

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

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

Board Members and Alternates Present:

David DeJesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
James Hanks (IID)
Jeanine Jones (DWR Designee)
Henry Kuiper (Public Member)
Jim Madaffer (SDCWA)

Peter Nelson, Chairman (CVWD)
Glen D. Peterson (MWD)
David R. Pettijohn (LADWP)
Jack Seiler (PVID Alternate)
David Vigil (DFW Alternate)

Board Members and Alternates Absent:

Evelyn Cortez-Davis (LADWP Alternate)
Norma Sierra Galindo (IID Alternate)
Christopher Hayes (DFW Designee)

John Powell, Jr. (CVWD Alternate)
Mark Watton (SDCWA Alternate)

Others Present:

Steven Abbott
Brian Alvarez
Jim Barrett
Bert Bell
Robert Cheng
Gary Croucher
Dan Denham
JR Echard
Castulo Estrada
Emily Halvorsen
JB Hamby
Christopher Harris
Bill Hasencamp
Joanna Smith-Hoff
Michael Hughes
Ned Hyduke
Sarai Jimenez
Lori Jones

Rich Juricich
Eric Katz
Delon Kwan
Larry Lai
Laura Lamdin
Tom Levy
Lindia Liu
Emmanuel Martinez
Henry Martinez
Kara Mathews
Aaron Mead
Dylan Mohamed
Jessica Neuwerth
Jessica Rangel
Angela Rashid
Ivory Reyburn
Kelly Rodgers
Alex Rodriguez

Shanti Rosset
Tom Ryan
Tina Shields
Andrew Slangen
Margaret Vick

Cherie Watte
Jay Weiner
Meena Westford
Jerry Zimmerman

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:03 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 December 9, 2020, meeting minutes. Mr. Peterson moved that the minutes be approved, seconded by Mr. Pettijohn. By roll-call vote, the minutes were unanimously approved.

Chairman Nelson asked for a motion to approve the January 13, 2021, meeting minutes. Mr. Peterson moved that the minutes be approved, seconded by Mr. Pettijohn. By roll-call vote, the minutes were unanimously approved.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of February 1st, the water level at Lake Powell was 3,576.45 feet with 9.64 million-acre feet (MAF) of storage, or 40% of capacity. The water level at Lake Mead was 1,085.95 with 10.51 MAF of storage, or 40% of capacity. The total system storage was 27.31 MAF, or 46% of capacity, which is 3.87 MAF less than system storage at this time last year.

Mr. Juricich reported that as of January 19th, the unregulated inflow into Lake Powell for Water Year-2021 is 5.36 MAF, or 49% of normal and the WY-2021 forecasted April to July inflow to Lake Powell is 3.45 MAF, or 48% of normal. For WY-2021, the observed December inflow to Lake Powell was 0.17 MAF, or 47% of normal. The January inflow forecast to Lake Powell is 0.20 MAF, or 55% of normal. To date, the WY-2021 precipitation in the Upper Colorado River Basin is 66% of normal and the current Basin snowpack is 75%.

Mr. Juricich reported that the precipitation conditions across the Basin were below average in December but improved slightly in January. He reported that storms in January brought much needed precipitation to the Lower Basin. Board member Peterson, representing The Metropolitan Water District of Southern California (MWD), inquired whether the snow water equivalent (SWE) measurement considered the declining snowpack that Basin has experienced over the past few years. Mr. Juricich reported that the Colorado Basis River Forecast Center (CBRFC) will be updating its SWE calculations using the median value of the period from 1991 to 2020, noting that the shift in period will reflect the warming trend that has occurred over the last several years.

Mr. Juricich reported that as of January 29th, the Brock and Senator Wash regulating reservoirs captured 9,721 AF and 6,528 AF, respectively. He also reported that the excess deliveries to Mexico through January 31st, were 6,269 AF, adding this value is larger than this time last year due to storm activity in late January.

Mr. Juricich reported on the historical consumptive use of the Lower Division states, noting that for the past several years, consumptive use has declined. He added that the most recent 24-Month Study results from the Bureau of Reclamation (Reclamation) also show a decline in consumptive use for the Lower Division States.

Mr. Juricich reported that Lake Powell's most probable operating tier based on the January 24-Month Study is the Mid Elevation Release Tier, with the most probable release of 8.23 MAF for 2021. In 2022 and 2023, Lake Powell's end of December elevation is projected to decline, and the most probable release is 7.48 MAF for both years. He reported that Lake Mead's most probable end of December elevation for 2021 will be at 1,075 ft or below, triggering a Tier 1 shortage condition beginning in CY 2022. Mr. Juricich noted that the January 24-Month results are based on average hydrology, so the projections could improve with better hydrological conditions in the future.

Mr. Juricich reported that severe drought conditions in the Western U.S. continue to persist, noting that the Basin is expecting another storm front within the next week.

State and Local Report

Ms. Jones, representing the California Department of Water Resources (DWR), reported that the State's overall precipitation conditions are below average despite the series of storms that occurred in late January. She reported that at the end of January, the statewide average reservoir storage condition was close to 70% of capacity, with the State's largest reservoirs, Shasta and Oroville, continuing to lag. She added that the lag is reflective of the very dry water year that Northern California experienced in 2020.

Ms. Jones reported on DWR's forecasting efforts to analyze the full natural flow of selected California rivers. She noted that this effort will compare dry conditions in WY-2021 to those of past severe drought years, particularly 2014 and 2015. She added that full natural flow conditions for WY-2021 are tracking with low natural flow conditions from 2014. She stated that the State Water Resources Control Board may consider this data as it administers water rights this summer. Ms. Jones reported that the series of late January storms did very little to increase the runoff values for WY-2021 because most of the precipitation fell as snow rather than rain, adding that the snow may help during the spring snowmelt. She noted that the current SWE is 66% of average and the SWE is better than it was in 2014 and 2015.

Ms. Jones provided an update on an experimental forecasting product she discussed at the January CRB meeting. She noted that the experimental forecast model was developed by the University of Arizona and was initialized with data through December 2020 that also includes snowpack data. She stated that the model results project warm temperatures in spring through early summer with dry precipitation conditions. The model also projects close to normal snowpack conditions in Northern California and below average conditions in the Colorado River Basin. She noted that the model uses National Oceanic and Atmospheric Administration's (NOAA) thirty-year climatology record.

Mr. Peterson reported the MWD has been filling its reservoirs and Diamond Valley Lake is 87% of capacity. He noted that water use has increased due to in lieu water deliveries, adding that MWD delivered 125,000 AF to Coachella last year.

Mr. Peterson also reported that the Colorado River Aqueduct will be shut down for a month for repairs and rehabilitation. He added MWD will rehabilitate a pumping plant in the Las Virgenes area to bring in water from the Colorado River Aqueduct to Ventura County and Las Virgenes. He stated that the pumping plant system was built in the 1960's because State Water Project supplies were not available at that time.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP), stated that precipitation conditions in the Eastern Sierra were tracking with the driest year on record but improved slightly from the late January storms. He stated that as of February 8th, precipitation conditions are 57% of normal.

STATUS OF COLORADO RIVER BASIN PROGRAMS

Status of the Salinity Control Program

Mr. Juricich provided a brief update on the status of the Paradox Valley Unit (PVU) project. The Final EIS identified No Action as the preferred alternative, although the Basin States

advocated for the evaporation pond as the preferred alternative. The existing brine injection well has been shut down for nearly two years due to the seismic activity in March of 2019. Reclamation is currently reviewing options on the existing operation. In response to letters sent by the Board and member agencies, Reclamation has stated that they will not issue a Record of Decision based on the Final EIS. This allows the Basin States and stakeholders to continue discussion with Reclamation on potential next steps. Mr. Juricich reported that a Work Group meeting is scheduled near end of February and invited the technical staff from the Board member agencies to participate.

Colorado River Basin States Webinar Regarding Federal DCP Implementation

Mr. Harris provided a summary of the Basin States webinar on February 4, which provided updates on several items, including: (1) proposed federal legislative initiative(s) for appropriations for Reclamation's implementation of System conservation measures during the interim period; (2) status of DCP implementation; (3) status of the proposed Colorado River Indian Tribes legislation; and (4) status of preparatory review and assessment of technical modeling needs and updates. Mr. Harris reported that the Central Arizona Water Conservation District (CAWCD) initiated an effort during the fall of 2020 to develop some proposed federal legislation that would provide appropriations for Reclamation's implementation of System water conservation activities that would result in the creation of up to 100,000 acre-feet annually during the remaining interim period of the DCPs and 2007 Guidelines. The states discussed the various legislative options and timing, which ranged from the stand-alone legislation proposed by CAWCD, to an add-on to either a larger reauthorization of the Water Infrastructure Improvements for the Nation (WIIN) Act or other large Biden administration infrastructure bill. The states will continue to coordinate with delegation staff members and Washington D.C. representatives to help determine the most effective path forward, with the hope that this could be accomplished over the next few months.

Mr. Harris reported the states also very briefly reported out the status of implementation of the basinwide DCPs. In the upper basin, it was reported that the recent 24-Month Study report minimum probable study indicates that Lake Powell could reach elevation 3,525 feet by March 2022. This has triggered the initiation of additional coordination and communication among the Upper Basin states and Reclamation associated with the Upper Basin Drought Operations Agreement that was executed in 2019. In the lower basin, Arizona reported that it has initiated a shortage implementation discussion among its stakeholders in anticipation of Lake Mead reaching or falling below elevation 1,075 feet in the next few years. California reported that due to the additionally flexibility provided by the 2019 Lower Basin DCP Agreement, that it had created and stored an additional 0.340 MAF of extraordinary conservation intentionally created surplus in Lake Mead in calendar-year 2020.

Mr. Harris also reported that the Lower Basin states initiated the formation of a small sub-principal's level group of technical representatives to work with Reclamation evaluating the modeling tools that are currently being used in basinwide water supply assessments, primarily the

Colorado River Simulation System (CRSS) model. The purpose of the working group is to develop a sensitivity analysis and identify drivers and a deeper understanding of the implications that these drivers have for hydrologies, water use demands, and the various release regimes modeled in CRSS. Chairman Nelson reported that he was impressed with the organization of the technical modeling needs and how far they've come along.

Glen Canyon Dam Adaptive Management Program

Board staff Ms. Neuwerth reported that the Glen Canyon Dam Adaptive Management Program held its Annual Reporting meeting in conjunction with a Technical Work Group meeting on January 20-22. Ms. Neuwerth shared several updates from scientists on the status of the endangered humpback chub. The species was proposed for downlisting from endangered to threatened in 2020, but the group received an update from U.S. Fish and Wildlife Service (USFWS) staff that the proposal would take additional time to be finalized. Ms. Neuwerth reported that the main population of humpback chub, located at the confluence of the Little Colorado River, was maintaining a stable adult population. However, Ms. Neuwerth reported that the number of sub-adult fish was low enough to meet the first level trigger under the Long-Term Experimental and Management Plan (LTEMP) Biological Opinion, meant to provide an early warning if the population seems poised to decrease.

Ms. Neuwerth reported that, in contrast, researchers provided encouraging news about the status of the humpback chub population in the Western Grand Canyon. Ms. Neuwerth noted that this population has increased dramatically since 2014 and researchers now estimate the population to be as much as 15,000 to 30,000 fish. As a relatively new population, researchers are still trying to understand the population's stability. Ms. Neuwerth reported that researchers have been examining whether Pearce Ferry Rapid, a rapid within the full pool elevation of Lake Mead that has emerged as the lake level has declined, is acting as a barrier to nonnative fish and may be helping upstream native fish populations flourish. Surveys from the area detected mostly native fish above the barrier, and mostly nonnative fish below it. Ms. Neuwerth noted that additional research is needed to know how Pearce Ferry rapid interacts with changing Lake Mead levels and other variables.

Ms. Neuwerth noted that the number of nonnative brown trout below Glen Canyon Dam continues to increase, and the fish now make up approximately 16% of the fish population in the area. Ms. Neuwerth reported that fall High Flow Experiments (HFEs) might have prompted the fish to establish in the area, but a lot is still unknown about the drivers of the population. In response to a question from Mr. Harris, Ms. Neuwerth noted that despite no HFEs being conducted in fall 2019 and fall 2020, the brown trout population in the area continues to increase.

Ms. Neuwerth also reported on potential experimental releases that could be conducted at Glen Canyon Dam in 2021. Ms. Neuwerth noted that "bug flows" intended to increase invertebrate

production had been conducted at the dam during summer 2018, 2019, and 2020. The results so far are equivocal, with the flows appearing to increase the abundance of some insect taxa but not others. Ms. Neuwerth noted that a technical team will be meeting to consider whether to implement a fourth year of bug flows, with a decision expected by April.

Finally, Ms. Neuwerth reported that the Department of the Interior had approved implementation of a spring disturbance flow at Glen Canyon Dam in March. The flow will be conducted March 15-26 and consist of five days of 4,000 cfs flows (half of the normal minimum release) followed by approximately 84 hours at approximately 20,000 cfs, the maximum release within powerplant capacity.

ANNOUNCEMENTS

Washington, D.C. Updates

Mr. Harris reported that President Biden rescinded various Executive Orders enacted by President Trump. Mr. Harris noted that President Biden introduced an Executive Order that focuses on tackling climate change.

Mr. Harris reported that the DOI submitted a report to Congress on water supply challenges in the western United States and efforts to respond to them.

Mr. Harris reported that Representatives Ruiz and Vargas reintroduced a bill that is aimed at cleaning up the New River, a highly polluted waterway originating near Mexicali. Mr. Harris noted that the bill is known as the California New River Restoration Act.

Mr. Harris reported on acting agency leaders for the DOI. Mr. Harris noted that Scott de la Vega is the Acting Secretary; Radhika Fox has been nominated as the Principal Deputy Assistant Administrator for the EPA Office of Water; and Tanya Trujillo has been nominated as the Principal Deputy Assistant Secretary for Water and Science.

Next Scheduled Board Meeting

Finally, Mr. Harris noted that the next meeting of the Colorado River Board would be held on March 10, 2021 and would also be held virtually using the Zoom Webinar meeting platform.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:09 a.m.