

LOWER RIO GRANDE CITIZENS FORUM

August 10, 2016

USIBWC Field Office

Mercedes, TX

***Tentative Meeting Notes**

Board Members in Attendance:

Rick Cavazos, Mayor of Los Indios
Lawrence Drake, Drake Farms
Joel Espinoza, Court Coordinator, community volunteer
Ricardo Garcia, Mercedes City Manager
John Goolsby, USDA Research Entomologist
Sonny Hinojosa, Hidalgo County Irrigation District No. 2, President of Texas Irrigation Council
Sonia Lambert, Cameron County Irrigation District #2, Vice Chair of Rio Grande Regional Water Authority
Henry Leo, Patrol Agent in Charge, Harlingen Border Patrol Station
Bill Lewis, civil/environmental engineer (retired)
Omar Rios, City of Harlingen Environmental Services

USIBWC Staff in Attendance:

Juan Uribe, Area Operations Manager
Frank Martinez, Assistant Area Operations Manager
Liliana Maya, USIBWC
Joel Espinoza, USIBWC
Ramon Navarro, USIBWC Falcon Dam Area Operations Manager
Eli Mendoza, USIBWC Falcon Dam Field Office
Lauro Cantu, USIBWC Falcon Dam Field Office
Leslie Grijalva, USIBWC Headquarters
Billy Finn, USIBWC Headquarters

Mexican Section Staff in Attendance:

David Negrete, Representative in Reynosa
Alfonso Carmona, Reynosa office

Members of the Public in Attendance:

Jim Darling, Rio Grande Regional Water Authority
Georgiana Bermea, Texas Commission on Environmental Quality
Carl Boyd, National Association of Retired Federal Employees
Gerardo Garcia, Tamaulipas irrigation district
Sam Sugarek, Nueces River Authority
Hugo Gonzalez, International Consulting Engineers
Bill Friend, City of La Feria
Marco Salinas, Irrigation District 025, Tamaulipas
Rubio Diaz Rangel, Irrigation District 025, Tamaulipas
Jorge Alcala, Dannenbaum Engineering
Michael McCall, Brownsville PUB

Anissa Guajardo, US Rep. Filemon Vela
Javier Mendez, City of Harlingen
Juan Degollado, Brownsville PUB
Leah McIntosh, Brownsville PUB
Troy Allen, DLID
Volmer Imschwieder, Citizen
Florence Huff, Citizen
Sarah Merrill, Texas Master Naturalists
Kadrieka Maiden, Nedian Consultants/IBWC Meeting Coordinator
Adrian De la Rosa, Congressman Hinojosa's Office

Welcoming Remarks:

At 3:05pm Larry Drake, Co-chair, convened the Citizens Forum meeting. He began with a short welcome and introduction, then asked the public attendees and the board to make introductions. Mr. Drake introduced and turned the meeting over to the first presenter – Leslie Grijalva, Environmental Protection Specialist.

Presentation One: Water Quality in the Lower Rio Grande– Leslie Grijalva, Environmental Protection Specialist - USIBWC Texas Clean Rivers Program:

Ms. Leslie Grijalva began the presentation with an introduction on the Texas Clean Rivers Program (CRP). A state fee-funded program in every river basin in Texas. Texas Commission on Environmental Quality (TCEQ) - USIBWC Partnership began in 1998. USIBWC collects water quality in the Rio Grande and Pecos Rivers including water quality monitoring, assessment and public outreach. CRP legislation mandates that each river authority shall submit quality-assured data collected in the river basin to the commission. Quality assured data in the context of the legislation, means data that complies with the commission rules for water quality monitoring programs, including rules governing the methods under which water samples are collected and analyzed and data from those samples are assessed and maintained. Because of the international nature of the Rio Grande, the State of Texas contracted with the U.S. Section of the International Boundary and Water Commission in October 1998 to implement the CRP for the Rio Grande in its 1,254-mile international boundary section.

The goal of the CRP is to maintain and improve the quality of water within each river basin in Texas through an ongoing partnership involving the TCEQ, river authorities, program partners, other agencies, regional entities, local and state governments, industry, and citizens. The program uses a watershed management approach to identify and evaluate water quality issues, establish priorities for corrective actions, and work to implement those actions.

The Lower Rio Grande Sub-basin occupies the southeastern portion of the South Texas Brush Country region. Groundwater in the area is brackish, requiring construction of a desalinization plant and the possible construction of more plants in the future. Studies are being conducted on the desalinization of groundwater and ocean water to supplement drinking water supplies in the Lower Rio Grande Valley due in part to the high salinity in the water in this region. Currently, research is also being done on potential water storage solutions, such as construction of a weir near Brownsville. Most agricultural and urban discharges do not enter the Rio Grande in this reach, as they are diverted to canals that

ultimately empty into the Gulf of Mexico; however, excessive flows that exceed the capacity of the canals can be routed to the Rio Grande.

The USIBWC has multiple dams along this stretch of the river: Falcon Dam, Anzalduas Dam, and Retamal Dam. Falcon Dam and Reservoir serve for conservation purposes, and water is released during scheduled water releases to both countries, as well as during severe weather-related occurrences (hurricanes, tropical storms) that require large amounts of water to be carefully released to prevent flooding of the urban areas downstream. Anzalduas and Retamal Dams are diversion dams for water accounting purposes, but both can also be used for emergency flooding situations as well. The Lower Rio Grande Valley also has an emergency floodway that is meant to divert floodwaters from the Rio Grande to the Gulf of Mexico during flood events, which was last used in 2010 following Hurricane Alex.

The USIBWC CRP has 5 partners in the lower Rio Grande: the USIBWC Falcon Dam field office, USIBWC Mercedes field office, Brownsville Public Utilities Board, University of Texas Rio Grande Valley- Brownsville, and University of Texas Rio Grande Valley- Edinburg. The partners monitor 17 stations in three segments providing field, flow and water quality data for the program.

During the past year, the USIBWC CRP continued to maintain its large network of water quality stations. CRP and TCEQ gain an understanding of the conditions of the water quality through routine monitoring, which is performed at fixed locations at regular intervals throughout the year. Routine monitoring helps us understand questions about how the river can be used.

Ms. Grijalva explained that water quality and sediment samples are collected at about 70 routine monitoring stations. When these samples are collected for laboratory analysis, personnel also make field observations to record conditions at the time the sample was taken. Field observations include things such as weather conditions at the time of collection, recent rain events in the area, water color, and other general notes related to water quality and stream uses. Important field measurements are made using different pieces of equipment. Measurements include: water and air temperature, water depth, Secchi disk, stream flow and how that flow compares to the normal flow for that water body.

The CRP coordinates all the data received from the partners, in the form of field data, and the laboratories, in the form of lab reports. The staff checks the data against rigorous quality assurance criteria, consolidates all the data into usable reports, and sends the data to the TCEQ to be reviewed. Once the TCEQ reviews these reports, the data is uploaded into the state's database, called Surface Water Quality Monitoring Information System (SWQMIS).

Water Quality Impairments and Concerns in the Lower Rio Grande Basin include: Segment 2303, at Falcon Dam in Starr County to the confluence of the Arroyo Salado (Mexico) in Zapata County, up to normal pool elevation of 301.1 ft. Segment 2303 has no impairments, but there are multiple water quality concerns for the area. Over the years, routine monitoring has shown concerns for ammonia, nitrate, total phosphorus, and toxicity in water.

Segment 2302 is described from a point 6.7 miles downstream of the International Bridge in Cameron County to Falcon Dam in Starr County. It is the segment located just below International Falcon Reservoir, stretching to the tidal segment of the Rio Grande and is approximately 231.5 miles long.

Both Segment 2302 and 2302A are currently impaired for bacteria, each in one assessment unit. There are numerous concerns for near non-attainment of water quality standards and/or based on screening levels in this area as well. Segment 2301 is from the confluence with the Gulf of Mexico in Cameron County to a point 6.7 miles downstream of the International Bridge in Cameron County and is approximately 48.31 miles long.

The USIBWC CRP will continue the routine monitoring for a full assessment in 2016. The program is currently a participant in the Lower Rio Grande Water Quality Initiative, a pilot binational project that aims to look at bacteria and salinity in the Lower Rio Grande Basin and establish protocols to deal with them.

Regarding salinity in the Lower Rio Grande, high salinity has been reported in some water deliveries made to farmers. Salinity may lead to the need to increase water deliveries. Higher volume of water is needed to dilute the salinity of the water. There were questions and concerns about salinity from local stakeholders and irrigators. CRP looked at data from the routine monitoring stations in the area in response to the concerns. Looked at trends in the data at our stations, both upstream and downstream of the area of concern. Total dissolved solids results show data is not consistently showing increasing salinity. Salinity fluctuates between sites going downstream, currently meeting the standard so there is no impairment at this time. It may be a non-point source problem rather than a point source. Rainfall, storm water runoff and agricultural return flows may be contributing factors. CRP needs to look at additional possibilities and additional monitoring or stations. A special study on salinity in the area is being considered.

Data shows increasing bacteria values below Roma all the way to Brownsville. Rainfall and storm water runoff, and agricultural return flows may all be contributing factors. Urban areas have grown and increasing population may also be contributing to the issue. The Lower Rio Grande Water Quality Initiative (LRGWQI) final report will facilitate identifying any point-source issues. P

projects in the Lower Rio Grande addressing bacteria and water quality include: The Binational project and the Pilot project both will address water quality problems and concerns in the Lower Rio Grande/Río Bravo below Falcon Reservoir (Segment 2302) through binational cooperation, looking at bacteria and salinity. The goal is to improve water quality in the southernmost stretch of the Rio Grande. Additional water quality concerns may also be addressed (e.g. dissolved oxygen). Serve as an institutional model for addressing additional trans-boundary water quality issues in other portions of the Rio Grande.

Terms of Reference signed by the Principal Engineers of both Sections of the International Boundary and Water Commission include monitoring procedures that were approved by both countries. Laboratory parameters and methods were selected and agreed upon by technical experts from both countries. Sampling sites were chosen and agreed upon by both countries, LA-QUAL model approved for use by both countries as well. Both countries exchanged data from the water sampling events and the final report will be written with input from both countries.

The presentation concluded with Ms. Grijalva highlighting current projects status. Current projects are the final binational sampling, this took place in April 2016, previous samplings in July 2014, March 2015, August 2015, November 2015. A binational technical work group meeting was just held

in June, in Austin, TX. The final items in preparation for the report and LA-QUAL model were discussed. Project Quality Assurance Plan ends August 31, 2016. Action items after this date will be analyzing the data from the last sampling event and putting together the final report for the project. The final report expected by December 2017. As part of the initiative, a reconnaissance survey was performed to document all inputs and outputs along the Rio Grande on both sides of the border. The sampling stations were specifically selected to make sure we captured everything documented in the survey. Many of the stations in the initiative are long-time monitoring stations under the U.S. Section's Texas Clean Rivers Program.

The presentation ended with questions from the public.

Questions: Do you all know the source of the bacteria?

Answers: We're not sure but the Lower Rio Grande Water Quality Initiative currently being conducted may be able to give us some answers when it's concluded.

Question: Are there pressing issues as you continue to monitor the basin?

Answer: No, not at this time but there is a report scheduled to be released in late 2017.

Question: Do you all monitor the Devils River, or does that fall out of your jurisdiction?

Answer: The Devils River does fall within the Rio Grande basin. My presentation today only focused on the lower part of the basin, but the monitoring is mainly conducted by the TCEQ Midland office.

Questions: What's being done to improve the data of the basin?

Answer: The plan is to come up with something similar to a watershed protection plan.

Presentation Two: Status of Mexican Water Deliveries to the United States Pursuant to the 1944 Water Treaty - Billy Finn, Chief, Water Accounting Division USIBWC:

Mr. Finn began with the mission, *The International Boundary and Water Commission, United States and Mexico, is responsible for applying the boundary and water treaties between the two countries and settling differences that arise in their application.*

He went on to present the Five-Year Cycle Delivery Basics of the 1944 Treaty. Mexico has the rights to two-thirds of the flows that feed into the Rio Grande from the six major tributaries that enter from Mexico: the Conchos, San Diego, San Rodrigo, Escondido, and Salado Rivers and the Las Vacas Arroyo. 1/3 shall not be less, as an average amount in cycles of 5 consecutive years, than 350,000 acre-feet annually (1.75 million acre-feet [maf]). The previous 5-year cycle began 10/25/10; Mexico had until 10/24/15 to deliver 1.75 maf. If Mexico fails to meet its minimum flow obligations for a five-year cycle because of "extraordinary drought" it must make up the deficiency during the next five-year cycle. Minute 234 established that Mexico may repay a water debt using three sources of water: (1) excess water from its tributaries; (2) a portion of its allotment from its tributaries; or (3) a transfer of its stored water in the international reservoirs. Other exceptions to the delivery obligation include: a serious accident and when the US conservation capacity fills in the reservoirs, all debts are

canceled and a new cycle begins (did not occur). If a cycle ends in deficit, Mexico repays in the next cycle (did occur). It is anticipated that the final water accounting may indicate that Mexico met its annual deliveries in the cycle's fourth year and was close to meeting the delivery target in the fifth year. The US receives all flows from Rio Grande tributaries in the United States and one-third of flows from the six Mexican tributaries.

How to share water has long been a complex issue for the U.S.-Mexico border region and in the broader U.S.-Mexico relationship. The two countries share a nearly 2,000-mile border. Multiple rivers cross the border or form the border at various points. The principal shared river basins are:

- Colorado River, which is predominantly in the US, and crosses the Mexican border on its way to the Gulf of California, and
- Rio Grande, with major tributaries in the US and Mexico and whose riverbed is the U.S.-Mexico border in Texas

Mr. Finn went on to present how the previous cycle's water debt was paid by Mexico. Demands for water in the southeastern Rio Grande basin exceed average supply; it is an over-allocated basin. This imbalance became acute during the 1994-2003 drought. During that drought, the water supply for U.S. agriculture in the Lower Rio Grande basin averaged 78% of the full allocation from 1994 to 1996, and 53% from 1997 to 2004. Currently, Texas water users, other than priority water users that generally receive their full water allocations, can expect to receive on average 70% of their water allocation in average water years. A significant cause of the missed delivery for the five-year cycle stems from a deficit of more than 249,000 AF of the annual 350,000 AF target that occurred during the second year of the cycle—that is, deliveries from Mexico were less than 30% of the annual target for the October 2011-October 2012 period. Although it is anticipated that the final accounting may indicate that Mexico was close to or exceeded the 350,000 AF annual delivery target in the last three years of the cycle, Mexico did not meet its cumulative requirement of 1,750,000 AF for the five-year cycle. Notably, in the fifth year of the cycle, Mexico delivered approximately 100,000 AF of water from supplemental water sources contemplated in the treaty as part of its reported efforts to reach the 350,000 AF annual targets.

In Austin on June 28th, Mexico's Deputy Director General for Mexico's National Water Commission (Conagua) reported to the U.S. delegation:

Mexico has completed and calibrated a RiverWare model to support domestic regulation and Treaty compliance. Agreement to share the RiverWare water management model with the United States has been reached.

USIBWC will pursue consideration of US water rights under the Treaty in Mexico's annual allocation process and use of naturalized flow to quantify annual delivery volumes to the United States, thus assuring equitable distribution of Rio Grande water as envisioned by the Treaty. Close communication with our Texas technical and political representatives has occurred throughout the process.

The 1944 Water Treaty set procedures for apportioning water downstream of Ft. Quitman, between the U.S. and Mexico. Both Sections of the Commission perform these accounting procedures. The U.S. Section is replacing present accounting method with a RiverWare model and AQUARIUS database (present methods are 30+ years old), allowing stakeholders visibility into the accounting

process and user friendly. Final testing consists of replicating the past two years of monthly accounting data. This model will run concurrently with old methods until satisfied results are correct under a variety of conditions.

The presentation ended with questions and comments from the public.

Question: Where is IBWC working on levee maintenance in Santa Rosa?

Answer: Yes, IBWC has cleared, mowed and applied herbicide on levee crown in the area of Santa Rosa. We are currently working on Segment 1 and 3. We are clearing, mowing, and applying herbicide.

Suggested Future Agenda Items:

- Presentation from Texas Parks and Wildlife on the Mussels species in Texas.
- A presentation on the erosion projects in Harlingen, Texas.
- Presentation on status of the levee projects

Meeting adjourned at 4:53PM

*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.