

Colorado River Citizens Forum
Yuma County Development Services, Aldrich Hall
Yuma, AZ 85364
January 22, 2020
***Tentative Meeting Notes**

Board Members in attendance:

Meghan Scott, Yuma County Agriculture Water Coalition
Matt Dessert, Imperial County Air Pollution Control District
Tom Davis, Yuma County Water Users Association
Jim Buster, Southwest Resource Strategies
Phil Rosentrater, Salton Sea Authority
Brian McNeece, retired Professor
Frank Ruiz, Audubon Society
Mark William White, Fort Yuma Quechan Indian Tribe
Roberta (Bobbi) Stevenson-McDermott, Yuma Natural Resource Conservation District Member, Arizona
Association of Conservation Districts Board Member

USIBWC Staff in attendance:

Anna Morales, Area Operations Manager, USIBWC, Yuma, Arizona

28 Members of the public in attendance

Welcoming and Introduction Remarks:

At 4:00 p.m. Citizens Forum Co-Chair Anna Morales convened the meeting by welcoming the group and provided a brief description of the meeting agenda items.

Board members and audience briefly introduced themselves.

Presentation One:

[The Colorado River Basin Salinity Control Program-Reducing Downstream Damages by Millions of Dollars;](#) Don A. Barnett, Executive Director, Colorado River Basin Salinity Control Program

Mr. Barnett provided an overview of the Colorado river Basin Salinity Control Program. The Colorado River is more than 1,450 miles long (2330 km), drains 246,000 square-miles (1/12 of the continental US), has an annual flow of about 16 M acre-feet, had an annual salt load of 9-10 million tons.

The Colorado River supplies water to 40 million people in the United States and 1.5 million acre-feet is delivered to Mexico annually. Nearly 5.5 million acres in the U.S. and 0.5 million in Mexico are under irrigation.

This federal-state salinity program was authorized in the mid-1970s. Over the years, more than \$1 billion has been expended to improve the water quality of the Colorado River. The Program has reduced the annual salt load in the Colorado River by about 1.3 million tons, which has improved the average salinity concentrations and reduced the downstream damages to water users by several hundred million dollars per year.

Overview of the Program's history:

During the early 1970's, the salinity of the Colorado River was rising. There were significant concerns between the United States and Mexico water users.

In 1973 , the Colorado River Basin Salinity Control Forum (Forum) was created. Conference on the Matter of the Pollution of the Interstate Waters of the Colorado River and its Tributaries concluded in 1972.

These concerns, along with the 1972 Amendments, led the seven U.S. Colorado River Basin states to work with various agencies for the formation of the 1974 Colorado River Basin Salinity Control Act. Title I deals with the improved quality of water Mexico receives from the U.S. and Title II deals with water quality in the U.S.

The U.S. Environmental Protection Agency (EPA) required standards. In 1975, salinity standards were established for the Colorado River. The standards are reviewed and/or updated every three years.

Salinity Control Program Efforts:

- Non Point Source activities
 - Lining and piping of canals and ditches (Reclamation)
 - \$9-10 mil a year appropriation
 - Basin wide Program
 - \$9M Appropriation
 - \$3.9M Cost Share
 - On farm irrigation efficiency programs
 - Environmental Quality Incentives Program (EQUIP)
 - \$12 million a year appropriations
 - \$5.2 M cost share
 - BLM Improvements
 - Aquatic Habitat Management Program (Soil Water and Air Program)
 - \$2M Appropriation
 - \$0M Cost Share
- Point Source activities
 - State NPDES permits (7 States and EPA)
 - BLM saline wells
 - Saline spring disposal (Paradox Valley Unit, Reclamation)
 - Paradox Valley Unit (PVU)
 - Is a series of brine collection wells and a deep injection disposal well.
 - It's a critical component of the Program and the most effective.
 - Operated by Reclamation
 - Located along the Dolores River in the Paradox Valley in Montrose County, Colorado
 - Extracts naturally-occurring brine groundwater preventing it from entering the Dolores River. The Dolores River is a major tributary to the Colorado River.
 - The existing brine injection well is nearing the end of its useful life, so the Bureau of Reclamation is investigating alternatives for disposing of the brine in order to enhance and protect the quality of water available in the Colorado River for use in the United States and the Republic of Mexico. A draft Environmental Impact Statement is currently out for public review and comments. Comments are due February 4th.

Mr. Barnett went over various alternatives from injection wells, evaporation ponds and brine crystallization and their potential costs.

How is the Program funded?:

- 70% paid by federal government (Reclamation and NRCS)
- 30% paid as cost-share by basin states
 - \$12M annually
 - Upper Basin Fund – 15%
 - Lower Basin Fund – 85%
- BLM funding is separate
- Program participants also cost-share in their projects

Salinity Damages:

- Increased salinity causes significant economic damage to the water delivery infrastructure
- Degrades plumbing and appliances in homes
- Increases costs for recycling and wastewater treatment
- Reduces agricultural crop productivity and increases water use for soil leaching purposes

How have we done?:

- Reduced 1.33 million tons of salt
- 100+ mg/L better
- Implementation plan to reduce 62,400 tons per year

Program Coordination:

- State and Federal level
- The seven basin states are motivated to improve water quality
- Meet frequently, perform tours and exchange information.
- www.ColoradoRiverSalinity.org

Questions and Answer (Q&A):

Q: Is there thermal activity at the PVU?

A: No

Q: What is brine crystallization?

A: It brings out fresh water and solid salt. Produces solid salt or waste product.

Q: Yuma Desalting Plant had damages to the membranes because of other contaminants in the water due to the farming. What does the water from the mountain have?

A: 98% sodium chloride

Q: What kind of air quality concerns are there to migratory birds?

A: There are concerns. Discussions of building fresh water ponds.

Q: Wouldn't the state of Colorado use the salt on the roads to de-ice, potential market?

A: Yes, but we don't want it to wash back into the river.

Q: Is there anything we can do to increase support?

A: Without funding, we can't do anything. This is done through Congress and working with federal entities. Encouraging Reclamation to continue with the program and funding. Power production is down in the Lower Basin, funding is down, drought, Drought Contingency Plan all impact the program. The States are looking for other ways to get help. Possibly getting farmers involved. The forum is a voluntarily program, it does not mandate farmers' participation.

Presentation Two:

Colorado River Basin – System Update and Outlook; Noe Santos, P.E. Civil Engineer, Boulder Canyon Operations Office, U.S. Bureau of Reclamation, Lower Colorado Basin Region

Mr. Santos provided a presentation on the Colorado River Basin system status and outlook.

Overview of the system:

- 16.5 million-acre feet (maf) allocated annually
- 7.5 maf each to the Upper and Lower Basins
- 1.5 maf to Mexico
- 13 to 14.5 maf basin wide consumptive use annually
- Inflows are highly variable year to year
- The system is operated on a tight hydrologic budget

Water Budget at Lake Mead:

- Inflow 9.0 maf
- Outflow 9.6 maf
- Evaporation loss 0.6 maf
- Lake Mead's storage declines approximately 1.2 maf annually or 12 feet in elevation

State of System (Water years 1999-2020):

- In 1999 the system was 95% full (48 maf), with unregulated inflow to Lake Powell of 118% of average
- 2019 was the wettest year of the last five years; Lakes Powell and Mead were 47% full (24 maf) with unregulated inflow to Lake Powell of 120% of average.

Lake Mead – Key Elevations:

- August 2019 24-month study projection for January 1, 2020 was at 1089.40 ft. Operating in normal conditions
- Late winter storms in the Lower Basin during the months of November and December; Havasu had lots of storage, held water at Hoover Dam, increased elevation at Lake Mead.
- 2020 will be the first year of the Drought Contingency Plan (DCP)

Colorado River System Conditions as of January 20, 2020:

Lake Powell is 51% full; Lake Mead at 43% full; total system storage 52%. Last year at the same time it was 45%.

Water Year Snowpack and Precipitation as of January 21, 2020:

Precipitation is 92% of average; snowpack is 114 % of median

Drought Contingency Planning:

- Actions are in addition to 2007 Interim Guidelines
- The goal is to reduce the risk of Lakes Mead and Powell reaching critically low elevations
- Additional contributions of water by the Lower Basin States
- Flexibility for water storage

Drought Response Activities:

- Through 2019, storage and conservation programs have a direct result of approximately 35 feet of additional elevation in Lake Mead

Summary:

- The Basin continues to experience an unprecedented drought
- Chance for the Lower Basin shortage as early as 2022
- Cooperation and collaboration is the key to addressing current and future challenges.

Question & Answer (Q&A):

Q: Are there desilting operations planned at Lake Mead or Powell?

A: The Yuma Area Office does more of the desilting projects downstream of Lake Powell. There are none planned at this time.

Public Comments:

Brian McNeece read a letter drafted that is intended to be sent to Commissioner Harkins related to the ongoing New River concerns.

Board Discussion and Future Agenda Items:

-Presentation on hemp field water use. How are the Colorado River allocations being used? (Dessert/McDermott)

-Metropolitan 1 & 2 Water Transfers; water efficiency, fallowing and on farm conservation (Dessert)

Next meeting April 22, 2020 in Calexico, CA

The meeting adjourned at 5:55pm.

*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.