

Colorado River Citizens' Forum
Yuma, Arizona
May 15, 2007
***Tentative Meeting Notes**

Board Members in attendance:

Brian McNeece, Educator and community volunteer
Wade Noble, Irrigation District Attorney
Tom Davis, Yuma County Water Users Association
Kevin Eatherly, Yuma Crossing National Heritage Area
Stella Mendoza, Imperial Irrigation District
Bill Plummer, Yuma Mesa Irrigation and Drainage District
Richard Ryan, San Diego State University
Mark Watson, City Yuma Administrator
Jose Angel for Nancy Wright, California Regional Water Quality Control Board

Board Members absent:

Cary Meister, Yuma Audubon Society

USIBWC Staff in attendance:

John Turner, Yuma Office
Anna Morales, Yuma Office
Sally Spener, El Paso Office

MXIBWC Staff in attendance:

Francisco Bernal, Mexicali office

Members of the public in attendance:

John Turner, USBR retired
Jack Simes, USBR
Jim Cherry, USBR
Sal Teposte, USBR
Cindy Hoeft, USBR
William DuBois, California Farm Bureau
Paul McAleese, USBR retired
Charles Flynn, Yuma Crossing Heritage
Tillie Walton, Fred Phillips Consulting
Fred Phillips, Fred Phillips Consulting
Mark Winterowd, Citizen
Sam Spiller, U.S. Fish and Wildlife
Jim Davey, Davey and Cairo Engineering
Michael Truder, Bureau of Land Management
Bruce Rittenhoue, Bureau of Land Management
Joyce Lobeck, Yuma Sun
Sam Rideshouse, Citizen
Carlos Dominguez, U.S. Border Patrol
Bruce Goff, AMEC

Welcome and Introductions

John Turner welcomed the attendees and asked the Board to introduce themselves.

Overview of IBWC Projects and Citizen's Forum Board Responsibilities, Salle Spener, Public Affairs Officer, USIBWC, El Paso

Sally gave a PowerPoint presentation on the following:

IBWC Structure:

- There is a United States and Mexico Section.
- Established in 1889 to address issues when boundary rivers shifted.
- Each Commissioner appointed by his respective president
- Staff operate projects, including joint operation of dams
- Decisions of the Commission shall be recorded in the form of Minutes
- Minutes are subject to approval by the Governments (State, SRE) and are a binding agreement of the Commission. Currently we have 312 Minutes of the Commission.

Mission of USIBWC: Our mission is to provide boundary, water and environmental solutions along the United States-Mexico border region through leadership, binational cooperation, and future sustainability in a manner that is responsive to stakeholders.

Convention of 1906: provides for the distribution between the United States and Mexico of the waters of the Rio Grande in the international reach of the river between the El Paso-Juárez Valley and Fort Quitman, Texas. U.S. to deliver 60,000 acre-feet per year.

Other Boundary Treaties:

- Convention of 1933/Rio Grande Rectification Project – Stabilize the international boundary in the El Paso-Juarez Valley
- Chamizal Convention (1963) – Relocated the Rio Grande in a new concrete lined channel in El Paso-Juarez. The Convention resolved the 100 year old boundary problems at El Paso, Texas/Ciudad Juárez, Chihuahua, known as the Chamizal Dispute.

1970 Boundary Treaty: resolved all pending boundary differences between the two countries, and provided for maintaining the Rio Grande and the Colorado River as the international boundary.

- IBWC to maintain the Rio Grande and Colorado River as the international boundary
- Boundary is middle of the channel occupied by normal flow or middle of the channel which in normal flows has the greatest average width over its length
- IBWC to delineate the international boundary on maps
- IBWC may stabilize or rectify the channel

1944 Water Treaty:

- In the Colorado River, U.S. to deliver to Mexico a volume of 1.5 million acre-feet per year
- When there are surplus waters, U.S. to deliver to Mexico a total volume of up to 1.7 million acre-feet per year
- In extraordinary drought, Mexico reduced in proportion to U.S.
- Mexico to deliver annual average of 350,000 acre-feet to U.S. in cycles of five years
- U.S. allotted 1/3 of water arriving in Rio Grande from 6 Mexican tributaries
- Flows from unmeasured tributaries shared 50-50
- Two international storage dams on the Rio Grande

Colorado River forms 24 miles of the international boundary.

The Wellton Mohawk Bypass drain built to meet salinity requirements of the Colorado River deliveries to Mexico. This drain bypasses saline drainage waters to the Cienega de Santa Clara.

Morelos Dam: Located west of Yuma near Algodones

- Constructed in 1950
- 1400 feet long
- 20 gates
- Diverts Colorado River water to Mexico
- Mexico covers all costs
- Current issue with the dam is the sedimentation of the spillway. Currently working on acquiring permits for the project to clear the sedimentation.

Colorado River International Task Force established in 1990 with five work groups: Task force includes participation of Bureau of Reclamation, Mexico's National Water Commission (Conagua).

- Sediment – USBR has worked closely with USIBWC and have removed tremendous amount of sediment in the Colorado River. Most of the sediment has been deposited in Mexico.
- Colorado River Salinity Control - Minute 242 (signed in 1973) regulates the salinity of water delivered to Mexico. Water delivered to Mexico must be similar in quality to water delivered to U.S. users at Imperial Dam. Wellton Mohawk Canal bypasses saline flows to the Santa Clara Slough in Mexico. Desalination plant in the U.S. can be made operational in order to meet the requirement. Additional pumps and channels at SIB reduce spikes.
- Carrying capacity and boundary preservation - Studies for long-term channel capacity improvements, maintain the river channel as the international boundary. Project could include new river alignments, dredging, and levee work.
- Colorado River Delta - Minute 306 adopted. Framework for U.S.-Mexico cooperation on Colorado River Delta ecosystem.
- All-American Canal Lining - Located parallel to the border. The project is to line a portion of the canal to conserve water for U.S. users. Mexico has expressed concern on the potential impact on groundwater seepage to Mexico. Mexico is opposed to the canal lining and has expressed that through the MXIBWC. Issue has been the subject of consultations within the IBWC.

New River: Flows from Mexicali north to U.S. through Calexico to Salton Sea

- Water quality a longstanding concern
- New wastewater treatment plant in Mexicali is improving water quality. It's in testing mode right now and should be fully operational in a couple of months.
- Other Proposals: Trash screen at border, create wetlands to clean the water or encase the river in Calexico.

Aquatic weeds are another issue in the Colorado River. It comes and goes depending on the conditions.

Working with domestic agencies in the U.S. as well as the Mexican section to address some of these issues.

Maintenance of Boundary Monuments:

- Monuments: Monument 1 is the first monument located in El Paso/Ciudad Juarez. The Rio Grande forms the border 1,254 miles then the monuments on the land boundaries. Monument 258 is the last monument and is located in California off the Pacific Ocean. IBWC is the agency that officially determines where the boundary is.
- Border Fence: Plans for hundreds of miles of fence along the land and river boundary. Per 1970 Boundary Treaty, fence may not obstruct or deflect the normal or flood flows of the river. USIBWC requires monument access and line of sight between the monuments so we can demarcate the boundary.
- Stormwater concerns on land boundary.

Other Projects within USIBWC:

- Upper Rio Grande Projects: Canalization Project is a water delivery and flood control project in Southern New Mexico and El Paso, TX. We maintain that project so deliveries can be made to Mexico in accordance to the 1906 Treaty.
- Chamizal Project which is the boundary stabilization project through central El Paso/Ciudad Juarez
- Two diversion dams: American Dam in El Paso which diverts water into the U.S. irrigation canal and just down stream is the International Dam which diverts water into the Mexico irrigation canal.
- Other Flood Control Projects:
 - Small one in Presidio, TX
 - Tijuana River
 - Lower Rio Grande
 - Hidalgo and Cameron Counties, TX
 - 270 miles of levees
 - 2 diversion dams
 - Upgrade of Rio Grande levees is underway
- International Storage dams:
 - Amistad Dam (Del Rio, TX)
 - Falcon Dam (Falcon Heights, TX)
 - Purposes:
 - Flood Control
 - Recreation
 - Hydroelectric Power
 - Water Supply
- Sanitation Projects: There are 3 international wastewater treatment plants
 - San Diego, CA which treats wastewater from Tijuana
 - Nogales, AZ which treats wastewater from Nogales, AZ and Nogales, Sonora MX
 - Nuevo Laredo, Tamps which treats wastewater from Mexico.
- International Bridges and Border Crossings: International bridges (34+)
- Border Crossings/Ports on the land boundary (23+)
- Crossing of utility/service lines (43+)
- Review border infrastructure projects to ensure no deflection of surface water

Citizens' Forum Program: The program was established in 1999

- USIBWC has 5 Citizens' Forum Boards:
 - San Diego, CA
 - Colorado River (Yuma and Imperial Counties)
 - Southeast Arizona (Cochise and Santa Cruz Counties)
 - Upper Rio Grande (El Paso and Las Cruces area)
 - Lower Rio Grande (Hidalgo and Cameron Counties, Texas)
- Purpose of the forum is to facilitate the exchange of information between the USIBWC and the local community regarding ongoing and future USIBWC projects in the area.
- The Citizens' Forum is intended to bring together community members enabling the early and continued two-way flow of information, concerns, values, and needs between the USIBWC and the general public, environmentalists, government agencies, irrigation districts, municipalities, etc.

Board member duties:

- Attend public meetings approximately four times per year alternating in Yuma and Imperial Counties
- Board term is for two years
- Board members are expected to be available to the public to facilitate the exchange of information
- Review and comment on technical documents and activities associated with USIBWC projects in the area
- Discuss plans and issues related to ongoing and future USIBWC projects
- CRCF is not a federal advisory board; goal is to exchange information and to receive feedback from a diversity of viewpoints
- Members serve as volunteers. There is no reimbursement for expenses.

Leadership: Two Co-Chairs

- USIBWC Co-Chair
 - Yuma Project Manager John Turner
- Community Co-Chair
 - Selected by the board
- Co-chair will chair every other meeting. Rely on Co-chair on administrative issues to provide guidance, agenda item prioritizing, meeting preparations and location.

Board members chose to select Co-Chair during this meeting.

Mr. Bill Plummer was nominated and accepted to serve as the Co-Chair.

Minutes and available presentations will be available on the USIBWC website

www.ibwc.state.gov

Restoration of Hunter's Hole on the Colorado River, Fred Phillips, Fred Phillips Consulting and Charles Flynn, Executive Director of the Yuma Crossing National Heritage Area

Mr. Flynn gave a brief introduction on how the project was brought about. About 3-4 months ago a private foundation approached the Heritage foundation to look at this area. It was based on the success of the Yuma East Wetlands Project. The East Wetlands consisted of 1,400 acres; 350 acres cleared of non-native vegetation and cut historic back channels. One of the benefits of the East Wetlands Project is that it has helped law enforcement. Law enforcement officers have seen significant drop of illegal activity in the area. Heritage works to build consensus, get an agreement and drive the project to get done. This is an area of sensitivity along the border. Working with various stakeholders, Yuma County Sheriffs, US Bureau of Reclamation,

federal and state stakeholder and environmental groups. Need to have both border security and environmental restoration in this project.

Fred Phillips gave a PowerPoint presentation of the restoration plan.

This plan came about through the Alternative Restoration Plan through the Environmental Defense put together for the limitrophe section and is still in draft form. This area has been chosen as the pilot project because 1) it is a big problem for the US Border Patrol and Sheriffs Office; 2) it's been cherished in the Yuma community for hunting, fishing and recreation for many years; 3) most environmentally developed spot as far as having valuable habitat.

Hunters Hole area is about 2-3 miles from the southerly international boundary.

Excellent Native Habitat Maintained In Limitrophe:

- Inadvertent Overruns
- Dam Seepage
- Agricultural Returns
- Ground Water Inflows

Challenges facing Hunters Hole Restoration:

- Intense Illegal Activity
- Public Safety
- Water Needs
- Boundary Delineation
- Ecological Degradation
- Protection of Existing Habitat

Hunters Hole

- Existing wetlands but are degrading quickly
- Has large area of native habitat
- Is federal land
- Arizona Game & Fish and Bureau of Reclamation have a restoration plan that was developed 10-15 years ago needing to be implemented.
- Major security issues in area

Restoration Plan

- Concept Design and trying to reach consensus. Have presented this plan in numerous meetings. Have a broad amount of support. Currently getting letters of support for the concept design.
- Fundraising, writing grants.
- Design and permits. Private organization considering funding full design and all the compliance.
- Implementation goal, as early as January.
- Combine dual goals
 - Security
 - Wildlife Habitat

The conceptual plan design consists of installing groundwater pump inlet, excavate channel through Hunters Hole and existing wetlands, maintain the cottonwood/willow areas (30 acres) by hand and mechanical clearing. Clear salt cedar and revegetate with mesquites (40 acres) and seeded with alkalali sacton. Extend existing enforcement levee around the entire Hunters Hole and create protection. Will have taller observation points along the levee and at the base, have a road so US Border Patrol can do their enforcement on the outside and actually protect what is inside.

Gave a review of the Yuma East Wetlands Pilot Project. Work completed in 3.5 years
Showed numerous photos of before and after results of the East Wetlands project with excellent results.

Q: How many acres is the Hunters Hole project?

A: Hunters Hole is about 130 acres; whole pilot project is about 300 acres

Q: How much wetlands area are you planning to have?

A: The initial concept is about 20 surface acres of water, 15 acres marsh land/wetlands and the rest riparian habitat.

Hunters Hole Restoration Plan.PPT will be available at:

http://www.ibwc.state.gov/Citizens_Forum/CF_Colorado.html

Yuma Desalting Plant Test Operations, Jim Cherry, Yuma Area Manager, U.S. Bureau of Reclamation

Plant has been operating since March 1, 2007. Plant hasn't run in over a decade. A reporter 8 weeks ago came to Yuma and did an excellent report describing the Desalting Plant. (listen to the radio piece [Yuma 'Boondoggle' May Prove Useful](#) by Ted Robbins, NPR News)

The Yuma Desalting Plant (YDP) is a reverse osmosis desalinization plant. At full capacity, the plant can produce 85 million gallons per day of pure water. The YDP was constructed to receive and process water too saline to discharge directly into the Colorado River. That water is from the Wellton Mohawk Irrigation and Drainage District about 30 miles to east from Yuma. Presently the water from the Wellton Mohawk is 2500 parts per million (PPM) and tap water in Yuma is 600-700 ppm. Current product water is less then 150 ppm discharged into the Colorado River. Usually the product water from these reverse osmosis plants is used for drinking or chemical re-agents. YDP discharges into river for inclusion in water deliveries to Mexico. U.S is obligated under Treaty to deliver 1.5 million acre-feet to Mexico every year. The quality of water that crosses into Mexico has to be nearly the same as the river water 20 miles upstream at Imperial Dam. Every acre-foot that is treated at the plant is an acre-foot that helps stretch our water supplies.

YDP operated for eight months in late 1992 and early 1993. During the Gila floods in 1993 the canal that transported the water to the plant was damaged. By the time the canal was fixed up, we didn't need to replace the water. However, with the sustained drought, the renewed interest in operating the YDP again has come about. The plant will not solve the drought but it can help.

In 2006, the Bureau of Reclamation Commissioner announced that it would conduct a demonstration run for 90 days at about 10% of full capacity and established five objectives:

- 1) To show the plant can run.
- 2) Refine the operating and maintenance cost of the plant
- 3) Demonstrate the plant's use of current technologies
- 4) Accelerate the overall plant readiness
- 5) Measure the water quality impacts in the Cienega de Santa Clara

Demonstration will end on May 31, 2007. With this run, the plant has added 3,100 acre-feet to the Colorado River and has helped preserve the Lower Colorado River releases from Lake Mead.

Have collected numerous of data and have just begun to process data, by the end of year this data will help with the estimated cost of operating plant.

Q: Is the plant operational 24/7?

A: Yes.

Q: What is the typical cost per acre-foot of bypassed water at full plant operation?

A: Estimated at \$340-450 per acre foot.

Q: How many megawatts is the plant using at full plant operation?

A: 20 megawatts using bypass water and 7 megawatts using ground water.

Q: Have you estimated the cost of treating groundwater?

A: Its approximately \$200-300 less.

Q: Are there any preliminary results of the effects on the Cienega?

A: Too soon, still gathering information.

Q: Does U.S. have water Treaty obligations to deliver to the Cienega?

A: No, just the salinity requirement.

Q: Are you using original membrane in your test run?

A: Yes

Q: How many membranes?

A: 10,000 membranes, for the run using only 2,000 membranes.

Q: What is the salinity of the effluent and what percentage of the water is effluent?

A: The original design of the plant was to let 73% water go through, 27% concentrate. With this run we have been able to increase that to 85%, 15% of the water is concentrate and have been running 9,000-10,000 PPM.

Public Comments

Q: The draft plan Fred referenced on the limitrophe, the 1973 boundary is not the agreeable boundary by many. Is there an updated map?

A: That is an issue that the Commission is working on.

Q: The boundary has been referenced as the 1970 boundary but on USGS maps it's noted as 1973 boundary map, what is the difference?

A: The Treaty was established in 1970, the map was adopted in 1973.

Board Discussion

No other discussions

Suggested Future Agenda Items

Progress of All American Canal

Salton Sea Restoration

Mexicalli II status

New River water quality

If there are other issues/projects you would like to hear, please email the Yuma IBWC office at annamorales@ibwc.state.gov or sallyspener@ibwc.state.gov

Next meeting scheduled in August from 4-6pm in Imperial County, location TBD.

Thank you to all the presenters for their presentations.

*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.