

**Rio Grande Citizens' Forum  
Feb.15, 2006  
El Paso, TX**

**Tentative Meeting Notes\***

Ken Rakestraw welcomed the audience and asked them to introduce themselves.

Staff in attendance:

Ken Rakestraw  
Billy Finn  
Rong Kuo  
Daniel Borunda  
Cesar Boisselier  
Carlos Peña  
Sally Spener  
Tony Solo  
Nancy Hanks

Board Members in attendance:

Chuy Reyes  
Alisa Jorgensen  
Mike Fahy  
Henry Magallanez  
Irene Tejada  
Joe Groff  
Kevin Bixby  
Denise McWilliams  
Ed Dominguez, Alternate

**Board Members Absent:**

**Chis Brown**  
**Lupe Garcia**  
**Alexandro Lozano**  
**Salvador Quintanilla**  
**Ed Provencio, Alternate**

Others in attendance:

Robert Kimpel, Hudspeth farmer  
Greg Bloom - Sen. Bingaman's office  
Inga Groff  
Jim O'Brien (FLO-2D expert)  
Sam Irrinki, CH2MHILL

Alden Wood, landowner  
Gail Bauer, landowner  
Ed Makarewicz, USEPA  
Jaime Iglesias, Texas Cooperative Extension  
Juan Flores, Juarez university (UACJ)  
Steve Ainsa, Camp Dresser McKee  
Philip LoPiccolo, Congressman Reyes  
Sal Payan, Congressman Reyes  
Ari Michelsen, Texas A & M Agricultural Research-TAES  
MD McWilliams, homeowner  
Junelle Echlin, citizen  
Doug Echlin, Coronado Neighborhood Assoc.  
John Barrera, homeowner  
Jeff Dunsworth, Texas Water Development Board  
Anna Fahy, El Paso Community College  
Wane Treers, U.S. Bureau of Reclamation  
Woody Irving, U.S. Bureau of Reclamation  
Patt Borrego, citizen  
Callie Gibson, Sen. Domenici

Ken Rakestraw presented the names and titles of the acting division chiefs and department heads. He noted that Carlos Marin remains Acting Commissioner and the USIBWC is moving forward.

### Flood Control Levee Certification

Billy Finn, USIBWC Hydraulic Engineer, gave a presentation about the Upper Rio Grande levee certification process. He gave background information about levee terminology such as freeboard, overtopping, base flood elevation, etc.

He noted that in September 2005 the Federal Emergency Management Agency (FEMA) sent a letter to USIBWC requesting that the USIBWC certify the levees' ability to withstand a flood of a volume that has a 1% annual chance of occurring, or what's commonly known as the 100-year flood. USIBWC sent a letter of reply this month and provided levee deficiency maps for the Rio Grande Canalization and Rectification Projects.

He discussed the FEMA criteria for levee certification, which require 3 feet of freeboard, and the USIBWC treaty criteria, which require 2 feet of freeboard. The structural integrity of the levees was also evaluated. The USIBWC had previously contracted with the U.S. Army Corps of Engineers (USACE) to perform airborne geophysical assessment of the structural integrity of the levees, followed up by ground truthing, and then testing by actually placing water against a levee segment. The water testing showed that the levee segment preliminarily designated as "poor" withstood the test. USIBWC will certify all levee segments that meet or exceed USIBWC freeboard requirements of 2 feet.

He then showed maps of segments that are considered deficient and will not be certified at

this time. The general locations of the segments that will not be certified are as follows (note that some of the areas are very small or only affect one side of the river):near the Sierra/Dona Ana County line, near the railroad bridge at Hatch, near Tonuco Bridge, Shalem Bridge, Mesilla area, between Vado and Anthony there are a couple of small segments, downstream of Vinton to Borderland Bridge has extensive freeboard encroachment or overtopping, Country Club Bridge downstream on both sides of the river, upstream of American Dam.

Magallanez - Is this information available to stakeholders such as EBID and the El Paso County Water Improvement District?

Finn - You can contact me to request this data. The cross sections were based on information prior to the dredging undertaken during the current non-irrigation season.

Sal Payan - From Vinton to Canutillo there is no levee, just a railroad bed. Is that what you consider the levee? Is that why you have the red line [on the map indicating a noncertifiable segment] in that area?

Finn – Yes. That is not certifiable at this time.

Finn also pointed to noncertifiable areas of the Rectification Project including downstream of American Dam, near the Zaragosa International Bridge, near Akela gaging station, near the Ft. Hancock Port of Entry, almost the entire lower end of the project.

He noted that FEMA will revise flood insurance rate maps for property identified as a flood risk in Dona Ana and El Paso Counties.

Magallanez - Will you fix the deficient segments? Will homeowners pay higher costs because of that?

Finn - FEMA will prepare a flood insurance rate map, have a community meeting, and send letters to affected property owners. I cannot tell you what FEMA is going to do. We provided data. They are in charge of making the maps. FEMA is likely to designate as zone “X” areas where we have certified the levees. Where the levees are not certified, they could give an “A” designation but USIBWC will request “AR.” X zone indicates that our levees protect you so flood insurance will not be required. Zone A designation means that the area is not protected from the 100-year event and will require mandatory flood insurance. We requested of FEMA a Zone AR designation that indicates that levees exist but are in the process of being restored. For AR, mandatory purchase requirements for flood insurance will apply but the rate will not exceed the rate for unnumbered A zones. Questions concerning development of the flood insurance rate maps should be referred to FEMA: Jim Orwat, Project Officer, Department of Homeland Security, FEMA Region VI, james.orwat@dhs.gov, (940) 898-5302 – Office, (940) 898-5195 - Fax.

Bixby - Can you give a ballpark estimate of how many areas were not certifiable because they did not meet freeboard requirement vs. those that were not certifiable due to overtopping.

Kuo - We have the map which shows the entire reach color-coded for extent of freeboard encroachment and levee overtopping.

Bixby - If you had just used the HECRAS model, there would be more deficiencies. Would you expect that if you ran FLO-2D on Rectification, there would be less deficiencies?

O’Brien - It’s valid to say that you would have the same relationship, which shows flood attenuation downstream which was only guessed at in the HECRAS model.

Jorgensen - What is FEMA’s time frame? What is your time frame for correcting the levee deficiencies?

Finn - FEMA was planning for a meeting in March but they need to work with the models and that might be an optimistic schedule. As far as prioritizing levee work, that will come from upper level management at USIBWC.

Bloom - Next Tuesday, Mike Connor of Sen. Bingaman's committee staff will meet with Com. Marin and he wants to talk about the levee certification and possible solutions. I would like a copy of the presentation to give to him.

Finn - We are better off than most agencies responsible for flood control because we have already done the condition assessment.

### FLO 2 D Model Development below Caballo Dam, Canutillo Floodwall and Levee Design

Rong Kuo, USIBWC civil engineer, gave a presentation on this topic. In 1996, the United States Army Corps of Engineers (USACE) conducted hydrologic and hydraulic analyses to determine channel capacity and the cause of channel scarring. The 1996 study has been used by USIBWC as the guideline for flood elevations. At present, FLO-2D has been adopted as the model for USIBWC. USIBWC and USACE signed a Memorandum of Agreement in 2004 to carry out a new hydraulic study using FLO-2D software. The final report was completed in October 2005. He discussed some background for the FLO-2D model, which covers Caballo Dam to American Dam, 105 river miles.

The model addressed scenarios of various floods with return periods from 5 - 100 years. The model assumes a release of 2350 cfs from Caballo Dam. He showed the difference between the 1996 USACE and 2005 FLO-2D modeling, which shows the decrease of peak flows during the 100-year event under FLO-2D. He showed a hydrograph indicating that starting at 30 miles downstream of Caballo Dam, the flood profile is much lower than the USACE 1996 report. He showed inundation maps under existing conditions. The maps showed areas of overtopping and areas of freeboard encroachment. Overtopped areas are marked in red and other color codes indicate various levels of freeboard encroachment.

The most critical reach is in the Canutillo area. Almost the entire reach between Canutillo Bridge and Borderland Bridge is marked in red. Based on the baseline model, we also ran two different models – dredging at select locations and routing the 100-year flood flow with the entire levee system sufficiently high to contain the flood. This helps us determine how high the levee should be built.

Flood control improvements are required in the Canutillo area; these are 14,000 feet of floodwall needed on the east side of the river and about 8,000 feet of levee raising on the west side. Design of improvements will be based on FLO -2D model results.

Magallanez - What were the results of dredging versus not dredging?

Kuo - We looked at areas we dredged. Results show the water surface would drop a certain number but some cross sections show water surface elevation increase with dredging.

Jorgensen - Did you focus on improvements in Canutillo because that's the worst section? Are those the best solutions?

Kuo - We are going to ask a contractor to study options/alternatives. Because the area is constrained by development, a floodwall may be the solution.

Magallanez - None of these models took into account inundation and interaction of the drains. Sometimes the river has backed up into the drains. Was that in the model?

O'Brien - All the calibration we did was based on known databases. For specific storm events in specific areas, the dataset was not available. We modeled all of the gated wasteways as if they were running.

Magallanez – In the past, water backed up in the drainage system so all the flooding came from the drains, an area where the levee system does not extend.

O'Brien - Those localized conditions and issues can be raised with FEMA and they can take that into account for the FEMA maps.

McWilliams - Regarding the conditions in the Canutillo region, what is the reason for the flood risk there?

Kuo - On the east side, the railroad serves as the east levee; we don't have a levee. On the west side, a certain portion of the levee needs to be raised to contain the 100 year flood.

Michelsen - What is the economic justification for restoring it to a 100-year flood event? Do the benefits exceed the costs?

USIBWC - information not available.

Treers - Why was 2350 picked as base flow out of Caballo?

Kuo – The original model run suggested 5,000 cfs constant release from Caballo then Jim O'Brien suggested 2350 cfs as a more realistic constant release.

O'Brien - 5000 cfs constant release from Caballo has only happened 3 times in 67 years. The probability of that level of release during a 100 year event is very low.

#### Status of Canalization EIS and Programmatic EIS

Daniel Borunda, USIBWC Environmental Protection Specialist, gave a presentation on this topic. The need for the Canalization Environmental Impact Statement (EIS) was to evaluate long-term management alternatives for flood control, water delivery, and operation and maintenance (O & M) in a manner that would enhance or restore the ecosystem. The EIS covered Percha Dam to American Dam, 105 river miles.

He showed a table of different alternatives that were analyzed. Levee system improvement was a common element through the three action alternatives. So USIBWC recognized that there were levee deficiencies when the EIS was being developed. He noted that the Final EIS was issued July 2004. We expected a Record of Decision (ROD) in August 2004. We received letters from Gov. Richardson, Sen. Bingaman, various stakeholders requesting us to delay the ROD pending further investigations and stakeholder collaboration.

In April 2005, World Wildlife Fund (WWF), Environmental Defense (ED), and Elephant Butte Irrigation District (EBID) submitted a proposal that had different elements we needed to look at -- a water-based safe harbor agreement, river restoration, habitat studies, and incorporating FLO -2D data.

The Canalization EIS used the HEC-RAS model rather than FLO -2D. The technical investigations we are undertaking are identifying the institutional impediments to habitat enhancements, water right safeguards, water-based safe harbor agreements, which is an agreement that safeguards that landowners' rights when habitat restoration activities create great riparian habitat and endangered species move into that habitat. This sets a baseline so that in times of drought when there is no water to keep that habitat, the landowner who entered into that agreement with U.S. Fish

and Wildlife Service is not penalized. We hope to develop a strategy for habitat restoration activities.

The EIS life span is five years so a ROD must be issued by July 2009. We hope to complete the investigations and issue a ROD in 2008.

The Programmatic EIS, which covered the Rio Grande Flood Control Projects and Tijuana River Flood Control Project, was initiated by the USIBWC. Scoping meetings were held and some studies were done. It was cancelled in June 2005. However, under our new administration, the agency recognizes the need for the programmatic environmental document to further examine our flood control and water delivery issue. We hope to initiate this work this spring. We will not include the Canalization Project. We are also reducing some of the scope for the Lower Rio Grande Flood Control Project since we have already completed some environmental assessments for levee work there.

Bixby - What's the geographic scope of the WWF-EBID project?

Borunda - The entire Canalization Project, Percha Dam to American Dam. We are going to incorporate the FLO -2D results and identify areas for restoration based on that model and updating what was done in the EIS. We are going to try to keep it within the framework of the Canalization EIS. We want to avoid redoing the EIS or undertaking a supplemental EIS. Right now, the estimate is \$20 million for the cost of the levee improvements under FLO -2D.

### Rio Grande Channel Maintenance

Cesar Boisselier, USIBWC, Acting Chief, Operations and Maintenance Division, gave a presentation on this topic. In October 2005 we received a USACE Nationwide Permit 31 for maintenance activities. In December 2005, we initiated the maintenance work. The objective is to maintain efficient water deliveries to irrigation districts, the City of El Paso, Mexico, and to improve operation of our diversion dams.

The types of maintenance activities are bank stabilization, arroyo sediment removal, arroyo realignment, and river channel sediment removal (upstream of diversion dams). Sediment removal at American Dam is 70% complete.

Sediment removal at Mesilla Dam is 100% complete upstream of the dam. Riverbank stabilization is 75% complete. We will place pecan shells on the disposal site to prevent erosion. Maintenance there has not been done since the late 1990s. Another site as a high priority was Trujillo Arroyo. We will do sediment removal and realign the arroyo.

There is also work needed for the Rio Grande Rectification Project. The purpose of the Project is to provide flood control and stabilize the international boundary. Existing conditions of excess sediment and vegetation have restricted stormwater/drainage into the river, and caused a reduction in flood control capacity. This causes drain water to back up into adjacent areas/farmland. It is an international reach and we try to prevent erosion of either bank which might shift the boundary. With drought, there has been less flow, which allows vegetation to grow and deposits sediment. There are ongoing consultations with Mexico. The Programmatic EIS will address the environmental compliance and then we would perform the actual sediment removal.

We are also undertaking rehabilitation of the Picacho Flume, a bridge structure that is part of EBID's irrigation infrastructure, located ten miles north of Las Cruces. It conveys EBID water

across the river. We are rehabilitating the piers in the river channel. The problem is the piers were being exposed due to degradation of the river bed, which threatened the stability of the structure. In September 2005 we completed design of the rehabilitation. Construction started in December 2005 and is 85% complete. It is scheduled to be done by March 1.

Bixby - Is IBWC responsible for maintaining all structures in the river?

Boisselier - We rehabilitated this structure because there was a concern that IBWC was causing the degradation of the river channel so we agreed to rehabilitate the structure.

Magallanez - They have done excellent work on this and other projects. Funding came from a special appropriation when Gunaji was Commissioner. I commend the IBWC for this and other projects.

Bixby - When you said you identified segments that needed maintenance in 2004, what was it based on?

Boisselier - By visual inspection. Every year, our personnel observe the river to identify sites for maintenance. It is not an exact science.

Bixby - Has the FLO -2D model shown a problem with flood capacity in those areas?

Kuo - We ran that scenario assuming dredging upstream of Mesilla Dam. Some cross sections show that water surface elevations are higher after dredging but mostly water surface elevations are lower.

Boisselier explained that the work for the Rectification Project is based on the 1933 treaty with Mexico to maintain the channel at a certain width and depth. A maintenance baseline was submitted to the USACE and the work is to regain the baseline.

### Mesilla Valley Park

Carlos Peña, USIBWC, Acting Chief, Environmental Management Division, gave an update on USIBWC efforts on this project. At the Mesilla Valley Park, USIBWC is working with the park there to transplant wetlands that will be disturbed during road construction. We are also looking at effluent reuse. The Picacho Hills subdivision has asked us if we could use the effluent from that subdivision. We may use it for habitat improvements near that subdivision. We have talked to the City of Las Cruces regarding possible effluent use for habitat improvements.

Magallanez - Will that water go to the river first and then be diverted?

Peña - That's a question we have and we want to involve all stakeholders. We are looking at it from a conceptual point of view.

Magallanez - If it hits the river, it's project water.

### Lower Rio Grande (Texas) Conservation Easements

Carlos Peña continued with a presentation about the Lower Rio Grande Conservation Easements project, located at the end of the Rio Grande, 1200 miles from here. Part of that work there is to remove vegetation near the river. Per agreement with Mexico, we need to pass 250,000 cfs, many times what we would have in the El Paso-Las Cruces region. In the Lower Rio Grande, there are endangered species, ocelot and jaguarundi, two cats of great interest in that area. They thrive in thick habitat, which conflicted with our maintenance project there. There are corridors vital

to these animals and per U.S. Fish and Wildlife Service Biological Opinion, we indicated we would try to obtain easements for wildlife travel corridors, among other things. In late 2002, we obtained some year-end monies to go forward with those easements. We began sending out letters to approximately 300 landowners on the U.S. side and began the process of surveying, appraisal, etc. We also held a public meeting with landowners. Numerous issues arose, including the unwillingness of property owners to cooperate with us. Another issue is that we were working on this project with the USACE when many on their staff were deployed to Iraq or to work on Hurricane Katrina recovery, which put our project on hold. What we are doing now is looking at other measures, instead of purchasing corridors, that could be done. Up here, we have control of the right of way along the river but in the Lower Rio Grande it belongs to private landowners. There is a great reluctance from local citizens in going forward. The problems we encountered down there may be the same up here.

Bixby - Could you not establish a program here where willing sellers would come to you? There's a lot of land for sale in the floodplain. One option could be for them to sell to USIBWC instead of to a developer.

Boisselier - That's an option we could be looking at.

Peña - We are building up our staff in our department so long-term that could be an excellent program we could look at.

#### Public Comment

Kimmel - On the 100-year flood, did they take into account the precipitation on the irrigable ground or the entire watershed?

O'Brien - The entire watershed.

Barrera - Will the maps be available so homeowners will know about the flood insurance requirement?

Rakestraw - That will be up to FEMA. We can make the presentations available from tonight's meeting.

#### Suggested Future Agenda Items

The next meeting will be May 11 in Las Cruces.

Magallanez - Suggests touring the Mesilla Valley Bosque Park in conjunction with the meeting.

Rakestraw - May will be about the time that the final snowmelt and water supply forecast will be available. Maybe Wayne Treers from the U.S. Bureau of Reclamation could give that presentation. The latest inflow forecast is 25% of normal, a very dry year.

Michelsen - He has copies of the publication, *Drought Watch in the Rio Grande*, and will make copies available.

Bixby- Since IBWC was lead for the Sustainable Water Project, maybe we could get an update on City of Las Cruces plans for implementing that project and possibly El Paso if Mike Fahy wants to talk.

Sal Payan - Save the Arroyos work is another suggestion. The Corps of Engineers and EPA



are involved in looking at the impact of development of arroyos that feed into the Rio Grande in terms of what impact the development or use of the arroyos would have on water quality and who's responsible for allowing for that development. There are a a lot of issues in Canutillo and Vinton due to development encroaching on arroyos.

Bixby – There are similar arroyo issues in Las Cruces.

Kimmel - Is there a rating system on the flood control dams due to siltation or holes in them. Who is responsible?

Magallanez - EBID maintains about 27 of them, from Percha Dam to the state line. They have not exceeded their lifespan yet. Magallanez could talk about them at a Citizens' Forum meeting..

Rakestraw - American Dam and International Dam are covered under the Safety of Dams program, which is why we did silt removal

Kimmel - I am referring to the grade control structures.

\*Meeting notes are tentative and summarize in draft the contents and discussion of Citizens' Forum Meetings. While these notes are intended to provide a general overview of Citizens' Forum Meetings, they may not necessarily be accurate or complete, and may not be representative of USIBWC policy or positions.