

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, February 10, 2016.

A meeting of the Colorado River Board of California was held on Wednesday, February 10, 2016.

Board Members and Alternates Present

Brian Brady	John Powell Jr.
Dana Bart Fisher, Jr., Chairman	Jack Seiler
James Hanks	Michael Touhey
Henry Kuiper	David Vigil
Peter Nelson	Doug Wilson
David Pettijohn	Jeanine Jones

Board Members and Alternates Absent

Stephen Benson	Chris Hayes
Glen Peterson	

Others Present

Steve Abbott	Autumn Plourd
Martin Adams	Katie Ruark
Don Barioni	Tina Shields
Tim Blair	Joanna Smith Hoff
Steve Bigley	Philip Southard
John Carter	Mark Stuart
Robert Cheng	Tanya Trujillo
Dan Denham	Mark VanVlack
Heather Engel	Donnell Wilcox
Dan Farris	Jerry Zimmerman
Christopher Harris	
Bill Hasencamp	
Michael Hughes	
Ned Hyduke	
Lisa Johansen	
Mark Johnson	
Eric Katz	
Lindia Liu	
Kara Mathews	
Jan Matusak	
Jessica Neuwerth	
Vic Nguyen	
G. Patrick O'Dowd	

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 10:09 A.M.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Fisher asked if there was anyone in the audience who wished to address the Board on items on the agenda or matters related to the Board.

Welcome from the Coachella Valley Water District

Director Peter Nelson welcomed everyone to the Coachella Valley and shared a brief history on Coachella Valley Water District and how the district provides domestic and irrigation water including agricultural drainage, wastewater treatment and reclamation services, regional storm water protection, groundwater management and water conservation. Mr. Nelson stated a number of speakers from their staff were present to provide an overview of their district. The speakers included Mr. Johnson, Ms. Ruark, Mr. Bigley, and Mr. Farris.

Presentations from the Coachella Valley Water District regarding current water quality and supply management issues

Mr. Mark Johnson, Director of Engineering with Coachella Valley Water District (CVWD), noted that the water district supplies many different areas with water from multiple sources, including the Colorado River, State Water Project, and groundwater basins. Mr. Johnson reported that Whitewater River Basin aquifer that supplies water to CVWD contains naturally-occurring chromium that has leached out of surrounding rocks. Mr. Johnson noted that recharging areas of the aquifer with Colorado River water lowers the chromium concentration. He also noted that in July, 2014, the State of California adopted more stringent chromium standards of 10 parts per billion, which is problematic for the Coachella Valley, which has groundwater chromium levels ranging from 1 to 21 parts per billion. CVWD has until the end of 2019 to comply with this standard. After an aquatic treatment study, Mr. Johnson reported that CVWD plans to address the problem by carrying out ion exchange treatment at over twenty sites across the valley. Ion exchange treatment will require expensive catalyst regeneration treatment and hazardous waste management that could cost between \$200 and \$300 million and double the rates of CVWD customers. Mr. Johnson reported that a final maximum cost estimate would be available by May, CEQA compliance finalized by June, and construction beginning by July.

Ms. Katie Ruark, the Conservation Manager at CVWD, reported on the mandatory conservation targets set by the State Water Resources Control Board. Ms. Ruark addressed some of the difficulties facing CVWD in meeting their 36% conservation target, including a seasonal population and gallon per capita use that may not reflect the actual usage rates. Ms. Ruark noted that CVWD was attempting to meet their conservation target through outreach and education, rebates and incentives, and

drought penalties. Ms. Ruark reported that CVWD had devoted \$7 million toward conservation and rebates in 2015 in an attempt to reduce water use. Ms. Ruark described the tiered usage system CVWD has put in place, which is used to incentivize those overusing water to cut back. Ms. Ruark reported that the average conservation in the district is at 26%. Ms. Ruark also noted that on February 2nd, the State Water Resources Control Board revised their regulations, allowing for adjustments to conservation targets for things such as population growth, drought resilient supply, and climate. Given that evapotranspiration in the Coachella Valley is 27% higher than the state average, Ms. Ruark reported that CVWD had received the maximum 4% climate reduction, and is having their conservation target adjusted from 36% to 32%.

Mr. Steve Bigley, CVWD's Director of Water Quality, spoke next, describing CVWD's water management plans, which include developing a sustainable groundwater supply. Mr. Bigley noted that groundwater replenishment in the valley began in 1918, using stormwater coming from the Whitewater River, and by 2015, the cumulative amount of groundwater recharge at the Whitewater Basin reached 2.9 maf. Mr. Bigley reported that the Whitewater Groundwater Replenishment Facility had undergone a \$10 million improvement in 2013. Groundwater replenishment also began at the Mission Creek Subbasin in 2002, which has now received over 150,000 af. Another 270,000 af has been delivered to the Thomas E. Levy Groundwater Replenishment Facility, with deliveries to the completed facility beginning in 2009. Mr. Bixley reported on groundwater levels at multiple locations across the Coachella Valley, many of which have stabilized or improved with the expansion of groundwater replenishment efforts.

Finally, Mr. Dan Farris, CVWD's Director of Operations, reported on indirect aquifer recharge, which aims to provide surface water in lieu of groundwater to improve groundwater resources. Mr. Farris noted that the Coachella Valley has 127 golf courses, over 30 of which receive water from the canal distribution system. Many also receive part or of all of their water from recycled sources, and an additional 26 golf courses plan to receive canal water through new connections. Mr. Farris reported that 81% of Coachella Valley golf courses will use surface water sources once the non-potable water delivery system is complete, which is equivalent to 60,000 af of groundwater recharge per year.

Board Member Kuiper asked whether the State Water Resources Control Board had considered the source of water when making its conservation mandates, and Ms. York replied that the State Board has jurisdiction over all potable water in California and had therefore placed restrictions on all water districts, even those who did not get water from the State Water Project. In response to a question from Vice Chairman Wilson, Board Member Nelson addressed the potential impact to water customers from chromium reduction measures. Mr. Nelson reported that the cost increases would be phased in, although some customers might respond to the increased prices with reductions in water usage, as they had responded to the drought penalty rates.

ADMINISTRATION

Consideration and Approval of the Minutes

Chairman Fisher asked for a motion to approve the February 10, 2016 meeting minutes. Mr. Kuiper moved that the minutes be approved, seconded by Mr. Pettijohn, and by unanimous support, the February 10, 2015 meeting minutes were approved. Ms. Trujillo stated that a few minor corrections were made.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Water Reports and State and Local Water Reports

Ms. Trujillo reported that as of February 1, 2016, the Colorado River system storage was 49% of capacity, similar to where it was last month and around this time last year. The Lake Mead storage was 40% of capacity, and is at its lowest elevation since the reservoir first began to fill. The water storage in Lake Powell was 47% of capacity. The Water Year 2016 precipitation to date is 106% of average, and the current Basin snowpack is at 111% of average. Earlier in the season, there was an inflow forecast into Lake Powell of 87% for Water Year 2016, with an April – July 2016 inflow forecast of also 87%. As of February 1, 2016, the Upper Basin reservoirs, other than Lake Powell, were 49% of capacity at Fontenelle and 84% of capacity at Flaming Gorge in Wyoming, 71% of capacity at Blue Mesa and 94% of capacity at Morrow Point in Colorado, and 82% of capacity at Navajo in New Mexico.

Ms. Trujillo reported that the snowpack has been tracking better than at this time last year, and is between 120% and 150% of normal in the lower areas of the Upper Colorado Region. The precipitation for January 2016 was near average, and the temperatures were below average, which helped with retaining the snow and turning precipitation into snow. The U.S. Drought Monitor Map shows that most areas in the Colorado River Basin have improved. Colorado and New Mexico have virtually no indications of drought conditions; Wyoming, Utah, and Arizona have some indications of drought conditions; and Nevada and California still have significant indications of drought conditions.

Ms. Trujillo reported that, as of February 4, Brock Reservoir has captured about 11,000 acre-feet, and Senator Wash saved about 6,900 acre-feet. Excess flows to Mexico, as of February 8th, were about 15 acre-feet, and the bypass flows per Minute 242, as of February 1, were about 2,800 acre-feet.

Ms. Trujillo noted that we are in the process of finalizing the accounting through the official Decree Accounting Report process for 2015. She reported that Secretary Jewell issued the official 2016 Annual Operating Plan on January 8. Projected releases from Lake Powell are expected to be 9.0 million acre-feet unless there is a tremendous shift in the hydrology between now and April 2016, and there will be no Lower Basin shortage for 2016.

Ms. Trujillo reported that on February 8, Reclamation presented new projections of the potential for shortages in the Lower Basin over the next 5 years. In 2017, there is between a 17% and 37% chance of a first tier Lower Basin shortage. The chance for shortage is projected to increase to 59% in 2018, 60% in 2019, and 59% in 2020, and is subject to modification as each year's hydrology develops. Similarly, the modeling effort also considers the chances of a surplus, which would occur if Lake Mead's elevation is projected to be at 1,145 feet.

Ms. Trujillo reported that on February 2, the State Water Resources Control Board (State Water Board) extended the mandatory conservation requirements through October 2016. Statewide, as of December 2015, a water reduction level of 18.3% was achieved, less than the 25% requested. On January 19, the California Department of Water Resources (DWR) and U.S. Bureau of Reclamation released their 2016 Drought Contingency Plan for the Central Valley Project and the State Water Project (SWP) to look at ways to save water through coordinated operations. Ms. Trujillo reported that the SWP water allocation was increased slightly to 15 percent. Ms. Jones, of the California Department of Water Resources, added that DWR released its first snowmelt runoff forecast of the season. The forecast currently classifies this year as a "dry water year", a step up from last year's designation as "critically dry".

Mr. Mark Stuart, of the California Department of Water Resources, reported that accumulated precipitation for Water Year 2016 at the Los Angeles Civic Center is about 4 inches. Of the six major stations in Southern California, the precipitation to date for the Water Year has been below normal, with the San Diego station tracking the highest at 79% of normal. The Los Angeles station received 3.2 inches in January and 4.2 inches for Water Year 2016 to date. For the Northern Sierra Precipitation 8-Station Index, the total received is 32.8 inches. As of February 2, 2016, the Snow Water Equivalent for the Northern, Central, and Southern Sierras are 120%, 116%, and 106% of normal, respectively, with a statewide total of 114% of normal. The water storage in Lake Oroville is at about 1.5 million acre-feet, or 44% of capacity. Lake Shasta has increased by about 1 million acre-feet. The total water storage in the State Water Project system is slightly less than 1.9 MAF, or 34% of capacity.

Board Member Pettijohn, representing the L.A Department of Water and Power (DWP), reported above normal precipitation in the Eastern Sierra, and that an additional ten inches of precipitation would be needed in order to be normal by April 1. He added that the City of Los Angeles has met its State Water Board's conservation goal of 16%, and is slightly exceeding it when considering cumulative numbers. The Mayor of Los Angeles had placed mandates on the DWP to achieve additional conservation goals, and the DWP has been successful in reducing the water demand of the City. He added that the last few years have been dry, and even with additional snow, there could be some reduction in runoff due to dry conditions.

Board Member Wilson reported that San Diego had also met its State Water Board conservation mandate of 20% by conserving 23% on a cumulative basis, but cautioned that this number was preliminary.

STAFF REPORTS REGARDING THE COLORADO RIVER BASIN PROGRAMS

Review status of the Basin States Drought Contingency Programs

Ms. Trujillo stated she had provided detailed background regarding the drought contingency planning efforts during the last meeting and reiterated that the goals of the drought contingency planning efforts were to avoid low reservoir levels at Lake Mead and develop additional tools beyond those specified by the 2007 Interim Guidelines. Ms. Trujillo stated that there were no new developments at this time.

Review Status of the Implementation of Minute 319 and Preparation for Minute 32X

Ms. Trujillo reported that the Bi-national Negotiating Group continues to meet on a monthly basis, with the next round of meetings in Las Vegas, Nevada. Bi-national workgroups are focused on developing proposals to bring forward to the negotiating group on potential new provisions that may be included with the next round of agreements with Mexico. An initial discussion has begun regarding the domestic agreements that may be necessary to implement the next Minute.

Review Status of the Salinity Control Forum, Workgroup, and Advisory Council

Ms. Trujillo stated that Board staff will provide a report following the next Salinity Control Work Group meeting. Board staff has been involved in working on improvements to the salinity economic impact model that is utilized to advocate for the Salinity Control Program. The improvements will have some updated numbers for agricultural and municipal water use areas in California. The next Forum meeting will take place in June in Colorado.

Review Status of the Glen Canyon Dam Adaptive Management Work Group and Long-Term Experimental and Management Plan EIS

Board Staff Neuwerth reported on the recently released public draft of the Long-Term Experimental and Management Plan (LTEMP) EIS for the management of Glen Canyon Dam. The draft has a 90 day comment period which closes on April 7. Ms. Neuwerth noted that a series of public meetings are planned, including webinars on February 16 and March 1. In-person meetings are scheduled for February 22 in Flagstaff, AZ and February 25 in Tempe, AZ.

Ms. Neuwerth reported that the Technical Work Group (TWG) of the Glen Canyon Dam Adaptive Management Work Group (AMWG) met January 26-28 in Phoenix, AZ for a TWG and Annual Science Reporting Meeting, at which stakeholders were updated on the latest research and monitoring results. Ms. Neuwerth reported that

this spring, a High Flow Experiment (HFE) is possible, although the sediment required to trigger one is currently not available. The decision to carry out the HFE would need to be made by mid-March. Ms. Neuwerth reported on the invasive green sunfish population which had established below Glen Canyon Dam and was treated with rotenone in November. Although the population concentrated in a backwater was eradicated, future monitoring will be done to ensure the fish did not successfully establish elsewhere. Ms. Neuwerth also reported on a new recovery plan underway for the endangered humpback chub, which is expected to be complete in spring 2017.

Ms. Neuwerth stated that at the Annual Science Reporting meeting, stakeholders received updates on the status of sediment, humpback chub, and rainbow trout. The rainbow trout population has been declining for several years, although 2015 shows a little rebound in the population. Ms. Neuwerth noted that the humpback chub population looked stable. Ms. Neuwerth noted that the AMWG would meet February 24-25 in Tempe, AZ and the TWG would meet April 19-20 in Phoenix.

Review Status of Lower Colorado River Multi-Species Conservation Program

Deputy Director Harris reported on the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) Colorado River Terrestrial and Riparian (CRTR) meeting held January 26-28 in Laughlin, NV, where stakeholders were given an update on the most recent science and monitoring for the program. Mr. Harris noted that, for the first time, endangered southwestern willow flycatchers have been found in habitats south of the Bill Williams River, including on the LCR MSCP restoration area in the Palo Verde Valley. The Palo Verde Ecological Reserve also contains one of the largest populations of threatened yellow-billed cuckoos on the Lower Colorado River. Mr. Harris noted that GPS tracking studies of yellow-billed cuckoos had shown the birds traveling to their wintering grounds in Venezuela and Colombia before returning to the Lower Colorado River. Researchers studying bird populations in Mexico presented to stakeholders on the large populations of endangered Yuma clapper rail, California black rail, and least bittern in Mexico's Cienega de Santa Clara. Mr. Harris reported that about 75% of the Yuma clapper rail population resides in the Cienega, which acts as a source population for LCR MSCP restoration areas. Mr. Harris reported that the LCR MSCP bat monitoring program has detected increasing numbers of bats using LCR MSCP properties for roosting and foraging.

Mr. Harris also noted that the Bureau of Reclamation is finalizing restoration designs for the recently acquired Planet Ranch property and is working to ensure that the water rights are secured against forfeiture and abandonment under Arizona state law.

Finally, Mr. Harris reported that the LCR MSCP would hold a Financial Workgroup call on February 25 and a Steering Committee meeting April 27 in Las Vegas, NV.

ANNOUNCEMENTS

Ms. Trujillo reported that the Department of Energy's Moab Uranium Clean-Up Project has removed eight million tons of uranium from the project site and the total remediation is expected to be completed by 2025. The total project cost is anticipated to be \$1 billion.

Ms. Trujillo reported that the December 2015 the Consolidated Appropriations Act appropriated \$100 million to the Bureau of Reclamation for drought relief and other water-related programs. The Lower Colorado River region received \$11 million of these funds. Five million dollars will be allocated towards the System Conservation Pilot Program and \$3 million will be allocated towards the Salton Sea research program. Twenty two million dollars was appropriated to the WaterSMART program.

Ms. Trujillo announced that the recently released President's budget contained some new provisions with a new emphasis on water technology. The Commissioner of Reclamation will go before one of the Appropriations Committees outlining the budget. The budget contains new water-related funding for WaterSMART programs, USGS monitoring, research and development to the Bureau of Reclamation, a new allocation of \$25 million to the Department of Energy, \$15 million to the U.S. Department of Agriculture conservation program, and \$88 million for the National Science Foundation's research programs.

Ms. Trujillo reported that the White House Office of Science and Technology will be hosting a water summit on World Water Day, March 22, 2016.

Ms. Trujillo reported that a Strategic Vision and Action Plan meeting on Salton Sea activities were held at the Imperial Irrigation District on January 20, 2016. A significant amount of work is underway with respect to modeling and construction permitting associated with some of the Federal and State funding that has been allocated toward Salton Sea activities.

Ms. Trujillo presented information to the Board regarding the potential to become a cost share partner with the USGS for stream gauging activities in the Lower Colorado Region. The proposal would be to contribute approximately \$20,000, between the dates October 1, 2015 through October 1, 2016, and continuing on an annual basis. This funding agreement would contribute funding towards six of the existing Colorado River gauges. Ms. Trujillo reported that the Metropolitan Water District of Southern California had been the contracting entity and that this proposal would be to shift it over to more of a shared expense. Ms. Trujillo identified some of the uses regarding stream gages and stated she would present more details regarding the proposal at the next Board meeting.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Fisher adjourned the meeting at 11:50 A.M.