-Bass and Bucket -O-Drum that Texas Parks and Wildlife Department loan out to educators. Also, you can find free posters, books, pamphlets, pencils, and in-class materials.

### **Coastal Fisheries Touch Tanks**

Coastal fisheries staff provides live coastal animals for you to touch, observe, and learn about. Fish, snails, clams, crabs, sea stars, and sea urchins allow you to see and feel the difference between the many wonders found in our bays, estuaries, and ocean.

### **Fish Prints**

Show your artistic talents with our fish printing station. Create artwork inspired by the fish that does not smell fishy! Washable paints are painted on a rubber fish of choice and then “printed” on the corresponding paper that is filled with facts about each fish.

### **Beach Goodies**

Ever wonder what washes up on the Texas coast? This is the place to see the marvels the ocean carries around the world. Touch, see, and learn about the shells, sea beans, feathers, plastics, and bones that have been found on your coastline.

### **Fishing**

Want to catch a REAL fish? Children can try their hands at fishing and may hook a live catfish! (Program availability depends on funding)

### **Fish Rubbing Tables**

Make a coastal fish, mammal, or invertebrate appear by rubbing a crayon on a piece of paper. The raised picture below the paper will appear, and so will fun facts about your animal.

### **Coastal Fishing (Backyard Bass)**

Children and adults learn to cast Zebco-type rods and reels. The goal is to “catch” a plastic fish using a special weight that “hooks” the fish. Each player receives a prize.

### **Junior Angler**

Kids learn about what types of reels they can use, how to identify fish, fishing rules and regulations, and a whole lot more! Once they have completed all the hands-on activities, they become a Junior Angler and receive a fish pin and a certificate. (Depends on availability)

### **Junior Boater**

Learn how to enter a canoe, how to properly fit a life jacket, and how to toss a life preserver during this interactive activity. This is a fun way to learn about boating and water safety. (Depends on availability)

### **Hunter Education**

Ever tracked an animal before, or wondered about tracks that you have seen? The Hunter Education program will teach you what animals are leaving those tracks and how to be a safe hunter. (Depends on availability)

### **Rock Wall**

Challenge yourself to a rock-climbing wall and see if you can ring the bell at the top! (Program availability depends on funding)

**File compiled by Chris Caudle:**

Arroyo Colorado Outreach and Education Subcommittee  
May 10, 2004

The following are driving forces generated during the May 10, 2004 meeting of the Arroyo Colorado Outreach and Education Subcommittee:

Driving Forces:

- (1) Hypoxia and fish kills in the tidal portion of the Arroyo Colorado.
- (2) Lack of public knowledge of water quality issues in the Arroyo Colorado Watershed.
- (3) General public acceptance of poor water quality in the Arroyo Colorado.

These were massaged into the following driving forces, goals, and objectives:

Driving Force:

- (1) The Arroyo Colorado is an impaired waterbody with a continued declining trend in water quality.
- (2) Hypoxia in the tidal portion of the Arroyo Colorado which impairs aquatic life in the Arroyo and threatens the valuable resource offered by the Arroyo Colorado/Lower Laguna Madre ecosystem.

Goals:

- (1) Increase public awareness of water quality impairments in the Arroyo Colorado.
- (2) Educate the public about the importance of the Arroyo Colorado as a resource to the Rio Grande Valley. Additionally, inform the public that there are mechanisms in place (i.e. Watershed Protection Plan) in which they can participate to improve water quality in the Arroyo.

Objectives:

- (1) Identify target audiences and the most effective means for informing and educating them.
- (2) Develop materials intended to inform and educate the target audience (identified above) using the most effective and efficient mediums available.
- (3) Increase public awareness via Texas Parks and Wildlife Department's Coastal Expo's and other public forums in the Arroyo Colorado Watershed.
- (4) Develop partnership networks with other Environmental Outreach and Education entities in the Rio Grande Valley and elsewhere (i.e. Texas Watch) to disseminate water quality information relative to the Arroyo Colorado Watershed.

