

**Minutes of Meeting**  
**COLORADO RIVER BOARD OF CALIFORNIA**  
**Wednesday, November 10, 2021**

A meeting of the Colorado River Board of California (Board) was held virtually on Wednesday, November 10, 2021, using the Zoom Webinar meeting platform.

Board Members and Alternates Present:

David DeJesus (MWD Alternate)	Jim Madaffer (SDCWA)
Castulo Estrada (CVWD Alternate)	Peter Nelson, Chairman (CVWD)
Dana B. Fisher, Jr. (PVID)	Glen D. Peterson (MWD)
John B. Hamby (IID)	David R. Pettijohn (LADWP)
James Hanks (IID Alternate)	Jack Seiler (PVID Alternate)
Jeanine Jones (DWR Designee)	David Vigil (DFW Alternate)
Henry Kuiper (Public Member)	

Board Members and Alternates Absent:

Christopher Hayes (DFW Designee)	Mark Watton (SDWA Alternate)
Eric Katz (AG Office)	Delon Kwan (LADWP Alternate)

Others Present:

Steven Abbott	Dylan Mohamed
Justina Arce	Jessica Neuwerth
Jim Barrett	Jessica Rangel
Robert Cheng	Shana Rapoport
Dennis Davis	Angela Rashid
JR Echard	Kelly Rodgers
Melissa Haley	Santi Rosset
Christopher Harris	Tom Ryan
Joanna Hoff	Roberta Saligumba
Ned Hyduke	Alexi Schnell
Lisa Johansen	Keith Scoular
Rich Juricich	Gary Tavetian
Laura Lamdin	Sara Tucker
Tom Levy	Cherie Watte
Cary Meister	Jerry Zimmerman

## **CALL TO ORDER**

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:00 a.m.

## **OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD**

Chairman Nelson invited members of the audience to address the Board on items on the agenda or matters related to the Board. Hearing none, Chairman Nelson moved to the next item on the agenda.

## **ADMINISTRATION**

Chairman Nelson asked for a motion to approve the September 15, 2021, meeting minutes. Mr. Pettijohn moved that the minutes be approved, seconded by Mr. Madaffer. By roll-call vote, the minutes were approved.

## **COLORADO RIVER BASIN WATER REPORTS**

### **Colorado River Basin Report**

Mr. Juricich reported that as of November 1<sup>st</sup>, the water level at Lake Powell was 3,543.85 feet with 7.15 million-acre feet (MAF) of storage, or 29% of capacity. Mr. Juricich added that Lake Powell is about nineteen feet above the critical elevation of 3,525 feet. The elevation of 3,525 feet provides some buffer to the minimum power pool elevation, which is at 3,490 feet. He noted that the water level at Lake Mead was 1,066.04 feet with 8.89 MAF of storage, or 34% of capacity. Mr. Juricich added that Lake Mead's elevation is about sixteen feet above the Level 2 Shortage Tier at elevation 1,050 feet. The total system storage was 22.49 MAF, or 38% of capacity, which is 5.64 MAF less than system storage at this time last year.

Mr. Juricich reported that as of November 1<sup>st</sup>, for Water Year-2022 (WY-2022), the observed October inflow to Lake Powell was 0.32 MAF, or 70% of normal. The November inflow forecast to Lake Powell is 0.33 MAF, or 79% of normal. The forecasted unregulated inflow into Lake Powell for WY-2022 is 7.80 MAF, or 81% of normal and the WY-2022 forecasted April to July inflow to Lake Powell is 5.27 MAF, or 82% of normal. Mr. Juricich reported that overall precipitation conditions in the Upper Colorado River Basin were 125% of normal.

Mr. Juricich reported that precipitation conditions in September were mixed, while precipitation conditions in October were above average due to storm activity, particularly benefiting Utah, Wyoming, and areas of the Basin over an 8,000-foot elevation. Mr. Juricich reported that the Pacific Ocean is in a La Nina condition which may mean a drier winter in the Southwest but may not correlate to drier conditions in the Upper Colorado Basin.

Mr. Juricich reported on the October 24-Month Study projections for reservoir elevations for Lakes Powell and Mead. He stated that the projections show that by February 2022, Lake Powell's elevation will hit the critical elevation of 3,525 feet and it is expected that spring runoff may improve Powell's elevation. Mr. Juricich also stated that Lake Mead is in a Level 1 shortage tier, with the possibility of a Level 2 shortage at elevation 1,050 feet looming at the end of 2022.

Mr. Juricich reported that through November 4<sup>th</sup>, the Brock and Senator Wash regulating reservoirs captured 112,093 AF and 61,874 AF, respectively. He also reported that the excess deliveries to Mexico were 28,592 AF, compared to 50,709 AF last year. Finally, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 94,757 AF, through September 30, 2021.

### **State and Local Report**

Ms. Jones, representing the California Department of Water Resources (DWR), reported that a large storm at the end of October brought above average precipitation to some parts of Northern California which was a great start to the water year. However, she noted that the precipitation conditions will be shifting to a drier pattern over the next seven to ten days for most of the state.

Ms. Jones noted that DWR has been fielding questions from the media about whether the latest storm made a dent on the drought. While much more precipitation will be needed to overcome drought conditions, she noted that Oroville reservoir, which has had record low elevations, and Folsom reservoir have both seen an improvement in elevations. She added that other reservoirs that were not directly in the storm's path did not see nearly as much improvement in reservoir elevation.

Ms. Jones reported that DWR should be receiving the experimental seasonal precipitation forecast from its research partners in December.

Mr. Peterson, representing The Metropolitan Water District of Southern California (MWD), reported that MWD's storage has declined slightly, but is holding steady. He also

reported that the Central Arizona Project and the Arizona Department of Water Resources, along with the Southern Nevada Water Authority finalized a deal to participate in MWD's regional recycling program.

Mr. Peterson reported that the Colorado aqueduct is on a 7-pump flow and water consumption has declined, adding that water conservation has particularly increased in service areas that receive State Water Project water only.

Mr. Peterson reported that MWD declared a drought emergency to bring water consumption down within its service areas. He added that the drought emergency gives the general manager the ability to make investments and purchase water.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP), reported that LADWP is working with MWD on a program that will allow MWD to get some of its stored Colorado River water to LADWP. He added that MWD has the third highest level of storage in its history and can't get that water to its service areas that are exclusively serviced by State Water Project water, making those areas very unreliable. Mr. Pettijohn stated that in response to this situation, LADWP has limited outdoor watering to three days a week and city-owned property will only be watered twice a week. He noted that LADWP is also ramping up messaging on rebate and incentive programs. In addition, LADWP is actively enforcing prohibited uses and following up on reports of wasteful uses of water.

Mr. Pettijohn reported that the LADWP Board recently increased its spending on incentives, with a \$2 million incentive for businesses that want to conserve water and LADWP is continuing to develop new programs. He noted that there is also a free turf replacement design service that is offering \$3 a square foot for turf removal. LADWP will also plan to send home water use reports out to all single-family residential customers by next year. Mr. Pettijohn also reported on additional incentive programs that include replacement of cooling towers for businesses and real time monitoring of water use in the city that can be accessed from a smart phone.

Mr. Pettijohn added that this will be a difficult year ahead if the State Water Project doesn't receive adequate precipitation, noting that Lake Oroville will need an additional 600,000 AF of water before the State will start allocating water under the State Water Project contract. He stated that it is a critical time for areas within MWD's service area that depend on the State Water Project.

## **STATUS OF COLORADO RIVER BASIN PROGRAMS**

### **Lower Basin 500+ Plan**

Mr. Harris reported that Reclamation's August 24-Month Study projected that Lake Mead's elevation could decline to 1030' feet or lower under the minimum probable scenario, triggering additional consultation among the Lower Basin States under the Drought Contingency Plan (DCP). Mr. Harris reported that representatives from the Lower Basin States have been working since the release of these modeling results to evaluate potential opportunities and options to bolster the level of Lake Mead and to decrease the likelihood of reaching elevation 1020'. Through this process, the states have developed the "500+ Plan," under which the Lower Basin States and Bureau of Reclamation would make best efforts to conserve an additional 500,000 AF in both 2022 and 2023. Mr. Harris reported that these volumes of water would likely be generated through the creation of new conserved water or operational changes related to the storage and delivery of existing conserved water. The Lower Basin States propose providing \$100 million to support this effort and have requested that the United States provide a matching \$100 million. Mr. Harris also noted that outreach to Mexico has been underway to explore opportunities for Mexican participation in this plan. Mr. Harris reported that Reclamation hosted a public webinar on November 5th to provide information on the proposed 500+ plan. The current goal is to have the plan ready for approval by the CRWUA conference in mid-December. Final implementing agreements would likely need to be completed by the first or second quarter of 2022.

Mr. Fisher noted his concern that development of this short-term proposal might divert attention from the development of the next set of operating guidelines. Mr. Harris stated that although the States are interested in moving forward on the next set of guidelines, the group is also still working to reach consensus on aspects that will form the basis of the next set of guidelines, such as modeling frameworks and the timeline for completing the guidelines. Chairman Nelson agreed that the current crisis conditions at Lakes Powell and Mead have drawn attention away from the next set of guidelines.

### **Colorado River Basin Salinity Control Program Implementation**

Mr. Juricich provided an update on the implementation of the Colorado River Basin Salinity Control Program including a summary of the Salinity Forum, Advisory Council and Work Group meetings held October 25, 27, and 28. Mr. Juricich described a graphic in the Board presentation showing historical and projected salinity concentrations at Lake Mead based on

analysis by the U.S. Bureau of Reclamation. The analysis shows an increasing value of salinity at Lake Mead, projected to increase to over 610 mg/l by the end of calendar year 2022.

Mr. Juricich provided an update from the Upper Region Regional Director Wayne Pullan regarding the Paradox Valley Salinity Control Project. Reclamation is continuing to conduct a risk assessment for Paradox to determine when and if the Paradox Valley brine injection well could be restarted. The risk assessment could take a couple of years. The Basin states are interested in restarting the injection well sooner even if at a much-reduced level.

Mr. Juricich provided an update from the USGS study on salinity trends in the Lower Basin. The study looked at tributaries to the mainstem of the Colorado River and not the mainstem itself. The analysis performed by the USGS didn't see a clear-cut trend in salinity in the Lower Basin, but more of a cyclical trend.

Mr. Juricich described a presentation from Reclamation on the impeller replacement project at Hoover Dam, which improved the efficiency of the power generation. And finally, Mr. Juricich described efforts to improve the Lower Colorado Basin Development Fund, which supports the Basin States cost share for salinity control projects.

Member Peterson expressed frustration at the lack of progress on the Paradox Valley Salinity Control Project and other projects like Pah Tempe Hot Springs. He expressed that there is too much studying of these activities without implementation. He would like to see the Basin States pressure action on Paradox. Chairman Nelson echoed comments by Member Peterson and highlighted that concern in his comments to Congress at the recent hearings. He received questions from California's representative about progress at Paradox Valley. Mr. Harris agreed that the Forum and Basin States need to pressure action. Chairman Nelson and Mr. Harris highlighted that California just added Mr. Joaquin Esquivel and Ms. Jessica Neuwerth as members to the Forum. Mr. Harris suggested that California could write a letter on behalf of California's water users regarding progress at Paradox Valley. Chairman Nelson supported this approach. Member Peterson stated that the linkage between injection and earthquakes is well known, and the risk analysis will not provide any new information. Mr. Juricich mentioned that there is the potential for a public-private partnership at Paradox that is being explored that would not require an injection well or land fill. Chairman Nelson asked for an update on the environmental analysis performed by Reclamation for a replacement project at Paradox Valley. Mr. Juricich explained that the Final Environmental Impact Statement was released in December 2020 and that it adopted a No Action Alternative, but a Record of Decision was not issued. Mr. Juricich noted that this leaves the door open for the Forum to continuing working with Reclamation to find an alternative.

## **Glen Canyon Dam Adaptive Management Program**

Board Staff Ms. Neuwerth reported that the Technical Work Group (TWG) of the Glen Canyon Dam Adaptive Management Workgroup (AMWG) held a two-day meeting on October 13 and 14. Ms. Neuwerth reported that as the lake level at Lake Powell decreases, there is an increased risk of passing non-native fish through the dam from Lake Powell down into this river reach below the dam to the Grand Canyon. There is an ongoing study of this risk as Lake Powell continues to decline.

Ms. Neuwerth reported that the TWG was presented modeling data from 2021 that indicates a low population of juvenile humpback chub in the Little Colorado River. The TWG is continuing to monitor this population.

Ms. Neuwerth reported that there was sufficient sediment to trigger an extended high flow experiment (HFE) in the fall. The TWG found that an HFE could bring Lake Powell below 3,525' earlier and it could remain below 3,525' for longer than if an HFE were not conducted. As a result, the Department of the Interior decided not to move forward with an HFE this fall.

Ms. Neuwerth reported that the U.S. Fish and Wildlife Service downlisted the humpback chub from endangered to threatened. Ms. Neuwerth also reported that the GCDAMP will hold its annual science reporting meeting in January.

Board Member Peterson inquired about the funding status of the GCDAMP and if it is still funded through a blend of power revenues and congressional appropriations. Ms. Neuwerth responded that the funding has been alternating between these sources. Next year's funding is planned to come appropriations and she believed the previous year's funding was from power revenues. There will be a blend of appropriations and power funds supporting the program moving forward. The program costs approximately \$11 million annually.

## **Lower Colorado River Multi-Species Conservation Program**

Board Staff Ms. Neuwerth reported that the Steering Committee of the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) met on October 27. The committee discussed impacts to habitats on LCR MSCP conservation areas as a result of the water shortage for 2022. Cibola Valley Conservation Area has junior water rights in Arizona. Lower water use habitat was selected for this area in anticipation of low water years.

Ms. Neuwerth reported that the committee discussed environmental impacts anticipated from changes in flow or reductions in diversions as a result of the 500+ plan. Program participants are on notice that changes may be needed to the LCR MSCP coverage to facilitate the 500+ plan.

Board Chair Nelson inquired regarding the risk in the LCR MSCP and what the Bureau could do if the risks are not mitigated.

Ms. Neuwerth relayed that there is less coverage for the area of the river between Hoover Dam and Parker Dam than there is downstream for reductions in flow; however, there are not many biological impacts anticipated. The current effort is to make sure that permits are in place and the program stays within the required numerical limits. Staff is uncertain what could happen if the program goes over the permit limits and would like to avoid finding out.

Mr. Harris added that the current covered flow reduction is 845,000 AF between Hoover and Davis and 860,000 AF between Davis Dam and Parker Dam. Below Parker Dam coverage is for up to 1.574 MAF. A small amount of mitigation habitat acres would be required to offset the 500+ plan activities.

Mr. Harris relayed that board staff has been and is continuing to meet with the California Natural Resources Agency and provide them briefings. There is also much discussion between Reclamation, the U.S. Fish and Wildlife Service and the LCR MSCP staff in Boulder City.

## **GENERAL ANNOUNCEMENTS**

### **Lower Colorado Salinity Data**

Mr. Juricich presented information on a study published by the U.S. Geological Survey in August 2021 that provides new real-time salinity concentration data at four locations in the Lower Colorado River including 1) Colorado River Above Imperial Dam (Station 09429490); 2) Colorado River Below Cooper Wasteway at the Northerly International Boundary (Station 09522005); 3) Yuma Main Drain Above Arizona-Sonora Boundary (Station 09534000); and 4) the 242 Lateral Above Main Drain at the Arizona-Sonora Boundary (Station 09534550). The study developed regression models to estimate salinity concentration from specific conductivity and temperature. A sample graph was presented to the Board.

### **Upper Colorado River Basin Baseflow Study**

Mr. Juricich provided information on a new study by the U.S. Geological Survey published on October 28, 2021, of projected declines in the Upper Colorado River Basin baseflow by 2050 in response to a warming and drying climate. Baseflow is the movement of groundwater into streams and, on average, accounts for more than 50% of annual streamflow in the Upper Colorado River Basin. The study predicts that baseflow deliveries to the Lower Colorado River



Basin may decline overall by the end of the 21st century despite potential increases in precipitation and baseflow in some areas.

### **Washington, D.C. Updates**

Mr. Harris reported that Camille Touton has been confirmed as Commissioner of the Bureau of Reclamation and Michael Connor as Assistant Secretary of the Army for Civil Works. Mr. Harris reported on the passing of the \$1.75 trillion-dollar Bipartisan Infrastructure Bill, Build Back Better by the U.S. House of Representatives.

Mr. Harris reported that in October, the House Natural Resources Subcommittee on Water, Oceans, and Wildlife held a two-day hearing on “Colorado River Drought Conditions and Response Measures.” He stated that testimony was received from the seven basin states, Department of the Interior, tribes, and water users.

### **Next Scheduled Board Meeting**

Finally, Mr. Harris noted that the next meeting of the Colorado River Board would be held on Tuesday, December 14, 2021, and would be an in-person meeting held at 10:00 a.m. in the Augustus III Room at Caesars Palace Las Vegas Hotel and Casino.

### **ADJOURNMENT**

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:01 a.m.