

**Colorado River Citizens Forum  
Yuma City Hall  
Yuma, AZ  
January 25, 2017  
\* Tentative Meeting Notes**

**Board Members in attendance:**

Raymond Castillo, Imperial County Board of Supervisors, El Centro, CA  
Glenn Freeman, Retired District Manager of Bureau of Land Management, Yuma, AZ  
John Hernandez, Executive Director of Our Roots Multi-Cultural Center, Brawley, CA  
Gary Knight, Yuma City Councilmember  
Juan Leal-Rubio, Senior Planner, Yuma County Department of Development Services  
Alex Steenstra, Chair of the Department of Business and Administration, Northern Arizona University  
Yuma Branch Campus  
Roberta (Bobbi) Stevenson-McDermott, Yuma Natural Resource Conservation District Member, Arizona  
Association of Conservation Districts Board Member  
Jim Buster, Southwest Resource Strategies

**Alternate:**

Bruce Kuhn, Imperial Irrigation District  
Jay Simonton, Director of Utilities, City of Yuma, Arizona

**USIBWC Staff in attendance:**

Anna Morales, Yuma Area Office Manager  
Miles Lampo, Yuma Hydrologic Technician (OA)  
Lori Kuczanski, Public Affairs Officer, Headquarters, El Paso, Texas

**MXIBWC Staff in attendance:**

Juan Riosmoreno, Mexicali, BC  
Alfredo De La Cerda, Mexicali, BC

**Members of the public in attendance:**

Bert Bell, Palo Verde Irrigation District  
Bill Knowles, Arizona Game and Fish Department  
Darren Simon, San Diego County Water Authority  
Thomas Thock, Citizen  
Cary Meister, Yuma Audubon  
Nancy Meister, Yuma Audubon  
Blake Herzog, Yuma Sun  
Chris Wallis, U.S. Bureau of Reclamation  
Daniel Bunk, U.S. Bureau of Reclamation

**Welcoming and Introduction Remarks:**

At 4:00 PM 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 attendees were asked to introduce themselves.

Anna Morales introduced and turned the meeting over to the first presenter

[Presentation One: Colorado River Basin System Status Update And Drought Response Activities – Daniel Bunk, River Operations Manager, Boulder Canyon Operations Office, U.S. Bureau of Reclamation](#)

Mr. Bunk presented a PowerPoint Presentation.

Topics:

- Overview of the Colorado River Basin
- Colorado River Drought
- Drought Response Activities
- Projected Conditions
- Summary

Overview of the Colorado River System:

- 16.5 Million acre-feet (maf) allocated annually
  - o 7.5 maf each to Upper and Lower Basins
  - o 1.5 maf to Mexico
- About 16 maf average annual “natural flow” (based on historical record)
- Inflows are highly variable year to year
- 60 maf of storage (nearly 4 times the annual inflow)
- Operations and water deliveries governed by the “Law of the River”

Colorado River Drought:

A graph was shown of the natural flow of the Colorado River at Lees Ferry Gaging Station, Arizona for water years 1906-2017. This is the division point in the mainstream of the River which divides the Upper and Lower Basin on the Colorado River.

Majority of the flow comes from the Upper Basin. From 1906 to 2017 the average flow gradually declined from 17.5 maf to 15 maf.

A photo was shown of Lake Mead near Hoover Dam in the year 2000, at the start of the drought. A “bathtub ring” was visible showing the elevation of water declining.

A photo of Lake Mead near Hoover Dam in the year 2016 was shown with a 140 feet (ft) elevation drop, 37% full.

State of the systems (water Years 1999-2017):

In 1999 Lake Powell and Lake Mead were 95% full. In 2017, Lake Powell and Lake Mead were approximately 45% full. The first five years of drought hit hard. The lakes haven’t been able to recover since that time.

Lake Mead end of month elevations graph:

- o From September 1999 to December 2016 Mead went from 95% capacity to 39% capacity
- o Prior to 1999, Lake Mead elevation was at 1,080.82 ft
- o July 2016 was at the elevation of 1,071.61 ft, lowest since it was filled in the 1930’s
- o Lake Mead previously reached a low of 1,083.23 ft during April 1956
- o Quick decline from the years 2000 to 2010

#### Water Budget at Lake Mead:

- Given current water demands Lake Mead storage declines about 1.2 maf annually (12 ft in elevation)
- Inflow (Powell release + side inflows above Mead) 9.0 maf
- Outflow (Lower Division State apportionments and Mexico Treaty allocation, plus balance of downstream regulation, gains and losses) -9.6 maf
- Lake Mead evaporation loss: -0.6 maf
- Balance: -1.2 maf
- Evaporation and evapotranspiration account for two of the major losses.
- Approximately 8.23 maf released from Lake Powell each year

#### Drought Response Activities:

2007 Interim Guidelines - Guidelines have been in place for an interim period (2007 through 2026). The guidelines provide for coordinated operations of Lake Powell and Lake Mead to minimize Lower Basin Shortages and Upper Basin curtailments. They encourage efficient use and management of Colorado River water through the Intentionally Created Surplus (ICS) mechanism. They are guidelines for determining shortages in the Lower Basin but do not include provisions for Mexico. But the IBWC Minute 319 agreement signed November 2012 provides for reductions to Mexico when there are Lower Basin shortages in the United States, through 2017 when the Minute expires.

#### 1944 U.S. – Mexico Water Treaty

IBWC Minute 319, signed November 2012, is a cooperative 5-year agreement in place for an interim period through 2017. It provides for storage of Mexican conserved water in Lake Mead; shortage and surplus sharing with U.S. water users at high and low reservoir conditions; improved infrastructure for conservation; and environmental projects including riparian restoration sites in the Colorado River Delta. A new agreement is currently being discussed.

Mr. Bunk discussed the various elevations at Lake Mead that determine the operating conditions, including flood control, surplus, and shortage operations. River operations decisions are based on the projected January 1<sup>st</sup> elevation by using the August 24-month study. Shortages are based off of January 1<sup>st</sup> level (levels may go higher and lower during the year, but the January 1<sup>st</sup> measurement classifies the elevation for the year). A projected January 1 elevation of 1075' or below would trigger the first Lower Basin shortage.

#### Drought Response Activities:

Four conservation programs have resulted in an additional 12 ft in Lake Mead elevation through 2016.

- U.S. Intentionally Created Surplus (ICS)
- Mexican water deferred under IBWC Minute 319
- Pilot System Conservation Program
- Lower Basin Drought Memorandum of Understanding (MOU) voluntary protection volumes

Additional Lower Basin drought response discussions are on-going. The goal is to reduce the risk of reaching critically low Lake Mead elevations through voluntary actions.

#### Projected Conditions:

Lake Powell and Lake Mead Projections - August 2016 CRSS model run for the period of 2017 to 2026:

- In 2018 the probability of lower basin shortage of any amount (Mead <1,075') is approximately 48%. The August 2017 24-month study will set the operation tier for January 2018.
- 2019-2026 the probability of lower basin shortage is between 55%-60% for each year
- From 2020 to 2026 the Lower Basin Level 3 Shortage (Mead <1,025') rises from approximately 4% to approximately 21%
- 2019-2026, the probability of Lake Powell falling below elevation 3,490' in any month increases from approximately 0% to approximately 10%.

#### Upper Basin Snow Conditions

- Upper Colorado Region Monday, January 16, 2017 has 14 watersheds that are greater than 150% of normal snow water equivalent
- 4 watersheds that are 120-150% of normal snow water equivalent
- 1 watershed that is 80%-120% percent of normal snow water equivalent
- By January 16, early in the season, the Upper Basin had already received 84% of total average seasonal snow accumulation.

#### Summary:

- ✓ The Colorado River Basin is experiencing an unprecedented drought
- ✓ The chance of reaching critical reservoir elevations at Lake Mead continues to increase
- ✓ Safeguarding our shared water supply is critical to all of us
- ✓ Cooperation and collaboration will be the key to finding sustainable solutions and addressing current and future challenges

For more information visit:

<https://www.usbr.gov/uc/water/index.html> <https://www.usbr.gov/lc/riverops.html>

#### **Question and Answer (Q&A)**

Q: How are the percent probability of shortages calculated?

A: Reclamation uses the Colorado River Simulation System (CRSS) to run scenarios of predictions, roughly 100 outcomes, based off historical records.

Q: Explain the 9 pilot conservation programs.

A: Some of the categories include agriculture, tribe, municipal; they are all listed online. Five in Arizona, two in California, one in Nevada. Information on the program is available at:  
<https://www.usbr.gov/lc/region/programs/PilotSysConsProg/pilotsystem.html>

Q: What years are the inflows and outflows based on the charts?

A: 1906 through 2014 data.

#### **Presentation Two: Initiatives to Assist Small Water Systems – Daniel Czecholinski, Drinking Water Section Manager, Arizona Department of Environmental Quality (ADEQ)**

Mr. Czecholinski presented a PowerPoint Presentation.

ADEQ oversees drinking water from regulated public water systems for more than 6 million people in Arizona.

In July 2016, 36% of small public water systems were not in compliance with the Federal Safe Water Drinking Act. In 2017 Fiscal Year (FY) goal is to aggressively increase the number of public water systems in compliance from 64% to 70% by July 1, 2017.

2016 Drinking Water Program's Initiatives:

- ✓ Created the Compliance Assistance Coordinator Model
- ✓ Revamped inspection process including pre-inspection checklist and outreach
- ✓ Transformed process to receive Monitoring Assistance Program water samples digitally
- ✓ Developed and implemented strategies to assist public water systems in acquiring and maintaining capacity
- ✓ Lead in Drinking Water at Schools Project
- ✓ Designed a cohesive case referral process between Program Units

Monitoring and Protection Unit:

The Compliance Assistance Coordinator Model diversified staff training to have one point of contact. Each county is assigned a coordinator, and we revamped the internal process to refer violations to enforcement staff and eliminated loss of knowledge with cross training.

Inspections and Compliance:

To enhance inspections and compliance, ADEQ will provide a pre-inspection checklists prior to their inspections to prepare and use to continue compliance, provide regular outreach and training for water systems, and work with coordinators to help systems get back into compliance quickly. The goal is to increase the number of facilities in compliance at the time of inspection by 50% over 5 years.

Monitoring Assistance Program (MAP):

MAP helps small drinking water systems comply with the Safe Drinking Water Act by ensuring adequate collection, transportation, analysis, and reporting of regulated drinking water contaminants. The lab-to-state model automated reporting data for water quality samples. The results have helped to quickly identify systems out of compliance, reduced data reporting time lag, and eliminated hand entry of data, allowing more accurate reporting levels. 30% of all data comes from the MAP program.

Capacity Development:

The goal is to develop strategies to assist small public water systems to achieve & maintain *sustainable* compliance with environmental regulations by -

- ✓ Providing statewide technical & regulation trainings for owners and managers of small water systems.
- ✓ ADEQ Community Liaisons contact systems with violations, and offer additional support.
- ✓ Offer compliance assistance through engineering review staff, technical assistance providers, and local non-profits to help develop and maintain operation plans.
- ✓ Assist in identifying available funding sources.

Process Improvement Results:

Baseline goal was to have compliance at 70%. By July 2016 and through December 2016, the goal was achieved and exceeded at an average of 83%.

Healthy Drinking Water for Schools is a special project. Lead in Drinking Water at Schools Project is a proactive program that aims to identify lead in drinking water, especially in schools.

### Lead in Drinking Water:

Lead can be found throughout a child's environment. Sources include lead-based paint, certain water pipes, products such as toys and toy jewelry, candles imported from other countries, and jobs and hobbies that involve working with lead-based products like stain glass work. Approximately 20% of exposure is through water.

### What about Arizona?

There are 1,570 public schools, 12,690 public school buildings, 1,124,702 kids in school (includes 625 Charter schools). 7% of schools tested in 2004 showed elevated levels of lead (45 schools).

85 schools provide their own water. Of the 85 schools, 4 schools exceeded the Safe Drinking Water Act level in the past few years.

### Lead in Drinking Water at Schools Project Next Steps:

Identifying schools that meet testing prioritization, schedule testing and provide information and training through designated website, sample all buildings built before 1987. Other considerations include schools with children five and younger as well as schools in areas found with high lead level in blood tests.

### What is ADEQ doing?

At no cost to schools, the lead in drinking water screening program will sample water at 7,000 Arizona school buildings by May 1<sup>st</sup>, including all school buildings built before 1987. ADEQ is collaborating with the Arizona Department of Health Services, schools and the Department of Education. Program started approximately one week ago. The purpose of the program is to identify if there is a problem and implement a short and long term program.

### What do we have?

- ✓ 7,000 school buildings to be sampled
  - All school buildings built before 1987 (that's when EPA's standards for lead content in plumbing materials and fixtures underwent significant improvements). There are approximately 6,500 schools built prior to 1987.
  - Random sampling of other school buildings
  - 2 samples per building (drinking fountains, kitchen or classroom sinks)
- ✓ There is a simple sampling protocol. No chemicals are used, a 250 ml bottle is collected and sits for 6 hours.
- ✓ Analytical labs have been lined up.
- ✓ Communications toolkits are also available for schools.

### What do we need?

ADEQ needs help sampling. With 7,000 school buildings, 14,000 samples (823 samples per week/165 samples per work day) are needed to be collected by May 1st. ADEQ is asking schools to assist with the collection of samples. Also need action plan assistance. Information is available on ADEQ website. Banner on main page has information and provides a school list which is updated weekly on Mondays. <https://azdeq.gov>

Further questions, please contact Daniel Czecholinski, CHMM ADEQ Drinking Water Section Manager (602)-771-4617 or by email [dc5@azdeq.gov](mailto:dc5@azdeq.gov)

**Question and Answer (Q&A)**

Q: What about children not in school?

A: Water delivered to homes is in compliance.

Q: Are new schools having issues and being tested as well?

A: Yes

Q: Is there a local contact person that can be called?

A: No, they can call ADEQ directly.

Q: Do charter schools need to be registered with ADEQ?

A: We can assist but at this point, the initial focus is on public schools.

Q: How long is this going to take?

A: June 30th is the deadline to have all samples collected, further plans after that include sampling newer built schools.

Q: Imperial County inspected school water for lead. Are all counties doing this, too?

A: Some are, they aren't required in Arizona. This seems like a good idea to disperse the work load, but funding isn't always there.

Mr. Kuhn made a general comment in which he recommended everyone look up the symptoms of lead poisoning. Mr. Kuhn praised the program and ADEQ for their work.

**Public Comments:** None

**Board Discussion and Future Agenda Items:**

- ✓ Minute 319 Status report
- ✓ New River status update from Jose Angel, CRWQCB Region 7 and status of sewage spills from Mexico
- ✓ Bruce Wilcox or IID provide an update on issues affecting the Salton Sea and impacts/solutions with the QSA water reductions.

The meeting adjourned at 5:25pm.

\*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.